

Circulation, Use, Impact

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CIRCULATION, USE, IMPACT

*The Consumption of Architectural Books
in the Early Modern Eastern Adriatic*

BREPOLS

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PERIPATETICS OF ARCHITECTURAL KNOWLEDGE IN THE EASTERN ADRIATIC

Jasenska Gudelj

This volume presents the findings of the European Research Council-funded project *Architectural Culture of the Early Modern Eastern Adriatic* (AdriArchCult), which I had the privilege of leading at Ca' Foscari University of Venice. The project aimed to comprehensively study the architectural culture of the eastern Adriatic between the 15th and 18th centuries, a period characterised by significant political transformations. During this time, the region was divided among the Venetian Republic, the Republic of Dubrovnik, the Habsburg monarchy (which included the Hungarian-Croatian realm from 1526), and the Ottoman Empire, resulting in a fragmented political landscape. This division turned the region into a vast archipelago where even mainland coastal towns were often isolated from their hinterlands. The resulting fragmentation fostered the emergence of a fluctuating and floating architectural market that operated within a multilingual and multiconfessional milieu.

Despite the significance of this complex architectural production, study of it has remained incomplete and often skewed, with historiographies in different languages historically divided and rooted in national or centre-periphery paradigms. To address these challenges, the AdriArchCult project assembled an international team of scholars to explore the interrelated dimensions of the region's architectural culture. The team's investigation focused on four interconnected domains. The first concerned architecture as an expression of territorialisation, analysing its relationship to the production of territories and its role in constructing identity and difference within the secular sphere. The second domain addressed the impact of religious transformations, exploring how the arrival of Islam and the Counter-Reformation reshaped the architectural landscape within the region's evolving confessional mosaic. The third focused on the peripatetics of architectural knowledge, investigating the eastern Adriatic's participation in European intellectual exchange, particularly through the dissemination of architectural treatises and related texts. The final domain covered architectural practice, identifying the agents, networks, and hubs that shaped the production and exchange of architectural expertise. By

addressing these themes, the AdriArchCult project shed new light on the architectural culture of the early modern eastern Adriatic, emphasising its dynamism and its integration into broader European cultural and intellectual movements.

The study of architectural culture in the early modern eastern Adriatic, which was defined by remarkable mobility, necessarily involves examining the circulation of architectural knowledge. The rise in the exportation of high-quality stone—commonly referred to as *pietra d'Istria*—facilitated the movement of ready-made building components, and of skilled professionals. This trend is especially visible in the fifteenth century, evident from the documented presence of Dalmatian and Istrian masters in major construction projects. Their contributions were often memorialised alongside those of their patrons, as attested by Juraj Dalmatinac's (Giorgio Dalmata, c.1410–1473) 1443 signature on Šibenik Cathedral, Andrija Aleš's (Andrea Alessi, 1425–c. 1505) 1467 inscription in Trogir's baptistery, and the Ragusan Senate's 1446 public commemoration of Onofrio de la Cava (?–1455) as 'ARCHITECTO MVNICIPES' in Dubrovnik, with an inscription composed by Ciriaco d'Ancona (1391–1452). The lattermost represents the earliest known public use of the Vitruvian professional term after antiquity.

The rise of renowned architects in 15th-century Dalmatia paralleled a time of vigorous construction and the blossoming of a refined urban culture in the region. However, the defensive needs prompted by the expansion of the Ottoman Empire soon disrupted this flourishing of civic and domestic architecture. In the 16th century, the growing number of printed architectural treatises introduced a new medium for disseminating architectural knowledge, one increasingly dependent on the dynamics of the book market. This shift, rooted in the broader geopolitical and cultural circumstances of the early modern eastern Adriatic, is the focus of Cristiano Guarneri's book.

The research domain of the project to which this study belongs, referred to as '*the peripatetics of architectural knowledge*'—a phrase used here to describe the mobility of ideas on the art of building disseminated through books—is inspired by

the title *Discussiones peripateticae* (Basel, 1581) by Frane Petrić, a philosopher born in Cres (also known as Francesco Patrizi, 1529–1597). Petrić, a prominent Renaissance thinker, authored works such as *La città felice* (Venice, 1553), a description of an urban utopia, and *Della historia dieci dialoghi* (Venice, 1560), an epistemological treatise.

While Petrić writings demonstrate familiarity with Vitruvius and contemporary texts on military architecture, and while he includes painters and sculptors among the *uomini illustri* (though he ranks painters and sculptors below philosophers), the history of architecture and architects, in his view, remained confined to the realm of utility. He equates architecture with practical crafts such as sock-knitting and dressmaking, thereby locating it outside the scope of legitimate historiographical inquiry. This perspective starkly contrasts with the respected recognition accorded architects in 15th-century Dalmatia.

Petrić views also diverge from events in his native Cres, where, in 1582, the local *protto architetto e maestro* Zuan Piero Zvonarić (documented 1582–1585) was not only preferred over a generic ‘Venetian architect’ proposed by the Apostolic Visitor Agostino Valier (1531–1606) for the construction of a new church dedicated to Saint Mary of the Snows, but was also likely depicted in Andrea Vicentino’s (1542–1618) 1585 monumental altarpiece (now lost) for the church’s main apse. In the painting (replaced by a 19th-century variant), an architect is depicted designing the future Santa Maria Maggiore in the snow on Rome’s Esquiline Hill, where he is surrounded by the pope and parishioners.

The status of architectural professionals in the early modern eastern Adriatic, as in Venice and other European regions, oscillated between that of honoured individuals described in sophisticated Vitruvian terms and craftsmen deemed unworthy of historical recognition. While this phenomenon is not unique, what should be emphasised is the region’s full and active participation in the accompanying discourse, which contributed a significant piece to a pan-European cultural phenomenon.

At the same time, another philosophical work by an eastern Adriatic author explicitly references Vitruvius: *Dialogo della bellezza* (Venice, 1581), published under the name of the Ragusan nobleman Nicolò Vito Gozze (Nikola Vitov Gučetić). The dialogue occurs between two Ragusan noblewomen, Fiore Zuzzeri (Cvijeta Zuzorić) and Maria Gondola (Mara Gundulić), both of whom are documented in extant sources; the latter was Gozze’s wife. The book is dedicated to Fiore’s sister, Nika Zuzzeri, suggesting the possibility of female authorship of the ideas presented in the text. The protagonists gathered in the paradisiacal environment of the Gozze family villa in Trsteno near Dubrovnik, where they engaged in philosophical discussions against the backdrop of the villa’s vast garden overlooking the sea, which still exists today.

Vitruvius’s name is explicitly invoked in considerations of bodily proportions in *Dialogo della bellezza*, while it is absent from similar discussions elsewhere, such as those found in *Dialogo delle bellezze delle donne* (Venice, 1552) by the Tuscan author Agnolo Firenzuola. While *Dialogo della bellezza* emphasises the principles of symmetry and of harmony among the various parts of a whole, it does not explicitly address the art of building. Nonetheless, these principles were deeply embedded in the aesthetics of contemporary Dubrovnik architecture, particularly in domestic buildings—a domain traditionally associated with female activities. This connection expands our understanding of the impact of architectural treatises in the eastern Adriatic, offering a rare example of female readers engaging with Vitruvian concepts.

Thus, the discourse on architecture and related fields was undeniably a vibrant component of intellectual life in the early modern eastern Adriatic. This is substantiated by numerous examples cited in Cristiano Guarneri’s study, which examines the circulation of knowledge among professionals engaged in various aspects of architectural production, as well as their patrons.

The evidence-based analysis of preserved book copies presented here involved carefully selecting titles for research and compiling the first comprehensive survey of early modern books held in eastern Adriatic libraries; the possible provenance and circulation of these volumes were also considered. Guarneri’s study further pushes methodological boundaries with its in-depth examination of all evidence of use of the books, even indications other than traditional marginalia. Additionally, Guarneri has incorporated an analysis of buildings, drawing on a diverse range of sources and comparative material. Situated at the intersection of architectural history, book history, and the history of knowledge, this approach is both innovative and bold, yielding new and unexpectedly compelling results.

Thus, Guarneri’s research provides a groundbreaking and methodologically innovative case study, whose value and applicability extend to other historical contexts where traditional historiography—often focused on prominent architects—has proven insufficient for generating meaningful insights. Furthermore, the book addresses the historiographical challenges posed by the region’s contemporary linguistic and cultural divisions, offering a model for future research on the eastern Adriatic and other multicultural and multilingual settings across Europe, and beyond.



INTRODUCTION

The research presented in this book investigates a particularly elusive subject. Diverging from the topics typically addressed in architectural history, such as buildings, architects, patrons, cities, manuscripts, or drawing collections, it explores the consumption of architectural knowledge through early printed books in a specific geographical and temporal context: the early modern eastern Adriatic. Unlike more tangible subjects, the phenomenon addressed here is relatively abstract. Early printed books are the sole physical objects around which the research revolves, while individuals and buildings act in the background, respectively as agents facilitating the circulation of books and as outcomes manifesting the impact of the architectural knowledge contained in these books. In this context, architectural knowledge is defined as the collective understanding, the principles, and the concepts that inform every stage of architectural production, from design and construction to decoration and cultural meanings.

Such a shift away from the usual focus of architectural history entails a specific set of enquiries and precise definitions. In addition to accurately defining architectural knowledge, the research discussed here examines the complex pathways and mechanisms through which this knowledge circulated via the medium of the printed book, within the architectural domain and beyond. Furthermore, it addresses a number of pertinent sub-questions, including, but not limited to: Through which books did architectural knowledge circulate? Where were these books located, and by what means were they made accessible? Finally, what impact did the circulation and use of these printed books have on the design and construction of buildings?

Answering the above questions, the present volume examines the consumption of early printed architectural books through its three main stages: circulation, use, and impact. Each stage is analysed in detail within a particular chapter. As will be discussed below, the three chapters also correspond to the principal steps of the research, which has investigated the circulation, use, and impact of architectural books in the early modern

eastern Adriatic in discrete but interconnected research phases.

Chapter One reconstructs the circulation of architectural books in the early modern eastern Adriatic, drawing upon various types of evidence. Despite the paucity of data on the book trade in the region, Croatian, Italian, and European scholarship has identified key routes and hubs within the Adriatic, such as Ancona, Zadar, Šibenik, Split, Dubrovnik, and, of course, Venice. The reconstruction of the circulation of architectural books also relies on specific historical documents related to the book trade, such as the shipping list of Curzio Troiano Navò, a late sixteenth-century publisher and bookseller who sent his books from Venice to Dubrovnik with the intention of establishing a business there.

To ascertain what architectural books were in the early modern libraries of the eastern Adriatic, a scrutiny of library inventories and catalogues of surviving historical book collections in the region was conducted. Additional insights into the circulation of architectural books were gleaned from extant library collections. Notably, the printing place and ownership marks on individual books provide valuable information regarding commercial routes and the unique histories of specific book copies.

The objective of Chapter Two is to investigate how architectural books were used in the early modern eastern Adriatic. This analysis is based entirely on a catalogue of the architectural books currently preserved in the region's libraries and on physical examination of a sample of selected book copies. The sources for this chapter are the various forms of material evidence of possession and use that are discernible on the pages of the architectural book copies that have been analysed. The chapter discusses and compares material evidence for three main themes: the identity of the owner, the reader's interests, and the reader's reading practices.

The discussion focuses on annotations, other marks left behind by readers, and a wide range of drawing tasks and exercises undertaken by readers while engaging with architectural

books. The readers' interests and practices, as deduced from such material evidence, are further analysed in relation to different categories of book owners, including architects, stonemasons or other artists, and two types of patrons, noblemen, and clergymen.

The presentation of research results combines both horizontal and vertical approaches. First, similar types of material evidence in different book copies are compared. Second, an in-depth analysis highlights particularly notable book copies, offering a comprehensive account of the full range of material evidence of use.

Chapter Three evaluates the impact of the architectural books that were circulating on actual built architecture. The discussion encompasses the multifaceted connections between architectural books and early modern buildings in the eastern Adriatic, examining these links from a variety of perspectives. While a formal analysis of details such as the five orders, window and doorframe profiles, and other similar elements—partially already addressed in existing scholarship—is included, these details are merely one facet of the assessment.

The chapter also considers broader aspects, including the overall composition of buildings in plan and elevation, the use of building materials and construction techniques, and the application of fundamental architectural principles. It is therefore evident that the analysis of the impact of architectural books on buildings needs to extend far beyond determining whether a specific capital was sourced from Vignola or Palladio.

A case study focuses on a copy of Vitruvius owned by the eighteenth-century architect Ignacije Macanović and his workshop, and considers it alongside other sources in order to demonstrate the far-reaching impact of architectural knowledge on Macanović's numerous projects. Particular attention is paid to the phenomenon of resistance or hesitation in response to the dissemination of architectural knowledge through printed books; examples of a staunch adherence to traditional building practices, that was fostered on construction sites or in stonemasonry workshops, are cited. Similarly, the concept of 'lost in translation' underscores instances of misinterpretation during the transfer of theoretical models from architectural books into actual built structures.

Finally, the chapter considers the impact of architectural books beyond architecture itself, addressing their influence in the fields of theatre, painting, and altar design, as well as in the general organisation of towns and urban society.

Although architectural treatises have been the focus of numerous scholarly investigations, and although architectural historians constantly reference the knowledge contained in them, no study has ever approached the subject as I intend to do. Consequently, further questions must be answered before I discuss my research in detail. For instance, it would be bene-

ficial to ascertain the existence and current locations of the architectural book copies that circulated in the early modern eastern Adriatic. In addition, how might these surviving copies enhance our understanding of the circulation, use, and impact of architectural knowledge? Are there alternative sources that could shed light on these aspects of architectural knowledge? Ultimately, what is the most appropriate methodology for conducting such research?

Answers to the above questions will be provided below in this introductory chapter. However, it is first necessary to delineate the temporal and geographical scope of the study. The timeframe, while extensive, is defined precisely: my research stretches from the emergence of the first printed architectural books in the late fifteenth century to the dissolution of the Republic of Venice and the Republic of Ragusa at the end of the eighteenth and beginning of the nineteenth centuries.

The geographical scope is more complex. During the period under consideration, the eastern Adriatic was a politically fragmented cultural and geographical space. From the early fifteenth century until the fall of the Republic of Venice, the majority of the coastline—comprising Istria, Dalmatia, and parts of Albania—was under Venetian control, albeit with shifting borders due to the Venetian-Ottoman Wars. However, Venice never gained control of the entire eastern Adriatic, as other political powers also exerted influence in the region.

To the south of Dalmatia, the Republic of Ragusa (Dubrovnik) established its authority in the fifteenth century. Despite being a tributary of the Ottoman Empire, it maintained its autonomy until 1808. Meanwhile, the Croatian Littoral, along with Carniola, internal Istria, Central Croatia, and Slavonia successfully resisted Ottoman expansion and remained part of the Kingdom of Hungary until 1527, when these territories became part of the Habsburg lands. Throughout the early modern period, the Ottoman Empire controlled the central and southern Balkans in the immediate hinterlands of the eastern Adriatic.

This political fragmentation resulted in a multilingual and multiconfessional society, further complicating the region's dynamics. The overlapping of diverse cultural, religious, and linguistic traditions with political divisions adds another layer of complexity to the research presented here.¹

The need to address the abovementioned questions and define the many boundaries of this research project has resulted in an introduction whose length nearly rivals that of one of the book's main chapters. Nevertheless, a thorough introduction is as vital to understanding the consumption of architectural knowledge through printed books as are the research findings themselves. Here, I set out the approach and methodological principles that form the foundation of my investigation.

The research presented here relied extensively on physical copies of architectural books and on other relevant archival sources. Accessing the collections of state, university, and ecclesiastical libraries, as well as those in museums, archives, bishoprics, and monasteries has been indispensable to the success of my project. I am deeply grateful to the librarians and conservators whose collaboration and assistance have made this research possible. My heartfelt thanks go especially to Tomislav Blažević, Friar Ivan Bradarić, Fani Celio Cega, Iva Cvitan, Emilia Domazet, Arsen Duplančić, Irena Galić Bešker, Milena Grego-Njakara, Friar Martin Jaković, Friar Krunoslav Kocijan, Friar Srećko Koralija, Mihaela Kovačić, Ivan Kraljević, Josip Lebo, Nella Lonza, Matjaž Lulik, Raul Marsetić, Danijela Nikčević, Ana Pendo, Sandra Pfeifer, Friar Domagoj Augusti Polanšak, Friar Tomislav Primorac, Danijela Radulović, Ines Rakić Mamut, Tamara Runjak, Relja Seferović, Friar Slavko Slišković, Friar Darko Tepert, and Mirjana Vukasović. I also acknowledge the invaluable support of the dedicated staff at the many libraries, archives, and museums I visited, the names of whom I was unable to record.

Working within a collaborative international research team and engaging in dialogue with colleagues from diverse fields of expertise has proven instrumental to the development of my topic and research methodology, as have the analysis and presentation of preliminary questions and research results. Over the past four years, I have served as a researcher in two projects hosted by the Department of Philosophy and Cultural Heritage at Ca' Foscari University of Venice—the ERC-funded project *AdriArchCult: Architectural Culture of the Early Modern Eastern Adriatic* and the FARE-funded project *AdriContArch: Architectural Culture of the Contact Regions*—both of which are directed by Jasenka Gudelj. I owe an immense debt of gratitude to her for her unwavering support and guidance throughout the development of this book.

The stimulating environment fostered by these two projects encouraged dialogue and feedback with a wide array of scholars, from professors to PhD students. I extend my most sincere gratitude to Giuseppe Andolina, Giovanni Maria Fara, Martina Frank, Ines Ivić, Neven Jovanović, Angela Nuovo, Tomaso Minelli, Margherita Mittone, Elisabetta Molteni, Elvis Orbanić, Karla Papeš, Daniele Pelosi, Helena Seražin, Petar Strunje, and Beatrice Tanzi. Laris Borić and Ana Marinković deserve special recognition for their invaluable assistance in revising and discussing the manuscript. I have to offer a special acknowledgement to the staff of the Department of Philosophy and Cultural Heritage at Ca' Foscari, and particularly to Silvia Bellacicco for her extensive expertise in navigating the perilous seas of European project and Italian university administration. Finally, I am deeply grateful to the anonymous reviewers whose insightful comments and constructive suggestions significantly

improved the quality of this book. Any remaining errors are, of course, my own.

Moreover, precious and inspiring preparatory discussion for this book took place at academic congresses, conferences, seminars, and workshops across Europe, as well as in front of coffee cups and wine glasses in more informal and pleasant non-academic settings. As it would be impossible to describe the extremely varied ways in which the following individuals have contributed to this book, I thank them in alphabetical order: Ivan Alduk, Jenny Alexander, Antun Baće, Vadim Bass, Joško Belamarić, Francesco Benelli, Giuseppe Bonaccorso, Louise Bourdua, Anja Buschow Oechslin, Donal Cooper, Franko Ćorić, Arthur der Weduwen, Péter Farbaky, Jonathan Foote, Patricia Fortini Brown, Andrea Giordano, Jessica Gritti, Gianmario Guidarelli, Deborah Howard, David Kabalin, Matej Klemenčič, Filip Malešević, Dušan Mlacović, Elisabetta Molteni, Cosimo Monteleone, Laura Moretti, Dietrich Neumann, Renata Novak Klemenčič, Werner Oechslin, Andrea Ottone, Milan Pelc, Alberto Pérez Negrete, Andrew Pettegree, Mario Pintarić, Mariana Pinto dos Santos, Ana Plosnić, Stephan Sander-Faes, Erika Squassina, Samo Štefanac, Elena Svalduz, Ines Tolić, Damir Tulić, Nicolò Villanti, Lucija Vuković, Michael Waters, Stefano Zaggia, Maja Zeman, and Meri Zornija. I would like to pay a tribute in honour of the memory of Howard Burns, who first introduced me to the study of architectural treatises when I was a student under his supervision.

Academic convention typically dictates that prominent scholars and professors take precedence over those—infinitely more important—individuals from one's personal life. Nevertheless, this book primarily owes its existence to my wife, Eleonora, and my son, Giacomo, who have patiently endured my physical absence during research trips abroad and absorption in study and writing at home. For their essential role, they should come first. Alongside them, my affectionate gratitude extends to 'the families that were and the family that is' for supporting me significantly throughout this enterprise, and to friends, and even cats. Though it may not always appear so, they are constantly in my thoughts. Without their presence and care, this remarkable research journey would simply not have been possible.

Approach, Methodology, and Sources

The research presented here employs an evidence-based, multi-disciplinary methodology that intertwines the history of architecture and the history of the book. It aims to reconstruct the consumption of architectural books in the early modern eastern Adriatic, focusing on three interconnected aspects: circulation, use, and impact. The discussion develops along two parallel trajectories, establishing distinct analytical frameworks that

reveal varying degrees of meanings and significance in the research results.

From an academic standpoint, this research addresses an underexplored topic and region, contributing novel insights to the local architectural history of the Adriatic basin. While some previous studies have examined the role of architectural books in the design of specific buildings in the area, they have primarily relied on isolated case studies. By contrast, this book offers a comprehensive and systematic investigation, employing an innovative approach and methodology specifically tailored to exploring the consumption of architectural books. Indeed, similar research of this scope has not been performed, even in regions that have been investigated more extensively in architectural history.

Consequently, this study presents and tests an original methodology for systematically examining the consumption of architectural knowledge as conveyed through early printed books. A secondary, but equally significant, objective is to establish a paradigm that can inform similar research on other regions and historical periods.

In this regard, the findings presented here may be interpreted on multiple levels. Locally, my study provides a valuable repository of data relevant to the architectural history of the early modern eastern Adriatic. Many observations, particularly those in Chapters One and Three, are deeply rooted in the microhistorical context of the region. At a broader level, however, the content of certain sections has implications for the wider field of early modern architectural history. For instance, the discussion in Chapter Two on the use of architectural books presents evidence-based insights into the reading interests and practices of readers in the eastern Adriatic, which may resonate with a considerably broader audience of European readers who have engaged with early printed architectural books.

If we assume that early modern readers across Europe shared at least some reading interests and practices, the findings on the use of architectural books can potentially be generalised beyond the specific regional context of the eastern Adriatic. As a result, this research contributes not only to local historical knowledge but also to broader discourses on the dissemination and consumption of architectural knowledge through printed books in early modern Europe.

Nevertheless, it would be inaccurate to view the two aims of this book as a dichotomy of local and global. The dissemination of architectural knowledge through early printed books constitutes a vast, transnational phenomenon that affected a significant portion of Europe during the early modern period. While it would be inappropriate to categorise such dissemination as a global mass phenomenon, it is evident that the circulation of architectural books led to the standardisation of sources and design processes across early modern Europe and

beyond. Consequently, we can assume that a study of the consumption of architectural books in a peripheral and under-investigated region of Europe, such as the eastern Adriatic, would provide a reliable methodology and beneficial results that can be applied to other regions with similar phenomena.

The lack of comparable studies does not imply that scholars have neglected the role of early printed books in the dissemination of architectural knowledge. On the contrary, over the past five decades, a substantial body of literature has emerged on the subject of architectural treatises, which will be analysed below (see 'Libraries of the Eastern Adriatic'). This scholarship has also explored the impact of such treatises on specific regions and periods, including the early modern eastern Adriatic. The present study seeks to provide a comprehensive overview of this topic.

Since the early 1990s, several scholars have investigated the influence of Italian Renaissance architectural treatises on the architecture of the eastern Adriatic, as well as the presence of such copies of these books in local libraries. Cvito Fisković, a seminal figure in Croatian art history, identified Renaissance architectural treatises as the sources for some drawings in the so-called Korčula Sketchbook, the only surviving early modern drawing collection in the eastern Adriatic.² Additionally, he investigated a copy of Vitruvius that had belonged to the Macanović family of stonemasons and architects.³ Although Fisković limited his research to single case studies, Nada Grujić adopted a more systematic approach in her exploration of the reception of classical architectural language, focusing on the early modern residential buildings of Dubrovnik.⁴ In a related study of Dubrovnik's portals from the late Middle Ages to the Baroque, Duško Živanović identified only Vignola's influence, although a more comprehensive investigation of other treatises would have revealed further architects of importance.⁵ In the field of ecclesiastical architecture, Vladimir Marković has emphasised the impact of Palladian models on seventeenth- and eighteenth-century churches in Istria and Dalmatia.⁶

It is worth stressing the timing of these publications. Scholars of different generations, who were trained and partly worked in what was then Yugoslavia, published the first investigations into the influence of Italian architectural books in the early modern eastern Adriatic during the late 1980s and early 1990s. Thus, the subject emerged just as Yugoslavia was dissolving, and interest for the topic grew significantly in the following decades. More recently, a new generation of scholars has focused on this topic, employing novel approaches and achieving noteworthy outcomes. The circulation of Sebastiano Serlio's books in sixteenth-century Cres (Cherso), as well as exhibitions of architectural books from the Zriniana collection in Zagreb and the Research Library in Dubrovnik, have been studied by Jasenka Gudelj, along with Laris Borić, Anita Ruso, and Dubravka Botica.⁷

Gudelj's initial analysis involved dozens of copies of architectural books kept in Croatian libraries, significantly expanding the scope of the subject matter and examining new facets of the dissemination of architectural knowledge through printed books. Her investigations encompassed the study of Adriatic antiquities in Pula and Split,⁸ as well as the utilisation of innovative building materials and construction techniques.⁹ She has presented her findings in both national and international academic publications in various languages, thereby drawing the eastern Adriatic to the attention of the international academic community, which had been largely unacquainted with Croatian and other Slavic languages.

A quick search in the online Portal of Croatian Scientific and Professional Journals (<https://hrcak.srce.hr/>) for the authors of the principal Italian Renaissance architectural treatises, including Leon Battista Alberti, Sebastiano Serlio, Giacomo Barozzi da Vignola, Andrea Palladio, and the ancient Roman Vitruvius, reveals a multitude of entries. Scholars have evaluated the influence of Italian Renaissance architecture on the eastern Adriatic through the lens of printed books in various formats and scales. These works encompass a range of topics, from basic design principles, such as those applied in palace or church plans, to decorative details, such as designs of elements of the five orders, of altars, and of fireplaces.

While the abovementioned studies indicate the circulation of architectural books in the early modern eastern Adriatic, the relationship between these books and buildings remains vague. In many instances, the available evidence provides only indirect suggestions of potential links, mostly relying on visual analogies rather than documentary proof. Art and architectural historians typically concentrate on the buildings themselves and their decorative details, postulating potential connections with architectural books but neglecting to assess the actual circulation of these books in the past via surviving copies or archival sources. Conversely, the physical analysis of architectural book copies can effectively corroborate connections with built architecture, though only in the rare cases when such copies survive.

Substantial work remains to be done on important eastern Adriatic historical book collections, for instance the Zriniana and Valvasoriana libraries in Zagreb, Garagnin-Fanfogna in Trogir, and Miočević-Rendić in Dubrovnik, which preserve significant examples of architectural books.

As is the case with other areas of scholarship, previous analyses of the consumption of architectural books in the early modern eastern Adriatic have confronted two limitations. First, the prevailing methodology typically develops alongside a single, one-way trajectory that progresses from buildings to books. Buildings are the primary topic of investigation for scholars, while books follow as potential sources. Consequently, any assessment of the impact of architectural books on built archi-

tecture is restricted to those buildings deemed worthy of attention on the basis of their architectural quality or the prominence of the designers and patrons involved.

Secondly, and as a result, this scholarship is unable to reconstruct the entire process of translating theoretical architectural knowledge contained in books into actual built works. The process was neither linear nor straightforward; rather, it unfolded through multiple connections and stages that previous scholarship has more or less overlooked. Aspects of such connections and stages include the following questions: how architectural books circulated; how various actors—whether owners, readers, or casual users—accessed, consulted, or employed them; which specific books and book chapters were of particular interest; and, ultimately, how various types of readers applied the architectural knowledge in books to buildings and other works of art.

In one of the first wide-ranging conferences on architectural treatises, Jean-Jacques Gloton warned of the limitations of a superficial investigation of Sebastiano Serlio's influence in sixteenth-century France. The mere establishment of visual parallels between the buildings and the models in Serlio's books is insufficient to prove direct influence and to exclude the use of other, intermediate sources. Gloton argued: 'L'historien doit rechercher des preuves supplémentaires' (The historian must look for additional evidence).¹⁰ Nevertheless, existing scholarship often provides a fragmentary view of the relationship between architectural books and buildings. On the one hand, historians tend to assume the influence of architectural books on buildings based solely on visual analogies, lacking any kind of documentary evidence. On the other hand, such studies typically focus on a narrow set of buildings and artworks. As a result, this approach fails to reconstruct the intricate process of translation and transformation through which architectural knowledge moved from books to the built environment.

In light of the limitations identified in the existing literature, this book seeks to shift the focus in a significant way. It places architectural knowledge at the core of the investigation, rather than emphasising buildings or artworks. From the outset of this research I have employed copies of architectural books as primary sources, though not exclusively. Such an approach represents a complete methodological reversal, progressing from books to buildings—a direction that contrasts with the traditional trajectory of architectural history scholarship. The organisation of my research activities and the structure of this book were designed to reflect this new perspective. My analysis begins with a survey of surviving copies of early printed architectural books and then examines their circulation and use in the early modern eastern Adriatic, before considering their impact on buildings. This sequence emphasises the translation process of architectural knowledge from the pages of books into built structures.

The novel approach presented here aims to enhance, rather than replace, the insights of previous scholarship. The evidence-based methodology employed in this study to support the analysis and interpretation of data frequently corroborates earlier assumptions. However, in some cases, it also revises the hypotheses of previous scholarship. In doing so, it opens promising new avenues for further research. The systematic collection, storage, and analysis of data from a wide range of sources in order to establish a substantial repository for future studies has been another core objective of my research.

Regardless of the type of source employed, an evidence-based historical investigation must inevitably confront the inherent gap between the present and the past. This research is no exception. While rare and old printed book collections in libraries worldwide today preserve a substantial number of architectural books, these volumes represent a mere fragment of the total number that circulated in the past. With a few exceptions, such as historical libraries and collections preserved to varying degrees, current library holdings are far from being reflective of historical realities. Therefore, a study of the consumption of architectural books in the early modern eastern Adriatic must navigate the stark dichotomy between the architectural books that were in dynamic circulation in the past, and those that have been statically preserved in today's libraries.

This dichotomy between the present and the past is not limited to book copies; it also affects other primary sources that I employed in my research, such as various kinds of archival documents and the buildings themselves. Hence, the entire research project can be interpreted as an effort to identify contact points bridging the gap between the two parallel planes of past and present. In the specific context of this study, such contact points might include a surviving book copy that once circulated in the early modern eastern Adriatic, or a still surviving book copy that belonged to an individual involved in the design or construction of a building during that period.

Bridging the temporal gap between the present and the past has entailed the establishment of connections linking circulation, use, and impact. To reconstruct each of these aspects of the consumption of architectural books, it has been necessary to formulate a distinct set of research questions, to identify appropriate subject matter, and to intertwine disparate sources of information. This also led to the development of specialised research tools, which were designed and employed during the research, analysis, and writing of each chapter. Despite the highly specialised approach to the research tasks involved in reconstructing the circulation, use, and impact of early modern architectural books, the search for contact points between these three themes has been a core objective of my investigation, as only then can we understand the entire translation process of architectural knowledge from books to buildings.

The book trade, a well-established field of research in Italy, Europe, and the eastern Adriatic,¹¹ is a pivotal topic for the study of the circulation of architectural books in the past. Since the Middle Ages, the eastern Adriatic has been a significant area of manuscript production and circulation, and well-established practices partly continued into the early modern period with printed books. However, until the second half of the eighteenth century, the region lacked permanent printing presses, which resulted in the diminished role of book production. Nearly all early printed books circulating in the eastern Adriatic were imported from abroad via established trade routes. Archival documents related to the book trade, such as booksellers' inventories, shipping lists, and applications to open bookstores, serve as vital sources for tracing the circulation of architectural books. In some cases, material evidence of possession found in early printed copies provides valuable insight into how these volumes moved within the eastern Adriatic and ultimately reached their current locations.

Additionally, inventories of early modern libraries in the eastern Adriatic, along with other types of book lists, are invaluable resources. I identified nineteen library inventories relevant to my research, spanning the period from the late fourteenth to the early nineteenth century. These inventories offer significant insight into the collections of various types of libraries, including the collections of aristocrats and of religious as well as secular institutions. Architectural books are often relatively easy to identify among the entries. However, inventories and book lists rarely provide detailed bibliographical information—namely, the publisher's name or the year and place of printing—making it difficult to pinpoint the precise editions and to locate them in existing library collections.

The majority of libraries documented in inventories were dispersed over the centuries and today no longer exist, or survive only in a fragmentary state. Nevertheless, several notable examples of early modern book collections have remained intact or nearly intact and are preserved as special collections in contemporary libraries. As will be demonstrated in the following sections (see Introduction, 'Libraries of the Eastern Adriatic', and Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries'), these include both family and monastic libraries. The collections are sometimes retained in their original locations and managed by the same institutions, despite the political upheaval that has occurred over the past two centuries. Such examples constitute invaluable contact points between the past and the present and thus offer unique opportunities for research.

Focusing on printed architectural books, rather than on individual architects or buildings, presents certain advantages. While it is not always feasible to reconstruct the complete history of each architectural book copy that circulated in the early

modern eastern Adriatic, the printing place is typically indicated on the title page or the colophon. In instances where this information is missing, historians of books and librarians were able to infer the publisher and their location. As a result, even in cases where provenance data are unavailable, it is always possible to ascertain the precise origin of the book from the details given about where it was published. This fact allows scholars to hypothesise about the circulation of books in the past, since the principal commercial routes have already been established by historians, as is discussed below (Chap. 1, 'The Coast and the Inland: Printing Places').

While documents related to the book trade, library inventories, and printing presses together evoke the circulation of books in the past, a survey of the surviving architectural books in the libraries of the eastern Adriatic provides an accurate representation of the present situation. My survey yielded a substantial corpus of data, delineating a significant book heritage shared by various eastern Adriatic countries. This heritage has been a decisive and extensively exploited resource in my research. Hence, a catalogue of the architectural books currently preserved in the eastern Adriatic has been compiled according to precise standards (see below, 'The Catalogue of Architectural Books'). Copies of architectural books have been systematically recorded in a database, which, at the conclusion of my survey, included more than 1,000 entries in forty-five libraries across four countries: Slovenia, Croatia, Bosnia and Herzegovina, and Montenegro.

To facilitate access to the data of my survey, a catalogue of the architectural books currently preserved in eastern Adriatic libraries has been extracted from my database and appended to this publication. In the footnotes, each reference to a book copy in this catalogue is accompanied by the catalogue entry number, enabling readers to access complete information about a specific item.

As previously noted, my survey outlines the current state of early modern architectural books in the region. Consequently, any projection into the past inevitably introduces a degree of bias. The catalogue records mainly those architectural books that were in circulation in the early modern eastern Adriatic and that are still preserved in local libraries today. This group of volumes is particularly relevant for an investigation of the consumption of architectural books in the region during the early modern period. To a lesser extent, the catalogue also records book copies that circulated elsewhere during the early modern period but that have more recently reached libraries in the eastern Adriatic. These copies, which may not have had an impact on early modern architecture in the region, are nevertheless valuable for understanding the use of architectural books beyond the local context, and are thus discussed to some extent in Chapter Two.

However, the catalogue also has certain limitations. As scholars in the field of the history of the book are well aware, books frequently travelled far from where they were produced or used. Consequently, the catalogue presented here cannot account for those books that circulated in the eastern Adriatic during the early modern period, but that were subsequently relocated to libraries outside the region. As the analysis of library inventories demonstrates (Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries' and 'Professional Libraries'), the number of books collected by individuals and institutions in the early modern eastern Adriatic was remarkable. The current holdings of public and ecclesiastical libraries in the region represent only a fraction of these earlier collections. Such a significantly reduced total is the result of widespread dispersal, a process that affected many libraries in the area, particularly during the nineteenth and twentieth centuries.

To illustrate the extent of what has been lost, the inventory of the Žilković Library in Korčula, drawn up in 1547, listed 223 volumes, while the library of the Gučetić (Gozze), a prominent aristocratic family of Dubrovnik, remarkably boasted 1842 items in its 1819 catalogue. Today these libraries no longer exist. Other significant collections, such as the Martinis-Marchi Library in Split, the Jesuit College Library in Dubrovnik, and the Navy's library in Pula, have suffered varying degrees of loss, particularly because of the region's many turbulent years of political upheaval. This trend has persisted into recent years, notably during the late- and post-Yugoslavian period. The 1980s auction sales of the Auersperg Library, originally in Ljubljana but in Austria since the late nineteenth century, exemplifies this phenomenon. Similarly, the repeated thefts during the 1990s from the Metropolitana, the Archbishopric Library in Zagreb, resulted in significant losses of prints and rare books from the collection of Janez Vajkard Valvasor.

The scale of the dispersal of early modern books underscores the need to investigate copies that once circulated in the early modern eastern Adriatic but that are now housed in libraries outside the region. Venice, Trieste, Vienna, Belgrade, and Budapest are just a few of the most plausible locations to which such books may have migrated along routes shaped by shifts in Italian, Austro-Hungarian, and Yugoslavian control. However, the identification of books originating from the eastern Adriatic and now in collections outside the region presents significant challenges. It is necessary to undertake extensive and time-consuming investigation into a range of evidence in the books, including ownership marks, armorial plates, *ex libris*, signatures, handwritten shelfmarks, institutional stamps; such evidence is not always recorded in library catalogues. This task, therefore, entails the physical analysis of a substantial number of book copies—a labour-intensive process that exceeded the

scope of this research. It is reasonable to expect that findings from such an endeavour could fill an entire volume comparable to this one.

The database created from my survey of architectural books currently preserved in eastern Adriatic libraries has proven to be an invaluable resource. It facilitated statistical analysis of the region's contemporary book heritage and served as a foundation for the physical examination of specific book copies. Over the course of two years, I conducted repeated visits to libraries, museums, and monasteries in the eastern Adriatic, physically analysing a sample of nearly 230 copies of architectural books. This represents approximately one quarter to one fifth of the entries in the catalogue. Physical analysis of the books yielded additional data concerning their circulation and, more importantly, provided valuable insight into their previous use. By analysing the holdings of present-day libraries, critical information about past readers, their interests, and their reading practices emerged.

The primary purpose of the physical analysis of architectural book copies was to detect material evidence of possession and use. Recent scholarship on early modern humanist reading has stressed its interactive aspect, suggesting a switch from the passive term 'reading' to the active 'use'—an approach that the present study has wholly embraced.¹² 'Use' implies a reader's active interaction with books; in particular, it postulates a physical handling of books that exceeds the idea of intellectual reading and that includes a variety of material interventions on book pages. Recent international research initiatives, for example 15cBOOKTRADE and EMoBOOKTRADE,¹³ employ evidence-based methodologies in the history of books and have defined material evidence as any physical sign associated with the possession or use of a specific book copy. Scholars of the 15cBOOKTRADE research project at Oxford University have developed detailed categories of material evidence that encompass aspects of books such as binding, page foliation, printing variations, provenance marks, and handwritten notes. While their classification system was, in some respects, too detailed for my research, in other respects it lacked relevant categories. For instance, their framework includes eighteen categories of provenance and seventeen types of handwritten notes, but lists only one category for drawing.

It is evident that the 15cBOOKTRADE categories of material evidence were not wholly suitable for a study focused on the consumption of architectural books. Consequently, it was necessary to adapt the methodological approach typically employed in disciplines such as the history of books to the field of architectural history, which relies to some extent on the analysis of visual sources.

Historians of the book tend to focus on material evidence linked to handwriting. While this approach is tailored to the

audience of many early modern scholarly books, it is less applicable to readers of architectural books, who were often more accustomed to drawing than writing. To remedy this bias, I retained some categories of material evidence established by the 15cBOOKTRADE project but also created new, customised ones to articulate the peculiar practices of readers of architectural books. On the one hand, I simplified the nuances in the diverse types of possession and marginalia, as provenance was not the primary purpose of this research. On the other hand, I expanded the categories of material evidence related to drawing, allowing for more detailed differentiation among the visual traces left by readers.

Additionally, I sought to detect and record other types of material evidence of use that historians of books have typically overlooked. These include signs of folded pages and bent corners, as well as various traces of technical drawing, such as lines traced with a ruler, engraved marks on paper, and holes made by a pair of compasses. Unlike handwriting, which scholars can date, classify, and attribute from stylistic features, these types of material evidence are timeless and impersonal. As a result, they are of limited importance for research projects such as 15cBOOKTRADE and EMoBOOKTRADE, which aim to reconstruct the microhistory of individual book copies. The lack of temporal and authorial context renders such types of material evidence less relevant for databases focused on provenance and ownership.

Nevertheless, these types of material evidence are of paramount importance in investigating the consumption of architectural books, particularly because readers were often more familiar with technical design than with handwriting. Although such indications may be unreliable for reconstructing the microhistory of individual book copies, when they appear in large quantities, they can provide significant insight into the most common interests of readers and their reading practices. For this reason, I have included them in the lists of material evidence of use.

In particular, I sought to complement the corpus of material evidence of use, as established by historians of books, with the specialised expertise of art and architectural historians in the physical analysis of drawings. For instance, I considered the possibility that engraved lines and circles might evidence a reader tracing an illustration onto a loose sheet placed on the book page. Similarly, other engraved marks outlined with the stylus could reflect the use of an instrument that was a standard component of an architect's drawing kit. Additionally, holes and engraved dots produced by various types of compasses may indicate the use of these tools for measuring, scaling, or simply drawing arcs and circles. Once enriched with such expertise, the evidence-based methodology for studying the history of books can support an investigation of the consumption of architectural books and their peculiar audience.

Consequently, I compiled two lists, categorising each type of material evidence of possession and use with a unique code (see Abbreviations). Accordingly, each instance of material evidence identified during the physical analysis of a book copy was recorded with the corresponding code, the sheet or page number, and pertinent details in the database. These data are summarised in the catalogue appended to this volume, and, when relevant in the discussion, they are listed in footnotes. In addition to page number and location on the page, details such as the medium used, a transcription in the case of marginalia, and descriptive information in case of drawings were also recorded. Another crucial element for understanding readers' interests was the semantic context of the material evidence—that is, the book chapter and the specific topic within which the evidence appears.

The process of detecting, collecting, recording, and interpreting material evidence of possession and use has been the pivotal task of my research, since it is situated at the intersection of the three stages of architectural book consumption. As a primary source, material evidence facilitates the reconstruction of the use of individual book copies, evoking the reader's interests and reading practices. Conversely, material evidence provides data critical for inferring the spatial and temporal circulation of these books, as well as their impact on built architecture.

The general methodological approach by which I investigated the consumption of architectural books comprised two phases. In the first phase, the three stages of book consumption—circulation, use, and impact—were analysed separately; each aspect had its own distinct set of sources. In the second phase, contact points between these aspects were identified. Such an approach ensured a dual perspective: an in-depth examination of the mechanisms underpinning each stage through a systematic collection and analysis of sources, and a broader understanding of the overall phenomenon of book consumption, through those cases where the three stages intersect, to reveal the entire translation process of architectural knowledge from books to buildings.

Architectural Knowledge

Since the outset, my research has grappled with a fundamental question: what is architectural knowledge? This is not merely an ontological question within the domain of architecture, or the disciplines involved in the education of architects; it is, above all, a question of basic definition. Because this study investigates the printed book as a medium for communicating architectural knowledge, a more specific question arises: which books shaped and disseminated architectural knowledge in the early modern period? Although the above questions were not central to the development of architectural history as a disci-

pline, a number of scholars have addressed them with diverse approaches and methodologies.

In recent decades, the terms 'architectural knowledge' and 'architectural culture' have gained significant currency in academic literature. As precise definitions have not yet emerged, both phrases remain somewhat elusive. In general, 'architectural knowledge' refers to an approach to the history of architecture that extends beyond the study of architects, patrons, and their works to include investigation of the concepts and skills that were required to practise and master the profession. The increasing use of 'architectural knowledge' in the titles of articles, books, and research projects indicates an effort to move beyond the traditional focus on buildings, their designers, and their patrons—subjects that have dominated the investigation of art and architectural history for centuries. Within this expanded disciplinary perspective, the book has emerged as a key source of enquiry, since it is both a repository of architectural knowledge, and a medium for its dissemination.

It is indisputable that since the Renaissance, the book has become one of the most distinctive attributes of the architect. A cursory examination of Renaissance imagery depicting architects and their tools readily substantiates this assertion.¹⁴ From a presumed portrait of Leon Battista Alberti in a codex at the Biblioteca Nazionale in Rome¹⁵ to the allegorical frontispieces of many eighteenth-century architectural treatises, such as Isaac Ware's *A Complete Body of Architecture* (London, 1757), the architect is typically portrayed holding a book (Ills. 0.1–0.2).

Furthermore, the book is often represented alongside the practical instruments of the architect's profession, such as a pen, square, pair of compasses, level, quadrant, hinges, gears, and pulleys. It also appears in conjunction with elements of the five orders and the ruins of Antiquity. Notable examples of engravings successfully combining these items are the full-page plates in Walther Ryff's *Vitruvius deutsch*, in Daniele Barbaro's translation of Vitruvius's *De architectura*, and the allegory of ruin by Jan Vredeman de Vries in *Theatrum vitae humanae* (Ills. 03–05). These prints mark the beginning of a long-lasting tradition.¹⁶

Similarly, it is clear that the book held by architects in their portraits is Vitruvius's *De architectura*, the sole surviving ancient Roman architectural treatise. Since its mythical discovery—or rather, rediscovery—in the Renaissance, *De architectura* has caused a radical transformation of architecture into a discipline that is at least partly literary and dependent on books.¹⁷ It has prompted architects to utilise books not only as sources of knowledge in education, but also as a support for the creative design process. This development ultimately led to the production of a substantial corpus of written works, giving rise to a new literary genre: the architectural treatise.

Nevertheless, despite the pivotal role of books in early modern architecture, historians of art and architecture have



Ill. o.1. Portrait of Leon Battista Alberti (from L.B. Alberti, *Profugiorum ab aerumna libri III*, fol. 4v, National Library, Rome, Ms. Vitt. Em. 738)



Ill. o.2. Isaac Ware, *A Complete Body of Architecture* (London, 1757), title page



Ill. o.3. Marcus Vitruvius Pollio, *I dieci libri dell'architettura [...] tradotti e commentati da Mons. Daniele Barbaro* (Venice, 1556), verso of title page



Ill. o.4. Marcus Vitruvius Pollio, *Vitruvius Teutsch*, Ed. by Walther Hermann Ryff (Nuremberg, 1548), fol. 11r



Ill. 0.5. Jan Vredeman de Vries, *Theatrum vitae humanae* (Antwerp, 1577), plate 6

not consistently accorded architectural books the attention they deserve. For decades, treatises were primarily regarded as repositories of valuable data on the history and design of many Renaissance buildings, the lives and works of architects, and their architectural principles. In brief, architectural treatises were considered a form of *Kunstliteratur*—a view sparked by the approach of Julius von Schlosser, who included a substantial number of such works in his fundamental handbook on primary sources for art history.¹⁸ For a long time, architectural treatises were rarely subjected to rigorous investigation as standalone objects of study.

However, during the 1980s, some scholars began to shift the focus of their research from buildings to books. Through conferences, exhibitions, and monographs, they investigated architectural treatises as subjects of enquiry in their own right, rather than merely as sources for studying built architecture. A pivotal moment in this trend occurred in 1981 with the conference *Les traités d'architecture de la Renaissance*, organised within the seminal series of conferences offered by the Centre d'Études Supérieures de la Renaissance (CESR) at the University of Tours under the direction of André Chastel and Jean Guillaume. Five years later, leading architectural historians

reconvened in Tours for the closely related conference *L'emploi des ordres dans l'architecture de la Renaissance*.¹⁹

By the late 1980s and throughout the 1990s, European and North American scholars made significant contributions to the subject through monographs, conferences, and edited volumes. These works, written or edited by Mario Carpo, Vaughan Hart, Hanno-Walter Kruft, John Onians, and Alina A. Payne, now constitute fundamental literature for the study of the development of architectural treatises as a phenomenon worthy of scholarly investigation in its own right.²⁰

The Centre d'Études Supérieures de la Renaissance in Tours continues to play an important role in the study of architectural treatises; it has launched the project *Architectura: architecture, textes et images*, overseen by Frédérique Lemerle and Yves Pauwels. The principal outcome of this project is an exceptional online portal: *Book on Architecture: Manuscripts or prints published in France, written in French or translated into French (16th–17th centuries)*. The portal contains entries for numerous architectural treatises in their first editions and, in some cases, even in later versions. Leading international experts in the field have written the entries, which include historical and critical analyses and relevant bibliographical references.²¹ While the online portal is

centred on French architectural culture and therefore does not represent a comprehensive overview of the entire spectrum of architectural treatises, it does stand out as a primary reference point. To a lesser extent, other, similar projects also contribute to the development of the study of architectural books via online databases closely related to architecture. For instance, the Museo Galileo in Florence is compiling *Bibliotheca perspectivae*, a collection of entries on the major theoretical works on perspective in the Renaissance and Baroque periods. Likewise, The Archimedes Project, a joint venture between the Max Planck Institute for the History of Science and North American universities, is collecting primary sources, including printed books, on mechanics.²²

However, these are not the only resources that have been produced in recent years. A number of research projects in Europe and North America have resulted in the creation of a variety of publications, databases, and online catalogues. Additionally, hundreds of digitised copies of architectural books worldwide are now easily accessible online. In Italy, the projects entitled *La biblioteca dell'architetto* and *Libri, incisioni e immagini di architettura come fonti per il progetto in Italia*, directed by Giovanna Curcio and Marco Rosario Nobile, have prompted a reassessment of the existing literature and an exploration of new aspects of architectural treatises, from production to trade and consumption.²³ These two projects have contributed to a more precise understanding of architectural knowledge, while also highlighting the impact of architectural books beyond the major artistic centres of the Italian peninsula. Notably, they have shed light on the influence of architectural treatises in the smaller towns of northern Italy, such as Parma and Brescia, as well as in Baroque Sicily.

Most recently, several investigations based on the material analysis of single copies of architectural books have emerged. This trend in architectural history has focused on a few particularly interesting copies of architectural treatises or on select volumes that have belonged to renowned architects and scholars, such as Antonio da Sangallo the Younger, Daniele Barbaro, Vincenzo Scamozzi, or Inigo Jones (especially his famous, heavily annotated copy of Andrea Palladio's *I quattro libri dell'architettura*).²⁴ Although limited to a small number of case studies, these contributions are valuable attempts at reconstructing the intellectual and practical processes by which readers interacted with architectural books.

Finally, the newly edited 'companions' to the history of architecture and the reception of Vitruvius in the Renaissance have devoted greater attention to the reception and dissemination of architectural books. Their role in the development of both theoretical speculation and practical construction of early modern architecture has been observed, while they have had a global scope that has extended far beyond Europe to

colonial territories in Asia and America.²⁵ However, the study of the consumption of architectural books is tainted in some contributions to these volumes, by a simplified view, which still tends to consider the phenomenon as the mere spread of classicism.

This trend has continued to gain momentum in recent years thanks to cross-pollination with other disciplines. The emergence of the history of knowledge as a distinct discipline, alongside efforts to move beyond outdated paradigms in art history—such as the centre–periphery dichotomy, which has been replaced by the actor–network theory—has further brought architectural knowledge to the fore. Advances in the field of knowledge circulation studies have provided both a robust theoretical framework and methodological tools for investigating architectural knowledge in a new and more effective manner.²⁶

Concurrently, scholars in the relatively young discipline of the history of books have introduced new concepts and approaches. The *Universal Short Title Catalogue* (USTC), developed by Andrew Pettegree at the University of St Andrews, constitutes a unique and invaluable tool for historians of various disciplines, not just of book history.²⁷ It is an online catalogue that offers access to more than 4,000,000 copies of books printed between 1450 and 1650 and preserved in libraries across Italy, France, England, and, to some extent, the United States. The team at St Andrews is currently engaged in expanding the entries, extending the coverage to Central and Eastern Europe, the Baltic area, the Balkans, and Russia.

In other ways, international, ERC-funded projects such as 15cBOOKTRADE, led by Cristina Dondi at the University of Oxford, and EMoBOOKTRADE, directed by Angela Nuovo at the Universities of Udine and Milan, have advanced the above-mentioned evidence-based approach to the analysis of book copies. The 15cBOOKTRADE project concentrated on incubula, detecting material evidence of possession and use in order to reconstruct the microhistory of each book copy.²⁸ The EMoBOOKTRADE project undertook an investigation of the legal and economic framework of the so-called printing revolution, offering valuable databases on book privileges and prices.²⁹ In addition to databases and online resources, the principal investigators and researchers involved in these projects produced comprehensive monographs.³⁰ Together with local literature on the history of books in the early modern eastern Adriatic, these works formed the basis for the study of the book trade in the region.

The increasing multidisciplinary of recent scholarship is fostering a permeability of disciplinary boundaries that facilitates cross-disciplinary investigations and collaborative research projects. Numerous examples exist, but for the purposes of this discussion, two notable projects can be cited: *Daniele Barbaro: In and Beyond the Text and Thinking 3D*, both led by Laura

Moretti. These projects explore the interplay between the history of art and architecture and the history of the book.³¹

Other projects have sought to challenge the boundaries between the history of architecture, history of science, and history of knowledge by investigating building practice, particularly in early modern Rome and on the construction site of St Peter's Basilica. The Bibliotheca Hertziana at the Max Planck Institute for Art History has contributed significantly to this effort by producing a beneficial glossary of technical terms (*Glossario dell'edilizia romana tra Rinascimento e Barocco*) and promoting what has been termed an 'epistemic' approach to architectural history.³² This trajectory has proven to be productive for examining architectural practice in the early modern eastern Adriatic.³³

While such detailed scholarship allows us to gain a more precise understanding of architectural knowledge, contextualising it within the broader production and trade of early printed books, it provides only a partial answer to the questions with which I opened this section: what is architectural knowledge? Which books shaped and disseminated architectural knowledge in the early modern period? For addressing this second question, the inventories of architects' libraries are particularly reliable sources of information. These inventories promptly reveal the books that architects owned and presumably used in their professional practice.

Regrettably, a comprehensive study dedicated to early modern architects' libraries has yet to be undertaken. Nevertheless, a number of inventories have been fully published and discussed in the volume entitled *Studi sulla biblioteca dell'architetto*,³⁴ while several other, similar documents remain scattered throughout journals, conference proceedings, and monographs. Indeed, this type of source, though rare, reinforces our realisation that architects did not limit their book collections solely to architectural treatises. Alongside works devoted wholly to architecture, architects' libraries included books from other disciplines that contained information related to architecture. Such an approach to assembling a library underscores the multidimensional nature of early modern architectural knowledge.

The idea that architecture is a multidisciplinary art, requiring an architect with an interdisciplinary education, can be traced back to Vitruvius's *De architectura*. This notion was further reinforced during the Renaissance by scholars such as Daniele Barbaro.³⁵ As is widely known, in the opening chapter of his treatise, Vitruvius states that architecture is a science comprising both 'fabrica et ratiocinatione' (construction and reasoning), or practical experience and theoretical principles. He then proceeds to provide a comprehensive list of the disciplines that form the foundation of an architect's education, including literature, drawing, geometry, history, philosophy, physics, music, harmony, medicine, law, and astronomy. Vitruvius's influence

on the education and practice of Renaissance architects was substantial: and they further developed his multidisciplinary concept of architectural knowledge.

From this premise, it should be evident that architectural knowledge did not exclusively circulate through so-called architectural treatises, namely the works of a select group of Renaissance authors who imitated Vitruvius and whose books were repeatedly printed and disseminated. Alongside the works of Leon Battista Alberti, Sebastiano Serlio, Giacomo Barozzi da Vignola, Andrea Palladio, and others, books from other disciplines and literary genres contributed to the dissemination of architectural knowledge. Accordingly, throughout the present volume, the term 'architectural books' is employed in lieu of 'architectural treatises', in order to encompass the full range of books that communicated architectural knowledge. Consequently, the 'architectural treatise' is regarded as a distinct category within the broader domain of 'architectural books'.

Such a broader view requires a more structured classification system for describing the various disciplines and genres represented in the domain of architectural books. This system will serve both practical and conceptual purposes. Academic literature has already approached this task, particularly in the context of book exhibitions, where the imperative of organising displayed items into thematic sections has led the development of similar taxonomies.³⁶ Following this approach, I identified eight categories of books that, in various ways and to different extents, communicated architectural knowledge during the early modern period:

1. Architectural treatises
2. Military architecture
3. Shipbuilding and mechanics
4. Mathematics, perspective, and land surveys
5. Town design and ideal cities
6. Visual arts
7. Descriptions of ancient and modern towns and regions
8. Miscellanea: house management, agriculture, and religious prescriptions

A detailed explanation of each category is provided below.

The first category comprises what is traditionally defined as an 'architectural treatise': a monographic study on architecture whose content and format can be traced back to Vitruvius and to his reception by Renaissance authors. This category has received significant scholarly attention in art and architectural history, with detailed analyses dedicated to it. In contrast, the other seven categories require further elucidation to delineate their boundaries and demonstrate their specific contribution to architectural knowledge.

While Renaissance readers could find information on fortifications in Vitruvius and several subsequent architectural treatises, a distinct genre specifically focused on military architecture began to emerge in the mid-sixteenth century. This development was driven by the increasing prevalence of firearms and by advancements in artillery that were made possible by the practical application of the nascent science of ballistics. Such factors collectively led to a novel approach to fortification design, one informed by mathematical principles and geometric drawing, which posed a significant challenge to many architects. Consequently, a new profession—the military engineer or architect—emerged, accompanied by a specialised body of literature tailored to the field.³⁷ In the eastern Adriatic, a region particularly fragmented by political borders, governments allocated considerable sums of money for the construction, maintenance, restoration, and modernisation of fortifications.³⁸ Military architecture, unsurprisingly, was regarded as strategic knowledge.

Generally, books covering both civil and military architecture are classified under the category of ‘architectural treatises’, while the category of ‘military architecture’ is reserved for monographic studies specifically focused on warfare. However, military engineers and architects pursued a wide variety of topics in both their education and professional practice. As has been previously documented for Venice and the Venetian mainland, the highly militarised society of the period demanded books not only on military architecture, but also on tactics, army manoeuvres, artillery, battle accounts, and select works of Greek and Latin literature.³⁹ These books contributed to the development of a distinct military culture, which, like architectural knowledge, encompassed a series of subcategories.

More specifically, with regard to ancient literature, the works that I have selected include books on tactics and fortifications, such as Caesar’s *Commentarii*, Polybius’s *Historiarum*, Frontinus’s *Strategemata*, and Vegetius’s *Epitoma rei militaris*, along with their early modern translations and commentaries. Conversely, biographies of emperors and generals have been deliberately omitted, despite their widespread use in military education, as they did not contain any significant architectural knowledge. The same criteria were applied to early modern books on warfare, beginning with Machiavelli’s *Arte della guerra*, and these were included in my analysis. However, I elected to exclude smaller publications and pamphlets offering war and battle reports that detailed the major military events of the period. Although these ‘war newspapers’ were extensively discussed in military circles and contributed to the education of military personnel, they offer minimal insight into the design of fortifications.

The third category comprises books focused on shipbuilding and mechanics. Alongside civil and military architecture,

naval architecture emerged during the early modern period as a subject of interest for some learned circles, especially in Venice. This development gave rise to a triad—civil, military, and naval architecture—that encompassed all the domains of the architect.⁴⁰ The sources on the building trade in the locations of the major shipyards of the Adriatic (Venice, Hvar, Korčula, and Dubrovnik) reveal a dynamic exchange of skilled labour between dockyards and construction sites that facilitated the transfer of technological expertise between shipbuilding and architecture. Shipbuilders’ skills in carpentry were frequently sought for various architectural tasks, including the assembly of roof structures, scaffolding, and other temporary wooden constructions. Moreover, experienced masters employed in shipyards possessed the technical know-how to fabricate and operate large machines, such as winches or cranes, which were crucial for large construction projects. Hence, books on mechanics and crafts related to architecture are included in the category of naval architecture.

Furthermore, libraries in the eastern Adriatic evidently supported the exchange of knowledge between architecture and shipbuilding. Along the coastline, maritime museums in Piran (Pirano), Orebić (Sabbioncello), Perast (Perasto), and Kotor (Cattaro) house several naval libraries of the seventeenth and eighteenth centuries. These book collections primarily belonged to local families of captains and shipowners. Among the preserved materials are sea maps, atlases, navigation handbooks, and codes of maritime law. Additionally, some volumes on shipbuilding have survived. In light of these findings, I have investigated whether any form of architectural knowledge could be discerned in this specialised and rather common type of early modern eastern Adriatic library, particularly through books on shipbuilding, carpentry, or mechanics.

The fourth category, dedicated to mathematics, is both extensive and elusive for several reasons. While architects and other professionals in the building trade regularly employed mathematical principles for various tasks—including perspective drawing, land surveying, and construction site management—not all mathematical texts contained knowledge directly relevant to architecture. A fundamental understanding of mathematics and geometry was essential for architects, surveyors, and even stonemasons. However, they typically did not engage in mathematical conjecture, pure arithmetic, algebra, abstract problems, or intricate calculations. Indeed, their objective was to grasp the practical applications of mathematics, for instance how the basic principles of plane Euclidean geometry could be used to produce technical drawings and related items, including templates and designs. They also relied on volumetric calculations to estimate the quantities and costs of building materials and on trigonometry to accomplish tasks such as land surveys, height estimation, and other forms of measurement.

Handbooks of practical mathematics and geometry provided numerous examples that illustrated how to perform these tasks. The operations typically required the use of various instruments, for example rulers, squares, pairs of compasses, quadrants, and even the astrolabe. While technical drawing and perspective became subjects of combined or specialised monographs, such as Andrea Pozzo's *Perspectiva pictorum et architectorum*, topics like cost estimation and land survey rarely appeared outside the pages of practical mathematics handbooks. Nonetheless, in the daily work of many architects, these tasks recurred far more frequently than the design of classical architectural elements or whole buildings.

In addition to the practical applications of mathematics, books in this category also conveyed more abstract forms of architectural knowledge. Mathematics served as the foundation for theories of music and harmony, whose significance in architecture has been extensively explored, particularly since the seminal essays by Rudolf Wittkower.⁴¹ Furthermore, the fields of acoustics and illumination were also considered. Within the extensive array of treatises and handbooks covering mathematics, arithmetic, algebra, geometry, trigonometry, astronomy, and physics, only the volumes addressing practical applications in land survey, cost estimation, drawing and perspective, music and harmony, acoustics, and illumination were here deemed relevant to architectural knowledge.

The fifth category concerns urban design. Drawing on Vitruvius's discussion (I. 6–7), numerous early modern authors integrated chapters into their architectural treatises that outlined principles such as street layout and orientation, the location of public spaces and buildings, and the connections of streets, public spaces, and buildings to city walls and gates. However, during the early modern period, no single book was devoted exclusively to urban design, as understood in a modern sense. Town planning emerged as an autonomous discipline only in the nineteenth century. Prior to this, apart from architectural treatises, the only books offering theoretical insights into urban design were those addressing the concept of 'ideal cities'.

The term 'ideal cities' is as ambiguous as the term 'architectural knowledge'. In scholarly discourse, the former is frequently used to describe and categorise a diverse range of urban forms and concepts that emerged during the early modern period. This era was marked by a strong intertwining of governmental systems, societal structures, and urban design. However, the term 'ideal city' is frequently erroneously used to indicate any newly established settlement with a regular urban grid or fortifications. Despite their utopian focus, works such as Frane Petrić's (Francesco Patrizi) *Città felice* (Venice, 1553), Tommaso Campanella's *Civitas solis* (Frankfurt, 1623), and Francis Bacon's *Nova Atlantis* (Utrecht, 1643) provided architects and

city administrators with idealised models that could inform the design of actual urban environments.

Moreover, newly founded towns and regularly planned urban expansions appeared in the late medieval and early modern eastern Adriatic, from the Prijeko district in Dubrovnik to the towns of Korčula and Pag. This fact underscores the importance of town design and 'ideal cities' for understanding urban developments in the local context.

In contrast to the extensive output of architectural treatises, the printing of books related to the visual arts—here grouped in the sixth category—was relatively modest. This disparity can be attributed to the influence of Vitruvius's *De architectura*, which stimulated both the production and consumption of architectural treatises. Conversely, the visual arts lacked the authoritative foundation of a comprehensive classical text, resulting in a comparatively lower demand for books by painters, sculptors, and other artists. As a consequence, the numerous late medieval and Renaissance handbooks of artistic techniques and recipes remained in manuscript form and had limited circulation outside a few artists' workshops.

The genre of artists' biographies, pioneered by Giorgio Vasari's *Vite*, emerged as a more successful product in the literature of the visual arts. This genre, which appealed to both artists and architects, proved lucrative in the book market, though to a lesser extent than the architectural treatise. During the seventeenth and eighteenth centuries, the quantity, scope, and specialisation of artists' biographies expanded. Handbooks dedicated to specific arts and techniques, including fresco, engraving, and miniature painting, began to appear. Concurrently, biographical collections underwent two contrasting developments: on the one hand, the genre extended beyond the Alps via authors such as Karel van Mander and Joachim von Sandrart, while, on the other hand, it gradually narrowed its focus to more specific geographical and temporal frames.

The seventh category here, encompassing descriptions of ancient and modern towns and regions, is arguably the most heterogeneous in terms of type and content. This genre originated with the *Mirabilia urbis Romae*, a standard text among periegetic works for pilgrims; it had been in circulation since the Middle Ages and was adapted into printed form in the late fifteenth century. The fact that prominent architects such as Andrea Palladio and Vincenzo Scamozzi authored guidebooks of Roman antiquities within this tradition has led scholars to hypothesise that architects were interested in such volumes because of their valuable descriptions and occasional illustrations of classical, medieval, and early modern buildings. These works have complex printing and editorial histories, with numerous reprints, revisions, expansions, and even instances of plagiarism over an extended period. Sporadically, especially on the eve of a jubilee, printing presses in Rome and other cities

released a multitude of diverse versions of these guidebooks, which were often derived from earlier texts and reissued without crediting the original authors.

From the early Renaissance, learned accounts based on reliable sources, such as Flavio Biondo's writings on ancient Rome and descriptions of Italy, began to appear alongside, and in partial replacement of, the *Mirabilia* literature that was frequently steeped in myth and legend. This shift was not limited to Rome but extended to numerous other Italian towns and European locations. It marked the advent of local historical accounts and trustworthy travel guides. Examples of this emerging literary genre also became valuable repositories of architectural knowledge because of the precise descriptions and visual representations of monuments.

During the sixteenth through the eighteenth centuries, new genres and subgenres emerged within the seventh category, particularly in ancient history and the developing discipline of modern archaeology. Works ranged from scholarly treatises on Roman inscriptions and coins, which could also serve as sources for architects in the design of buildings,⁴² to lavishly illustrated accounts of pioneering archaeological excavations. Notable examples include James Stuart and Nicholas Revett's *Antiquities of Athens* (London, 1762–1794) and Robert Adam's *The Palace of the Emperor Diocletian at Spalato* (London, 1764), followed by a variety of new titles that flooded the European book market. In comparison to the preceding descriptions of classical antiquities, this new body of publications presented highly detailed and carefully scaled drawings in accurate orthogonal projection—though often accompanied by picturesque views—and laid the foundation for neoclassical art.

The seventh category also includes other printed materials, such as geographical descriptions, travel accounts, and atlases. While not all of these books, which were widely published across Europe, contain substantial architectural knowledge, their appearance in the inventories of architects' libraries indicates that they were sometimes consulted. In addition to comprehensive accounts of renowned ancient and modern edifices around the world, accompanied by accurate illustrations to varying degrees, volumes featuring aerial views and city maps, which disseminated strategic insights into military architecture and urban design, have been included here.

Lastly, the eighth category comprises books on diverse subjects with no direct relation to architecture but with content that could influence the design of specific buildings; these volumes could thus potentially attract the interest of architects. For instance, books on house management, including economics treatises and manuals for stewards known as *maestri di casa*, present both theoretical principles and practical suggestions on how to efficiently organise a residential building. These works shed light on the design of comfortable and functional

houses. Similarly, guidebooks on etiquette and good manners, which emerged in response to new approaches to domestic life among Europe's elites, also fall into this category. This genre contributed significantly to defining the Renaissance palace and its sets of rooms, or 'apartments'.

Agricultural treatises offer insights that are complementary to household management, particularly concerning the design and management of villas and estates. The longstanding phenomenon of villa culture—rooted in Roman antiquity, revived in the Renaissance, and further developed in the Enlightenment—prompted a genre of literature that passed through different phases and trends. Works of Latin authors such as Varro, Columella, or Rutilius Palladius, frequently grouped under the collective label *De re rustica*, laid the foundation for this genre. Renaissance humanists, beginning with Pietro de' Crescenzi, rediscovered and expanded upon these texts, while the eighteenth-century Physiocratic movement gave new and updated perspectives. Although the primary purpose of these various volumes was the advancement of agricultural practices and efficient estate management strategies, some texts also addressed principles for designing villa complexes, for instance the position of the landlord's mansion, the structural design and functionality of annexes, and other related architectural aspects.

Just as books on house management and agriculture could influence the design of palaces and villas, religious prescriptions played a pivotal role in shaping liturgical spaces. The most renowned and influential example is *Instructiones fabricae, et suppellectilis ecclesiasticae* by Cardinal Carlo Borromeo (Milan, 1577). However, it is important to note that this was not the only important text of its type. During the sixteenth century, bishops increasingly utilised print as a medium to disseminate their decrees. This trend is exemplified by Agostino Valier, the bishop of Verona, who embraced printing during his year-long apostolic visitation to Dalmatia and Istria between 1579 and 1580. Valier used print to distribute instructions for the dioceses of Zadar and Split, highlighting the broader adoption of print communication in ecclesiastical governance.⁴³

The above delineation of the eight categories, together with their subgenres and characteristics, sought to define the boundaries of the architectural knowledge that was conveyed through early printed books. Included were not only architectural treatises but also volumes on other subjects and from other genres. Assembling these categories represented an intermediary step towards answering my initial research questions. In this way, I addressed the query about what types of books and literary genres communicated architectural knowledge in the early modern period. To advance to the subsequent stage of field research in present-day libraries of the eastern Adriatic, I needed to compile a comprehensive list of all potential architectural books.

Accordingly, I created a list of all known architectural books that could fall into each of these eight categories. The objective was to document all the different editions, reprints, translations and variants of each title—an exceptionally ambitious undertaking. The sources for selecting titles included prior scholarship on architectural treatises,⁴⁴ national and international online library catalogues (for instance, such as the USTC or the Italian OPAC), and early modern bibliographies. Particularly noteworthy among these sources were the works of Conrad Gessner and Antonio Possevino,⁴⁵ which provide interesting insights into the early modern concept of the ‘architectural book’—a perspective that does not entirely align with the prevailing, modern understanding of the term. Ultimately, my list encompassed over 500 titles of architectural books, published in more than 1000 individual editions.

While some texts were published in just a single edition, others achieved significant popularity and were reprinted numerous times, expanded, commented upon, incorporated into more comprehensive works, and even plagiarised. Consequently, tracing the complete corpus of editions of widely successful architectural books proved impossible. This is particularly evident in the case of extremely popular architectural treatises, such as Vitruvius’s *De architectura* or Giacomo Barozzi da Vignola’s *Regola delli cinque ordini*. The same challenge applies to the works of Pietro de’ Crescenzi, Flavio Biondo, and Niccolò Tartaglia, as well as to various handbooks of practical mathematics, or the guidebooks of Rome.

The list of architectural books proved a valuable research tool beyond addressing my question of which books communicated architectural knowledge in the early modern period. It guided my subsequent stage of investigation, namely the examination of library catalogues, and it facilitated my systematic survey of architectural books in present-day libraries of the eastern Adriatic.

Libraries of the Eastern Adriatic

The compilation of a comprehensive catalogue of architectural books currently preserved in the libraries of the eastern Adriatic represents one of the core objectives and the primary tool of this research project. However, the process raised several preliminary challenges. Once the list of architectural books was completed, and I therefore knew the books to search for, it became necessary to determine where to search for them. In other words, a parallel list of libraries in the eastern Adriatic with early printed book collections was required.

This, too, proved to be a challenging undertaking, given the geographical scope of the investigation: four countries with different languages, alphabets, and varying techniques for cataloguing and bibliographical description. Despite the hetero-

geneity in the format and content of library catalogues across these countries, the list of architectural books ensured a degree of consistency in the results. Indeed, it guaranteed that the same titles were searched for in all libraries, thereby streamlining and accelerating my investigation.

The libraries located in the eastern Adriatic region fall under a variety of legal jurisdictions, exhibit disparate levels of accessibility, and are characterised by markedly divergent conditions in the organisation and preservation of their collections. National and university libraries, for instance, preserve extensive collections of early printed books, which are generally publicly accessible and are typically equipped with professional online catalogues. In contrast, ecclesiastical libraries in monasteries, dioceses, and small parishes often possess equally valuable book collections but are mostly inaccessible, with some lacking even basic paper catalogues. Between these extremes are scientific and civic libraries, as well as many specialised museum libraries, which are generally well maintained and accessible upon request.

Notably, the search for architectural books extended beyond public and easily accessible libraries to less accessible book collections. Archaeological museums, particularly in Zagreb, Zadar, and Split, hold substantial collections with copies of architectural treatises and other architectural books on topics such as military architecture, mathematics, and descriptions of ancient towns and monuments. City museums, including those in Rovinj, Trogir, and Perast, often acquired early printed books through donations from local families, collectors, and scholars. Likewise, the libraries of academic societies and research institutes—for example, the Croatian Academy of Sciences and Arts in Zagreb or its Institute for Historical Sciences in Dubrovnik—frequently receive bequests from their members. As mentioned above, maritime museums in Koper, Orebić, Perast, and Kotor preserve a highly specialised book heritage from the libraries of certain local families of captains and navigators.

Ecclesiastical libraries in bishoprics and monasteries have a centuries-long history of acquiring books through donations from members of the clergy. It was customary for bishops, monks, friars, and even nuns to travel, purchase, and exchange books, which were then often conveyed to their sees or home monasteries upon their passing. Affluent prelates occasionally purchased significant book collections for bishopric libraries. For instance, in 1690, the bishop of Zagreb, Aleksandar Ignacije Mikulić, acquired the vast library of Janez Vajkard Valvasor for the Archdiocesan Library, known as the ‘Metropolitana’.⁴⁶

During the early modern period, in towns devoid of universities, ecclesiastical libraries played a crucial role in the higher education of local clergy and noblemen, many of whom were potential patrons of architecture. It is also well documented that from the seventeenth century onwards, Dominican and



Ill. o.6. Map of libraries with early modern book collections in the eastern Adriatic

Franciscan friars, as well as Jesuits, were actively engaged in the creation of buildings, serving as amateur architects or even professional designers. They also donated their personal book collections to monastic libraries.⁴⁷ For these reasons, ecclesiastical libraries have been key targets of my research, although their accessibility has frequently posed significant challenges.

The list of present-day libraries that I compiled provides an initial overview of the early printed book heritage of the eastern Adriatic region. The distribution of this book heritage is characterised by polarisation, as can be seen from a map (Ill. o.6). On the one hand, there is a concentration of collections in a few national and university libraries located in major cities such as Ljubljana, Zagreb, and Split. On the other hand, there is a dispersion across numerous small diocesan and monastic libraries in less populous towns, or even in remote locations in the mountains and on islands. As a result, the geographical distribution of early printed books reveals empty areas, which are sometimes extensive, where no copies have been preserved.

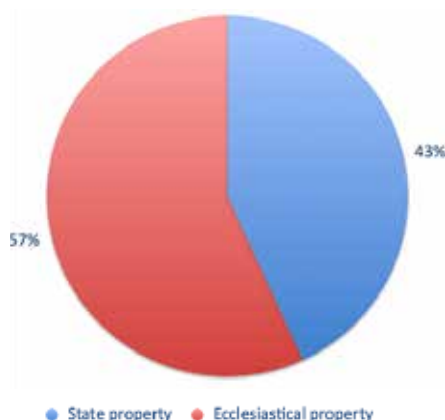
Interestingly, the list of eastern Adriatic libraries holding early printed books facilitates statistical analyses that offer a

descriptive survey of the book heritage in the region. A total of 153 libraries across Slovenia, Croatia, Bosnia and Herzegovina, and Montenegro were examined. Of these, 103 libraries were found to possess holdings of early printed books. More than half of these libraries are ecclesiastical (57%), while less than half are state institutions (43%). In contrast, private libraries form a very modest, perhaps even, negligible group (Tab. o.1).

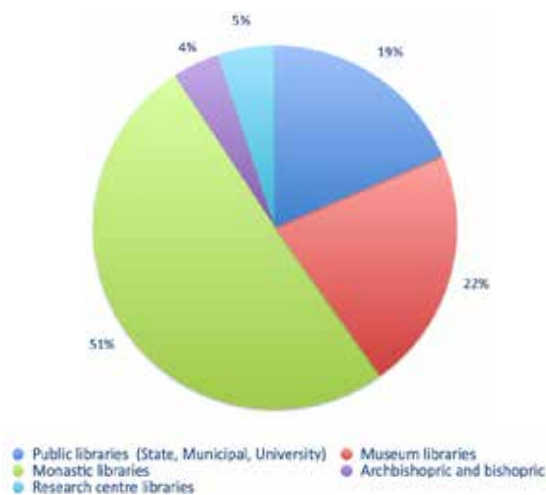
Monastic libraries are the most common type of early printed book collection in the eastern Adriatic (53%), followed by the public libraries associated with state, municipal, and university institutions (23%), museum libraries (21%), and a very small number of bishopric and archbishopric libraries (3%). Among the libraries of religious orders, those held by Franciscans dominate, accounting for over 71% of the monastic libraries that I catalogued. This is followed by lower numbers of Dominican, Benedictine, Capuchin, and Christian Orthodox libraries (Tab. o.2-o.3).

The state of ecclesiastical libraries, however, is a matter of significant concern. A large number of bishopric libraries remain inaccessible, and information about them is scarce.

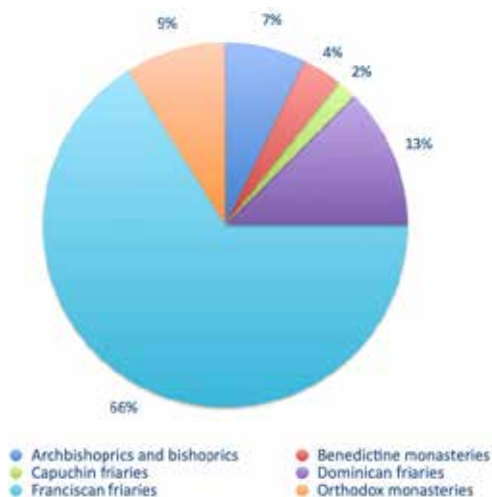
0.1. Property of Eastern Adriatic Libraries



0.2. Libraries per Type



0.3. Ecclesiastical Libraries



Consequently, valuable bishopric libraries, such as those in Korčula or Kotor, could not be included in my survey of architectural books. However, the situation with monastic libraries is somewhat more favourable. Religious orders typically maintain basic records of their libraries, which provide limited but useful information. Nevertheless, access to the libraries often depends on the willingness of individual monks and friars.

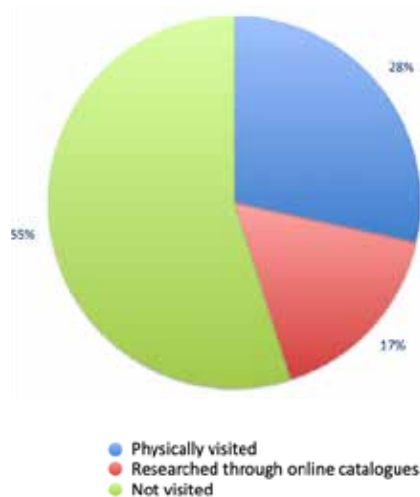
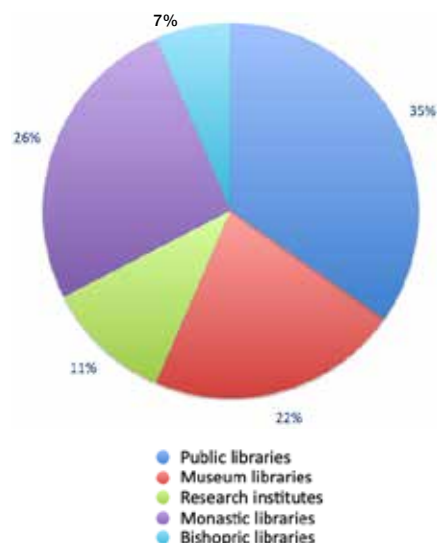
In some cases, the lack of a resident librarian—or even the complete absence of monks or friars in small, isolated friaries—has led to the closure of libraries. A notable example is the Dominican friary of St Peter in Stari Grad on the Island of Hvar, which houses a valuable library of 20,000 items but is not currently accessible. When access was possible, analysis of the physical condition of books in ecclesiastical libraries has frequently revealed a poor state of conservation.

Despite these challenges, a few prominent monastic libraries stand out for their accessibility and commendable standards of book conservation. Notable examples include the Dominican friary in Zagreb and the Franciscan friaries in Šibenik and Dubrovnik. Their efforts in preserving book collections contribute substantially to safeguarding the region's valuable literary and historical heritage.

This already intricate picture is further complicated by the state of library catalogues. Although each country has a national online library catalogue, often based on similar platforms (for instance, COBISS and Crolist, which could potentially operate internationally), not all state or municipal libraries are connected to these catalogues. In some cases, only modern books are recorded in online library catalogues, while old and rare book collections are either excluded or are still in the process of being catalogued. Consequently, it is often necessary to consult a variety of paper catalogues, including printed catalogues raisonnés, handwritten registers, and typed or handwritten cards. Some libraries, such as the National and University Library in Zagreb or the Research Library of Zadar, have scanned card catalogues and have made them available on their websites.

Given the two-year timeframe of this research project and the varying levels of accessibility of libraries, it was not feasible to visit all the libraries catalogued as holding early printed books. Therefore, I prioritised those with catalogued collections that would yield the most significant samples. The selection criteria for the libraries included the size of the holdings, the quality of the book collections, the presence of online catalogues, accessibility, and geographical location.

Out of 102 libraries considered for the project, twenty-nine (28%) were visited by me, while seventeen others (17%) were examined through online resources (Tab. 0.4). In total, architectural books were searched for in forty-six libraries (45%), while the remaining libraries (55%) were largely unexplored. Among the forty-six libraries examined, sixteen were public state

0.4. Libraries Researched**0.5. Libraries Researched per Type**

or university libraries (35%), twelve were monastic libraries (26%), ten were museum libraries (22%), five were the libraries of research institutes (11%), and three were bishopric libraries (7%, Tab. 0.5).

The majority of the libraries that I did not examine were small, monastic libraries located on islands and in inland areas. For some of these libraries, descriptions and highlights were available in scholarly literature, allowing me to ascertain that no significant architectural books were in their collections. At present, Juraj Lokmer and Fila Bekavac-Lokmer are undertaking the cataloguing of sixteenth-century books preserved in the conventual libraries of the Croatian Franciscan Province of Sts Cyril and Methodius. Unfortunately for my research, their project primarily focuses on the libraries of Central Croatia and Slavonia.⁴⁸ Despite the existence of other descriptions of monastic libraries in books and articles,⁴⁹ and the fact that librarians are documenting the situation in specific areas, such as Bruno Dobrić in Pula,⁵⁰ there is currently no other systematic attempt to catalogue early modern book heritage in the eastern Adriatic, as far as I am aware.

Nevertheless, while my investigation covered less than half of the libraries holding early printed books in the eastern Adriatic, the opposite was true in terms of the number of books. The libraries I was able to investigate, whether on-site or through online resources, house more substantial and richer collections than those that remain unexplored. Moreover, they preserve the most relevant books and collections pertaining to architectural knowledge. Consequently, my research was conducted on the most significant portion of the early printed book heritage in the eastern Adriatic.

It remains possible that a copy of an architectural treatise

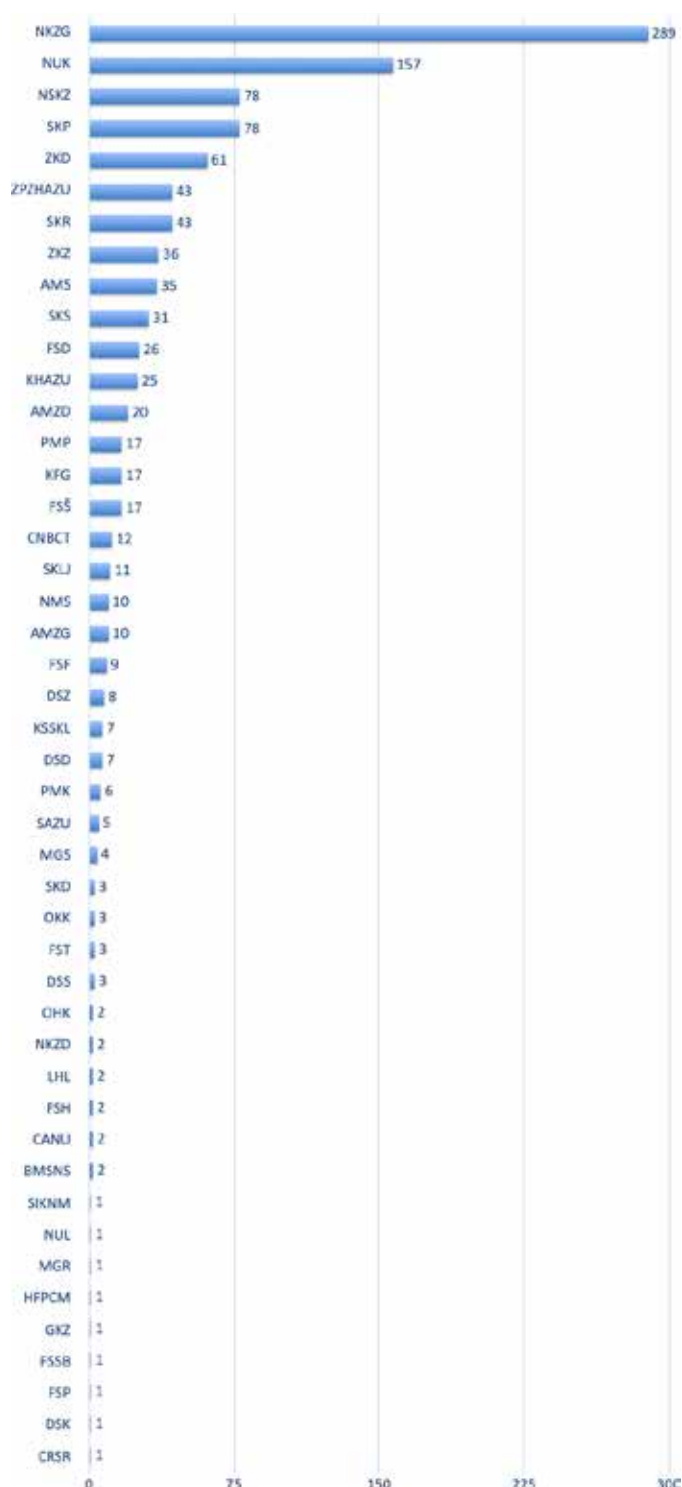
is yet to be discovered in some small library of a secluded monastery, among predominantly theological and philosophical works. However, the vast majority of architectural books preserved in the eastern Adriatic have already been catalogued in my research.

Regarding the quantities of architectural book copies preserved in each library (Tab. 0.6), the most striking observation has been the considerable number of entries from the Archdiocesan Library in Zagreb, or the 'Metropolitana', where the Valvasor Library is located. This library alone accounts for 289 entries, or 26% of all catalogued books in the eastern Adriatic—one fourth of my sample and almost twice the number of entries in the second largest collection, the National and University Library in Ljubljana (157 entries, 14%). The exceptional size of the Valvasor Library, approximately 2500 titles, makes it a notable outlier within the broader eastern Adriatic region, creating a significant imbalance that complicates statistical analysis of data.

As will be discussed in greater detail below, the enormous volume of books in the Valvasor Library has introduced significant distortions in my results at various levels. Valvasor himself, based in Ljubljana and at Bogenšperk Castle in Lower Carniola, was only minimally involved in the circulation and trade of books in the Adriatic. Instead, he mostly relied on his connections with Austrian and German territories. The presence of several catalogues of the Frankfurt Fair among the library's holdings indicates that this event was his main supply channel for books.⁵¹

Nevertheless, recent investigations of the modes by which the Auersperg Library, a notable contemporary aristocratic family library in Ljubljana, was supplied with books have demonstrated

0.6. Books per Library



connections with the book trade of the Italian peninsula through the Adriatic, particularly via Venice. This suggests that while Valvasor's primary networks were to the north, links to the Italian book trade did exist, albeit to a lesser extent.⁵²

The majority of holdings in the Valvasor Library comprise mid-seventeenth-century German books, resulting in an overrepresentation of this category in the catalogue. For this reason, the analyses based on my catalogue of architectural books in the following chapters will frequently require caution because of the significant influence of the Valvasor Library on my research results.

At a smaller scale, there is a comparable situation in the University Library in Pula, which is ranked third with seventy-eight entries, almost all of which are from the Navy Library (Mornarička knjižnica). This collection, with particularly rich material on military architecture, shipbuilding, and mathematics, had a complex and tumultuous history. Established through requisitions in Venice in 1802 at the suggestion of the Austrian Archduke Karl, the library was expanded during the first half of the nineteenth century. Relocated to the Naval College in Trieste in 1850, it became the central library of the Austrian Navy. In 1865–1866, the collection was moved to Pula, following the city's designation as the primary Austrian military port. After the Italian occupation of the city in 1918, part of the collection returned to Italy, while the majority of it remained in Pula. During the German occupation of World War II in 1944, the German army transported the entire Navy Library to Bohemia. After the war, the books were moved again, this time to the Kriegsarchiv in Vienna. In 1975, Austria returned a small portion of the collection to what was then Yugoslavia, while another portion was transferred to the library of the Staatsarchiv. Finally, the returned books were integrated into the University Library in Pula in 1996.⁵³

Two aspects of the Navy Library are noteworthy. Firstly, not all of the architectural books currently preserved in the libraries of the eastern Adriatic are relevant for studying the circulation of architectural knowledge in the region during the early modern period. The Navy Library, with its core collection of sixteenth- to eighteenth-century books assembled in Venice in the early nineteenth century, is relatively disconnected from the early modern eastern Adriatic context. It could be more logically considered part of Venice's book heritage, and it is not an isolated case; other early modern printed books reached the eastern Adriatic in modern times, particularly during the nineteenth century. However, the Navy Library is the largest such collection.

Secondly, and equally significantly, the Navy Library raises the complex question of missing books. A comparison between the printed Navy Library catalogue of 1905⁵⁴ and the holdings currently in Pula and Vienna reveals a substantial discrepancy, with the oldest and most valuable books now absent. Of sixty-

two architectural books identified in the 1905 catalogue, only eight are in the University Library in Pula. Furthermore, the Biblioteca Provinciale dell'Istria collection, also held in the University Library in Pula, likewise suffered losses. As previously noted, many libraries have experienced significant plunders due to the political upheavals and conflicts of the twentieth century.

As a general rule, the catalogue of architectural books includes copies that were cited in twentieth-century catalogues but are now missing. This group of volumes encompasses books that were stolen, looted, or rendered inaccessible for a variety of reasons within their respective libraries. In several instances, though not the Navy Library in Pula, many of these missing books might have circulated during the early modern period, contributing to the dissemination of architectural knowledge across the eastern Adriatic.

Thus, the number of catalogued books per library supports the distribution of early printed book heritage, as outlined above. After I adjusted my analysis for the disproportionate data resulting from the Valvasor and Navy Libraries, the largest collections of architectural books were found in the National and University Libraries of Ljubljana (157 entries) and Zagreb (78 entries), followed by the Research Library in Dubrovnik (61 entries). Other notable libraries include the University Library in Rijeka and the library of the Institute for Historical Sciences of the Croatian Academy of Sciences and Arts (both with 43 entries), the Research Library of Zadar (36 entries), the library of the Archaeological Museum in Split (35 entries), and the University Library in Split (31 entries).

Among museums and research centres, the libraries of the Croatian Academy of Sciences and Arts in Zagreb (25 entries), the Archaeological Museum in Zadar (20 entries), and the City Museum of Trogir (17 entries) deserve attention. Among ecclesiastical libraries, the Franciscan collections in Dubrovnik and Šibenik are worthy of note, with twenty-six and seventeen entries, respectively. The remaining museum, bishopric, or monastic libraries contain fewer than ten entries (Tab. 0.6).

These numbers reveal the geographical distribution of the early printed book heritage in the present eastern Adriatic. As anticipated, the larger public libraries hold extensive collections of architectural books, while small museum or ecclesiastical libraries typically preserve only a few book copies.

The Catalogue of Architectural Books

Compiling a catalogue of the architectural books currently preserved in the libraries of the eastern Adriatic required creating a means for systematically recording, organising, and analysing the data. A purpose-built database proved to be the most suitable and flexible tool for this task. My database included essential bibliographical data—author, eventual early-modern translator

or commentator, title, number of volumes, publisher, printing place and date—along with other facts relevant for my research, such as edition, size, and language. Additionally, the database included the library holding the copy I consulted, the specific collection (when applicable), and the shelfmark. For each book copy, I also noted material evidence of possession and use, bibliographical references, notes, and the copy's classification within the abovementioned eight categories.

To ensure consistency and comparability, the names of authors, publishers, and printing locations have been standardised according to modern English conventions. I have also standardised, to a certain extent, book titles and the variants that appear in reprints and re-editions. The process of entering the data was guided by specific criteria in each field, as is summarised below.

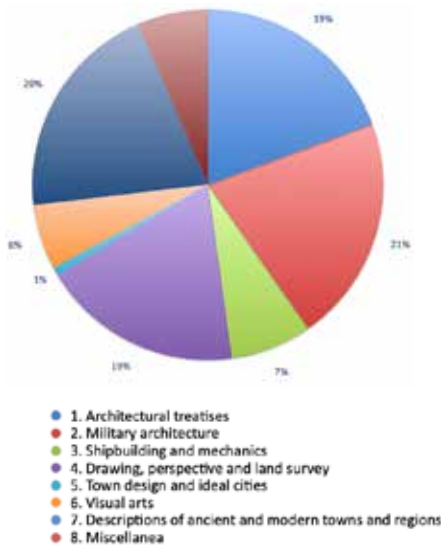
The recording of editions was primarily intended to differentiate *editiones principes* (first editions) from subsequent reprints. I sought to complete this field for all catalogued book copies; however, as mentioned above, this was not always possible. Publications incorporating substantial changes to earlier editions, such as newly annotated or expanded versions or translations, were classified as new first editions. For multivolume works printed over several years, I recorded the earliest date in the main field and then specified the publication years of single volumes in the 'Notes' field.

In the 'Bibliography' field, I placed references to literature specifically addressing individual book copies, for instance printed catalogues, catalogues raisonnés, and scholarly works mentioning or discussing the copies. I did not include references to general research tools used by libraries to record their holdings, such as electronic or card catalogues, nor did I cite the extensive scholarship on specific titles of architectural books and their authors. Indeed, the field entitled 'Bibliography' focuses exclusively on studies of the copies of architectural books in my catalogue.

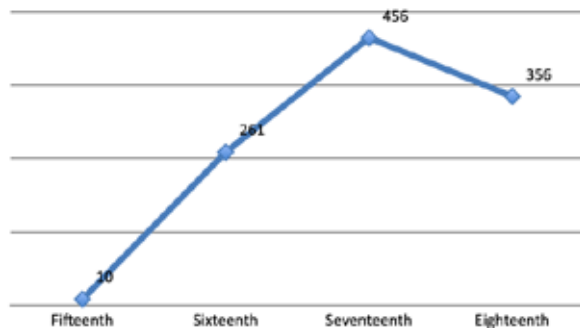
After these preliminary remarks, it is now time to turn to the analysis of data contained in the catalogue of architectural books. Across the forty-six libraries whose catalogues I researched, a total of 1094 architectural book copies were identified across the eight categories (Tab. 0.7). Military architecture emerged as the largest category, with 229 entries (21%). Three other categories yielded comparable figures: descriptions of ancient and modern towns and regions (223 entries; 20%), architectural treatises (212 entries; 19%), and drawing, perspective, and land surveys (203 entries; 19%). The remaining categories had the following totals: shipbuilding and mechanics: 82 entries (7%); miscellanea: 71 entries (6%); visual arts: 66 entries (6%); and town design and ideal cities: 8 entries (1%).

It is noteworthy that the sources of architectural knowledge most frequently preserved in the libraries of the eastern

0.7. Books per Category



0.8. Books per Century



Adriatic are the books currently considered as ‘genuine’ architectural treatises—namely, those on civil and military architecture—which together account for 40% of the entire catalogue. The categories of town and regional descriptions and mathematical handbooks, when combined, constitute a slightly smaller group, at 39%. In total, these four categories represent 79% of all architecture-related books and must be regarded as the principal genres through which architectural knowledge was disseminated in the early modern eastern Adriatic. The remaining categories are significantly lower percentages, collectively amounting to only one fifth of the full catalogue.

Analysis of the printing dates of the architectural books that I catalogued reveals a steadily expanding market throughout the sixteenth and the seventeenth centuries, followed by a slight decline in the eighteenth century (Tab.0.8). The peak of 456 entries (42%) in the seventeenth century is partly

due to the considerable holdings of the Valvasor Library. If Valvasor’s books were excluded from my analysis, the trend would likely show constant growth, with a slightly lower rate at the turn of the eighteenth centuries.

A more detailed analysis by decade reveals a more complex picture (Tab. 0.9). Growth is constant throughout the sixteenth century, with the number of books per decade exceeding 30 book copies in the latter half of the century, except for the period between 1570 and 1579. Despite minor fluctuations, the average number of books per decade remains around 40 throughout the seventeenth century until the 1680s, when there is a sudden and prolonged decline. Growth resumes gradually from the 1710s, accelerates rapidly in the 1730s, and reaches a peak of 56 book copies in the 1760s. The number of books then declines rapidly in the last decades of the eighteenth century.

Printing dates provide valuable insights into the trends of the book market. While the circulation of used books should not be underestimated, the majority of the book trade revolved around new editions, which were typically sold within a few years of their publication.⁵⁵ In light of this trend, it becomes evident that the wars between the Republic of Venice and the Ottoman Empire were crucial factors in the book trade of the Adriatic basin. Notably, the lowest points in printing dates coincide with the 1570s, the decade of the War of Cyprus, as well as the periods of the First and Second Morean War (1684–1699; 1714–1718). This observation is particularly intriguing because previous studies have shown a contrasting trend in the Venetian *terraferma*, where the publication of books related to military culture increased during wartime, driven primarily by pamphlets, battle reports, and other news sheets.⁵⁶ While stimulating the specialistic book production in the Venetian mainland, these military conflicts periodically rendered the Adriatic Sea an increasingly perilous trade route, resulting in the eventual collapse in the supply of books—and probably other goods—throughout the eastern Adriatic. The analysis of printing dates underscores the close ties of the book trade to maritime routes in this region.

With regard to printing places, a detailed analysis is presented in the subsequent chapter (see ‘The Coast and the Inland: Printing Places’). A statistical examination of the printing sites of the architectural book copies in my catalogue provides valuable insights into their circulation and the trade routes that supplied the early modern eastern Adriatic market. For this reason, the discussion of printing places is incorporated into Chapter One, which focuses on the circulation of architectural books.

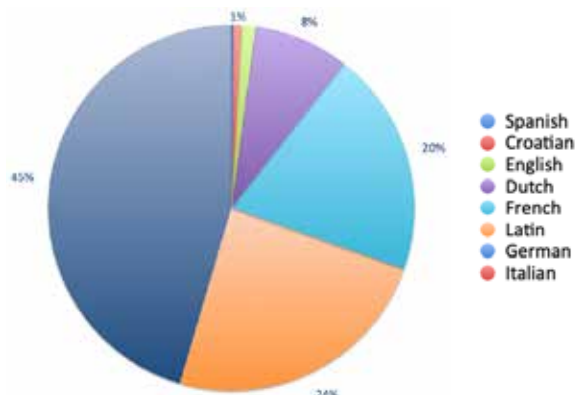
If we turn to language, nearly half of the architectural books considered here are in Italian (496 entries; 45.4%); Italian was the predominant language of printed texts in the eastern Adriatic (Tab.0.10). This predominance echoes its status as

INTRODUCTION

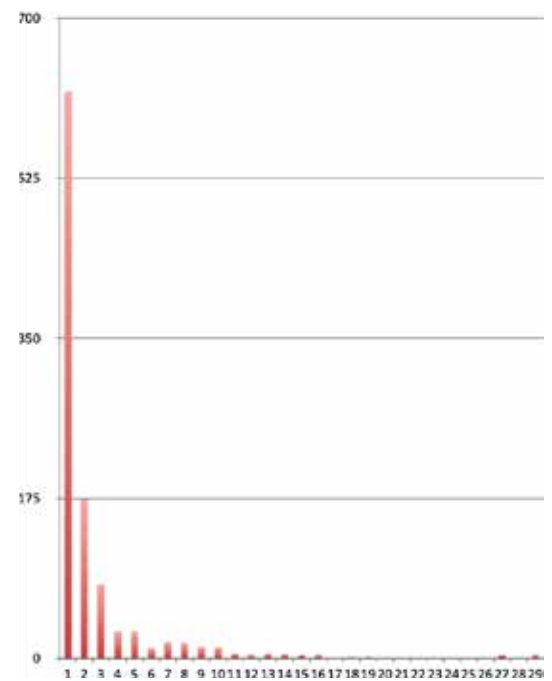
0.9. Books per Decade



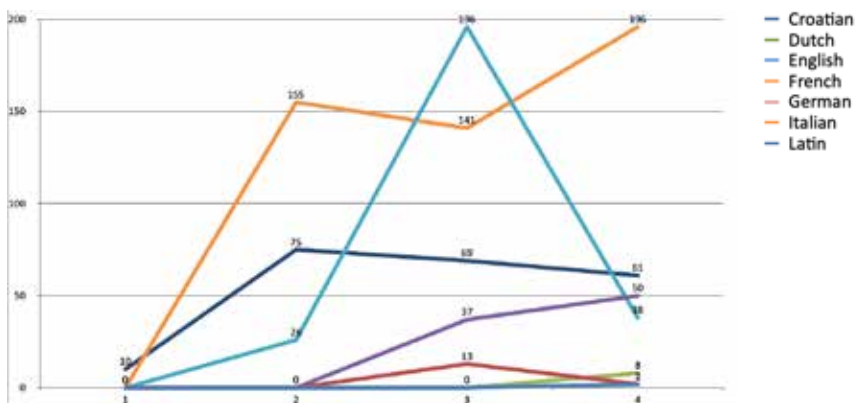
0.10. Books per Language



0.12. Books per Edition



0.11. Books per Century and Language



the official administrative language for most of the coastline. The distribution of other languages is as follows: German (263 entries; 24.1%), Latin (217 entries; 19.9%), French (92 entries; 8.4%), Dutch (13 entries; 1.2%), English (8 entries; 0.7%); Croatian (2 entries; 0.2%), and Spanish (1 entry; 0.1%). However, the substantial holdings of the Valvasor Library have distorted the proportion of German books. In fact, of the 261 German architectural books, 180 belonged to Janez V. Valvasor. Without Valvasor's books, the number of German architectural books in the eastern Adriatic would total only 81, which is considerably lower than the number of Latin volumes and even slightly lower than that of French books.

Over time, the languages of architectural books assume a diachronic dimension (Tab. 0.11). Latin, the sole language of the few incunabula that I catalogued, experienced a gradual decline but nevertheless consistently retained a portion of the market. The number of books in Italian was twice that of Latin books by the sixteenth century and, despite a minor dip in the seventeenth century, continued to grow in the eighteenth century until it became overwhelmingly predominant. Books in French, absent in the sixteenth century, began to appear in the following centuries but occupied only a small portion of the market. They never surpassed Latin books in quantity, although they came close in the eighteenth century.

The trend for books in German further highlights the impact of the Valvasor Library, which contains mostly seventeenth-century German books. Architectural books in German account for twenty-six entries in the sixteenth century, then sharply increase to 196 entries in the seventeenth century, and finally decline to thirty-eight entries in the eighteenth century. The anomalous peak in the seventeenth-century German books is caused by the holdings of the Valvasor Library. Without that library, the number of architectural books in German would have remained flat over the centuries.

The analysis of the editions of catalogued books reveals a large number of *editiones princeps*—a total of 620 entries (77%). Predictably, the number of reprints is significantly lower, as not all books achieved the success that required multiple editions (Tab. 0.12). The number of first editions is more than three times that of second editions, more than seven times that of third editions and more than twenty times that of fourth and fifth editions. These figures indicate that the eastern Adriatic book market was highly receptive to newly published volumes.

It is now appropriate to conduct a more detailed examination of the data for each individual category of architectural books, shifting the focus from a primarily quantitative analysis of date, language, and edition to a more qualitative assessment of authors and titles. The following discussion adheres to the sequence of the eight categories of architectural books.

1. Architectural Treatises. The architectural treatise that appears most frequently in the libraries of the eastern Adriatic is Vignola's *Regola delli cinque ordini*, for which there are twenty-five entries (12%). This is closely followed by Vitruvius's *De architectura*, with twenty-three entries (11%). Vignola's volume, the most successful treatise of the Italian Renaissance in terms of reprints and re-editions, thus shares its place at the top with the ancient Roman writer Vitruvius, who is often regarded as the founder of Western architectural theory. Other treatises that often appear include the works of Sebastiano Serlio (17 entries; 8%) and Andrea Palladio (16 entries; 8%).

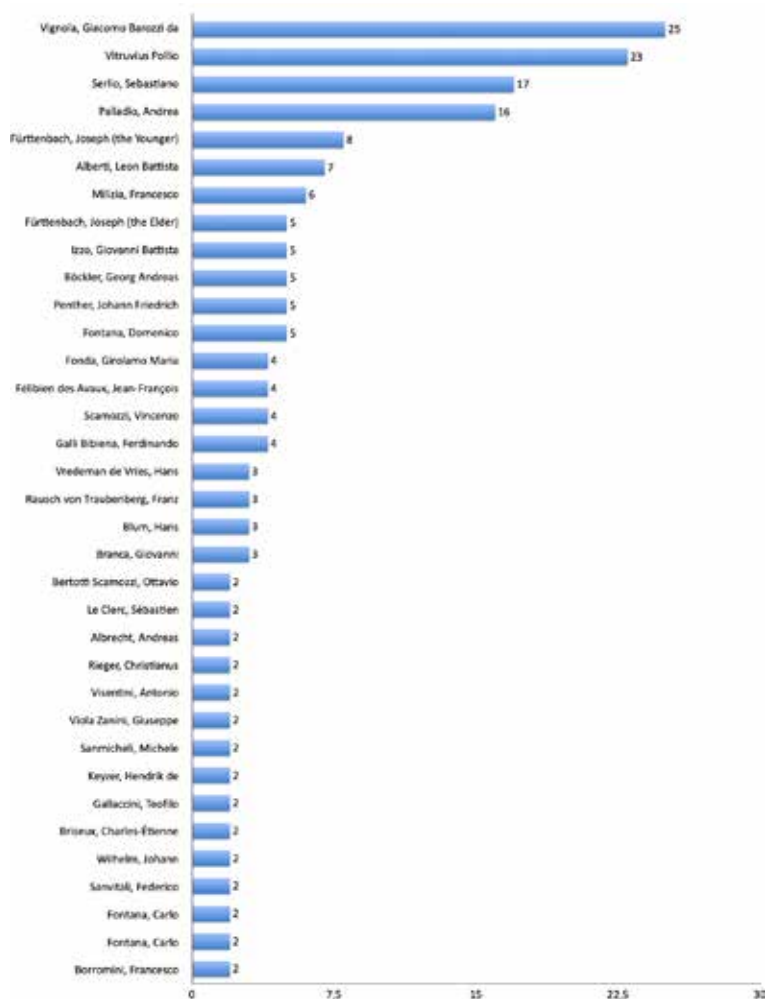
The volumes by Palladio include copies of *I quattro libri dell'architettura* and its various reprints, as well as eighteenth-century critical editions by Francesco Muttoni. However, my total excludes works such as Ottavio Bertotti Scamozzi's scholarly discussion of Palladio's architecture and the numerous editions of Palladio's guide to Rome. If these additional titles were included, Palladio's works would amount to thirty entries, exceeding both Vignola and Vitruvius. Similarly, Vignola's total would be slightly amplified with the inclusion of his handbook *Le due regole della prospettiva pratica*, of which there is a single copy in the catalogue.

Beyond the four treatises by Vignola, Vitruvius, Serlio, and Palladio, the books of other authors have significantly lower totals: Joseph Fürtenbach the Younger (8 entries; 4%), Leon Battista Alberti (7 entries; 3%), and Francesco Milizia (6 entries; 3%). Georg Andreas Böckler, Domenico Fontana, Joseph Fürtenbach the Elder, Giovanni Battista Izzo, and Johan Friedrich Penther all have five entries (5 entries; 2%), while Jean-François Félibien des Avaux, Girolamo Maria Fonda, Ferdinando Galli Bibiena, and Vincenzo Scamozzi have four entries (4 entries; 2%). The list continues with progressively smaller percentages and is quite extensive (Tab. 0.13).

It is evident that Vitruvius and Italian Renaissance authors dominate the category of architectural treatises. Collectively, the copies of works by Vitruvius, Alberti, Serlio, Vignola, Palladio, Fontana, and Scamozzi account for nearly half of the catalogued architectural treatises (92 entries; 48%). Their predominance becomes even more apparent when their totals are compared to those of the German authors who appear the most often, such as the two Fürtenbachs, Böckler, Penther and Hans Blum (3 entries; 1%); the presence of the latter authors is largely attributable to the holdings of the Valvasor Library. Of the twenty-six architectural treatises by these German authors, seventeen (65%) are in Valvasor's collection.

The influence of French architectural culture in the libraries of the eastern Adriatic is similarly modest; there are only a few copies of seventeenth- and eighteenth-century works. These include the works of Félibien (4 entries), Charles-Étienne Briseux (2 entries), and Sébastien Leclerc (2 entries).⁵⁷ Flemish and Nether-

0.13. Books per Authors: 1. Architectural Treatises



landish architectural treatises are even sparser, comprising small totals of works by Jan Vredeman de Vries (3 entries) and Hendrik de Keyzer (2 entries).⁵⁸ Finally, treatises from other European regions are entirely absent.

A more detailed examination of Italian Renaissance architectural treatises, beginning with editions of Vitruvius, is warranted. Nearly half of the catalogued copies of the *De architectura* are in Italian. In addition to translations by Francesco Luci (known as ‘Durantino’), Daniele Barbaro, and Berardo Galliani,⁵⁹ the catalogue contains copies of an eighteenth-century abridged edition with selected commentaries by Barbaro alongside an Italian translation from the French commentary by Claude Perrault (Venice, 1747).⁶⁰ The seven copies of Vitruvius’s original Latin text include editions by Fra’ Giovanni Giocondo, Guillaume Philandrier, Daniele Barbaro, and Giovanni Poleni. The catalogue also lists one copy of Philandrier’s *Annotationes* (Rome,

1544).⁶¹ The five German translations of Vitruvius in the catalogue are all different editions by Walther Hermann Ryff,⁶² while no translation in French or another language is present.

The evidence presented here underscores the preponderance of Italian architectural knowledge over its German and French counterparts. However, as I will demonstrate below (see Chap. 1, ‘The Coast and the Inland: Authors and Titles’), the distribution of texts in these three languages is not uniform across the entire eastern Adriatic region; there are notable differences between book collections along the coastline and those in the inland.

The predominance of Italian architectural culture is equally evident for editions of Vignola, which are overwhelmingly in Italian (15 entries, 60%), though the treatise contains almost no text and makes extensive use of the international language of drawing. In addition to one edition in French (Paris, 1638) and one in Latin (Venice, 1720), the catalogued copies encompass German translations (8 entries; 32%), which were commented on or supplemented by Pierre Le Muet, Charles-Augustin d’Aviler, Leonhard Christoph Sturm, and Johann Rudolph Faesch. Rather than being exclusive products of German architectural culture, these editions represent a blend of French and German architectural knowledge built on the foundation of an Italian Renaissance author.

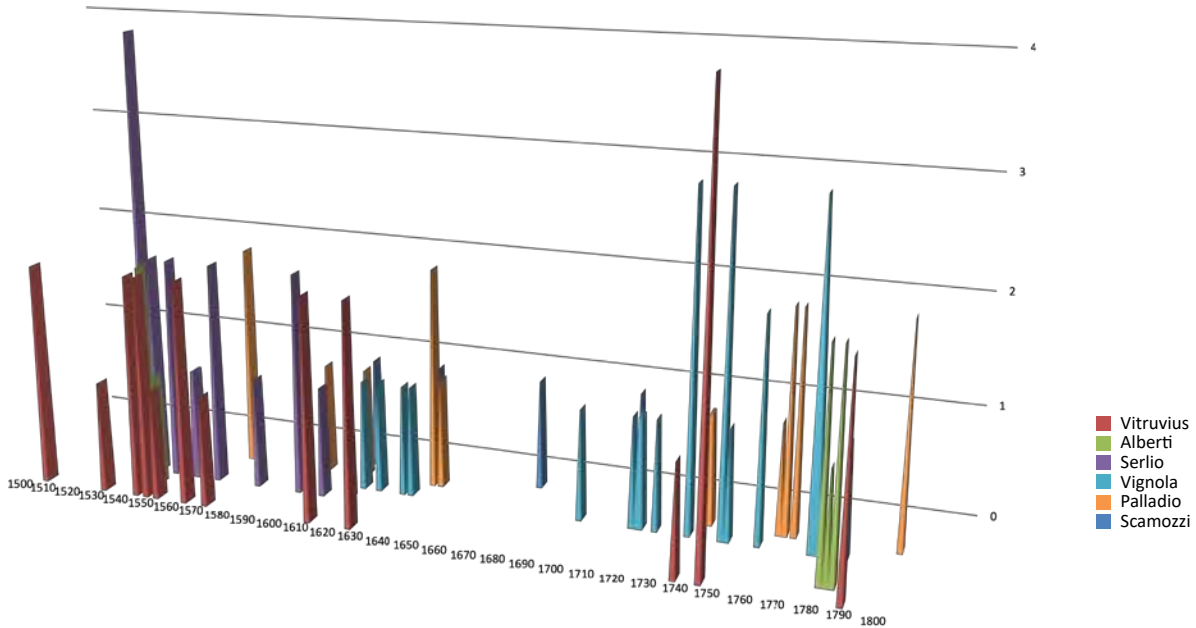
Even a much wordier treatise, such as Serlio’s, demonstrates the prevalence of Italian in the dissemination of early modern architectural knowledge. Of seventeen catalogued copies, only two are not in Italian: a Latin edition printed in Venice (1568) and a German translation (Basel, 1609). Both items are in the Valvasor Library.

Similarly, although Palladio’s *Quattro libri* was translated relatively early into major European languages—Spanish, French, Dutch, English, and German—and was also printed in Italian abroad, all the catalogued copies in the eastern Adriatic were issued in Venice and the Veneto. Several of the eighteenth-century editions feature parallel Italian and French texts. The sole exception is a copy of the French edition by Pierre Le Muet (Paris, 1645) in the Valvasor Library.

Although Croatian art historians have identified evidence in the fifteenth-century architecture of Trogir and Split that suggests an early circulation of Leon Battista Alberti’s works,⁶³ neither manuscript versions nor original Latin editions of *De re aedificatoria* are present in eastern Adriatic libraries. The seven catalogued copies of Alberti’s treatise are all Italian translations by Pietro Lauro or Cosimo Bartoli. Only three of them date to the sixteenth century, while the remaining four are late-eighteenth-century editions, which likely had limited circulation in the the early modern period.

Similarly scarce, if not even less prevalent, was Scamozzi’s *L’idea dell’architettura universale*, which is represented by only two Italian editions, one German edition, and one Dutch edi-

0.14. Renaissance Authors per Year



tion. The latter two copies are part of the Valvasor Library and consequently had a limited circulation.

As one moves further down the list of architectural treatises in the catalogue, a gradual decline in the number of entries for other authors becomes apparent, with some represented by only three or two copies, or even a single one. A few exceptions, however, deserve attention. Francesco Milizia's late-eighteenth-century works, *Memorie degli architetti antichi e moderni* and *Principi di architettura civile*, appear in six copies, although their influence is more likely to have been felt in the nineteenth century rather than during the early modern period.

There are five copies of Domenico Fontana's *Della trasportazione dell'obelisco vaticano*, and three of Giovanni Branca's *Manuale d'architettura*. Other later Italian authors such as Giuseppe Viola Zanini, Teofilo Gallaccini, Antonio Visentini, and Ottavio Bertotti Scamozzi are represented by just two copies each.

Despite the relatively small number of copies, the presence of eighteenth-century handbooks on civil and military architecture is remarkable and holds particular significance. In the latter half of the century, various colleges and schools began to produce specialised Latin textbooks on architecture for their students, and the number of copies in eastern Adriatic libraries is not negligible. The Jesuit Christian Rieger authored *Universae architecturae civilis elementa* (Vienna, 1756) for use in Jesuit colleges. Giovanni Maria Fonda's *Elementi di architettura civile, e militare* was intended for the Nazarene College in Rome (Rome, 1764). Giovanni Battista Izzo wrote *Elementa architecturae civilis* for the Theresianum College in Vienna (Vienna, 1774). Finally,

Franz Rausch von Traubenberg compiled *Elementa architecturae et structurae oeconomicas applicatae* for the Royal Hungarian Academy (Buda, 1779).⁶⁴ In addition to civil architecture, such works also contain sections or even distinct volumes dedicated to military architecture.

The presence of these books in eastern Adriatic libraries suggests the preferred educational institutions of the local ruling class. Although the authors are relatively unknown in current architectural history, the fourteen entries recorded in the catalogue represent 7% of the total number of architectural treatises. In the latter half of the eighteenth century, these Latin handbooks were among the most popular architectural treatises, alongside reprints and abridged versions of Vignola and Palladio.

The data suggest that the handbooks likely played a significant role in education, particularly for noblemen and clergymen, rather than being used by professional architects. However, it is improbable that their impact could have been substantial before the end of the eighteenth century; rather, they became influential during the following one. Consequently, these architectural treatises demand greater attention from architectural historians.

Furthermore, an analysis of the printing dates of the six most prominent Italian Renaissance architectural treatises reveals intriguing patterns over time (Tab. 0.14). Their publishing dates exhibit peaks during the sixteenth century and around the mid-eighteenth century. In contrast to the general data on dates of architectural books, the printing dates of Renaissance

Italian architectural treatises display a pronounced gap between 1650 and 1720. This void may be linked to the Venetian-Turkish wars of the period and thus once again underscores the dependence of the eastern Adriatic book market on maritime routes. During the second half of the sixteenth century, while Valvasor was actively acquiring books through German routes, trade along the Adriatic coasts was stagnating due to the ongoing military conflicts.

However, not all Italian Renaissance architectural treatises experienced the same level of dissemination across the centuries via reprints and re-editions. Interest in Vitruvius was considerably heightened by sixteenth-century commentaries and translations but underwent a century-long hiatus after 1630. It re-emerged in the eighteenth century with the publication of new, updated critical apparatuses. Palladio's treatise followed a similar pattern. In the libraries of the eastern Adriatic, *I quattro libri* is well documented in the *editio princeps* of 1570, alongside some reprints from the first half of the seventeenth century. Thereafter, copies of it became less numerous until 1740, when the wave of Neo-Palladianism revived interest in his works. There was a comparable trend for Alberti's *De re aedificatoria*, though to a lesser extent; the late-eighteenth-century revival of interest in it appears to have been even more pronounced than the initial sixteenth-century reception of the book.

However, the fate of Serlio's books deviates from this pattern. His works were printed repeatedly by Italian and European presses until 1620, after which date no new editions appeared. This does not imply, though, that sixteenth-century copies of Serlio's treatise ceased to circulate. On the contrary, as I will discuss in Chapters Two and Three, there is evidence that sixteenth-century copies of Serlio—and of Vitruvius, too—remained in use in later centuries and continued to have an impact on architectural practice.

Vignola's volume, however, follows a somewhat different trajectory. None of the numerous sixteenth-century editions of his *Regola* have been identified in the libraries of the eastern Adriatic, suggesting that its impact was minimal at that time. Instead, the popularity of his book emerges as an early-seventeenth-century phenomenon and, to a much greater extent, an eighteenth-century one. This is peculiar, as the spread of Vignola's *Regola* in the eastern Adriatic reached its peak nearly two centuries after the *editio princeps*. Nevertheless, several buildings in the region indicates that Vignola's impact was already evident before the eighteenth century, suggesting that some sixteenth-century copies may have circulated despite the lack of surviving evidence in library collections.

While the data discussed above reveal clear trends, the interpretation of them is a complex matter. Notably, the absence of comparable quantitative studies on the printing and circulation of architectural treatises in other geographical areas precludes

the adoption of a comparative perspective. As a result, it is not entirely possible to determine whether the trends observed for the early modern eastern Adriatic reflect broader European patterns or are predominantly shaped by local factors.

Undoubtedly, the decline of the printing and dispersal of Renaissance architectural treatises in the seventeenth century aligns with the emergence of Baroque aesthetics, which signalled a waning interest in the normative and prescriptive approach typical of these texts. Similarly, the resurgence of Renaissance treatises in the eighteenth century is tied to the neoclassical revival and the reaction against the so-called excesses of the late Baroque. However, without comparative data, interpretations beyond these basic and somewhat generalised observations—admittedly, bordering on commonplaces—are not currently feasible.

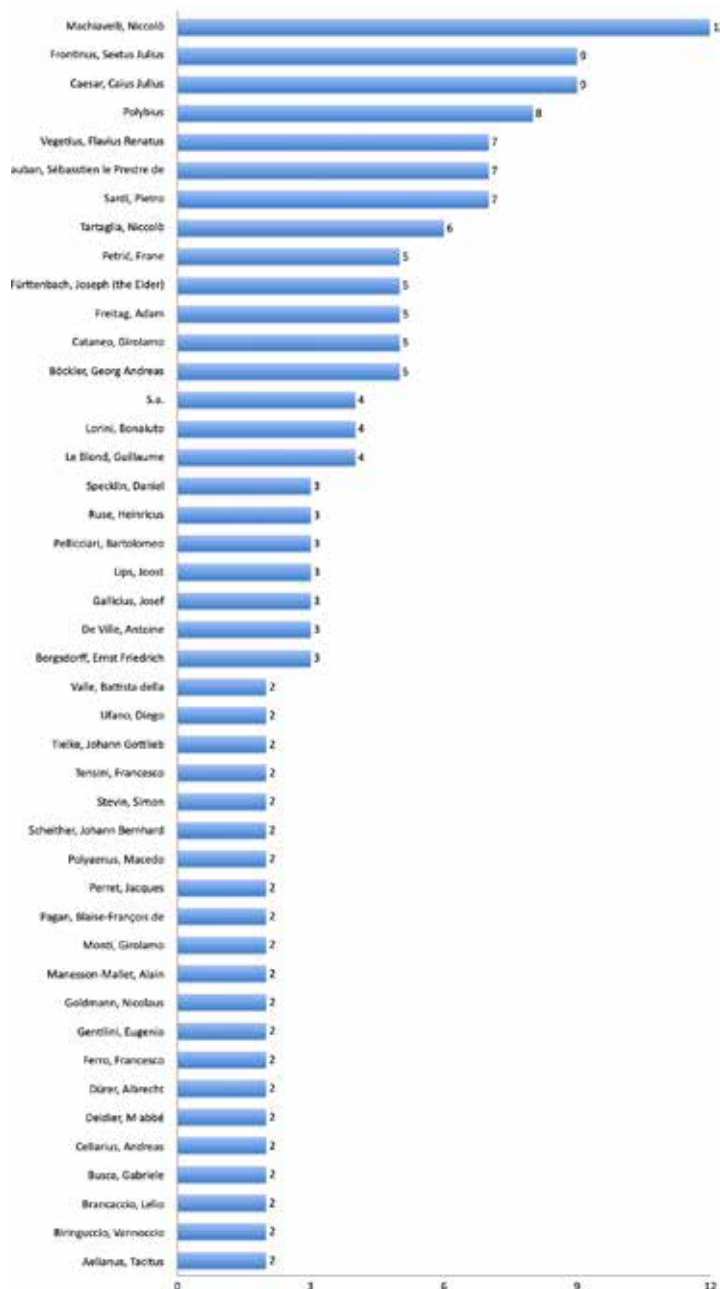
Interestingly, none of the other categories of architectural books yields results as distinct or well defined as that of architectural treatises. Notably, nearly half of the catalogued copies of the architectural treatises in eastern Adriatic libraries are the works of a small group of Italian Renaissance authors, and Vitruvius. Their enduring impact is reflected in the extensive number of reprints and re-editions produced over the centuries. The other categories of architectural books exhibit a contrasting trend. Rather than centring on a few prominent figures, the data point to a broad dispersion of architectural expertise across a wider range of authors. In these categories, individual entries typically range between three and six per author and only rarely exceed six.

2. Military Architecture. The category of military architecture, the one with the largest number of entries, echoes that of architectural treatise in demonstrating a predominance of Italian architectural knowledge, albeit to a significantly lesser degree. A review of the most frequently recurring authors (Tab. 0.15) highlights the importance of the humanistic culture of warfare. This is evident in the prevalence of Renaissance works such as Niccolò Machiavelli's *Arte della guerra* (12 entries; 5%) and of classical military texts by authors such as Julius Caesar and Frontinus (9 entries; 4%), Polybius (8 entries; 3%), and Vegetius (7 entries; 3%).

Among authors focused more specifically on military architecture, several Italian names stand out: Pietro Sardi (7 entries; 3%), Niccolò Tartaglia (6 entries; 3%), Girolamo Cataneo (5 entries; 2%), and Buonaiuto Lorini (4 entries; 2%). Non-Italian authors with more than four copies in the catalogue are: Sébastien le Prestre de Vauban (7 entries; 3%), Georg Andreas Böckler, Adam Freitag, and Joseph Fürtttenbach the Elder (5 entries; 2%). All remaining authors appear with three or fewer books.

Despite these lower numbers, authors from the different schools of European military architecture are well represented

0.15. Books per Author: 2. Military Architecture

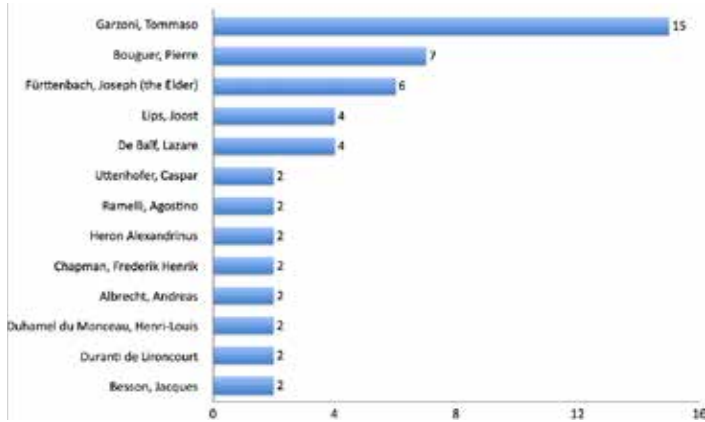


in eastern Adriatic libraries. For the Italian school of military architecture, beyond the books of the abovementioned authors, copies of works by Battista della Valle, Gabrio Busca, and Francesco Tensini appear in the catalogue. In addition to Vauban, the French school is represented by Antoine de Ville, Jacques Perret, and Alain Manesson-Mallet. For the German school, prominent names include Albrecht Dürer, Georg Andreas Böckler, Nicolaus Goldman, Joseph Fürstenbach the Elder, and Ernst Friedrich Borgsdorff. The Netherlandish school features authors such as Simon Stevin and Andreas Cellarius, while, through connections in Flanders and the Low Countries, even a few translated Spanish works, for instance Diego Ufano's *Tratado de la artilleria*, found their way to the eastern Adriatic.

Much of the demand for both Italian and European treatises on military architecture in the eastern Adriatic came from aristocratic feudal families in the inland regions, who were often directly involved in the Ottoman wars. Notable examples include Valvasor's collection and the Zrinski family library, originally located in Čakovec and now preserved in the National and University Library in Zagreb.⁶⁵ As I will elucidate below (see Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries'), the noble families along the coast, particularly those of the Ragusan aristocracy, also possessed books on military architecture in their libraries, though to a lesser extent. However, while noblemen serving in the highest ranks of the army were typically settled in one place and tied to the land through feudal obligations, military architects or engineers were largely itinerant professionals. In a border region such as the early modern eastern Adriatic, this mobility meant that military engineers frequently travelled with their professional libraries, moving from place to place as they designed fortresses. However, upon completing their assignments, they usually returned home, taking their books with them.

On the one hand, many aristocrats in the early modern eastern Adriatic served in various armies and war theatres while owning and using books on military architecture, which remain preserved in the region to this day. On the other hand, the majority of military engineers in the early modern period were not native to the eastern Adriatic, and, consequently, their books are no longer found in the area. For example, military engineers working in the eastern Adriatic often originated from Venice or its *terraferma*. Their libraries are as such more likely to have been preserved in the Veneto, where further investigation would be more fruitful. This may explain why my survey of architectural books in eastern Adriatic libraries identified many books on military architecture and warfare that belonged to local aristocratic families, but only a few copies that showed material evidence of possession and use by military architects or engineers.

0.16. Books per Author:
3. Shipbuilding, Mechanics and Crafts



3. Shipbuilding and Mechanics. The third category, which is focused on naval architecture, mechanics and, more broadly, crafts, is dominated by Tommaso Garzoni's *La piazza universale di tutte le professioni del mondo* (15 entries; 18%), a popular book describing a wide array of occupations, including numerous crafts (Tab. 0.16). Of course, this general text was not intended to educate or train architects or artisans in their professions. However, it offered valuable overviews of a multitude of crafts and their techniques that were integral to various stages of the construction process.

One of the most intriguing chapters focuses on architects, encompassing 'maestri d'edificij, e fortificatori di fortezze, e maestri di machine, & mecanici in commune, overo ingegnieri' (masters of buildings, and fortifiers of fortresses, and masters of machines, and municipal mechanics, or engineers). More importantly, the text provides detailed and technical insights into the work carried out by various craftsmen in the building trade. These include 'lignaiuoli, o marangoni' (carpenters), 'intagliatori di legno, intersiadori, sbocadori, spezzazochi, segarini' (woodcarvers and inlayers), 'muratori, o fabricatori' (bricklayers and builders), 'intagliatori in pietra' (stonecutters), 'scarpellini, o taglia pietre, segatori di marmi' (stonemasons), 'fabri in generale' (blacksmiths), 'vetrari' (glassmakers), 'finestrari' (glaziers), 'giardinieri' (gardeners), and many others.⁶⁶

There are significantly fewer books on shipbuilding. The most common works include those by Pierre Bouguer (7 entries; 9%) and Fürtttenbach the Elder (6 entries; 7%), followed by Lazare de Baif and Joost Lips (4 entries; 5%), and others, such as Friedrik Henrik Chapman, Henri-Louis Duhamel de Monceau, and Duranti de Lincoourt (all with 2 entries; 2%). Despite such modest quantities, these books reflect a sustained, albeit limited, interest in shipbuilding over time. They extend from the seminal sixteenth-century volumes by de Baif, to the seventeenth-

century *Architectura navalis* by Fürtttenbach the Elder, to the eighteenth-century works of Bouguer. However, with the exception of Bouguer, the small numbers of copies indicate a relatively limited dissemination of these works during the early modern period. Shipbuilding as a craft persisted in the eastern Adriatic, as it did in Venice, and it relied primarily on practical experience and the expertise acquired and transmitted within state and private shipyards.

Evidence of the multiple connections between shipbuilding and architecture, or between navigation and land surveys, is scarce in the libraries of the eastern Adriatic. Shipyard carpenters were often the only craftsmen proficient in assembling long beams and trusses for large-span roof structures, such as those required for churches, monasteries, or public palaces. Nevertheless, the copies of naval architecture books provide no clear documentation of such a civil application of shipbuilding techniques. The sole catalogued work on carpentry addressing roof structures, Mathurin Jousse's *Le théâtre de l'art de charpentier* (La Fleche, 1627), is in the Valvasor Library⁶⁷ and shows no evidence of circulation or use within maritime contexts. Even the surviving family libraries of shipowners, captains, and sailors reveal little evidence of books containing significant architectural knowledge derived from or related to shipbuilding. Their holdings are generally limited to handbooks on navigation and, as expected, atlases, sea charts, and maps.

An intriguing example of the close interplay among architecture, fortification, navigation, and land surveys is the case of Bartolomeo Crescenzi, a skilled sailor and hydraulic engineer who identified himself as an 'architect'.⁶⁸ In addition to his *Nautica mediterranea* (Rome, 1602), he also published *Proteo militare* (Naples, 1595).⁶⁹ The latter book is entirely dedicated to explaining a measuring instrument of Crescenzi's own invention; the tool was capable of performing a variety of practical tasks. These ranged from surveying land plots and charting navigational routes to determining army formations and designing the dimensions of columns in accordance with the five orders. Despite the potential utility of such an instrument for the sailing masters and stonemasons of the eastern Adriatic, only a single copy of this work has been identified.

Furthermore, notably absent from eastern Adriatic libraries are treatises on stereometry as it was applied to stonecutting and construction—disciplines that would have been of considerable interest in the eastern Adriatic, particularly in Istria and Dalmatia. Across these regions, all of the stages of the stone trade were significant sectors of the local economy. However, Italian presses, upon which Istria and Dalmatia relied almost entirely, failed to produce monographic works on this subject.

Interested readers could find suitable explanations of stereometry applied to stonecutting in the architectural treatises of Philibert de l'Orme, Giovanni Antonio Rusconi, and

Vincenzo Scamozzi;⁷⁰ unfortunately, these are very rare in, or are entirely absent from, the libraries of the eastern Adriatic. The only two catalogued book copies on stonemasonry are *La pratique du trait à preuves [...] pour la coupe des pierre en l'architecture* by Girard Desargues (Paris, 1643), and an eighteenth-century German reprint of *Geschikter und wohlerfahrner Bau-meister* by Abraham Bosse (Nuremberg, 1767).⁷¹ It is evident that the highly dynamic workshops of stonemasons along the coastline operated without relying on theoretical stereometry as it was presented in books. Instead, they employed alternative media, such as sketchbooks and collections of drawings or templates, which are exemplified by the so-called Korčula Sketchbook.⁷² This focus on practical applications in stone-cutting mirrors the aforementioned, predominantly practical (rather than theoretical) literary approach to naval architecture in the region.

The book copies related to mechanics are primarily from the library of Janez V. Valvasor, who amassed a small but valuable collection on the subject. His holdings ranged from commented editions of classical texts, such as those by Aristotle and Heron Alexandrinus, to early modern works by Italian, French, and, most notably, German authors. The most frequently recurring book in the catalogue is *Poliorteticon* by Joost Lips (5 entries), one of the few volumes in this category outside Valvasor's library. Other notable works include those by Andreas Albrecht, Jacques Besson, Agostino Ramelli, and Caspar Uttenhofer (2 entries each). The remaining authors, represented by a single entry apiece, are largely in Valvasor's collection; thus, without his library, the presence of books on mechanics in the eastern Adriatic would have been negligible.

4. Drawing, Perspective, and Land Survey. In the extensive category of books on mathematics—from which architects, craftsmen, and patrons could acquire foundational knowledge in drawing, perspective, land survey, cost estimation, and other essential building tasks—seventeenth- and eighteenth-century French handbooks are dominant (Tab. 0.17). The most common works in the catalogue are those by André Tacquet (13 entries; 6%), the Abbot Deidier (6 entries; 3%), Jacques Ozanam (5 entries; 2%), Sébastien Le Clerc (4 entries; 2%), Oronce Finé (3 entries; 1%) and Nicolas-Louis De la Caille (2 entries; 1%), which discuss the practical applications of arithmetic, geometry, and trigonometry. Together, the above authors account for 20% of the books in this category. Interestingly, the works are rarely found in their original French editions, but rather in Latin or Italian translations.

Beginning with Tacquet, who taught at the Jesuit College of Leuven, these authors primarily conceived their works as educational textbooks aimed at younger audiences. The presence of such volumes in the collections of former and current monas-

teries, as well as in family libraries, suggests that the books were widely used for educational purposes in the eastern Adriatic, particularly during the late seventeenth and eighteenth centuries; their relevance likely also extended into later periods.

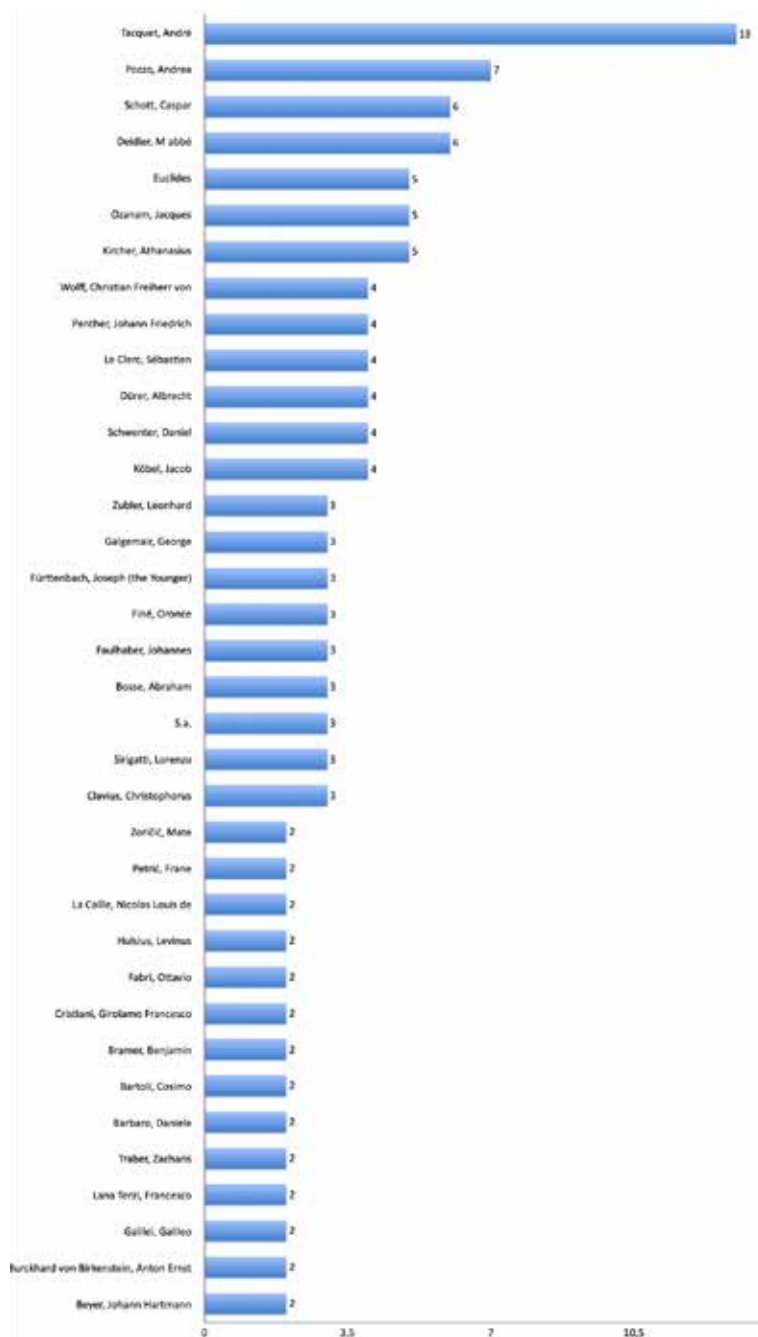
As is often the case, the extensive holdings of the Valvasor Library significantly inflate the number of German authors represented in the catalogue, including individuals such as Caspar Schott (6 entries; 3%), Jacob Köbel and Daniel Schwenker (4 entries; 2%), Fürsttenbach the Younger and Abraham Bosse (3 entries; 1%), among others. It is reasonable to deduce that the circulation of German books on mathematics in the eastern Adriatic would have been significantly limited in the absence of Valvasor's collection.

However, the relatively modest presence of Italian books on applied mathematics and geometry is surprising, given the popularity of this genre on the Italian peninsula since the sixteenth century and the correspondingly vibrant book production. Apart from Cosimo Bartoli, Girolamo Francesco Cristiani, and Francesco Lana Terzi (2 entries each; 1%), other Italian authors—even renowned figures such as Silvio Belli, Michelangelo Bonotto, Alessandro Bonvicino, Pietro Cataneo, Bonaventura Cavalieri, Francesco Feliciano, Latino Orsini, Giovanni Francesco Peverone, Niccolò Tartaglia, Pietro Dionigi Veglia—are each represented by only a single entry in the catalogue.

Notably, in the field of mathematics and its applications, eastern Adriatic authors stand out more prominently than they do in other categories, though their presence remains limited in terms of the number of entries in the catalogue. Only a few copies of their works survive, including those by Frane Petrić (Francesco Patrizi; 2 entries; 1%), and Marin Getaldić (Marinus Ghetaldus or Marino Ghetaldi; 1 entry).⁷³ Later, in the eighteenth century, Ruder Josip Bošković (Ruggero Giuseppe Bosovich) deserves attention, particularly for his translations and annotated editions of the popular works by the abovementioned Taquet and De la Caille.⁷⁴ Ultimately, in 1766, Mate Zoričić published *Aritimetika u slavni jeziki Illirički sastavljena* (Arithmetic, Composed in the Famous Illyrian Language) in Ancona; it was the first handbook of mathematics in the Croatian language. Two copies of this work have been identified.⁷⁵

Another notable work deserving special attention is *Elementa matheseos universae* by the German philosopher Christian Freiherr von Wolff. Originally published in German as *Anfangsgründe aller mathematischen Wissenschaften* in 1710, it was translated into Latin and printed in Magdeburg in 1713, with subsequent reprints in various European cities in Latin and German. This encyclopaedic exposition of the mathematical disciplines follows Wolff's demonstrative-deductive method. Typically divided into four or five volumes for a total of about 1500 pages, this ponderous work encompasses chapters on a wide range of disciplines grounded in mathematics,

0.17. Books per Author:
4. Drawing, Perspective, and Land Survey



such as geodesy, perspective, and military and civil architecture. Each chapter is accompanied by separate plates featuring depictions of various types of bastions and fortifications, the five orders, plans of classical temples, designs for well-organised house plans, and ideas for classical elevations like temple façades or gates.

Although the influence of Wolff's mathematical and rationalist approach to architecture was already evident from certain eighteenth-century Italian treatises, such as Federico Sanvitali's work,⁷⁶ the four catalogued copies—three in Italian and one in German—indicate a relatively broad dissemination in the eastern Adriatic as well. Wolff's book introduces the complete integration of architecture into the domain of mathematics, marking at the same time the emergence of the encyclopaedia as a distinct book genre. As a hybrid discipline, architecture was also included in the art encyclopaedias of the time and, of course, in the encyclopaedia par excellence, the *Encyclopédie* overseen by Diderot and D'Alembert.

Drawing, a subject addressed in both general mathematical volumes and specialised handbooks, warrants special attention due to its fundamental importance in architectural education. Particularly, some technical drawing handbooks that explained the use of tools widely employed not only by architects, but also by other professionals, deserve mention. These books provide detailed instructions for the use of squares, rulers, pairs of compasses, proportional compasses, and more complex instruments, combining theoretical explanations with practical applications that are illustrated via sets of examples.

Authors of specialised works in this field and with books preserved in the libraries of the eastern Adriatic include Albrecht Dürer (4 entries; 2%), Ottavio Fabri (2 entries; 1%), Galileo Galilei (2 entries; 1%), Giovanni Marchelli (1 entry), and Antonio Sangiovanni (1 entry).⁷⁷ The fact that some of these books were printed in university cities such as Padua and Bologna demonstrates that drawing was not only a fundamental part of the education of artists and craftsmen but also an integral element in the university curriculum embraced by noblemen and clergymen.

Moreover, perspective represents a specific application of the principles of projective geometry to drawing; it was a form of knowledge that, as is widely acknowledged, has assumed a central role in art and architecture since the early Renaissance. Due to its strategic importance in land surveys and its subsequent application in topographical mapmaking, perspective was highly regarded by Janez V. Valvasor, who assembled an impressive collection of lavishly illustrated books on the subject.

Outside the Valvasor Library, only a few book copies by the most celebrated authors, such as Daniele Barbaro, Juan Caramuel y Lobkowitz, Albrecht Dürer, Athanasius Kircher, Baldassare Orsini, Andrea Pozzo, and Jacopo Barozzi da Vignola,

have survived in the libraries of the eastern Adriatic.⁷⁸ Although these books provide interesting evidence of possession and use, as I will discuss in Chapter Two, their small total of twelve entries suggests that they were not standard texts for architects, stonemasons, or patrons in the early modern eastern Adriatic.

The exceptional quality and breadth of Valvasor's collection of books on perspective merits consideration, even though the Valvasor Library is only partially related to the eastern Adriatic and is more closely tied to the Austro-German intellectual sphere. Nonetheless, Valvasor's personal collection of twenty-two books on perspective is impressive for an individual. Even artists and architects with a strong interest in books could rarely count on such an extensive and varied set of folios, lavishly illustrated and highly expensive works, in their own libraries.

Valvasor's collection includes seminal works by the leading European authors of the sixteenth century. Among them are *Viator* by Jean Pèlerin (Toulouse, 1504), *Livre de perspective* by Jean Cousin (Paris, 1560), Dürer's works on mathematics and the proportions of the human body (Nuremberg, 1525 and 1528), *Geometria et perspectiva* by Lorenz Stör (Augsburg, 1567), and the works on perspective by Wenzel Jamnitzer (Nuremberg, 1568), Daniele Barbaro (Venice, 1569), and Lorenzo Sirigatti (Venice, 1596).⁷⁹ Valvasor did not overlook contemporary theorists, though his selection of works further underscores his predilection for German authors. Except for the French Jean Dubreuil and the Dutch Abraham Bosse, all of the authors collected by Valvasor are German: Andreas Albrecht, Lukas Brunn, Peter Halt, Heinrich Lautensack, and Caspar Schott.⁸⁰

Valvasor's profound interest in perspective also led him to become interested in the most advanced and sophisticated research of his own time in the fields of optics and anamorphosis, as is evidenced by his copies of Athanasius Kircher's *Ars magna lucis et umbrae* (Amsterdam, 1671), Johann Christoph Kuhlmann's *Optische curiositäten* (Leipzig, 1677), François Nicéron's *Thaumaturgus opticus* (Paris, 1646), and Zacharis Traber's *Nervus opticus* (Vienna, 1675).⁸¹ As previously mentioned, Valvasor owned multiple (and even triplicate) copies of several books, often in different editions and languages. However, many of these copies were incomplete, lacking title pages or missing other pages or plates, a fact that corroborates his practice of purchasing books in bulk. Nevertheless, his extraordinary collection strongly suggests that the most significant contribution of Valvasor's book collection lies in the field of drawing and perspective.

6. Visual Arts. Within the sixth category, the visual arts, it is perhaps unsurprising that the most frequently represented author is Giorgio Vasari, with six entries of his *Vite* accounting for 9% of the total entries in the category (Tab. 0.18). However, the printing dates of these copies indicate a relatively late dissemination of this seminal work in art history. The catalogue includes only one copy of the 1568 *giuntina* edition, one later reprint of 1681, and several editions dating to the latter half of the eighteenth century.⁸² Similar collections of artists' biographies, such as those by Tommaso Temanza (2 entries; 4%), Pellegrino Antonio Orlandi, Filippo Baldinucci, and Giovanni Baglione (1 entry; 2% apiece), also form part of the Italian section, which is predominant.

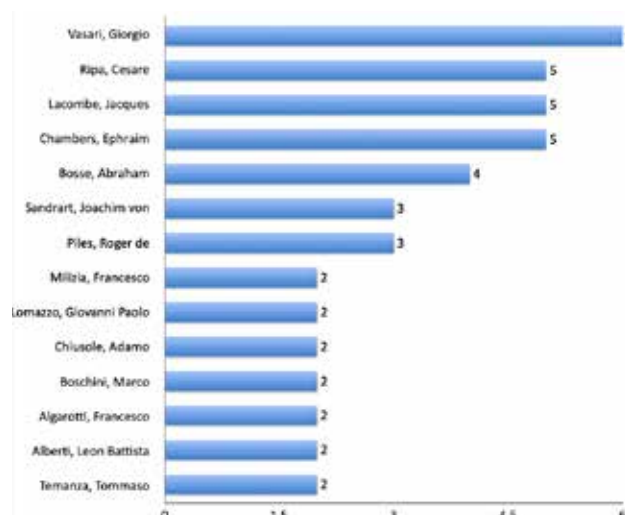
Theoretical treatises and practical handbooks on the arts complement the entries in this category. *Iconologia* by Cesare Ripa stands out with five entries (8%), two of which are German translations from the Valvasor Library. Other catalogued books on painting are authored by Leon Battista Alberti, Giovanni Paolo Lomazzo, Marco Boschini, Francesco Algarotti, and Francesco Milizia (2 entries each; 3%). Additionally, the literary praise of art in poetry is modestly represented, with a copy of Giambattista Marino's *Galeria* (Venice, 1635) and two later works by Adamo Chiusule.

In terms of entries, French literature on the arts is second only to Italian works, though the books typically appear in Italian translation. This is the case for Jacques Lacombe's *Dizionario portatile delle arti* (Venice, 1768; 5 entries; 8%), Roger de Piles's *L'idea del perfetto pittore* (Venice, 1772; 3 entries; 5%), as well as Hubert Gautier's *L'arte di acquerellare* (Lucca, 1760), and Christoph Ballard's *Trattato di miniatura* (Venice, 1766), both of which have a single entry. The sole volume in French is the collection of biographies of ancient and modern painters by André Félibien (London, 1705).

All of the German titles on the arts are from the Valvasor Library. In addition to the abovementioned two copies of Ripa's *Iconologia*, Valvasor had copies of *Iconologia deorum* (1 entry) and *L'academia todesca di architettura, scultura et pittura* (2 entries) by Joachim von Sandrart.⁸³ He also collected works directly connected to his interests in topographical depiction and publishing, including Josef Adolf Faetermann's handbook on sketching (Brixen, 1678), Valentin Boltz's work on illumination (Góra Świętej Anny, 1682), and Abraham Bosse's treatise on etching, which Valvasor owned in both French and German (Paris, 1645; Nuremberg, 1669).⁸⁴

Finally, it is noteworthy that Johann Joachim Winckelmann's *Geschichte der Kunst des Alterthums* appears in its Italian translation (Milan, 1779). This copy, currently housed in the library of the Archaeological Museum in Split, exemplifies the broader presence of eighteenth-century works on antiquities in the libraries of archaeological museums.

0.18. Books per Author: 6. Visual Arts



Analysis of the catalogued books on the visual arts reveals a modest and relatively late interest in the field. Based on the printing dates of the book copies, the emergence of this interest can be traced to the eighteenth century, coinciding with the emergence of archaeology and art history as autonomous disciplines. Consequently, many of the catalogued books in the sixth category were primarily used for scholarly purposes, rather than for artistic and architectural practice. Earlier copies printed in the sixteenth and seventeenth centuries must be regarded as exceptional cases.

7. Descriptions of Ancient and Modern Towns and Regions.

With over 200 entries, the category of descriptions of ancient and modern towns and regions is the second most common book genre relevant to architectural knowledge in the libraries of the eastern Adriatic (Tab.0.19). Book copies within this seventh category are found across state public libraries, as well as museum and monastic collections. This broad category necessitates a multifaceted analysis that considers a range of factors, including authorship, language, printing location, types of description, and subject matter. As previously mentioned, the category encompasses diverse types of books: guidebooks modelled on the *Mirabilia urbis Romae*, travel accounts, architectural surveys of ancient monuments, and atlases. Therefore, it is appropriate to commence analysis by examining the genres included here, before we turn to the authors and their cultural backgrounds.

The guidebook represents the most prevalent genre in this category, with seventy-eight entries (43%); it is closely followed by specific descriptions or architectural surveys of monuments

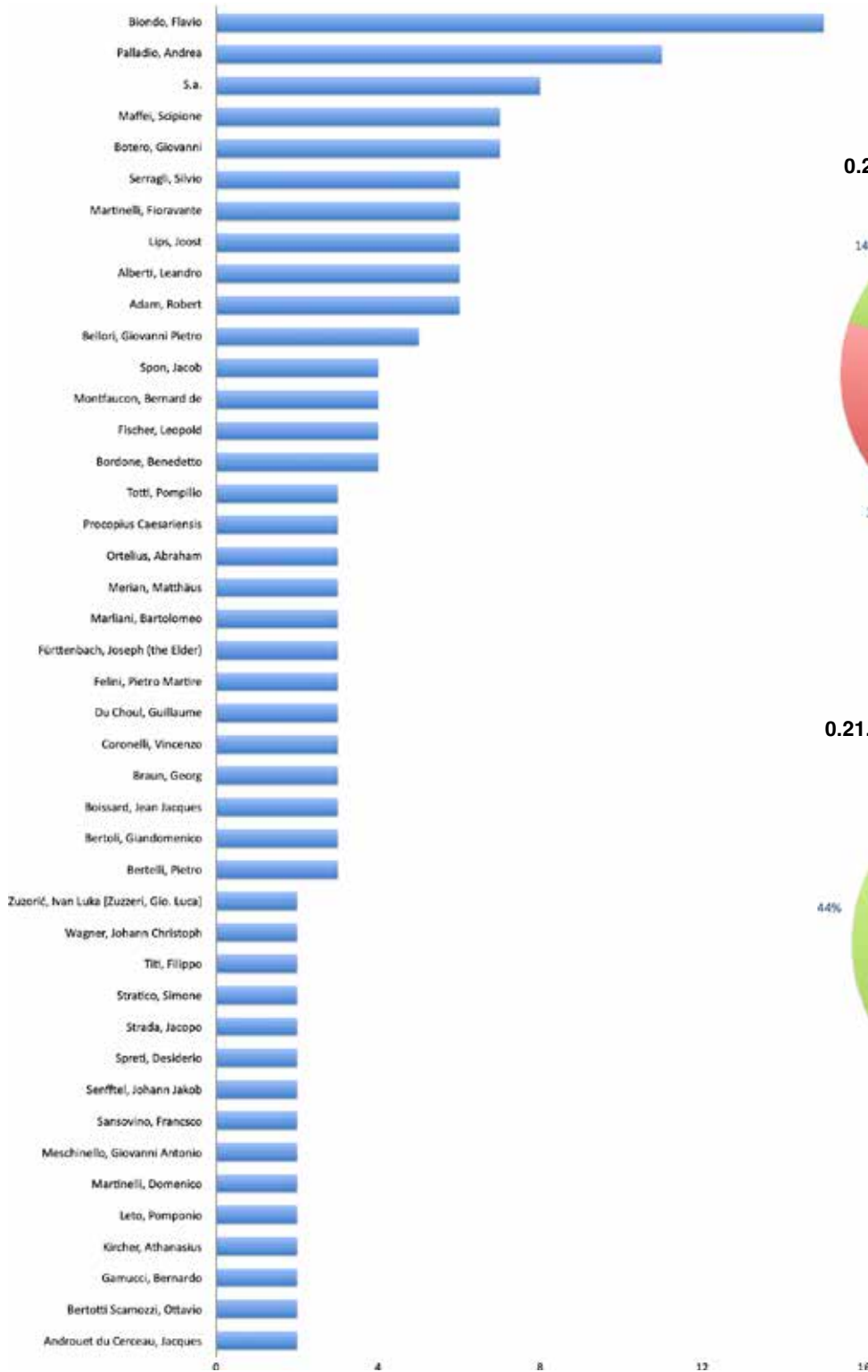
and ruins (68 entries; 37%). Atlases (25 entries; 14%) and travel accounts (11 entries; 6%) lag further behind (Tab.0.20). The relatively low numbers in the latter two subgroups can be attributed to a selection criterion applied during my research. Rather than cataloguing every atlas and travel account found in the libraries of the eastern Adriatic, I included only those works in which significant architectural knowledge was included. Illustrations featuring city maps or aerial views, as well as plans or elevations of important edifices and monuments, were essential requirements for inclusion in the catalogue of architectural books.

In terms of subject matter, more than half of the catalogued book copies pertain to antiquity (90 entries; 51%), while a slightly smaller number of volumes addresses the early modern period (79 entries; 44%). Only a few entries focus on the Middle Ages (9 entries; 5%; Tab. 0.21). In accordance with the established tradition of the *Mirabilia urbis Romae*, 42% of the books in the category centre on Rome (Tab. 0.22). While it is not always possible to draw a clear distinction between discussions of ancient and early modern Roman buildings since many guides cover both, approximately one third of the books are devoted to ancient Rome, particularly its antiquities (56 entries; 33%); only sixteen entries (9%) focus specifically on early modern Rome, primarily its churches and other Christian monuments.

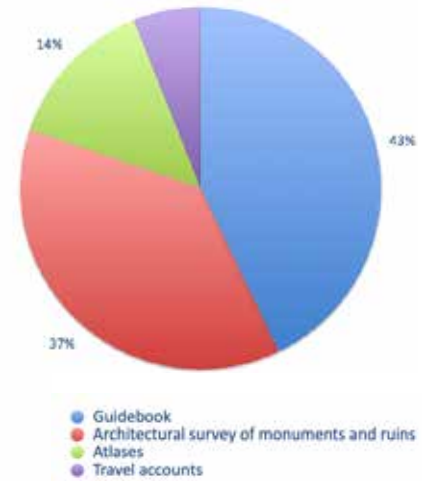
Beyond Rome, other books provide descriptions of specific towns, including Venice (8 entries; 5%), Verona (6 entries; 4%), Constantinople (3 entries; 2%), Padua (2 entries; 1%), and Florence (2 entries; 1%). Venice and its mainland cities emerge as significant focal points for readers in the early modern eastern Adriatic, alongside the Adriatic antiquities and later monuments of Split (6 entries; 4%), Aquileia (2 entries; 1%), Ravenna (2 entries; 1%), Loreto (2 entries; 1%), Urbino (1 entry), and Salona (1 entry). Some descriptions present a broader scope, dealing with entire regions, whole countries, or even the world. The spread of the geographical focus of the guidebooks, travelogues, and atlases is as follows: the Italian peninsula (13 entries; 8%), the world (12 entries; 7%), the German states (7 entries; 4%), Dalmatia and Greece (5 entries each; 3%), Europe (3 entries; 2%), France (2 entries; 1%), and the Republic of Venice (2 entries; 1%).

In terms of authors and their works, the most frequently recurring titles in this category are the erudite historical essays on Roman antiquity by Flavio Biondo (15 entries; 8%) printed in the first half of the sixteenth century. In the following centuries, Joost Lips and Scipione Maffei (6 entries each; 3%) also feature prominently (Tab.0.19). An analysis of the authors of the many guides to Rome's ancient and modern monuments reveals a composite nature that complicates the data. These guides were repeatedly published with varying texts and illustrations by different authors and publishers, many of whom

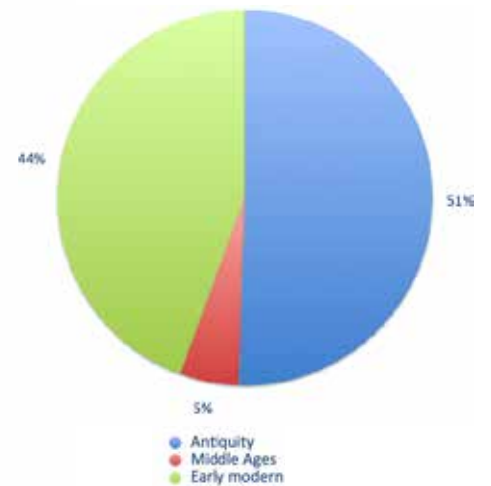
0.19. Books per Authors: 7. Descriptions of Ancient and Modern Towns and Regions



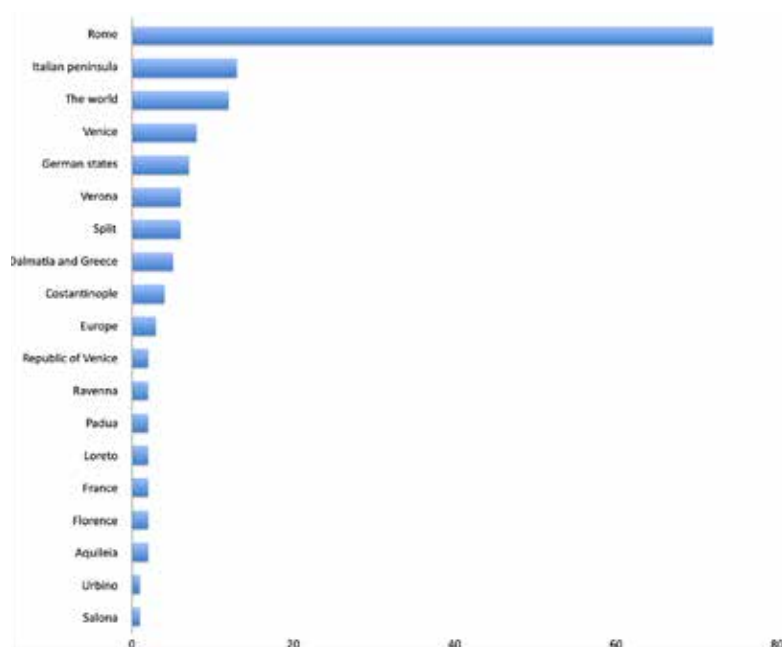
0.20. Descriptions by Genre



0.21. Descriptions by Subject (Period)



0.22. Descriptions by Subject (Location)



remain anonymous, making classification by author particularly challenging.

Nonetheless, the catalogue contains eleven copies of guidebooks featuring text and illustrations by Andrea Palladio (6%), and six by Fioravante Martinelli (3%), who are the second and third most common authors in this category. Giovanni Botero's *Delle relationi universali* (7 entries; 4%) and Leandro Alberti's *Descrittione di tutta l'Italia* (6 entries; 3%) also enjoyed popularity throughout the sixteenth century.

Among the atlases and maps, the works that appear most often are those by Benedetto Bordone (4 entries; 2%), as well as Vincenzo Coronelli, Matthäus Merian, and Abraham Ortelius (3 entries each; 2%). Jacob Spon's account of his travels through Italy, Dalmatia, and Greece is understandably present in the libraries of the eastern Adriatic, with four entries (2%).

Of the eighteenth-century lavish editions of architectural surveys of ancient monuments, notable works include Robert Adam's *The Ruins of the Palace of the Emperor Diocletian at Spalato in Dalmatia* (6 entries; 3%) and Giovanni Pietro Bellori's *Colonna di Marco Aurelio* (5 entries; 3%). Other similar works, such as those by Jules-David Le Roy or Alonso Chacón, appear only once in the catalogue, indicating minimal dissemination. The same applies to illustrated books on early modern buildings, such as *Les plus excellents bâtimens de France* by Jacques Androuet du Cerceau or *Les plans, profils, élévations des ville, et château de Versailles* by Pierre Le Pautre, both present in only one copy.

8. Miscellanea. Finally, in the eighth, miscellaneous category, Baldassare Castiglione's *Cortegiano* stands out as the most common volume with eleven entries: seven Italian and three German translations from Valvasor's Library, and one in Latin (Tab. 0.23).⁸⁵ It is the sole text on good manners that had significant dissemination in the early modern eastern Adriatic, comprising 15% of the total number of entries in this category. Although Castiglione's book did not provide explicit architectural prescriptions, it focused on appropriate behaviour when one received guests at home. Implicitly, the book could offer suggestions on designing apartments with an optimal arrangement of functions in both urban palaces and country houses.

Another work in this field that has intrigued architectural historians is Francesco Mario Grapaldi's lexicon, *De partibus aedium*, which addresses spaces and their functions within a residential building. Despite being an early sixteenth-century publication that had limited reprints after 1517, its presence in the catalogue with four entries demonstrates that it was known in the eastern Adriatic. However, it is not certain that the book was used specifically for architectural purposes.⁸⁶

Managing a household was a challenging task that, from the sixteenth century onward, became the subject of specialised literature on economics. Works such as Benko Kotruljević's (Benedetto Cotrugli) *Della mercatura e del mercante perfetto* (Venice, 1573; 1 entry; 2%) and Nikola Vitov Gučetić's (Nicola Vito Gozze) *Governo della famiglia* (Venice, 1589; 3 entries; 6%) prove that authors from the eastern Adriatic also contributed to this architecture-related field of study.⁸⁷

Although managing an urban palace posed its own challenges, overseeing a villa and its estate was often an even more complex endeavour. Ensuring the estate generated sufficient income was crucial for maintaining noble families, as well as supporting the careers and securing advantageous marriages of family members. This intersection of economics and agriculture is well reflected in book titles such as Vincenzo Tanara's *L'economia del cittadino in villa* (Bologna, 1651) and Johannes Colerus's *Economia ruralis, et domestica* (Frankfurt, 1680). Renaissance humanists also retained their admiration for ancient Latin writers on agricultural practices, as is exemplified by the popular collection *De re rustica*, which contains works by Lucius Iunius Moderatus Columella, Rutilius Taurus Emilius Palladius, Marcus Porcius Cato, and others (7 entries; 10%).

Among Renaissance authors who contributed particularly to the revival of villa culture—an aspect deeply embedded in the Venetian terraferma, as well as in the Republic of Dubrovnik—the catalogue lists Agostino Gallo and Pietro de' Crescenzi (5 entries each; 7%), Charles Estienne (3 entries; 4%), and Alvise Cornaro (2 entries; 3%). Later, in the eighteenth century, a resurgence of interest in agriculture stimulated the publication of handbooks such as Cosimo Trinci's *L'agricoltore sperimentato*,

0.23. Books per Authors: 8. Miscellanea



known also as *Trattato d'agricoltura* or under other titles (4 entries; 6%). Other similar treatises of the late eighteenth century are represented with only a single entry each. Of particular note is a copy of Ferdinando Morozzi's *Delle case de' contadini: trattato architettonico* (Florence, 1770), found in the library of the Garagnin-Fanfogna family, who were known for their significant contributions to the advancement of agriculture, villa, and garden culture in Trogir and Dalmatia during the eighteenth and the nineteenth centuries.⁸⁸

In the related domain of garden architecture, no significant books have been identified across eastern Adriatic libraries, apart from a few copies in the Valvasor Library. This absence was expected, as monographs on garden design only began to appear in the mid-seventeenth century and just a few publications were available. As usual, Valvasor primarily collected German literature on the subject, such as the Latin and German editions of Peter Lauremberg's *Horticultura*, an unidentified *Garten-Büch* (1730), and Caspar Schott's treatise on garden fountains (Würzburg, 1658).⁸⁹ Additionally, Valvasor acquired a copy of the pioneering *Le jardinier françois* by Nicolas de Bonnefons (Amsterdam, 1654).⁹⁰

Books containing religious prescriptions influencing the architectural design of churches and chapels are also minimally represented in the libraries of the eastern Adriatic. Five copies of Carlo Borromeo's *Instructiones* in various editions (7%) and one copy of *Constitutiones et decreta*, addressed to the dioceses of Split and Zadar by the apostolic visitor Agostino Valier (Verona, 1579) survive. The scarcity of these works in eastern Adriatic libraries suggests that books were not a common medium for implementing new trends in church architecture and other aspects of the Tridentine reform. Instead, apostolic and dioce-

san visitators likely played a more direct role in ensuring adherence to Counter-Reformation principles, rendering printed books somewhat superfluous.

To conclude this introductory chapter, it is important to reiterate that the catalogue of architectural books in the libraries of the eastern Adriatic provides a static snapshot of the present, rather than a comprehensive representation of the dynamic circulation of architectural books in the early modern period. This dichotomy between the present and the past characterises both my research and its sources. While the catalogue offers valuable data on extant book copies, it provides limited insight into the detailed histories of these books. In a few cases, certain books evidently reached the eastern Adriatic only after 1800.

Nonetheless, substantial facts support the argument that a significant proportion of the book copies in my catalogue were in circulation in the early modern eastern Adriatic. Material evidence of possession and use, such as ex-libris, signatures, and annotations, directly attest to early modern use, while the provenances involving earlier libraries serve as indirect confirmation. In total, nearly half of the catalogued architectural books (491 entries; 45%) demonstrably circulated in the eastern Adriatic during certain time spans in the early modern period.

In the next chapter, the data from my catalogue will be supplemented with further findings as a means of reconstructing the circulation of architectural books in the early modern eastern Adriatic; we will thus transition from the static perspective of the present, to the dynamic realities of the past.

Notes

- 1 Egidio Ivetic, *Adriatico orientale: Atlante storico di un litorale mediterraneo* (Rovinj: Centro di Ricerche Storiche, 2014).
- 2 Cvito Fisković, 'Crteži graditelja i kipara u Korčulanskoj bilježnici', *Prilozi povijesti umjetnosti u Dalmaciji* 31 (1991), 237–268.
- 3 Cvito Fisković, 'Od Macanovićeve skice do izradbe pročelja crkve u Nerežišćima na Braču', *Peristil: zbornik radova za povijest umjetnosti* 35–36, no. 1 (1993), 181–186; Cvito Fisković, 'Ignacije Macanović i njegov krug', *Prilozi povijesti umjetnosti u Dalmaciji* 9 (1955), 198–268.
- 4 Nada Grujić, 'Klasični rječnik stambene renesansne arhitekture Dubrovnika', *Peristil* 35–36 (1993), 121–142.
- 5 Duško Živanović, 'Vrata i monumentalni portali dubrovačkih kuća i palata', *Analiza Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 26 (1988), 135–173.
- 6 Vladimir Marković, 'Neopaladijevske jednobrodne crkve 18. stoljeća u sjevernojadranskoj Hrvatskoj', *Prilozi povijesti umjetnosti u Dalmaciji* 33 (1992), 425–458; Vladimir Marković, 'Jednobrodne crkve s parom kapela iz 17. i 18. stoljeća u Istri', *Peristil* 35–36 (1993): 169–180; Vladimir Marković, 'Jedan tip trobrodnih istarskih crkava 17. i 18. stoljeća', *Radovi Instituta za povijest umjetnosti* 21 (1997), 86–95; Vladimir Marković, 'Crkve 17. i 18. stoljeća u sjevernojadranskoj Hrvatskoj', *Peristil* 42–43 (1999), 18; Vladimir Marković, 'Crkve 17. i 18. stoljeća u Istri – tipologija i stil' (Zagreb: Institut za povijest umjetnosti, 2004); Vladimir Marković, 'Dalmatinske crkve 17. i 18. stoljeća sa šiljastim bačvastim svodom i pojasnicama – ishodišta i putovi usvajanja', *Radovi Instituta za povijest umjetnosti* 32 (2008): 115–138.
- 7 Laris Borić, 'Fortificiranje grada Cresa u 16. stoljeću', *Ars Adriatica* 1 (2011), 133–148; Jasenka Gudelj and Dubravka Botica, *Arte et marte: knjige o arhitekturi u Zriniani* (Zagreb: Nacionalna i sveučilišna knjižnica, 2012); Jasenka Gudelj and Anita Ruso, 'Tiskani renesansni traktati o arhitekturi u Dubrovniku', *Peristil* 56 (2013), 101–112; Jasenka Gudelj, 'Radionice i klasični jezik u ranome novome vijeku: traktati i crteži na istočnoj obali Jadrana', in *Majstorske radionice u umjetničkoj baštini Hrvatske. Zbornik radova znanstvenog skupa 'Dani Cvita Fiskovića' održanog 2012. godine*, ed. by Dino Milinović, Ana Marinković, and Ana Munk (Zagreb: FF Press, 2014), pp. 101–121; Jasenka Gudelj, 'Architectural Treatises and the East Adriatic Coast: Cultural Transfers and the Circulation of Knowledge in the Renaissance', in *Artistic Practices and Cultural Transfer in Early Modern Italy: Essays in Honour of Deborah Howard*, ed. by Nebahat Avcioglu and Allison Sherman (Farnham: Ashgate, 2015), pp. 107–127; Laris Borić and Jasenka Gudelj, *Uveliko i u malo: Lik i likovnost renesansnog Cresa* (Zadar: Sveučilište u Zadru, 2019); Dubravka Botica, 'Odnos forme i funkcije u arhitekturi baroknog razdoblja', *Poznanske studije Slawistyczne* 13/3 (2017), 303–315.
- 8 Jasenka Gudelj, 'Serlio, Palladio, Vitruvio Ferrarese: Renesansna viđenja velikog rimskog teatra u Puli', *Prilozi povijesti umjetnosti u Dalmaciji* 42 (2011), 251–273; Jasenka Gudelj, *Europska renesansa antičke Pule* (Zagreb: Školska knjiga, 2014); Jasenka Gudelj and Petar Strunje, 'Palladio i Dioklecijanova palača: renesansni arhitektonski crteži splitskog sklopa', *Ars Adriatica* 5 (2015), 127–140; Jasenka Gudelj, 'Pula and Split: The Early Modern Tale(s) of Two Ancient Cities', in *A Handbook to Classical Reception in Eastern and Central Europe*, ed. by Zara Martirosova Torlone, Dana LaCourse Munteanu, and Dorota Dutsch (Chichester: Wiley Blackwell, 2017), pp. 21–34, online: <https://www.bib.irb.hr/867563>.
- 9 Jasenka Gudelj, 'Architettura e diplomazia tra Roma e Dubrovnik: San Girolamo dei Croati e la cattedrale di Dubrovnik nel secondo Seicento', *Römische Jahrbuch der Bibliotheca Hertziana* 40 (2011–2012), 185–239; Jasenka Gudelj, 'The Circulation of Building Materials: Pozzolana in the Baroque Dubrovnik', *Construction History: International Journal of the Construction History Society* 31/1 (2016), 61–74.
- 10 Jean-Jacques Gloton, 'Le traité de Serlio et son influence en France', in *Les traités d'architecture de la Renaissance: Actes du colloque* (Tours, 1–11 July 1981), ed. by Jean Guillaume (Paris: Picard, 1988), p. 411.
- 11 See, for instance, Andrew Pettegree, *The Book in the Renaissance* (New Haven: Yale University Press, 2010); Aleksandar Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, 3 vols (Zagreb: Školska knjiga, 2005); Angela Nuovo, *The Book Trade in the Italian Renaissance* (Leiden: Brill, 2013).
- 12 William H. Sherman, *Used Books: Marking Readers in Renaissance England* (Philadelphia: University of Pennsylvania Press, 2008).
- 13 '15cBOOKTRADE: Evidence-Based Assessment and Visualization of the Distribution, Sale, and Reception of 15th-Century Printed Books (Incunabula) in the Renaissance', accessed 13 December 2022, online: <https://15cbooktrade.ox.ac.uk/>; 'EMOBOOKTRADE: An Evidence-Based Reconstruction of the Economic and Juridical Framework of the European Book Market', accessed 13 December 2022, online: <https://emobooktrade.unimi.it/>.
- 14 Guido Beltramini, 'Quattro volti, un corpo senza testa e un teschio: per una storia dell'immagine dell'architetto nel Rinascimento', in *Good N.E.W.S.: Temi e Percorsi dell'Architettura*, Ed. by Fulvio Irace and Italo Rota (Milan: Electa, 2006), 260–269; Valérie Nègre, 'Les figures de l'architecte "savant" (XVe–XVIII siècles)', in *L'Europe des Sciences et des Techniques: Un Dialogue des Savoirs, XVe–XVIII siècle*, ed. by Liliane Hilaire-Pérez, Fabien Simon, and Marie Thébaud-Sorger (Rennes: Presses Universitaires de Rennes, 2016), 133–139.
- 15 Biblioteca nazionale centrale di Roma, Leon Battista Alberti, *Profugiorum ab aerumna libri III* (1442–1500), online: http://digitale.bnc.roma.sbn.it/tecadigitale/manoscrittoantico/BNCR_V_E_738/BNCR_V_E_738/1, front endpaper 4v.
- 16 Vitruvius Pollio, *I dieci libri dell'architettura di M. Vitruvio: Tradotti & commentati da mons. Daniel Barbaro eletto Patriarca d'Aquileia, da lui riveduti & ampliati; & hora in piu commoda forma ridotti*, ed. by Daniele Barbaro (Venice: appresso Francesco de' Franceschi senese & Gioianni Chrieger alemano compagni, 1567).
- 17 Hanno-Walter Kruft, *Storia delle teorie architettoniche da Vitruvio al Settecento* (Rome: Laterza, 1988), pp. 69–106; Pier Nicola Pagliara, 'Vitruvio da testo a canone', in *Memoria dell'antico nell'arte italiana*, ed. by Salvatore Settis (Turin: Einaudi, 1986), 35–85.
- 18 Julius von Schlosser, *Die Kunstliteratur: Ein Handbuch Zur Quellenkunde Der Neueren Kunstgeschichte* (Vienna: A. Schroll & Co., 1924).
- 19 Jean Guillaume, ed., *Les traités d'architecture de la Renaissance: Conférence Proceedings* (Tours, 1–11 July 1981) (Paris: Picard, 1988); Jean Guillaume, ed., *L'emploi des ordres dans l'architecture de la Renaissance: Actes du colloque tenu à Tours du 9 au 14 juin 1986* (Paris: Picard, 1992).
- 20 Alina Alexandra Payne, *The Architectural Treatise in the Italian Renaissance: Architectural Invention, Ornament, and Literary Culture* (Cambridge: Cambridge University Press, 2010); Vaughan Hart and Peter Hicks, eds., *Paper Palaces: The Rise of the Renaissance Architectural Treatise* (New Haven: Yale University Press, 1998); Mario Carpo, *L'architettura dell'età della stampa: Oralità, scrittura, libro stampato e riproduzione meccanica dell'immagine nella storia delle teorie architettoniche* (Milan: Jaka Book, 1998); John Onians, *Bearers of Meanings: The Classical Orders in Antiquity, the Middle Ages and the Renaissance* (Princeton: Princeton University Press, 1988); Kruft, *Storia delle teorie architettoniche da Vitruvio al Settecento*. For a recent anthology on Italian Renaissance treatises, see *Trattati rinascimentali di architettura*, Ed. By Francesco Paolo Fiore (Turin: Einaudi, 2024).
- 21 Centre d'études supérieures de la Renaissance, Université de Tours, Frédérique Lemerle, and Yves Pauwels, 'Architettura', accessed 23 May 2025, online: <http://architettura.cesr.univ-tours.fr/>.
- 22 Museo Galileo, Florence, 'Bibliotheca Perspectivae', accessed 23 May 2025, online: <https://bibdigtematiche.museogalileo.it/Prospettiva/>; Classical Department at Harvard University et al., 'The Archimedes Project', accessed 23 May 2025, online: <https://>

- archimedes2.mpiwg-berlin.mpg.de/archimedes_templates/popup.htm.
- 23 Projects funded by the Italian Ministry of University and Research within the framework of the Progetti di rilevanza nazionale (PRIN) programme. They resulted in several publications: Giovanna Curcio, Marco Rosario Nobile, and Aurora Scotti, eds., *I libri e l'ingegno: Studi sulla biblioteca dell'architetto, XV-XX secolo* (Palermo: Caracol, 2010); Stefano Piazza, ed., *La circolazione dei modelli a stampa nell'architettura di età moderna* (Palermo: Caracol, 2013); Aurora Scotti, ed., *Dal trattato al manuale: La circolazione dei modelli a stampa nell'architettura tra età moderna e contemporanea* (Palermo: Caracol, 2013); Irene Giustina, ed., *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo* (Palermo: Caracol, 2015); Carlo Mambriani, ed., *Il torchio e l'architetto: Opere a stampa e biblioteche di architettura nei ducati di Parma e Piacenza in età farnesiana (1545-1731)* (Rome: Quasar, 2013); Aloisio Antinori, ed., *Studio d'architettura civile: Gli atlanti di architettura moderna e la diffusione dei modelli romani nell'Europa del Settecento* (Rome: Quasar, 2013).
 - 24 Francesca Mattei and Francesca Salatin, 'Un Vitruvio postillato alla Biblioteca Comunale Teresiana di Mantova', *Arte lombarda* 173-174/1-2 (2015), 52-76; Francesco Benelli, 'Dicie Vitruvio: Antonio da Sangallo il Giovane e il De Architectura' (Rome: Officina Libraria, 2024); Ekaterina Igoshina, Il'ya An'k'ev, and Anna Markova, 'Kommentarii Daniele Barbaro na polyakh izdaniya Vitruviya 1511 goda iz GMII im. A.S. Pushkina: Put' atributsii i opyt datirovki', *Iskusstvoznanie*, no. 1 (2021): 264-297; Ekaterina Igoshina, Il'ya Anik'yev, and Anna Markova, 'Marginal Notes by Daniele Barbaro in the 1511 Edition of Vitruvius from the Pushkin State Museum of Fine Arts Collection: Attribution Process and Dating Method', in *Daniele Barbaro and the University of Padova: Architecture, Art and Science on the Occasion of the 450th Anniversary of His Death*, ed. by Cosimo Monteleone and Kim Williams (Cham: Springer Basel AG, 2023), pp. 163-190; Katherine Isard, 'Architectural Criticism in Late-Sixteenth Century Italy: Vincenzo Scamozzi's Annotations to Pietro Cataneo's *L'architettura* (1567)', *Annali di architettura* 26 (2013), 134-154; Katherine Isard, 'Vincenzo Scamozzi in the World of Books: I. The Materials of Architectural Knowledge; II. A New Latin Notebook and the Role of Eruditio in Vincenzo Scamozzi's Architectural Theory and Practice', *Annali di architettura* 27 (2015), 31-46. On the well-known case of Inigo Jones, see Bruce Allsopp and Pamela Rowell, eds., *Inigo Jones on Palladio: Being the Notes by Inigo Jones in the Copy of 'I quattro libri dell'architettura' di Andrea Palladio, 1601, in the Library of Worcester College, Oxford, 2 vols* (Newcastle upon Tyne: Oriel Press, 1970); John Newman, 'Inigo Jones e la sua copia de "I quattro libri" di Palladio', *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio* 22/2 (1980), pp. 41-62; Annarosa Cerutti Fusco, 'Le note di Inigo Jones in margine a "I quattro libri dell'architettura": Spunti critici e stimoli creativi', *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio* 22/2 (1980), 15-40; Paola Marini, 'Le postille di Inigo Jones a "I quattro libri dell'architettura" di Andrea Palladio', in *Trattati scientifici nel Veneto fra il XV e XVI Secolo* (Vicenza: Neri Pozza Editore, 1985), pp. 73-102.
 - 25 Henry Francis Mallgrave, ed., *The Companions to the History of Architecture*, I: Alina Alexandra Payne, ed., *Renaissance and Baroque Architecture*, vol. 1, (Oxford: John Wiley & Sons, 2017); Ingrid D. Rowland and Sinclair W. Bell, eds., *Brill's Companion to the Reception of Vitruvius* (Leiden: Brill, 2024).
 - 26 For an introduction to the history of knowledge, see Johan Östling et al., eds, *Circulation of Knowledge: Explorations in the History of Knowledge* (Lund: Nordic Academic Press, 2018). For an application of the conceptual framework of the history of knowledge to architectural history, see Hermann Schlimme, ed., *Practice and Science in Early Modern Italian Building: Towards an Epistemic History of Architecture* (Milan: Electa, 2006).
 - 27 Andrew Pettegree, Arthur der Weduwen, and University of St Andrews, 'Universal Short Title Catalogue', accessed 5 November 2024, online: <https://www.ustc.ac.uk/search>.
 - 28 '15cBOOKTRADE: Evidence-Based Assessment and Visualization of the Distribution, Sale, and Reception of 15th-Century Printed Books (Incunabula) in the Renaissance'.
 - 29 'EMoBOOKTRADE: An Evidence-Based Reconstruction of the Economic and Juridical Framework of the European Book Market'.
 - 30 Nuovo, *The Book Trade in the Italian Renaissance*; Stipčević, *Socijalna povijest knjige u Hrvata*; Pettegree, *The Book in the Renaissance*.
 - 31 Susy Marcon and Laura Moretti, eds, *Daniele Barbaro, 1514-70: Letteratura, scienza e arti nella Venezia del Rinascimento* (Crocetta del Montello: Antiga edizioni, 2015), online: http://bvbr.bib-bvb.de:8991/F?func=service&doc_library=BVB01&local_base=BVB01&doc_; Daryl Green and Laura Moretti, *Thinking 3D* (University of St Andrews; Magdalen College, Oxford; Bodleian Libraries, Oxford, 2019-2020), accessed 16 June 2025, online: <https://www.thinking3d.ac.uk>.
 - 32 Schlimme, *Practice and Science in Early Modern Italian Building*.
 - 33 Cristiano Guarneri and Ines Ivić, 'Books, Buildings and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period', *RIHA Journal*, 322 (2025).
 - 34 Curcio, Nobile, and Scotti, *I libri e l'ingegno*.
 - 35 Annarita Angelini, *Sapienza, prudenza, eroica virtù: Il mediomondo di Daniele Barbaro* (Florence: L.S. Olschki, 1999); Paolo Sanvito, *Daniele Barbaro alla riscoperta dell'Antico inedito: La fondazione dell'architettura scientifica moderna tra Cinquecento e Seicento* (Canterano: Aracne, 2016).
 - 36 Gudelj and Botica, *Arte et marte*; Maria Sofia Di Fede and Fulvia Scaduto, eds., *La biblioteca dell'architetto: Libri e incisioni (XVI-XVIII secolo) custoditi nella Biblioteca Centrale della Regione Siciliana* (Palermo: Caracol, 2007); Renzo Fontana, Pietro Gnan, and Stefano Tosato, eds, *La biblioteca dell'architetto del Rinascimento: Antichi libri di architettura della Biblioteca Universitaria di Padova* (Padua: Biblioteca Universitaria, 2008).
 - 37 For an overview of treatises on military architecture, see Kruft, *Storia delle teorie architettoniche da Vitruvio al Settecento*, pp. 131-143; *Trattati rinascimentali di architettura*, Ed. by Fiore, pp. 335-420, Francesco Paolo Fiore, 'Architettura e arte militare: I trattati alla metà del Cinquecento', in *Architettura e arte militare: Mura e bastioni nella cultura del Rinascimento* (Rome: Campisano, 2017), pp. 205-213; Nicholas Adams, 'L'architettura militare in Italia nella prima metà del Cinquecento', in *Storia dell'architettura italiana. Il primo Cinquecento*, ed. by Arnaldo Bruschi (Milan: Electa, 2002), pp. 546-561; Simon Pepper and Nicholas Adams, *Firearms & Fortifications: Military Architecture and Siege Warfare in Sixteenth-Century Siena* (Chicago: University of Chicago Press, 1986).
 - 38 Darka Bilić, *Inženjeri u službi Mletačke Republike: inženjeri i civilna arhitektura u 18. stoljeću u mletačkoj Dalmaciji i Albaniji* (Split: Književni krug, 2013); Andrej Žmegač, 'Fortezze Venete in Dalmazia', in *L'architettura militare di Venezia in terraferma e in Adriatico fra XVI e XVII secolo: Atti del convegno internazionale di studi (Palmanova, 8-10 Novembre 2013)*, ed. by Francesco Paolo Fiore (Florence: Leo S. Olschki Editore, 2014), pp. 283-303; Andrej Žmegač, *Bastioni jadranske Hrvatske* (Zagreb: Institut za povijest umjetnosti, Školska knjiga, 2009).
 - 39 Cristiano Guarneri, 'Editoria e cultura militare a Brescia in epoca moderna: Un primo censimento delle edizioni (1473-1797)', in *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo*, ed. by Irene Giustina (Palermo: Caracol, 2015), pp. 7-31; John Rigby Hale, 'Industria del libro e cultura militare a Venezia nel Rinascimento', in *Storia della cultura veneta*, ed. by Giovanni Arnaldi and Manlio Pastore Stocchi, 6 vols (Vicenza: Neri Pozza Editore, 1980), 3.2:245-288.
 - 40 Ennio Concina, *Navis: L'umanesimo sul mare: 1470-1740* (Turin: Einaudi, 1990).

- 41 Rudolf Wittkower, *Architectural Principles in the Age of Humanism* (London: Warburg Institute, University of London, 1949).
- 42 Howard Burns, 'Pirro Ligorio's Reconstruction of Ancient Rome: The "Antequae Urbis Imago" of 1561', in *Pirro Ligorio, Artist and Antiquarian*, ed. by Robert W. Gaston (Cinisello Balsamo: Silvana Editoriale, 1988), pp. 19–92.
- 43 Agostino Valier, *Constitutiones et decreta in conuentu reuerendissimorum dd. Spalatensis. Et Iadrensis prouinciarum archiepiscoporum episcoporumque, ac eorum assensu, a reuerendissimo d. Augustino Valerio Veronae episcopo, visitatore Dalmatiae [...] promulgatae* (Verona: Sebastiano dalle Donne and Giovanni dalle Donne, 1579).
- 44 In addition to what is listed in footnotes 16–19, see also Nicolas Savage et al., eds, *Early printed books 1478–1840: Catalogue of the British Architectural Library early imprints collection*, 5 vols., (London: Bowker-Saur 1994–2003); Laurence Hall Fowler and Elizabeth Baer, eds, *The Fowler Architectural Collection of the Johns Hopkins University: Catalogue* (Woodbridge: Research Publications, 1982).
- 45 Conrad Gessner, *Bibliotheca instituta et collecta, primum ad Conrado Gesnero: deinde in epitomen redacta et novum librorum accessione locupletata* (Zurich: Christophorus Froschoverus, 1583); Antonio Posseuino, *Bibliotheca selecta qua agitur de ratione studiorum* (Rome: Typographia Apostolica Vaticana, 1593).
- 46 Vladimir Magić, 'J.V. Valvasor's Library', in *Bibliotheca Valvasoriana: katalog knjižnice Janeza Vajkarda Valvasorja*, Ed. By Božena Kukulja, Vladimir Magić, (Ljubljana-Zagreb: Valvasorjev odbor pri Slovenski akademiji znanosti in umetnosti-Nacionalna i sveučilišna knjižnica Zagreb, 1991), p. 63.
- 47 Jasenka Gudelj and Cristiano Guarneri, 'Između teorije i prakse: redovnici arhitekti i tiskane knjige o arhitekturi u kontekstu samostanske kulture ranomodernoga istočnog Jadrana', in *Dominikanci na hrvatskim prostorima, 1221–2021*, ed. by Ana Biončić and Slavko Slišćević (Zagreb: Dominikanska naklada Istina-HDP, 2024), pp. 171–191.
- 48 Fila Bekavac-Lokmer and Juraj Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Klanjcu', *Croatica Christiana periodica* 38/74 (2014), 51–66; Fila Bekavac-Lokmer and Juraj Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Petra Apostola u Cerniku', *Croatica Christiana periodica* 39/75 (2015), 49–71; Fila Bekavac Lokmer and Juraj Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Virovitici', *Croatica Christiana periodica* 39/76 (2015), 49–67; Juraj Lokmer and Fila Bekavac Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Čakovcu', *Croatica Christiana periodica* 41/79 (2017), 175–208; Juraj Lokmer and Fila Bekavac-Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Katarine u Krapini', *Croatica Christiana periodica* 41/80 (2017), 143–206; Juraj Lokmer and Fila Bekavac-Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Slavonskome Brodu', *Croatica Christiana periodica* 42/81 (2018), 143–189; Juraj Lokmer and Fila Bekavac-Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Ivana Krstitelja u Kloštar Ivaniću', *Croatica Christiana periodica* 43/83 (2019): 219–268; Juraj Lokmer and Fila Bekavac-Lokmer, 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Križa u Osijeku', *Croatica Christiana periodica* 43/84 (2019), 123–183.
- 49 *Biblioteca di fra Innocenzo Ciulich nella libreria de' RR. PP. francescani di Ragusa* (Zadar: Tipografia governiale, 1860); Renata Bošnjaković, 'Izložba "Knjige 16. i 17. stoljeća iz knjižnice Franjevačkog samostana Našice"', *Informatica museologica* 40/3–4 (2009), 115–117; Vatroslav Frkin, 'Knjižnica Franjevačkog samostana u Požeги', *Radovi Zavoda za znanstveni i umjetnički rad u Požeги*, no. 1 (15 November 2012), 33–38; Bono Zvonimir Šagi, 'Die Kapuzinerbibliothek in Varaždin', *Radovi Zavoda za znanstveni rad Varaždin*, nos 8–9 (1996), 103–109; Marica Šapro-Ficović and Željko Vegh, 'The History of Jesuit Libraries in Croatia', *Journal of Jesuit Studies* 2/2 (2015), 283–301; Marica Šapro-Ficović, 'Knjižnica isusovaca u Dubrovniku: od Collegiuma Ragusinum do današnje Rezidencije Družbe Isusove', *Vjesnik bibliotekara Hrvatske* 50/3 (2007), 16–30; Ljilja Stanić, 'Istorijat Franjevačkog samostana i knjižnice u Fojnici', *Informatica museologica* 20/3–4 (1989), 64–66.
- 50 Bruno Dobrić, ed., *Knjižnice Istarske županije: vodič* (Pula: Društvo biblioteka Istre, 2010), online: <https://www.bib.irb.hr/538057>; Bruno Dobrić, 'Knjižnica Franjevačkog samostana u Pazinu', *Pazinski memorijal* 26/27 (2009), 205–214.
- 51 Magić, 'J.V. Valvasor's Library', p. 65.
- 52 Cristiano Guarneri, 'Circulation, Use, Impact: An Evidence-Based Enquiry into the Consumption of Architectural Books in Baroque Slovenia', in *Periferija ali regionalni centri? Tri stotletja umetnosti med Srednjo Evropo in Jadranom (1400–1700)*, ed. by Janez Hoefler and Matej Klemenčič (Ljubljana: SAZU, 2025), forthcoming; Luka Ručigaj, 'Ljubljana Based Bookbinders and the Book-Trade between the Printing Centres and Ljubljana. A Case Study of the Fuerstlich Auerspergsche Fideicommissbibliothek Zu Laybach', in *Patrons, Intermediaries, Venetian Artists in Vienna & Imperial Domains (1650–1750)*, ed. by Enrico Lucchese and Matej Klemenčič (Florence: Edizioni Polistampa, 2022), pp. 331–342.
- 53 *Mornarička knjižnica: knjižnica austrougarske mornarice* = K.u.K. Marine-Bibliothek, Ed. by Bruno Dobrić (Pula: Sveučilišna knjižnica u Puli, 1997); *Mornarička knjižnica (K.u.K. Marinebibliothek) i austrougarska mornarica u Puli: zbornik radova*, Ed. by Bruno Dobrić (Pula: Sveučilišna knjižnica u Puli, 2005).
- 54 Albert Seelig, *Katalog der K.u.K. Marine-Bibliothek*, 2 vols. (Pula-Ljubljana: K.u.K. Marinetechnischen Komitee-Ig. V. Kleinmayr & Fed. Bamberg, 1905).
- 55 Nuovo, *The Book Trade in the Italian Renaissance*.
- 56 Guarneri, 'Editoria e cultura militare a Brescia in epoca moderna: Un primo censimento delle edizioni (1473–1797)'.
- 57 'Catalogue', NN. 352–355, 190–191, 568–569.
- 58 'Catalogue', NN. 1066–1068, 529–530.
- 59 'Catalogue', NN. 1040, 1046–1051
- 60 'Catalogue', NN. 1052–1055.
- 61 'Catalogue', NN. 1056–1057, 1041–1043.
- 62 'Catalogue', NN. 1058–1062.
- 63 Radoslav Bužančić, *Niccolò Di Giovanni Fiorentino and Trogir's Renovatio Urbis* (Split: Književni krug, 2015); Joško Belamarić, 'Albertijevo djelo De Pictura i Skulptura Nikole Firentinca', *Prilozi povijesti umjetnosti u Dalmaciji* 42 (2011), 137–159; Joško Belamarić, 'Alberti's Pathos Formula in the Chapel of the Blessed Giovanni Orsini di Trogir', in *Renaissance Studies in Honor of Joseph Connors*, ed. by Israëls Machtet and Louis A. Waldman, 2 vols (Florence: Villa I Tatti, The Harvard University Center for Italian Renaissance Studies, 2013), 1:228–236.
- 64 'Catalogue', NN. 792–794, 377–380, 517–521, 785–787.
- 65 Ivan Kosić, ed., *Bibliotheca Zrimiana: katalog izložbe u povodu 350. obljetnice smrti Nikole VII. Zrinskoga* (Zagreb: Nacionalna i sveučilišna knjižnica, 2014); Gudelj and Botica, *Arte et marte*.
- 66 'Catalogue', NN. 461–475: CVIII, pp. 757–764; CVI, pp. 753–757; XCIII, pp. 682–686; XLVI, pp. 455–465; LVIV, pp. 539–542; CXLIII, pp. 894–900.
- 67 'Catalogue', N. 525.
- 68 Irene Polverini Fosi, 'Crescenzi, Bartolomeo', in *Dizionario biografico degli italiani* (Rome: Treccani, 1984), accessed 26 May 2025, online: <https://www.treccani.it/enciclopedia/>

- bartolomeo-crescenzi_%28Dizionario-Biografico%29/.
- 69 'Catalogue', NN. 283, 289.
- 70 Philibert de l'Orme, *Le premier tome de l'architecture* (Paris: Morel, Frédéric, 1568), III-IV; Giovanni Antonio Rusconi, *Della architettura [...], secondo i precetti di Vitruvio, e con chiarezza, e breuità dichiarate* (Venice: Giolito de Ferrari, Giovanni & Giolito de Ferrari, and Giovanni Paolo, 1590); Vincenzo Scamozzi, *L'idea della architettura universale*, vol. 1, 2 vols (Venice: Per Giorgio Valentino, 1615).
- 71 'Catalogue', NN. 313, 155.
- 72 Fisković, 'Crteži graditelja i kipara'.
- 73 'Catalogue', NN. 748-749, 481.
- 74 'Catalogue', NN. 936, 941, 943-944, 546-548.
- 75 'Catalogue', NN. 1086-1087.
- 76 Stefano Margutti, 'L'insegnamento dell'architettura a Brescia alla metà del XVIII secolo: Federico Sanvitali e il suo trattato "Elementi di architettura civile"', in *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo*, ed. by Irene Giustina (Palermo: Edizioni Caracol, 2015), pp. 105-154.
- 77 'Catalogue', NN. 299-300, 381, 384, 551, 607, 724.
- 78 'Catalogue', NN. 53, 187, 283-284, 469, 598, 673-677, 890.
- 79 'Catalogue', NN. 644, 245, 286-288, 810, 456, 52, 791-792.
- 80 'Catalogue', NN. 682, 139-140, 142, 30, 169, 437, 490, 754-756, 759, 761.
- 81 'Catalogue', NN. 465-466, 474, 595, 849.
- 82 'Catalogue', NN. 987-992.
- 83 'Catalogue', NN. 825-826.
- 84 'Catalogue', NN. 684, 650, 159-160.
- 85 'Catalogue', NN. 189-198.
- 86 'Catalogue', NN. 425-428.
- 87 'Catalogue', NN. 244, 433-435.
- 88 Ana Šverko, 'Prostorna fantazija: dalmatinska poljodjelska škola u viziji Ivana Luke Garagnina', *Adrias* 21 (2015), 65-83; Ana Šverko, 'Arhitektonski projekti Antonija Noalea za obitelj Garagnin u Trogiru: kuća za siromaha kao projektni zadatak', *Adrias* 18 (2012), 119-139; Ana Šverko, 'Ferne ornée Garagninovich u Divuljama kod Trogira', *Radovi Instituta za povijest umjetnosti* 33 (2009), 217-226; Ana Šverko and Karin Šerman, 'Projekti Giannatonija Selve za imanje obitelji Garagnin u Divuljama pograđ Trogira: od kolonske kuće do vile', *Prostor: znanstveni časopis za arhitekturu i urbanizam* 19/2 (2011), 336-349; Ana Šverko, 'Selvin Casinetto u agrarnom parku Luke Garagnina', *Prilozi povijesti umjetnosti u Dalmaciji* 42 (2011), 337-386.
- 89 'Catalogue', NN. 558-559, 812, 863.
- 90 'Catalogue', N. 129.



CIRCULATION

Any analysis of the circulation of books in the early modern eastern Adriatic must confront the fundamental fact that no significant printing press operated in this specific region and period. Since the advent of printing, a handful of presses had been established in Senj, Rijeka, Cetinje, and Varaždin. However, they had relatively short lifespans and produced only ecclesiastical books in Glagolitic and Cyrillic characters for the use of Slavic-speaking clergy. Despite the notable contribution of the Senj Printing House (1494–1508) to the development of Croatian Glagolitic literature, the output of this and other presses could not meet the demand for printed books in such a vast region.

Attempts to introduce printing presses in the eastern Adriatic were not lacking, but they were either short-lived or unsuccessful. Archival sources document several attempts at establishing a printing press in sixteenth-century Dubrovnik, none of which succeeded. In the north, the ambitious project of the polymath Janez Vajkard Valvasor to set up a printing house in support of his topographical works and his map-making pursuits in his castle in Bogenšperk (Ill. 1.1), Carniola, along with a vast library, was also short-lived. To complete the publication of his monumental description of Carniola, Valvasor finally turned to the Austrian publisher Johann Baptist Mayer (or Mayr) of Salzburg, who had a subsidiary branch in Ljubljana.¹

It was only towards the end of the eighteenth century that a permanent printing industry began to take root in the major coastal and inland towns, such as Zadar, Dubrovnik, and Zagreb, spreading as a more formal business throughout the region in the following century. As a result, from the initial years of the printed book and throughout most of the early modern period, authors in the region had to seek foreign publishers to have their literary works printed. Scholars, bibliophiles, secular and religious ruling bodies, and educational institutions were heavily reliant on foreign book markets to stock their libraries. Frequently, books had to be sourced from printing centres a considerable distance away.² Thus, the circulation of books was a fundamental necessity in an area with no printing presses, such as the early modern eastern Adriatic.

Book Trade in the Adriatic

The towns and ports situated along the eastern Adriatic coastline could potentially benefit from the well-established trade routes that traversed the sea. In the early years of the printing press, Venice was a prominent hub for book production, with a considerable export trade. Despite the fact that, in terms of the number of printed editions, according to the data collected in the Universal Short Title Catalogue (USTC), Venice lost its absolute supremacy to Paris around the 1530s, it remained one of the most important places in Europe for the manufacture and trade of books.³ Venice also functioned as a pivotal commercial nexus, facilitating trade between the eastern Mediterranean and Central and Western Europe via the Adriatic Sea and overland routes. Therefore, Venetian ships sailing the Adriatic were able to transport not only books printed in Venice but also those printed elsewhere and traded on the Venetian market.

When we examine the network of book circulation in the Adriatic, it becomes evident that the mobility of actors is as crucial as that of goods. This is particularly evident in a region where a predominant—albeit not exclusive—production centre was outside a large consumer-only area. A fundamental question thus arises: how were supply and demand matched? It is pertinent to enquire whether the inhabitants of the eastern Adriatic undertook journeys to Venice with the intention of procuring books, or whether, on the contrary, publishers and booksellers transported books from Venice to the eastern Adriatic. The available written sources attest to both phenomena, albeit to varying degrees. On the one hand, agents and dealers were dispatched to Venice with the objective of visiting bookstores and purchasing books. On the other hand, batches of books were shipped from Venice through a distribution network to sellers in branches and resale shops of Venetian printing houses.

The correspondence between Aldo Manuzio and Daniele Clario in Dubrovnik, who served as an advisor for Greek editions and a dealer for the Greek market, provides exemplary insight into various aspects of the book trade in the early sixteenth-



Ill. 1.1. Valvasor Castle in Bogenšperk (JV. Valvasor, *Topographia ducatus Carniolae moderna*, Ljubljana: Johann Baptist Mayr, 1678, plate 285)

century Adriatic. In 1510, Clario wrote from Dubrovnik indicating his intention to withhold from sale the books sent to him by Manuzio until he received payment for them.⁴ Subsequently, he expressed concern regarding the perilous condition of the Adriatic Sea, where both pirate and Venetian vessels engaged in frequent battles and plunder. Furthermore, he stated that he had completed the manuscripts addressed to Aldo's father-in-law and business partner, the printer Andrea Torresano. Clario would send the manuscripts to Venice as soon as a trusted agent of Manuzio passed through Dubrovnik.⁵ It is noteworthy that Torresano, a native of Asola, a village on the border between Venetian territories and Mantua, was not unfamiliar with the eastern Adriatic region. Indeed, he was a staunch proponent of Glagolitic missals and breviaries, which played an important role in the training of printers from the eastern Adriatic.⁶ Despite the considerable perils, the flow of the book trade along the Adriatic persisted. Printed volumes were dispatched from Venice to Dubrovnik, while preparatory manuscripts, particularly those for Greek editions, were transported in the opposite direction to be transformed into printed books in the Venetian printing houses.

Often described as a 'permanent book fair', Venice remained one of the very few hubs of the book trade, even after the presses in Paris and Lyon, as well as in Flanders, the Netherlands and central Germany, reached or exceeded its production; it became the leading book marketplace for Southern Europe and the Mediterranean in particular.⁷ Venice was a preferred destination for individuals and institutions seeking to make significant book purchases, both within Italy and abroad. In the early sixteenth century, the University of Salamanca sent a dealer on multiple occasions to Venice to procure a substan-

tial number of books for the library. Remarkably, this individual, likely Giovanni Agostino da Borgofranco, utilised his trips to promote the publication of a book authored by a Salamanca professor, who had presumably entrusted the manuscript of the work to him.⁸

The correspondence between Clario and Manuzio unequivocally demonstrates a pattern of consistent behaviour, despite minor variations. Letters by Marko Marulić provide evidence of a similar practice, as he sought the assistance of Giacomo Grasolari in printing his works in Venice.⁹ The observed *modus operandi*—the printing of works in Venice by authors of the eastern Adriatic in Slavic, Latin, or Italian languages¹⁰ and the subsequent importation of the printed books—clearly indicates that the Venetian printing and trade of such books were not distinct phenomena. Rather, they represent two intertwined facets of the same process, closely mirroring universally established practices associated with book production in Venice and probably elsewhere.

While there is evidence that contacts between Venice and the eastern Adriatic existed within the larger network of the international book trade, the sources remain too fragmentary to allow for reconstruction of a comprehensive picture.¹¹ Quantification of the contacts, as well as a qualitative description of them, is not yet completely feasible. In addition to recording and critically approaching the known sources, which will be presented below, it is not possible to determine whether connections such as the one discussed above, must be considered more or less periodic within a framework of established commercial relationships, or whether they were only occasional occurrences due to isolated initiatives of peripatetic merchants and entrepreneurs.

Aleksandar Stipčević has posited that Venetian ships bearing books docked in eastern Adriatic ports on a daily basis, supplying a vibrant local market.¹² Their regular arrival enabled local scholars of the eastern Adriatic coastline to procure 'not only books printed in Venice itself but also books printed throughout Europe, which were available for purchase in Venetian bookstores'.¹³ Nevertheless, Stipčević's assertion requires reassessment and reduction in its scope, since a considerable number of Venetian ships transporting books did, in fact, dock daily in the coastal towns, but a number of them simply stopped over and continued on to other ports. The Adriatic Sea, a bustling thoroughfare of the early modern era, had a multitude of goods pass through it, not all of which were destined for the towns where ships briefly stopped.

During the fifteenth and sixteenth centuries, a number of printers from the eastern Adriatic emerged as highly skilled typographers and book publishers, achieving a remarkable standard of excellence in printing and xylographic illustration. Some of these printers established themselves in renowned printing centres in Venice and its *terraferma*. For instance, Andria Paltasić (Andrea Paltasichi) from Kotor excelled in Venice, while Matia Crdonić (Matheus Cerdonus) from Slovenia made notable contributions in Padua.¹⁴ Božidar Vuković (Dionisio della Vecchia) from Podgorica, Montenegro, printed several Serbian liturgical books in Venice, and under his son Vičentije, this Serbian printing press continued operating throughout the sixteenth century. The books reached Serbia along a complex route via Kotor and Montenegro. In 1542, Vuković opened a bookshop in Šibenik to supply the local Orthodox community, and probably to find a shorter route to Belgrade.¹⁵ At the end of the century, to give another example, Bartol and Šimun Ragusii, possibly of Dubrovnik origin, set up a printing press in Urbino, where they published one dozen books.¹⁶ Conversely, some printers led a peripatetic life, constantly relocating in pursuit of favourable markets. Dobrić Dobričević (Bonino Bonini), for instance, printed books in Venice, Verona, Brescia, Lyon, and Treviso, where he died in 1528.¹⁷ Some others, such as Makarije from Montenegro and Blaž Baromić, upon acquiring proficiency in printing techniques, returned to their homeland. Makarije established a printing house in Cetinje Monastery, where he published the first books in Cyrillic type. Blaž Baromić founded the first printing house in Croatia, as previously mentioned, in Senj in 1494.¹⁸

Nevertheless, it remains unclear whether these printers forged commercial links between the two Adriatic coasts, integrating printing with the trade of books printed by others. In the event that such an endeavour was undertaken, two principal obstacles would have had to be overcome. Firstly, printers would have had to contend with the considerable economic power and market expertise capacity of the Venetian merchants

and their established trade routes. Secondly, the extent of demand for books in the eastern Adriatic and its inland areas had to be considered. The absence of big centres and the dispersion of the population over a broad area would probably have resulted in profits that were less than the costs incurred.

As evidenced by the locations in which the printers from the eastern Adriatic operated, Venice was a major printing centre in northern Italy, but not the only one. The populous towns of the Venetian mainland were also not insignificant printing centres, as well as important stopovers when one was en route to Milan and Pavia on the so-called Swiss route. Verona played a pivotal role in northern Italy, situated at the intersection of the primary east-west and north-south routes. Brescia, which boasted a thriving paper industry and iron mines for letterpress types, developed a specialisation in military treatises and other subjects related to warfare.¹⁹ Padua benefitted from the very first networks of the book trade, which was established between university centres, and maintained a robust book production and a lively book market throughout the early modern period.²⁰ As the site of the sole university in the territories of the Venetian Republic, and also of one of the most esteemed universities in Europe, Padua became a major hub for the education of scholars from the eastern Adriatic and for the development of local humanism, particularly in Dalmatia. Like numerous Venetian aristocrats, the Marulić family owned a house in Padua solely for the education of their younger members at the university. Furthermore, the writer Marko Marulić was also engaged in a legal dispute with the printer Nicola Catellano.²¹ Education at the university, literature, and printing were inextricably intertwined matters that connected the eastern Adriatic with Padua.

Italian universities generated a significant demand for books but also contributed to the circulation of these texts, to a certain extent. This is because many students from the eastern Adriatic enrolled in Padua and subsequently purchased books that they would later take home once they had graduated. It is noteworthy that several university centres within the Papal States, including Bologna, Urbino, Macerata, Camerino, and Ferrara, had close connections with the Adriatic and could be considered marketplaces for the trade of books crossing the sea, although to a much lesser extent than Venice.

But Venice was not the only Adriatic centre for the exchange of books printed elsewhere. The university towns of the Papal States, as well as its main printing centre, Rome, functioned in similar ways. Books printed in Rome were sent to the port of Ancona and then shipped across the Adriatic, following well-established trade routes. In 1701, when the philologist and orientalist Ivan Paštrić (Giovanni Pastrizio), a lecturer at the Congregatio de Propaganda Fide in Rome, decided to donate his personal library to the newly founded seminary of his native Split, he organised a series of different shipments via Ancona.²²

The clergy in the eastern Adriatic, who typically had close and strong connections with the Holy See, particularly at the highest levels of religious orders, also facilitated the circulation of books printed in Rome. Monks, nuns, and friars visiting the headquarters of their order or embarking on pilgrimages would often purchase books and other printed materials. As is evidenced by extant collections and historical inventories, monastic libraries repeatedly contained travelogues of Rome, books of antiquities, and guides to pilgrimage stations. It was possible for clergymen to purchase such items during their sojourns in the papal city and to subsequently convey them to the library of their friary or monastery in the eastern Adriatic. The existence of copies of such publications in the modest libraries of monasteries and friaries secluded in isolated inland locations or on the islands—where they frequently were the sole volumes of secular content—demonstrates that this practice was pervasive throughout the region. Indeed, copies of Flavio Biondo's various works, Andrea Palladio's *L'antichità di Roma*, and Fioravante Martinelli's *Roma ricercata nel suo sito* have been identified in different editions from Istria and Carniola down to Dubrovnik.²³

A third significant conduit for books in the eastern Adriatic, in addition to those originating from Venice and Rome via Ancona, was the northern route. This route facilitated the distribution of books published in the major printing centres in Switzerland and the German states, including Basel, Zurich, Nuremberg, Augsburg, and Frankfurt. However, these books rarely reached coastal towns, where Italian books were easily distributed. Instead, they circulated throughout continental regions such as Carniola, Central Croatia, and Slavonia, which were within the political and geographical orbits of the German lands. The old and rare book collections of libraries in these regions still preserve a significantly larger number of German books than do the libraries along the coast; a more detailed discussion of this point will follow below (see 'The Coast and the Inland: Printing Places', and 'The Coast and the Inland: Authors and Titles').

The Frankfurt Fair was undoubtedly a pivotal event for the northern route of the book trade. Held biannually every spring and autumn and dating back to the thirteenth century, the Frankfurt Fair was an international gathering whose book section became the most important European event in the book trade during the sixteenth century.²⁴ Many men have left descriptions of the fair, such as the famous eulogy by Henri Estienne, who praised the abundance of all kinds of goods and, above all, of books, publishers, and literary men—who often outnumbered the booksellers.²⁵

In his capacity as an author, publisher, and collector, Valvasor regularly attended the Frankfurt Fair, as is evidenced by the holdings in the Metropolitana in Zagreb. Indeed, the library

preserves copies of the printed catalogues of numerous European publishers, including Mattheus Merian, Wolfgang and Johann Andreas Endter, Sigmund Latomus, and Melchior Haan, all of which were produced specifically for the Frankfurt Fair.²⁶ By cross-referencing the advertisements in these catalogues with the holdings of the Valvasor Library, Vladimir Magić presented a compelling argument that Valvasor was a regular purchaser of books at the Frankfurt Fair, which constituted his primary market.²⁷ Indeed, the significant presence in the Valvasor Library of books printed in France, Flanders, Netherlands, and the German lands further confirms that his main channel of supply was the Frankfurt Fair, rather than the Venetian market.

Although Valvasor is exceptional in many respects, as I will discuss later, his preference for the German book market reflects a general pattern for readers in the northwestern, continental lands of the eastern Adriatic, including the Auersperg family in Ljubljana²⁸ and the Zrinski family in Čakovec, both of whom owned valuable libraries.²⁹ In addition to Carniola, which had been under Habsburg control since the thirteenth century, the territories of the Croatian-Hungarian Kingdom came under Austrian influence during the early modern period. Alongside German books acquired through the northern route and at the Frankfurt Fair, the Auersperg Library holdings (as recorded in inventories and the extant checks of purchased books) reveal the existence of other minor channels of supply: on the one hand, a small but lively book market in Ljubljana and, on the other hand, the procurement of books in Venice and the Italian peninsula.³⁰

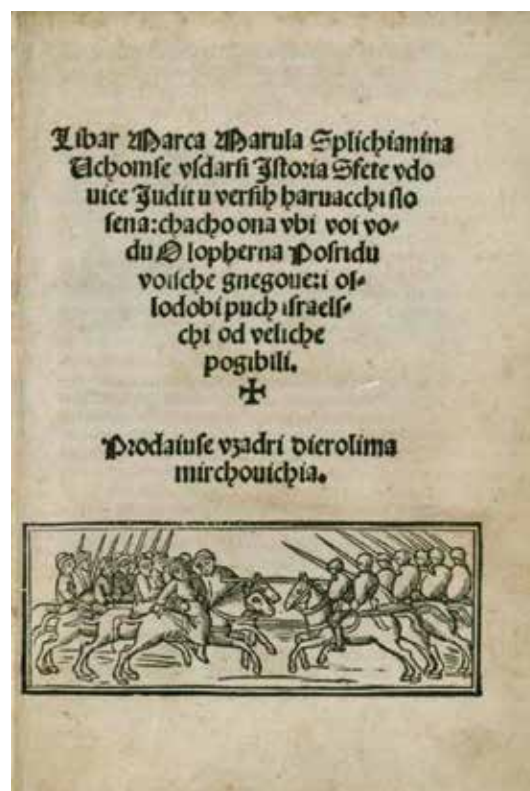
Although the Italian fairs were not as large as the Frankfurt Fair, they could nevertheless have played a significant role in the book trade across the Adriatic. The most significant fairs for the book trade were located on the western Adriatic coast, in small towns situated along the primary routes of the Venetian trade, such as Fermo, Recanati, and Lanciano. These towns had established connections with other fairs that were held at strategic passes in the Apennine Mountains leading to Rome, including at Foligno and L'Aquila. These fairs facilitated commercial exchange through not only the coastal regions of the Marche, Abruzzo, Apulia, but also northern Italy and the western Italian coast, with Dalmatia and the Balkans.³¹ Similar fairs were also held in the eastern Adriatic, in the Venetian towns of Rab, Trogir, and Split, and in the Habsburg and Croatian littoral towns of Rijeka, Bakar, and Senj. A dense network of trade fairs, held throughout the year to coincide with the days devoted to local patron saints, connected the Adriatic coasts and promoted the movement of people across the sea for pilgrimage, as well as for commercial purposes.³² It would be beneficial to examine the specific features of the Italian fairs in greater detail.

In Italy, there was a polycentric system of integrated fairs that was characterised by robust and sustained interconnec-

tivity. Archival evidence concerning the payments between book dealers demonstrates that different money instalments were due in different fairs. For instance, several surviving contracts prescribe that the first instalment was payable at the fair in Recanati, while the second was payable at the fair in Foligno or Lanciano. Moreover, a considerable number of publishers and book traders based in Venice maintained commercial premises and warehouses in these towns with the objective of guaranteeing their regular presence at the fairs and thereby maximising profits. In 1559, Vincenzo Valgrisi, the publisher of the Italian translation by Pietro Lauro of Leon Battista Alberti's *De re aedificatoria*, declared that he had shops in Foligno and Recanati. Similarly, Niccolò Zoppino, the publisher of the Italian translation by Durantino of Vitruvius's *De architectura*, was ordered in 1543 to settle at the forthcoming Foligno fair his debt to Tommaso Giunti and Melchiorre Sessa,³³ who had printed an edition that brought together for the first time the first to fifth books of Sebastiano Serlio's treatise. The 1546 edition of Alberti's work by Valgrisi reached the library of the Gučetić (Gozze) family in Dubrovnik (Ragusa), where it was recorded in the inventory of 1819.³⁴ It should be noted that libraries in the eastern Adriatic also preserve copies of all the abovementioned architectural books, including the state university libraries in Pula (Pola) and Rijeka (Fiume), the Research Library of Zadar (Zara), and the Miočević-Rendić collection at the Institute for Historical Sciences and Franciscan Monastery in Dubrovnik.

It is regrettable that there is still little knowledge about the existence of bookstores in the towns of the eastern Adriatic. Croatian scholars have concentrated their research on the printing and distribution of what they have defined as 'Croatian books', namely those books written by authors from the eastern Adriatic that were printed in Venice or elsewhere in Latin, Italian, or one of the Slavic languages in Latin, Glagolitic, or Cyrillic types. As Stipčević observed in his discussion of Croatian books, 'the majority of the editions were still sold in Venice' directly to clients from the eastern Adriatic. The seeming lack of bookstores in the eastern Adriatic towns can be attributed to the overwhelming supply of books via the Venetian market. Readers from the eastern Adriatic coast could simply purchase any books they liked in Venice, as many of them frequently visited the city. Some Croatian books printed in Venice bore indications on the title page, usually in the Croatian language, about the shops where the title could be found. This evidence confirms the familiarity of eastern Adriatic readers with Venetian bookstores.³⁵

The hegemony of Venetian printing houses and their distribution network in the Adriatic is not the sole explanation for the absence of printing presses and bookstores in the eastern Adriatic. At the outset of the early modern period, Istrian and Dalmatian towns were relatively modest settlements, particu-



Ill. 1.2. Marko Marulić, *Judita* (Venice, 1522), title page

larly in comparison with the more substantial urban centres on the western coast. The coastal towns were almost entirely devoid of adjacent rural populations and countryside, given their geographical isolation because of the nearby Ottoman territories. The only towns with a population exceeding 5000 were Dubrovnik and Zadar, while Kotor, Šibenik, Split, and Trogir were the other major centres and had populations below this total.³⁶ With such small populations, the eastern Adriatic towns did not represent a particularly profitable market for printing houses, book traders, or retailers.

Nevertheless, there is limited evidence that some bookstores existed on the eastern coast of the Adriatic. In an edition of *Judita* by Marko Marulić, which was printed by Bernardino Benali (Venice, 1522), the colophon indicates that the bookseller in Zadar, where the works could be purchased, was a certain Jerolim Mirković as: 'Stampane ubneccih prodaiu se uzadri dierolima mirchovichia; pomgnom i nastoianiem Petra Srichichia Splichianina' (Printed in Venice, for sale at Jerolim Mirković; by the diligence and effort of Petar Srkić from Split) (Ill. 1.2).³⁷ However, a century later, the publisher Marco Ginammi, who specialised in Croatian books, stated that no booksellers were operating in Zadar. In his instructions for sending a set of unbound Glagolitic liturgical books printed in Rome to Zadar

via the well-established route of Ancona, he wrote: '[...] e poi da Zara bisognerebbe mandarli a Venezia per legare, non essendovi colà ne legatori ne librai' ([...] and then from Zadar, they [the books] would need to be sent to Venice for binding, as there were neither bookbinders nor booksellers there).³⁸

During the second half of the eighteenth century, Istria and Dalmatia received a significant portion of exports from Venetian presses. The distribution of Venetian books extended beyond the coastal regions to inland areas as well. Remondini, a leading publisher from Bassano with establishments in Venice and other locations, relied on a network of trusted agents in seventy-five European cities. Two of these individuals, Valentin Blasin and Matteo Ventravin, were also based in Zagreb.³⁹

Nevertheless, it is certain that the most extensively documented initiatives for establishing bookshops and printing presses in the early modern eastern Adriatic are connected to the Republic of Ragusa. Local archives provide evidence of multiple attempts to set up printing presses in Dubrovnik, as well as information about the activities of various booksellers. Furthermore, a valuable document for the history of books in the early modern eastern Adriatic survives: a shipping list with numerous details on book titles and prices. This list deserves a separate analysis.

The Shipping List of Troiano Navò

The most important and widely known document on the book trade in the early modern eastern Adriatic is the shipping list of books dispatched from Venice to Dubrovnik by Troiano Navò for his son Curzio Troiano. The document was first published at the end of the nineteenth century by Constantin Jireček and has since been the subject of extensive commentary and contextualisation with other sources in the subsequent scholarship.⁴⁰ While the Dubrovnik archives have yielded the names of some booksellers and book dealers,⁴¹ the extant documents on Navò are particularly noteworthy. They include a comprehensive inventory of shipped books, which is currently the only such document surviving from the early modern eastern Adriatic, as well as valuable details on the activities of a family press and the related book trade developing across the Adriatic.

Troiano Navò came from Brescia, a town in the Venetian mainland that was notable for its significant production of printed books and its numerous skilled printers who migrated to Venice, across Europe, and even to the New World. Navò settled in Venice, where he managed a bookstore in the central commercial street of the Mercerie and, as was often the case, had family ties with another publisher in Venice, Giovanni Bariletto. His son Curzio Troiano, together with his two other sons Fabio and Scipione, enlarged the family business by setting up a press that operated from 1537 to 1598 and produced

dozens of editions. From 1559 to 1565 and again from 1568 to his death in 1583–1585, Curzio Troiano worked as a bookseller and trader in Dubrovnik, where he also served as a spy for the Venetian government. He invested significant resources in the book trade of the eastern Adriatic. While his father and brothers ran the bookstore and the press in Venice, he established his own business in Dubrovnik and married there; he also funded the printing of Serbian books, and his brother-in-law Paolo di Giovanni Opat in Belgrade was probably in charge of the trade of these volumes.⁴²

On the basis of the above data, it is clear that Curzio Troiano sought to establish a network, mainly rooted in family ties, for the book trade in the eastern Adriatic and across the Balkans. The family's business also achieved a substantial degree of differentiation, with Curzio Troiano as a linchpin in Dubrovnik. On the one hand, he planned to establish a commercial route between Venice and Dubrovnik with his father's printing house to supply learned readers in the Republic of Ragusa with secular books. On the other hand, together with his brother-in-law in Belgrade, he envisioned a parallel and more specialised commercial trade in liturgical books—probably in Cyrillic characters—for the Serbian clergy. Although Ragusan merchants established a commercial route to Belgrade, where a Ragusan colony had existed since 1532, the other booksellers documented in Dubrovnik in the sixteenth century mostly sold volumes locally. However, Navò was far more ambitious, seeking to create a trade network across three different countries. It is interesting that in the very same years, the Ancona merchant Ciriaco Gualtierucci, with whom Curzio Troiano had commercial ties, actually set up this scheme, supplying the Serbian market, via Dubrovnik, with liturgical books 'con lettere serviane e in lingua serviana' (in Serbian letters and the Serbian language).⁴³

Before we consider the details of the inventory of books, it is important to note that Troiano shipped not only three boxes of books to Dubrovnik but also 'un torculo da tondare' (a trimming press). Although the term 'torculo' (press) may suggest that Curzio Troiano had intended to establish a branch of the Venetian publishing house with its own printing press, a quite common strategy for Italian printers (for instance, there are the well-known examples of Giunti and Manuzio),⁴⁴ this was not the case. Most likely, 'torculo da tondare' was instead a type of press used for folding and trimming sheets in the bookbinding process.⁴⁵ As historians of the book have described evocatively, from the invention of the printing press and throughout the sixteenth century, or even later, books were generally sold unbound and were then bound after they were purchased according to the customer's preferences among more or less elaborate and expensive options. For a century or more, the main booksellers were stationers, who kept unbound books in

their warehouses and provided them with precious, customised bindings. The practice of selling bound books in bookstores, namely shops specialised in selling only ready-made books, developed later and gradually replaced the earlier methods.⁴⁶ In some areas where few volumes were sold, the practice of dealing in unbound books endured for longer, as is well documented for the late-seventeenth-century book trade in Ljubljana.⁴⁷ Therefore, the 'torculo da tondare' sent by Troiano to Dubrovnik was an essential tool for running his bookshop there.

Moreover, it is worth stressing that Troiano Navò sent books to the 'Reverendo Domino Nicolao Gotio, archipresbytero racusino' (Lord Reverend Nikola Gučetić, Ragusan archpriest) through an agent, 'Antonio de Odolis de Brixia', who escorted the goods. Antonio de Odolis, probably from Odolo in Val Sabbia, a valley in the province of Brescia, was also a bookseller in Dubrovnik. The appearance in this exchange of Nikola Gučetić, probably a relative of the famous writer Nikola Vitov Gučetić (Nicola di Vito Gozze), implies that Troiano and his son Curzio Troiano were able to get the endorsement of the local aristocracy as valuable support for their plan.

Unfortunately, little is known about Curzio Troiano's business in Dubrovnik. Once he returned to the Republic of Ragusa after a stay in Venice from 1565 to 1568, the only documents about him record just family affairs, rather than his activity in the book trade. Corrado Marciani assumed that Curzio became seriously ill and that his wife died, forcing him to sell properties in 1583, a few years before his death.⁴⁸

Half a century before Navò arrived in Dubrovnik, in 1502, Luka Radovanović, the deacon of St Mary in the Castle, listed in his will a 'breviario in carta bona non ligado et un torculo da imprimere libri cum soi ponzoni de lettera schiava cum soi argazi, quelli se trovarà in casa mia' (breviary in good paper, unbound, and a press for printing books with its punches and sorts of Slavic letters, those that will be found in my house).⁴⁹ On the basis of Radovanović's will, we can conclude that there was some, albeit limited, book printing activity in Dubrovnik at that time; this clergyman clearly had a printing press with Slavic type alongside loose sheets of an unbound breviary, probably printed by himself. Further proof of his active role in the book trade is the fact that Radovanović also left 'alli heredi de condan Ratcho libraro perperi tre' (to the heirs of the late Ratcho, bookseller, three *perperi*)—a detail that also reveals the existence of booksellers in Dubrovnik during the period.

As the activity of Daniele Clario in the role of book dealer for Aldo Manuzio already suggests, Dubrovnik had a lively book market during the first half of the sixteenth century. Other evidence of the significant local demand for books comes from the detailed instructions left in 1527 by Nicolaus Michaelis Barneus. This clergyman bequeathed his library, rich in ecclesiastical and medical printed books, to the Republic 'ad honore della patria et

utilità della gioventù Ragusina' (for the honour of the homeland and the benefit of the Ragusan youth), on the condition that 'una officina in loco publico' (a workshop in a public place) be founded within one month. At the same time, he envisioned a different fate for the precious manuscripts in his collection: 'li libri antiqui [...] ligati et disligati, scripti [in] carattere langobardo in caprina carta' (the old books [...] bound and unbound, in Lombard script on goatskin parchment). Because of the wars and the plague, Barneus had no chance to print these extremely rare texts that he had brought from Italy in 1510; therefore, he instructed his three executors ' [...] acciò che essi li faccino imprimere qui in Ragusi con aiuto della Signoria' ([...] so that they may have them printed here in Ragusa with the help of the Signoria).⁵⁰ Unfortunately, nothing is known about these manuscripts, nor is it evident whether the Ragusan government ever made attempts to accomplish Barneus's wish.

In March 1514, the chancellor of the Republic of Ragusa, Luka Paskalis Primojević (Luca Pasqualis de Primo), likewise submitted to the Senate a project for the establishment of a printing house. He promised:

[...] far venire in la città Vostra alle mie spese per questo principio, fino che alguno de qui impararà la dicta arte, doi boni et sufficienti magistri de stampare libri dale parte d'Italia, zoè uno stampatore et un altro tiratore, cum tuti li instrumenti et artificij necessarij et convenienti per dicta arte, li quali magistri stamparono quivi libri et scripture de bona et bella stampa in latino et in greco, secondo le occorrentie, et anchora in lettere rassiane al modo, che usano li callogeri dela religione rassiana in loro chiese.

[...] to bring to your city, at my expense for this beginning, until someone here learns the said art, two good and competent masters of printing books from parts of Italy, that is, one printer and another pressman, with all the necessary and suitable instruments and tools for said art, which masters would print there books and writings of good and beautiful print in Latin and in Greek, according to the needs, and also in Rascian letters in the manner that the monks of the Rascian religion use in their churches).

By 'lettere rassiane' (Serbian letters) from 'Rascia' (Raška),⁵¹ Primojević meant Cyrillic characters like the type used in the Makarije printing house in Cetinje, as he specified. Then, he asked that the Senate waive the rent for him 'de una casa et de una stazone de bona commodità in piazza' (of a house and a workshop of good convenience in the square), grant him a trade free of taxes for both paper and books, and a fifteen-year monopoly: ' [...] che per anni quindexe proxime futuri altri non possano poner et exercitar questa arte in la città et in le tenute'

([...] that for the next fifteenth years, no others may establish and exercise this art in the city and in the territories). Of course, he did not neglect to stress that he was pursuing this scheme:

[...] ad honor de Dio et per zelo de la religione christiana et anche per zelo del bono nome dela patria et ad contemplatione de alcuni letterati et amatori dele virtù. [...] De questa arte ne sentirà consolatione spirituale etiam le monaghe de li monasteri Vostri et altri et altri Gentilhuomini et cittadini de esse Signorie Vostre, alle quali humilmente me racomando.⁵²

([...] for the honour of God and out of zeal for the Christian religion, and also out of zeal for the good name of the homeland, and at the contemplation of some literati and lovers of virtues. [...] From this art, even the nuns of your monasteries and other noblemen and citizens of your Lordships will feel spiritual consolation, to whom I humbly commend myself).

The Senate accepted Primojević's proposal, allowing him one year to set up the printing house. In March 1515, the Senate granted him eight more months, as he evidently had not been able to establish his press after one year. This extension could be a clue that he encountered some unexpected problems, because no evidence survives about the implementation of his plans.

Though far from exhaustive, the archival documents that were discussed above regarding the sixteenth-century book trade in Dubrovnik offer a partial but still informative picture. A local, lively demand for printed books undoubtedly existed, as well as the potential for a subsidiary book trade from Dubrovnik to other locations. These were the circumstances that enticed both local and foreign individuals, such as dealers, printers, and entrepreneurs. However, other factors, which still remain partly unclear, evidently hindered the implementation of this more extensive trade, and, as is well known, a printing press was established in Dubrovnik only in the late eighteenth century. In 1777, Venetian Carlo Antonio Occhi submitted a request to the Ragusan Senate and, after six years of negotiation, was able to open his printing house in 1783.⁵³ Consequently, after the abovementioned failed attempts to establish a printing press, the Dubrovnik book market had to rely for centuries on the importation of books from other printing centres, via the trade route introduced by Navò and others.

It must be noted that Navò's list of books has great value more for the history of the book than for the circulation of architectural books in the eastern Adriatic. The inventories of the three different boxes of books are generic concerning the authors and the titles of the almost 150 books that were sent, but they offer other useful data, such as numbers of copies and

prices in Venetian lire. Based on the recognisable items, the shipment appears to have been a collection of books printed solely in Venice and mainly by the Navò press, as well as a few other publishers like Bindoni. The only architectural treatises published in Venice by 1549 were Vitruvius's volumes, Alberti's treatise, and Serlio's third and fourth books, none of which is on the list; in fact, other publishers printed them. At that time, architectural treatises had a very small impact on general book production and trade, and so were unlikely to be included in a relatively large shipment list of a publisher who did not focus on such a genre.

Nonetheless, some kind of architectural knowledge circulated through the volumes that have been termed 'hidden texts on architecture'—namely, books on other topics, such as philosophy, mathematics, economics, and politics, that contains references to architectural theory.⁵⁴ Within the field of mathematics, the inventory of books shipped by Navò lists Euclid, the high price of which could indicate a large, illustrated edition, the so-called *Scala grimaldelli* by Francesco Feliciano or the *Libro de abacho* by Pietro Borghi.⁵⁵ From the field of economics, housekeeping, and etiquette, we find Baldassare Castiglione's *Cortegiano*, one of the very first books published by Curzio Troiano Navò, and Pietro de' Crescenzi's book on agriculture and estate management.⁵⁶ Finally, military culture emerges as the most important field among those that communicated specialised architectural knowledge. The shipping list contains generic titles of both ancient and modern authors that informed the education of many *condottieri*—such as Caesar's *Commentarii*, Plutarch's *Lives*, Polybius's *Historie*, and Machiavelli's *Principe*⁵⁷—and also more specific and practical works on artillery and fortification, for instance Vannoccio Biringuccio's *Pirotechnia* and some 'compiti' (tasks) by Niccolò Tartaglia, probably the *Quesiti et inventioni diverse*.⁵⁸

Troiano Navò must have had a privileged relationship with Tartaglia, a famous mathematician and the inventor of ballistics, probably because they both came from Brescia and resided in Venice. In 1557, Tartaglia named a certain 'Troian Navò librer' as the executor of his will, leaving him 'tutti i sopradetti libri del mio studiare' (all the aforementioned books from my study), as well as 'una balla de libri de Paris de diverse sorte di valor al pretio di Parigi di dusento e vinti do lire' (a bale of books from Paris of various sorts, valued at the Parisian price of two hundred and twenty-two lire).⁵⁹ After his death, Navò's press began to reprint Tartaglia's works that had been previously released by other publishers, in fact holding a monopoly on them for the next twenty years.

It is difficult to identify, among the book copies held in today's libraries of the eastern Adriatic, the titles from the 1549 shipping list that contained architectural knowledge. The only extant book that could have been part of Navò's shipment is a

copy of Polybius in its Italian translation; it was published by Gabriele Giolito de Ferrari (Venice, 1545) and is today preserved in the Research Library in Dubrovnik.⁶⁰ However, the impact of Curzio Troiano Navò's book trade in Dubrovnik extended beyond the records found in this shipping list. It is highly likely that he organised numerous other shipments that are not documented, thus shaping the local book trade up until his death sometime between 1583 and 1585. Furthermore, the legacy of the Navò family persisted, as their heirs continued to engage with the Venetian presses well into the early seventeenth century.

We do not know whether someone took on Curzio Troiano's role as Navò's book dealer in Dubrovnik. However, evidence that the business in the book trade set in motion by them between Venice and Dubrovnik persisted emerges from the Research Library in Dubrovnik and the University Library in Split. In fact, these libraries preserve copies of Tartaglia's *Nova scientia* (Venice, 1562), *Quesiti* (Venice, 1606), and *Tutte l'opere d'arithmetica* (Venice, 1592), all printed by Navò between 1562 and 1606 (Ill. 1.3).⁶¹ It is also worth stressing that five book copies of Tartaglia's works, out of a total of seven copies in the whole eastern Adriatic, bear the name(s) of Curzio Troiano Navò or his heirs in the colophon. According to Angela Nuovo, the print runs of Tartaglia's works by the Navò press were particularly low, and consequently, these books became so rare on the book market that their prices doubled ten years after publication.⁶² In such a context, what can appear a modest fragment of Navò's activity as a book dealer in the eastern Adriatic takes on greater significance. This handful of book copies stands out as a significant point of contact between past and present in my investigation—between the books that circulated in the past, as they are recorded in archival sources, and those that today are preserved in the libraries of the eastern Adriatic.

Before we conclude the analysis of Troiano Navò's shipping list, one more remark is necessary. Given the possibility that Navò managed the book trade along the eastern Adriatic for several decades in the sixteenth century (after Troiano's shipping list of 1549, during Curzio Troiano's stay in Dubrovnik, and possibly even from the latter's death to the end of the century), it is important to recall the most significant publications in the field of architecture produced in this period by Venetian presses. As a matter of fact, seminal editions of some of the most important architectural treatises of the Renaissance were issued in Venice during the second half of the sixteenth century. The treatises of Pietro Cataneo (1554 and 1567), Andrea Palladio (1570, 1581, and 1601), Giacomo Barozzi da Vignola (1562, 1570, 1582, 1596, and 1600), several editions of Sebastiano Serlio's books (1551, 1562, 1566, 1569, 1584, and 1600), Daniele Barbaro's annotated Italian translation of Vitruvius (1556, 1567, and 1584) and the abridged version of Vitruvius by Giovanni Antonio Rusconi (1590) should be enough to sense that Navò could potentially



Ill. 1.3. Nicolò Tartaglia, *La nova scientia* (Venice, 1567), colophon at the end of the book (SKS, R-514)

trade to the eastern Adriatic a large portion of the very best of Renaissance architectural knowledge. As the following chapters will show, dozens of copies of these books are still preserved in today's libraries across the eastern Adriatic.

Architectural Books in Early Modern Eastern Adriatic Libraries

Troiano Navò's shipping list illustrates how data concerning the book trade, regardless of the level of detail, hint at the potential circulation of architectural books, rather than conclusively proving it or demonstrating its extent. At the same time, statistical analysis of extant book copies in present-day libraries of the eastern Adriatic offers insight into the current state of early printed book heritage, which may not reflect the circulation patterns of the past. To bridge this gap between past and present, an examination of early modern libraries in the eastern Adriatic is necessary; it will allow us to assess the presence of architectural books within various types of book collections in the region.

A handful of early modern libraries still exist today, relatively intact and incorporated into the collections of public libraries. Examples include the Bibliotheca Valvasoriana and the Zrinski Library (or Zriniana) in Zagreb, the Martinis-Marchi

Library in Split, the Garagnin-Fanfogna Library in Trogir, and the Miočević-Rendić collection in Dubrovnik. Additionally, a number of monastic libraries have survived, albeit with losses and new acquisitions, in a state quite reminiscent of their early modern holdings. The current catalogues of these collections provide a fairly accurate reflection of the original situation in the seventeenth or the eighteenth century. However, this is not the case for many other libraries in the early modern eastern Adriatic.

For the many early modern book collections that have either partially or completely disappeared, the only means of reconstructing their holdings is turning to library inventories, where these documents exist. To support such an approach, I collected nearly twenty library inventories from the late fourteenth to the early twentieth century, thus complementing my investigation into the still extant early modern book collections. Unlike modern library catalogues, these inventories vary considerably in terms of structure and content, making direct comparison challenging. Therefore, a comprehensive, systematic review of these sources will here follow in order to allow us to assess the presence of architectural books in early modern libraries of the eastern Adriatic.

It is notable that half of the known library inventories in the eastern Adriatic precede the advent of printing. Consequently, these records pertain exclusively to manuscript collections. In some cases, the inventories were compiled as a result of a bequest of an individual book collection to either a religious or a secular institution. For instance, the library of Petar Taljani (Pietro Tagliani) was bequeathed to the city of Dubrovnik in 1418,⁶³ while that of Ivan Gazulić (Gjin Gazulli) was donated to the Church of St Mary in Dubrovnik in 1465,⁶⁴ and that of Nikola Pavlov Gundulić (Nicola Gondola) to the Monastery of St Mary on the Island of Lokrum in 1469.⁶⁵ In other instances, the inventories document the condition of an institutional library at more or less regular intervals, as can be observed in the case of the bishopric library in Zagreb, which was recorded in 1394, 1406–1410, and 1426–1433,⁶⁶ or in response to significant legal developments, as is evidenced by the library of the Benedictine Monastery of St Chrysogonus in Zadar in 1449.⁶⁷ In addition, some post-mortem library inventories survive for private individuals, such as those of Šibenik clergymen Jakov Zaljavić and Petar Ivanov (c. 1450).⁶⁸

None of the abovementioned inventories includes any architectural book, which, given the dates in question, could have only been a manuscript copy of Vitruvius. It is, however, important to note that the inventories do not exclusively record ecclesiastical books. It is evident that clergymen owned manuscripts of Latin writers, including Suetonius, Boethius, Livy, Virgil, and Valerius Maximus, as well as early modern Italian texts by Petrarch and Boccaccio. Ivan Gazulić distinguished

between the ecclesiastical and secular content of his books, leaving only those on canon law and the Holy Scriptures to the Church of St Mary.⁶⁹ It is also notable that mathematicians and physicians such as Petar Taljani put into circulation books on medicine and philosophy.

In 1475, the inventory of the library amassed by Canon Fantin De Valle, who gathered books in Rome and bequeathed them to the Monastery of the Holy Cross on the Island of Čiovo near Trogir, contained the first instance of the phrase ‘a stampa’ (in print) being used to indicate printed books. However, the books in question pertain solely to theology, patristic studies, and canonical law. Moreover, the books never reached the eastern Adriatic, as De Valle’s bequest was not executed.⁷⁰

The first library inventory after the invention of print that lists interesting books for the circulation of architectural knowledge in the eastern Adriatic is the *Repertorium librorum*, written in 1521 by the poet and humanist Marko Marulić. A second *Inventorium librorum*, compiled by a notary after Marulić’s death, followed in 1524. Among the 190 items on the two lists, which, according to scholars, do not include all of the volumes of Marulić’s library,⁷¹ there are books from three subject areas: firstly, astronomy, such as Strabo’s *De situ orbis* and John of Hollywood’s *Sphaera mundi* with commentary by Gerardus Cremonensis; secondly, agriculture, such as Varro’s, Cato’s, and Columella’s *De re rustica*, and Pietro de’ Crescenzi’s work in both Latin and Italian; and thirdly, ancient military culture, such as Caesar’s *Commentarii*, Vegetius’s *De re militari*, Quintus Curtius Rufus’s biography of Alexander the Great, and Polybius’s *Historiae*.⁷² Finally, a notable entry in the list, ‘Libellus D[e] arte picture’ (A booklet on the art of painting), warrants more detailed analysis. On the one hand, the word ‘Libellus’ may allude to Piero della Francesca’s manuscript works on perspective and their subsequent dissemination—or plagiarism—in printed books by Luca Pacioli. On the other hand, the title ‘D[e] arte picture’ seems to be more in line with Leon Battista Alberti’s *Della pittura*, a work circulating in manuscript form at that time.⁷³ According to Joško Belamarić, Alberti’s volume must have been circulating in the nearby town of Trogir half a century before the inventories of Marulić’s library, as Niccolò di Giovanni Fiorentino had used some of his recommendations for *istorie* in his sculptures.⁷⁴

The indirect way in which architectural knowledge was introduced into the library of a learned humanist like Marulić is apparent again, twenty-five years later, in the library of Ludovik Žilković, a nobleman from Korčula. Žilković, like many other Dalmatian humanists, received his education in law at the University of Padua. He subsequently served Pope Leo X in Rome before returning to Korčula, where he held an ecclesiastical post until his death in 1555. A 1547 inventory of his library lists 185 titles, which are divided into three sections: ‘Libri in jure canonico’ (Books in canon law), ‘Libri in teologia’ (Books

in theology), and 'Inventario deli libri profani' (Inventory of profane books). The last category is the richest in terms of the number of volumes, including works by Sacrobosco, Ptolemy's *Cosmographia*, Benedetto Bordone's *Isolario*, and the description of the New World by Hernán Cortés. In addition, Žilković owned the miscellany entitled *De re rustica* and two of Pietro de' Crescenzi's volumes. The extensive section of ancient literature was complemented by Flavio Biondo's learned, historical *Roma trionfante* and *Roma instaurata*. Except for Giorgio Castriota 'Scandenbergs' life, Žilković did not concern himself with military culture and history but concentrated instead on the liberal arts.⁷⁵

As far as architectural knowledge is concerned, the most important books recorded in Žilković's library are Francesco Colonna's *Hypnerotomachia Poliphili*, published in Venice in 1499 and reprinted in 1545, and John Peckam's *Perspectiva communis*, first issued in Milan in 1482 and then in Venice in 1504. Unfortunately, the inventory does not provide enough data to determine which editions Žilković owned, as neither of these titles has been identified in the present libraries of the eastern Adriatic. In any case, Žilković's library represents a significant step towards specialised knowledge in architecture and art. This is all the more remarkable when one considers that in the middle of the sixteenth century, the circulation of such books was limited to a few, select professionals and scholars. Nevertheless, Žilković's library underscores the considerable interest in architectural knowledge within aristocratic libraries throughout the eastern Adriatic.

The archbishop of Split Marko Antun (Marcantonio) De Dominis (1560–1624), who was condemned as a heretic, also owned a valuable library. In 1616, the Holy Office confiscated the library and compiled an inventory of 181 books, the majority of which were in the fields of theology and classical literature, though there were also notable holdings in mathematics. De Dominis owned two works by Euclid, namely *Elementi* and an unspecified annotated edition, Ptolemy's *Geographia* and *De predicationis astronomicis*, Christophorus Clavius's *Geometria practica* and an annotated edition of Sacrobosco's *Sphaera mundi*. Of particular note is a copy of a rare treatise on the supposed Jewish origins of the five orders, *In Ezechielem explanationes et apparatus urbis ac Templi Hierosolimitani* by Jeronimo de Pardo and Juan Bautista Villalpando. This book contains large-scale images of Jerusalem and a reconstruction of the Temple of Solomon.⁷⁶ Following the sequestration of De Dominis's library by the Holy Office, this two-volume edition, like the archbishop's other volumes, was likely transferred to Rome.⁷⁷ There are no surviving copies of Villalpando's book in the eastern Adriatic today.

During the seventeenth century, two particularly noteworthy family libraries were established in the Slovenian and

Croatian inland regions, which were under the authority of the Habsburgs. These were the library of the Zrinski family and that of Janez Vaikard Valvasor. Both libraries survive today in Zagreb, thus allowing their holdings to be evaluated through modern catalogues, instead of older library inventories. The Zrinski Library (or Zriniana) is preserved in the National and University Library in Zagreb. It has a card catalogue that is accessible online, and recently an exhibition focused on its holdings in architecture and related fields.⁷⁸ The Bibliotheca Valvasoriana is currently integrated into the Metropolitana, which is the library of the Zagreb Archdiocese. However, Valvasor's library is in fact located within the Zagreb State Archives and only has a printed catalogue.⁷⁹ These libraries contain the first documented copies of architectural treatises, i.e. books specifically devoted to the complete and systematic treatment of the theory of architecture.

The Zrinski Library contains a modest but valuable section on architecture, comprising three seminal works: Vitruvius, presented in the commented Italian translation by Daniele Barbaro (Venice, 1629), Sebastiano Serlio's fourth book on the orders, entitled *Regole generali di architettura* (Venice, 1544), and a reprint of Andrea Palladio's *I quattro libri* (Venice, 1642).⁸⁰ Additionally, the library houses a collection of ancient and modern town descriptions, including three copies of Andrea Palladio's *L'antichità di Roma* (Rome, 1615), the *Historie* by Flavio Biondo (Venice, 1550), a book on amphitheatres by Justus Lipsius (Antwerp, 1604), and a heavily annotated copy of Francesco Sansovino's *Venetia città nobilissima* (Venice, 1581).⁸¹ It is also worth mentioning the presence of a book on agriculture and estate management, Vincenzo Tanara's *L'economia del cittadino in villa* (Bologna, 1651), as well as Athanasius Kircher's *Ars magna lucis et umbrae* (Rome, 1646).⁸²

Nevertheless, it is clear that the Zrinski family had a more pronounced interest in military knowledge. In comparison to the abovementioned three titles on civil architecture, they owned a larger number of books on military architecture. This collection is consistent with the analytical approach to military architecture that had been typical of European engineers since the seventeenth century. It notably encompasses the different European national schools, with significant authors from: the Italian school, including Battista della Valle, Francesco de Marchi, Girolamo Cataneo, Francesco Tensini, and Pietro Sardi;⁸³ the German school, with Daniel Specklin, Andreas Cellarius, Matthias Dögen, and Adam Freitag;⁸⁴ and the French school, with Jean Errard de Bar-le-Duc and Jacques Perret.⁸⁵ Furthermore, some of these authors, such as Cellarius and Freitag, provided insight into the fourth European school of military architecture, the Dutch school.

However, when we consider the broader education of a military leader like Nikola VII Zrinski, a key contributor to the library, it becomes evident that the collection was also rich

in books on various aspects of military culture. Additionally, there were works by ancient classical writers, such as Frontinus's *Astutiae militari* and Vegetius's *De re militari*,⁸⁶ but, surprisingly, no traces of Caesar's *Commentarii*. In addition, the library houses works by Guillaume du Choul on the *castrum*, or Roman military camp, and *De militia romana* by Justus Lipsius.⁸⁷ Moreover, the collection demonstrates an interest in a comprehensive approach to warfare, encompassing general books, for instance Bartolomeo Pellicciari's *Avertimenti in fazioni di guerra* (Venice, 1619) and Mario Savorgnan's *Arte militare terrestre, e marittima* (Venice, 1614),⁸⁸ alongside monographs on more specific topics. In particular, the holdings included works on artillery, such as those by Cataneo (Brescia, 1608) and Sardi (Venice, 1641), Joseph Boilot's *Artifices defeu, & divers instruments de guerre* (Strasbourg, 1603), Luis Collado's *Pratica manuale dell'artiglieria* (Milan, 1606), and a German translation of Diego Ufano's volume (Frankfurt, 1614).⁸⁹ There were also volumes on mechanics, including *Poliorecticon* by Lipsius (Antwerp, 1596 and 1605) and *Nove de machinis philosophia* by Niccolò Zucchi (Rome, 1649),⁹⁰ as well as, of course, on the fundamental principles of mathematics and geometry, for example Josef Gallicius's *Geometria militaris* (Munich, 1676) and Giulio Ballino's useful collection of city maps in *De' disegni delle più illustri città e fortezze del mondo* (Venice, 1569).⁹¹ While the Zrinski Library was somewhat limited in its holdings of books on civil architecture and the arts, it was comprehensive and multifaceted in its coverage of military subjects.

Situated to the north, the Valvasor Library, which boasts approximately 2500 titles, is a considerably more substantial establishment. While Zrinski purchased books primarily for educational and professional purposes, Valvasor was a passionate bibliophile and avid collector of books. His interest in history and geography, land surveys and topography, as well as drawing and printing, made his extensive collection invaluable for practical applications of mathematics and geometry, perspective, descriptions of towns and regions, travel literature, and, of course, civil and military architecture. He frequently collected complete works by a single author, for example books by Joseph Fürsttenbach the Elder and the Younger.⁹² Alternatively, he would purchase multiple editions of the same work in different languages or formats. Despite the theft of some valuable editions during the 1990s, the holdings of this seventeenth-century library remain outstanding. In order to provide a representative sample of the collection, this account will focus on architectural treatises and some significant books on drawing and perspective.

As regards the most esteemed architectural treatises of the Italian Renaissance, Valvasor owned three copies of Vitruvius: the Latin editions by Fra' Giocondo (Venice, 1511) and Daniele Barbaro (Venice, 1567), and the German translation by Walter Ryff (Basel, 1614). He also had three copies of Serlio, the first five

books in both Latin (Venice, 1568) and German editions (Basel, 1609), in addition to the *Extraordinario libro* (Venice, 1560). Moreover, there were two copies of Palladio, an Italian edition (Venice, 1601) and the French abridged version by Pierre Le Muet (Paris, 1645), and two of Scamozzi, one in Dutch (Amsterdam, 1640) and the other in German (Sulzbach, 1678).⁹³ It is worth noting that neither Alberti nor Vignola is represented in the Valvasor Library. In addition to the abovementioned complete set of works by the Fürsttenbachs, one must consider the architectural treatises by Hans Blum, Georg Andreas Böckler, Roland Fréart de Chambray, Hendrik de Keyser, Gabriel Krammer, Franz Liser, Louis Savot, Jakob Schöfflerle, Jan Vredeman de Vries, and Johann Wilhelm, which were often present in multiple editions and copies.⁹⁴ Given that Valvasor was more conversant with the German world and language, the occurrence of German treatises is to be expected. However, among the German books, the first edition of Fréart de Chambray's *Parallele de l'architecture antique et de la moderne* (Paris, 1650) is notable as evidence of Valvasor's attention to the most recent architectural debates in France.

The list of books on military architecture is even longer and more widely dispersed across the European schools, although Italian and German titles are particularly prevalent. The list of military architects and engineers is further augmented by the names of Johann Ardüser, Georg Andreas Böckler, Erns Friedrich Borgsdorff, Girolamo Cataneo, Adam Cellarius, Albrecht Dürer, Johannes Faulhaber, Pietro Paolo Floriani, George Fournier, Adam Freitag, Nicolaus Goldmann, Johann Franz Griendel von Ach, Christoph Heldemann, Anton Hillefeldt, Siegfried Hirsch, Alessandro Lombardi, Bonaiuto Lorini, Alain Manesson-Mallet, Samuel Marolois, Adriaan Metius, Claude François Millet de Chales, Blaise-François de Pagan, Jacques Perret, Heinrich Ruse, Pietro Sardi, Johann Heinrich Sattler Wissenburg, Wendelin Schildknecht, Caspar Schott, Daniel Specklin, Simon Stevin, Carlo Theti, Abdias Treu, and Antoine de Ville.⁹⁵ The military culture of antiquity is documented in the classical works of Tacitus Aelianus, Caesar, and Vegetius, alongside copies of Machiavelli's *Arte della guerra* in its original Italian and German versions.⁹⁶

Valvasor's primary interest was in drawing, perspective, and land survey handbooks, which constituted the largest section of his library. The books on drawings and perspective included works by Andreas Albrecht, Daniele Barbaro, Abraham Bosse, Lukas Brunn, Jean Cousin, Jean Dubreuil, Albrecht Dürer, Peter Halt, Wentzel Jamnitzer, Heinrich Lautensack, Jean-François Nicéron, Jean Pélerin, Lorenzo Sirigatti, and Lorenz Stör.⁹⁷ It is also noteworthy that the library contained a number of books on the practical applications of mathematics and geometry, including specific and rare works on land surveys. These were Silvio Belli's *Libro del misurar con la vista* (Venice, 1569), Latino Orsini's *Trattato del radio latino* (Rome, 1586), Johan Sems's *Prac-*

tica des Landmessens (Amsterdam, 1616), and Pierre Bobynet's *L'horographie ingenieuse* (Paris, 1647).⁹⁸ In its entirety, the Valvasor Library encompassed a diverse range of subjects, from generalist works to those specific to particular disciplines or fields of knowledge.

This review of the Zrinski and Valvasor libraries suggests that the works of Vitruvius, Serlio, Vignola, Palladio, and Scamozzi, along with other books on military architecture and perspective, may have reached inland regions before appearing along the coast. However, such a conclusion is potentially misleading. The Zrinski and Valvasor Libraries are the earliest known complete collections of books containing architectural treatises. However, there is evidence that copies of architectural treatises were owned by single individuals or institutions on the coast during the same period, or even before, as I will show below. The dispersal and the serious damages suffered by the many modern and contemporary book collections on the coast have deprived the extant architectural books of their original context; thus, they can be analysed today only in isolation.

While family, monastic, and a few bishopric libraries increased their collections during the seventeenth century, in the following years, new libraries with an educational objective were established through private bequests to various types of schools in the eastern Adriatic. The investigation of these libraries allows us to reconstruct the role of architectural knowledge in the education of local clergymen and noblemen—that is, those who acted as patrons. Between 1701 and 1706, the philologist and orientalist Ivan Paštrić (Giovanni Pastrizio), who was employed as a teacher in the Congregatio de Propaganda Fide, donated 568 books from his personal library with the intention of establishing a library in the seminary of his hometown, Split. It is regrettable that only the inventory of the initial shipment of thirty-one books has survived, making it impossible to reconstruct the entire library's holdings.⁹⁹ However, in his correspondence with Archbishop Stefano Cosmi of Split, Paštrić outlined a system for organising the library that is of interest.

Paštrić put forth a proposed organisational structure of ten distinct sections, which he linked metaphorically to the fingers of two hands. On the left-hand side, he located the lower sciences; he referred to these as the *Encyclopedia* and included among them the disciplines of languages, humanities, history, geography, and chronology. On the right-hand side, he situated the higher sciences, which he referred to as *Pansophia* and which comprised the disciplines of philosophy, mathematics, law, theology, and universal science. He then provided a detailed account of the specific disciplines that were to be included in each section. For the subject matter of the books that should be included in the section of mathematics, the following was specified:

Matematici, Aritmetici, Geometrici, Musici, Cosmografi,

Astronomi, Astrologi, Computi ecclesiastici o Calendarj, Prospettiva, Specchi, Orologgi a sole, Scioterici, Machine, Fortificazioni, Geografi di matematica, Cronologi di matematica, Geodesia, Architetture.¹⁰⁰

(Mathematical, Arithmetical, Geometrical, Musical, Cosmographical, Astronomical, Astrological, Ecclesiastical computations or Calendars, Perspective, Mirrors, Sundials, Gnomonics, Machines, Fortifications, Mathematical geography, Mathematical chronology, Geodesy, Architecture).

From this inventory, we learn that several of the fields relevant for an architect, such as perspective, solar clocks, mechanics, fortification, land surveys, and, last but not least, architecture itself, were actually part of the education of the elite members of society in early-eighteenth-century Split. As usual, by the term 'Architetture', Paštrić meant civil buildings and, in particular, the theory of the five orders.

Monasteries continued to play an important role in the education of the aristocracy in the eastern Adriatic throughout the centuries under study here. The fact that the majority of the architectural books currently in monastic libraries in the area date to the eighteenth century confirms the fact that it was only then that architecture entered the aristocratic educational system on a permanent basis. However, this was not always the case. The library of the Gymnasium in Split, which was founded in the same years as the Bibliotheca Pastrizia and which has survived to the present day, does not have any titles relevant for architectural knowledge.¹⁰¹

Among the various religious orders, the Jesuits played a prominent role in the education of the local ruling class through their colleges. As a consequence of the Venetian hostility towards them, the Jesuits were able to settle only in the autonomous Republic of Ragusa and the coastal towns under Habsburg control, specifically in Rijeka and Trieste. While the libraries of these Jesuit colleges have survived to the present day, albeit in a somewhat compromised state, the full extent of their original holdings is better reflected in old inventories. The inventory of the Dubrovnik library, dated to c. 1870, lists the triad of the Renaissance architectural treatises: Alberti, Vignola, and Palladio, although the copy of Vignola was already missing by that point. Moreover, the library housed *Perspectiva pictorum et architectorum* by the Jesuit Andrea Pozzo, a volume on military architecture by Pietro Sardi, and the mathematical works of Niccolò Tartaglia that were printed by the Navò press.¹⁰² Unfortunately, none of these books has been found today in libraries of the eastern Adriatic. The library of the Jesuit college in Dubrovnik was distinctive within the eastern Adriatic, reflecting the heightened interest in architectural books among the local aristocracy. Based on the evidence available, the Jesuit libraries

in Rijeka and Trieste could not compete with Dubrovnik; they held only a limited number of seventeenth- and eighteenth-century mathematical handbooks with sections on civil architecture, drawing, and land surveys,¹⁰³ and such volumes were, in any case, more abundant in Dubrovnik.

During the eighteenth century, a few aristocratic libraries emerged along the coast of southern Dalmatia. These included the Martinis-Marchi Library in Split, as well as the Garagnin-Fanfogna and Miočević-Rendić libraries in Trogir. While the number of books in these libraries was greater than that in the older libraries in the area, it is also worth noting that the Garagnin-Fanfogna and Miočević-Rendić libraries demonstrate a particular interest in the arts and architecture. Despite being formed by clergymen Ivan Luka Garagnin (1722–1783), bishop of Rab and later archbishop of Split, and Ivan Antun Miočević, bishop of Trogir (1766–1786), these book collections illustrate the profound interest that eighteenth-century learned Dalmatian patrons had in books on art and architecture.

The Martinis-Marchi Library is the oldest of the three. It can be traced back to Ivan Petar Marchi (1663–1733), a member of a family that was originally from Bol on the Island of Brač and that subsequently settled in Split towards the end of the sixteenth century. Ivan Petar was regarded as a figure of considerable importance within contemporary book culture, having been appointed librarian of the abovementioned Bibliotheca Pastrizia in 1703. He participated in culture at large and the arts even beyond the local context. In 1712, the Austrian architect Johann Bernhard Fischer von Erlach attested that he had received the materials for his reconstruction of Diocletian's Palace from Ivan Petar Marchi of Split.¹⁰⁴ Following the death of Ivan Petar without heirs, his properties were inherited by members of the Martinis family, who assumed the surname of Martinis-Marchi. They proceeded to expand the library further through additional purchases until 1856. As evidenced by an inventory of 1868, the Martinis-Marchi Library comprised 2084 works in 2767 volumes. Following the demise of Ivan Petar Martinis-Marchi (1840–1856), the library was bequeathed to the charitable Casa d'Industria e Ricovero Martinis-Marchi. Today, portions of the Martinis-Marchi Library are located in the University Library and the library of the Archaeological Museum in Split, as well as in other libraries across Dalmatia.¹⁰⁵

The Martinis-Marchi Library reflected the typical book collection of an elite family in the eastern Adriatic, with a particular focus on military culture, mathematics, and agriculture. Nevertheless, despite the presence of approximately thirty books of interest for architectural knowledge, only a few contain substantial information. The books on the art of war primarily address military discipline and tactics. Among these works, only *Le curieux simple soldat parfait en la fortification* by

Francesco Fiorenza (Liège, 1645) presents an exhaustive treatment of military architecture.¹⁰⁶ In addition to the numerous handbooks on mathematics and geometry, stretching from Euclid to André Tacquet and beyond, the only work with significant content on civil and military architecture is the encyclopaedia of mathematical disciplines by Christian Wolff. Finally, the sole work on agriculture and gardening that provides significant insights into garden design is *Curiositez de la nature et de l'art sur la vegetation: ou l'agriculture, et le jardinage dans leur perfection* by Pierre Le Lorrain de Vallemont. The Martinis-Marchi Library, which also included copies of Jacques Ozanam's book on proportional compasses and Francis Bacon's *Nova Atlantis*,¹⁰⁷ was a large collection that demonstrated only a marginal interest in architectural knowledge.¹⁰⁸

Conversely, the libraries of Garagnin-Fanfogna and Miočević-Rendić, both originating in Trogir and today preserved respectively in the Trogir Town Museum and the Institute for Historical Sciences of the Croatian Academy of Sciences and Arts in Dubrovnik, attained a remarkable degree of richness and specialisation in the fields of art and architecture. This is noteworthy, as the focus on these fields exceeds the usual interest of noble families in such matters. Both collections contain dozens of architectural books, including works by major names in the fields of archaeology as well as art and architectural theory from the Renaissance to Neoclassicism.

Ivan Luka Garagnin established a library through his post as a clergyman, while his nephews, Ivan, Ivan Luka, and Dominik Garagnin, subsequently expanded the collection to its current size of 5582 titles. The Garagnin family engaged the services of librarians to catalogue their collection; the first catalogue was compiled in 1796.¹⁰⁹ A distinctive aspect of the library amassed by Ivan Luka Garagnin is the narrow timespan of the printing dates of architectural books. He predominantly acquired recent editions that were contemporaneous to his own time. The catalogued book copies in fact all date to the eighteenth century, between 1706 and 1787. In comparison to other contemporary families in the area, whose libraries preserve books from the sixteenth and seventeenth centuries, it seems that Garagnin aimed not to collect copies of Renaissance architectural treatises, but rather the newest books of his century.

Nevertheless, Garagnin did not entirely overlook the contributions of Renaissance architects. On the contrary, he opted to include them in recent eighteenth-century editions or reprints. This is exemplified by Palladio's *Quattro libri dell'architettura*, which appears to be the *editio princeps* of 1570, but is, in fact, the counterfeited reprint of 1768 published by Pasquali in Venice.¹¹⁰ Similarly, Garagnin purchased three editions of Vignola's *Regola*, all of which were printed in the eighteenth century (Rome, 1719; Venice, 1778; and Bassano, 1787).¹¹¹ With regard to Vitruvius, he selected the Italian translation of Claude Perrault's summary,

which was accompanied by the original text and commentaries by Daniele Barbaro (Venice, 1747).¹¹² Additionally, Ivan Luka exhibited a keen interest in the most up-to-date French architectural theory, acquiring the first edition of Jean-Louis de Cordemoy's *Nouveau traité de toute l'architecture* (Paris, 1706),¹¹³ as well as the accounts of the latest archaeological discoveries. He also owned Robert Adam's lavish book on Diocletian's Palace in Split (London, 1764), with the Italian translation of the text, as well as Scipione Maffei's essay on amphitheatres.¹¹⁴ Garagnin, moreover, had three copies of Jacques Lacombe's dictionary on the arts in its Italian edition (Bassano, 1768) and Tommaso Temanza's *Vite* of the sixteenth-century Venetian architects and sculptors (Venice, 1778).¹¹⁵ In comparison to the relatively generic nature of the architectural knowledge that could be found in the Martinis-Marchi Library, the Garagnin-Fanfogna book collection contained a more specific and qualitatively superior corpus of information.

The Miočević-Rendić collection is even more impressive for its extensive and high-quality holdings in books on architecture. It contains forty-three copies of architectural books, in comparison to the seventeen copies held by the Garagnin-Fanfogna Library. Furthermore, the number of books on art and architecture is noteworthy when one considers that the Miočević-Rendić Library is a modest collection of 680 titles in 1047 volumes, a total that is considerably lower than the more than 5000 titles of the Garagnin-Fanfogna library. Unfortunately, there is still little information available regarding the provenance and subsequent history of this book collection. The core of the collection originated in the private library of Trogir Bishop Ivan Antun Miočević. Following his death in 1786, the bishop's valuable book collection was inventoried, together with the goods in his house. The library then passed to the Rendić family, which enriched it with new purchases, and it ultimately entered the Institute for Historical Sciences in Dubrovnik through a donation in 1983.¹¹⁶

The Miočević-Rendić Library houses three distinct editions of Vitruvius's *De architectura*. These include the best Renaissance Italian translation by Barbaro (Venice, 1629), as well as the more contemporary eighteenth-century commentaries on the text by Giovanni Poleni (Padua, 1739) and Berardo Galliani (Siena, 1790).¹¹⁷ Additionally, the collection includes: various works by Leon Battista Alberti, for instance *Della architettura della pittura e della statua* (Bologna, 1782); Sebastiano Serlio's initial five books on architecture (Venice, 1559), with the *Extraordinario libro* (Venice, 1568); two editions of Vignola (Rome, 1626 and Venice, 1773); and Vincenzo Scamozzi's *Dell'idea della architettura universale* (Venice, 1714).¹¹⁸ The library also holds the most common eighteenth-century handbooks for architectural learning in convents and religious colleges, namely those by Girolamo Maria Fonda (Rome, 1764) and Giovanni Battista

Izzo (Vienna, 1764).¹¹⁹ However, at the same time, there were a number of rare architectural treatises, both from the eighteenth century and earlier periods, such as Giovanni Branca's *Manuale d'architettura* (Rome, 1783), Federico Sanvitali's *Elementi di architettura civile* (Brescia, 1765), Teofilo Gallaccini's *Trattato sopra gli errori degli architetti* (Venice, 1767), Antonio Visentini's *Osservazioni* on Gallaccini's book (Venice, 1771), Francesco Milizia's *Principj di architettura civile* (Venice, 1785),¹²⁰ and others. The Miočević-Rendić Library holds the only surviving copies of these works on the eastern Adriatic coast, and the same is true of the editions of Vitruvius by Poleni and Galliani.

While the Miočević-Rendić collection evinces little interest in the field of military architecture, its holdings in the visual arts are extensive and varied. The library contained biographical collections of architects, including the Italian translation of Félibien des Avaux's *Recueil historique de la vie et des ouvrages des plus célèbres architectes* (Venice, 1755) and Milizia's *Memorie degli architetti antichi e moderni* (Bassano, 1785).¹²¹ However, missing were works by Vasari, Baldinucci, Ridolfi, and other authors who wrote about painters and sculptors. Nevertheless, *Iconologia* by Cesare Ripa (Perugia, 1764–1767), Leonardo's *Trattato della pittura* (Bologna, 1786), Hubert Gautier's *L'arte di acquerellare* (Venice, 1760), Roger des Piles's *L'idea del perfetto pittore* (Venice, 1772), Milizia's *Dizionario delle belle arti del disegno* (Bassano, 1797), and his *L'arte di vedere nelle belle arti* (Bassano, 1792)¹²² confirm a clear and specific interest in the visual arts.

The section on mathematics is also of considerable significance. The *editio princeps* of Cosimo Bartoli's *Del modo di misurare* (Venice, 1564) appears alongside a later reprint of Bartoli's translation of the works of French astronomer Oronce Finé (Venice, 1670).¹²³ Again, Baldassare Orsini's *Della geometria e prospettiva pratica* (Rome, 1771) and Giuseppe Antonio Alberti's *Istruzioni pratiche per l'ingegnere civile, o sia perito agrimensore, e perito d'acque* (Venice, 1761)¹²⁴ reveal that the owners' intention was not the construction of a comprehensive mathematical and geometrical education, but rather the acquisition of specific knowledge of the practical applications required for architects and surveyors.

It is regrettable that some of the library's books are currently missing, including those by Scamozzi and Vignola. These were listed in the catalogue compiled after the donation in 1983. Moreover, the scarcity of historical data on this book collection presents us with significant challenges. The original nucleus of the collection can be traced back to Antun Miočević, a clergyman from Šibenik who served as bishop of Trogir from 1766 to 1786. However, it is not always possible to differentiate between books acquired by him and those of later purchases. The inclusion of nineteenth-century books and late-eighteenth-century volumes printed after the bishop's death indicates that subsequent generations of the Miočević and Rendić families may

have contributed to the expansion of the collection.

It should be noted that the libraries belonging to the Zrinski, Valvasor, Garagnin-Fanfogna, and Miočević-Rendić families were exceptions in the eastern Adriatic. Rather than representing the standard library of noble families, these libraries were the products of the interests of a few learned, aristocratic individuals, who were sometimes characterised by a touch of collecting mania. The quantity and quality of the architectural book copies in these libraries suggest a specialised interest in specific areas of knowledge, ranging from military architecture and land surveys to the academic study of architecture and the visual arts.

The small library of the Ragusan noblewoman Maria Giorgi Bona (Marija Katarina Đurđević Bunić, 1754–1839) offers a more accurate representation of the typical family library in the eastern Adriatic. The library, as detailed in the 1839 inventory, consisted of 265 works in 749 volumes and was arranged in two cupboards of seven shelves each.¹²⁵ In line with the activities of the literary salon managed by this noblewoman, the majority of the entries pertain to ancient, early modern, and contemporary literature and poetry, though there are also extensive holdings in civil and canon law alongside a small but qualitatively significant presence of scientific and scholarly books.

Maria Giorgi Bona's library exhibits a particular emphasis on works concerning etiquette and good manners, as exemplified by the writings of Giovanni della Casa, Baldassare Castiglione, and Baldassar Graziano. The library also has remarkable holdings in agriculture and estate management, including the works of Cosimo Trinci and Casimiro Affaitati, along with the collection entitled *Scriptores rei rusticae veteres latini*. Furthermore, the library's volumes reflect an interest in mathematics and geometry; it contains the works of Stanislao Canova and Gaetano de Ricco, Leonardo Ximenes, and Isaac Newton. In Bona's modest collection, only two volumes had significant artistic and architectural content: the mathematical encyclopaedia by Christian Wolff (Verona, 1754) and a rare collection of engravings after drawings by Gentile Bellini entitled *Columna Theodosiana* (Venice, 1765).¹²⁶

It is worthwhile to conclude this review of the presence of architectural books in the libraries of the early modern eastern Adriatic with the library of the Gučetić (Gozze), a prominent aristocratic family of Dubrovnik. The Gučetić family members were leaders in the cultural milieu of Dubrovnik; numerous individuals occupied the highest secular and religious positions, and there were also notable intellectuals, such as the philosopher Nikola Vitov (Nicola di Vito Gozze, 1549–1610), the writer Ivan (1451–1502), and dramatist Ivan the Younger (Ivan mladi, 1625–1667).¹²⁷ In 1661, the Ragusan Senate accepted a donation from Ivan Vitov Gučetić of the family library; he also urged them to establish a public library in the city. The Dubrov-

nik earthquake of 1667 resulted in the unravelling of this plan. Ultimately, the Gučetić book collection was relocated to the library of the Jesuit college in 1670.¹²⁸ Nevertheless, the Gučetić family continued its bibliophilic pursuits, as is evidenced by a comprehensive catalogue of almost 2000 titles compiled in 1819.¹²⁹ Regrettably, the Gučetić Library was scattered during the turbulent decades of the nineteenth century; some books found their way to other libraries and collections in Dubrovnik, while many others simply disappeared.

If we consider the titles recorded in the 1819 catalogue, the Gučetić Library comprised eighty-six architectural books within a total of 1842 entries. In terms of quantity, this library, belonging to one of the most powerful and long-standing Ragusan noble families, is unusually large. However, alongside the abovementioned specialised libraries, the Gučetić Library remains more representative of the typical aristocratic library, which had no particular focus on architectural knowledge. It is notable that the four architectural treatises in the 1819 catalogue represent only 5% of the architectural books contained in the collection (Tab.1.1). These treatises were: the edition of Vitruvius with the explanations by Guillaume Philandrier (Lyon, 1552), an Italian translation of Alberti (Venice, 1546), and the first editions of both Palladio (Venice, 1570) and Scamozzi (Venice, 1615).¹³⁰ With the addition of Vignola's *Le due regole della prospettiva pratica* (Bologna, 1682), the all-star list of Renaissance architectural theorists can almost be complete.¹³¹ Despite the quality of these works, their number and, consequently, their small proportion of the total holdings, indicate a modest interest in architectural treatises. As already mentioned, this percentage was lower than that of those libraries more specialised in artistic and architectural knowledge, but it is also considerably lower than the proportion of architectural treatises (20%) among architectural books currently preserved in the libraries of the eastern Adriatic (Tab. 0.7).

The Gučetić Library (Tab.1.1) has higher percentages in the categories of drawing, perspective, and land surveys (22%), military architecture (21%), and descriptions of ancient and modern towns and regions (19%). In addition to handbooks on practical mathematics by Euclid, Clavius, Tacquet, Bošković, and Soave, Gučetić also made use of books on perspective by Vignola and Abraham Bosse (Paris, 1653), as well as of Charles-Antoine Jombert's *Méthode pour apprendre le dessein* (Paris, 1755).

In the context of military architecture and, more broadly, warfare, another list of all-star names can be provided. The library contains the works of the most prominent authors discussing Italian Renaissance fortification, such as those of Girolamo Maggi and Giacomo Fusti (called Castriotto; Venice, 1564), Girolamo Cataneo (Brescia, 1571), and Carlo Theti (Venice, 1589), as well as volumes by renowned names of the European schools of military engineers, such as Abbot Deidier (Paris,

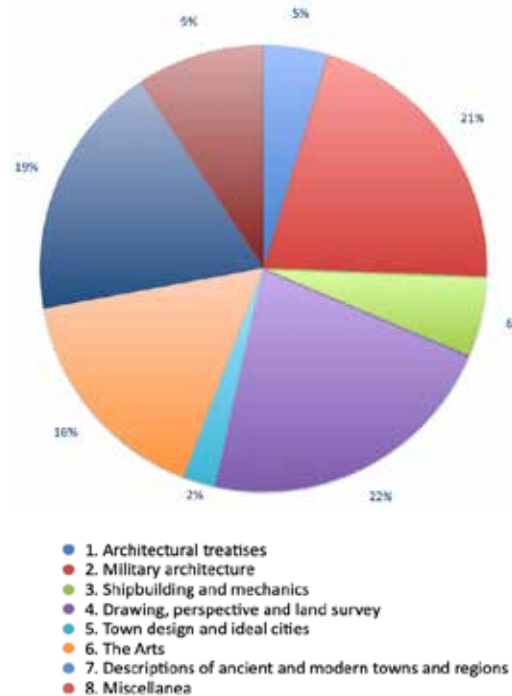
1742), Menno van Coehoorn (The Hague, 1755) and, of course, Vauban (The Hague, 1742). This group also included the works of ancient Greek and Roman writers, for instance Polybius, Vegetius, Frontinus, and Julius Caesar, alongside the writings of Machiavelli and the later Italian and French handbooks of tactics, army manoeuvres, and artillery.

The extensive collection of descriptions of ancient and modern towns and regions encompasses the works of Leandro Alberti and Abraham Ortelius, as well as the writings of Flavio Biondo and a number of volumes on Roman antiquities, including those by Paolo Manuzio and other authors. Additionally, the collection demonstrates a notable interest in antiquities, as evidenced by books on the iconography of Roman emperors in medals and coins, and on Etruscan archaeological remains. Furthermore, the library displays a profound curiosity about the arts, with these books accounting for 16% of the collection, a figure that significantly exceeds the percentage of architectural treatises. These volumes reflect a later emphasis, because, with the sole exception of Giambattista Marino's *Galeria* (Venice, 1620), the books are all from the eighteenth century, such as Lacombe's dictionary (Bassano, 1768), essays on painting by Diderot, Hogarth, Joullain, and Salvator Rosa, and catalogues of the painting galleries at Schloss Salzdahlum (Braunschweig), the Academy in Vienna, and the Uffizi in Florence. This passion for art in the Gučetić family lasted until the beginning of the nineteenth century, as is manifest from the presence of Winckelmann's *Storia delle arti del disegno degli antichi* (Milan, 1779) and Alexandre Lenoir's catalogue of the *Musée des Monuments Français* (Paris, 1806).

It is worth mentioning the books on agriculture and house management, which appear to have captured the interest of the Gučetić family as early as the sixteenth century. A copy of the widely disseminated collection entitled *De re rustica* (Lyon, 1541) stood adjacent to Vincenzo Tanara's *L'economia del cittadino in villa* (Antwerp, 1581) and, of course, to Nikola Vitov Gučetić's *Governo della famiglia* (Venice, 1589). The interest in these fields endured across the centuries, with notable works including the *Cento e dieci ricordi, che formano il buon fattore di villa* (Venice, 1679), *Problemi per gli agrimensori* by Vincenzo Mascheroni (Pavia, 1793), and the *Collection sur l'architecture rurale et l'agriculture* (Paris, 1807) by François Cointreaux, the founder of the *École d'architecture rurale* in Paris.¹³²

The remarkable extent and quality of the Gučetić Library cannot be attributed to the efforts of a single individual, as was the case for other libraries included in this review. The inventory of the books in the Gučetić Library reveals that it was a family enterprise, arising out of a continuous and multigenerational effort to acquire books; the broad range of printing dates of the listed books indicates this approach. As evidenced by the early-nineteenth-century volumes, the family's collecting prac-

1.1. Books per Category in the Gučetić (Gozze) Library



tices continued until the dissolution of the Republic of Ragusa and the subsequent dispersal of the library after the 1819 inventory. Moreover, the printing places and the languages of the books demonstrate the pan-European perspective and multicultural attitude of this Ragusan family throughout its long history.

Professional Libraries

The detailed discussion presented above focused exclusively on family and monastic book collections in the early modern eastern Adriatic. None of the libraries analysed belonged to individuals engaged in the professional building trade. Despite the fact that noble families and religious orders were the most significant patrons of architecture in the eastern Adriatic, they did not use their architectural books in what could be considered a professional capacity. This observation gives rise to a crucial question in my study: did professional libraries exist in the early modern eastern Adriatic? Did architects, stonemasons, and workshops possess collections of architectural books?

The answer to this question is not straightforward and therefore deserves to have a section devoted to it. The evidence for the existence of specialised book collections owned by stonemasonry workshops, architects, and engineers in the early modern eastern Adriatic is scarce and fragmentary. The material evidence of possession preserved in extant book cop-

ies—of which a detailed consideration will follow (see Chap. 2, ‘Owners: Social Status and Profession’)—does not allow for the reconstruction of a comprehensive portrait of professional libraries. This is due to the fact that such evidence neither covers the full extent of the phenomenon of the professional library, nor allows for a qualitative analysis of its possible content. In other words, the dearth of direct evidence precludes an answer to questions such as the following two: how many professionals of the building trade owned architectural books in the early modern eastern Adriatic? Which titles did they collect and use? It is nevertheless possible to infer from a quantity of indirect data that professional libraries did exist. Thanks to this data, it is possible to attempt, through an inductive methodology, the reconstruction of a few professional libraries in the region. It is reasonable to assume that they are representative of other similar professional libraries, the sources of which are in such a fragmentary state that their reconstruction is not feasible.

Indeed, there is evidence to suggest that at least one inventory of a professional library was compiled in the eastern Adriatic during the early modern period. The owner of the library was Zorzi Calergi, an engineer of Cretan origin who worked for the Venetian government in the Split area around the mid-seventeenth century. Although this is the sole known inventory of a professional library, other documents can complement it. Two well-known collections of architectural drawings and notes can serve such a complementary purpose: the anonymous so-called Korčula Sketchbook (Diocesan Library, Korčula) and the papers of the architect Giovanni Battista Camozzini (Hvar Heritage Museum). In both, it is possible to reconstruct the sources of their compilers. While Camozzini often explicitly stated and accurately quoted his sources within the text, the sources remain implicit for the Korčula Sketchbook, requiring a process of decoding the drawings.

The sketchbook and the extant set of Camozzini’s papers permit a partial reconstruction of the libraries of their creators. It is, in fact, possible to infer the books that were available to Camozzini and the anonymous compilers of the Korčula Sketchbook while they were engaged in the act of drawing sketches or writing notes. Unlike a comprehensive library inventory, this reconstruction cannot be considered to include the entire set of books available to the authors. However, it does provide insight into the specific works used in the process of compiling these sources. The Korčula Sketchbook, Camozzini’s papers, and Zorzi Calergi’s library inventory all date to the seventeenth century and together form a relatively coherent group for the investigation of professional libraries of architecture in the early modern eastern Adriatic.

The oldest and probably most complex item is the Korčula Sketchbook. Even though it is the only architectural sketch-

book preserved in the eastern Adriatic, literature on it is quite scarce.¹³³ From the fifteenth century onwards, the Island of Korčula played a crucial role in the Adriatic stone trade. A large class of skilled local stonecutters and stonemasons established a number of family workshops, which laboured on the excellent, compact limestone that was available in various quarries on the island and smaller islets nearby. Korčula workshops supplied the towns of Dubrovnik and Kotor with large amounts of both raw stone blocks and ready-made, standardised architectural elements, but their stone trade also extended to the Italian peninsula, from Apulia up to Mantua.¹³⁴ Drawings and templates were regularly sent to Korčula workshops in order to get ready-made elements back, according to a well-established system of ‘prefabrication’. Consequently, it is reasonable to assume that across generations, these workshops amassed large collections of drawings of the elements they executed in stone. However, the Korčula Sketchbook is today the only known surviving item of its type.

Its exact date is rather difficult to determine because the sketchbook is a palimpsest of drawings, sketches, and printed and written materials of different natures, origins, and times. The only clear temporal facts are the dates of some letters bound with drawings in the sketchbook. The Italian translation of a letter by the Ottoman sultan to the king of Poland dates to 1647 and has prompted scholars to date the sketchbook to the mid-seventeenth century. But it is also evident that the sketchbook contains earlier materials and later additions. On the back cover, a handwritten note records ‘Conte Agustino Letis’, an individual from a Korčula family whose members are documented as official translators, surveyors, and, in the eighteenth and nineteenth centuries, shipbuilders as well. Agostino Letis was probably a later head of the family, as another letter by P. Miutini from Korčula, dated 1737 and bound in the sketchbook, mentions him.

Of the twenty-seven bound sheets, the first fifteen have earlier drawings by one hand that have been pasted onto the sheets, while the subsequent twelve pages feature sketches by another hand in a somewhat naïve style. Moreover, the sketchbook also includes needle-punched paper ornaments, which were used in the copying process for the technique of pouncing, or ‘spolvero’ (pouncing), and there are printed, decorative patterns cut out from books, such as titles and initials. This is important evidence that one of the compilers of the Korčula Sketchbook had early printed books at hand. Cvito Fisković has set the sketchbook in the context of fifteenth- and sixteenth-century damaged or badly crafted books, from which decorative elements were cut out from loose leaves.¹³⁵

The analysis of some drawings representing decorative elements and church furnishings indicates that the authors were familiar with seventeenth-century Korčula production of archi-

tectural elements. However, the representations of the elements of the Doric, Corinthian, and Composite orders that were pasted onto the pages of the sketchbook shows that other sources were available too. While Fisković generally referred to the architectural treatises of Alberti, Serlio, and Vitruvius,¹³⁶ more recently Jasenka Gudelj re-evaluated this topic with a more detailed analysis. Although the debt to the architectural treatises of sixteenth-century authors is unquestionable, from Serlio to Vignola and from Palladio to Scamozzi, but not including Vitruvius and Alberti, Gudelj detected a certain mixture of elements. None of the orders in the Korčula Sketchbook perfectly corresponds to what these authors suggested, and, above all, the representations are even mixed with some actual Venetian buildings, namely the Biblioteca Marciana and the Loggetta by Jacopo Sansovino.¹³⁷

Two chimneypieces are also depicted in the second part of the sketchbook. Each drawing presents two different solutions, one on the left and another on the right, in a common technique among architects and widely used, for instance, by Palladio. However, the forms of the chimneypieces are variations of the models provided by Serlio in his fourth book. All told, the sheets of the Korčula Sketchbook demonstrate both a generic familiarity with early printed books and a close acquaintance with the sixteenth-century treatises of at least Serlio, Vignola, and Palladio. Because of the fragmentary nature of the sketchbook and the presence of architectural elements taken from actual buildings in Venice, it is not possible to establish whether the compiler had the abovementioned architectural books in Korčula or elsewhere in the eastern Adriatic, or whether he created his drawings while he was in Venice. Whether the drawings were created via copies of architectural treatises or via drawings copied from them, the models of some of the main sixteenth-century Renaissance architects and authors reached Korčula during the seventeenth century.

The second example here, in terms of chronology, is that of Zorzi Calergi. The Venetian Senate hired him on 12 September 1667, despatching him to the General Procurator of Dalmatia and Albania, Antonio Priuli.¹³⁸ From 1669, Calergi served as governor of the Klis fortress, and in 1684, he was named 'primo ingegnere in campo' (chief field engineer).¹³⁹ He worked as a surveyor with other engineers on the draughting of cadastral maps in Salona and Klis, drawing the newly acquired territories after the Candian War.¹⁴⁰ Finally, he is mostly known for his unsuccessful attempt to build an Orthodox Greek church in Split, a project that caused trouble in the Propaganda Fide Congregation in Rome and in the Venetian government as well.¹⁴¹ On 19 April 1687, he wrote a will, in which he briefly mentioned his books and maps, intending to leave them to his nephew for his study. In a second will, dated 6 August 1688, he confirmed the previous one and declared he was leaving for the East, with the

probable intention of returning to Crete. The will was opened on 24 October 1689, so he must have died between these last two dates.¹⁴²

Calergi's will refers to a list of the books and maps he used in his profession, but unfortunately this list is no longer attached to the first or second will. Research in the Split State Archives, where Calergi's wills are preserved, has not unearthed the list. Calergi's activity as surveyor and military engineer does not provide enough evidence to infer his sources from his executed works. Therefore, it is only possible to conclude that he had a professional library large enough to require an inventory at the time he dictated his will. Calergi's library encompassed unknown amounts and proportions of books.

Like Calergi, Giovanni Battista Camozzini was a surveyor and military engineer in the service of the Venetian Republic, for which he worked from 1698 until his death in 1730. He came from Bergamo and, as did many people in the eastern Adriatic, spoke different languages because of the multilingual environment in which he lived; his wife was the sister of an Irish man in the Venetian army. Also like Calergi, he worked on the newly acquired territories around Split, though after the Morean War, renovating the fortress of Knin and draughting cadastral maps. As a state engineer, he worked on the maintenance of coastal infrastructures, for instance lazarettos—including the new lazaretto in Herceg Novi (Castelnuovo)—and sporadically designed churches and belfries.¹⁴³

A large file of papers now in the Museum of Hvar Heritage, a branch of the Split State Archives, preserves Camozzini's study notes and projects, as well as part of his professional and private correspondence. A sheet with the drawings of the Ionic and Corinthian orders demonstrates his reading of Vitruvius. The annotations on the drawings seem to come directly from an Italian translation of the Latin text, probably by Barbaro, and a quotation from Vignola is present too. However, instead of focusing on the five orders, Camozzini was an avid reader of treatises about military architecture. In his notes, he often compared ideas from different authors on the same subject. The recurring names in his comparative studies are those of Pietro Sardi, Antoine de Ville, Jean Errard Bar-le-Duc, and Matthias Dögen. Given the publication dates of these treatises, for which the first editions stretch from the late sixteenth to the first half of the seventeenth century, one might consider Camozzini's sources to be somewhat outdated for military architecture of the early eighteenth century. Nevertheless, a reference to the more recent *Le véritable Vauban* by Christoph Leonhard Sturm (The Hague, 1708 and 1710) indicates that Camozzini was also acquainted with contemporary titles. Sturm's book contributed significantly to disseminating the principles of Sébastien Le Prestre Vauban, the most renowned military engineer of the seventeenth century and the chief engineer of King Louis XIV of France.

It is intriguing to observe that, with only a few books by the abovementioned authors, Camozzini obtained an overview of three distinct national schools of military architecture: the Italian, the German, and the French; he displayed a particular fondness for the lattermost. Only the Dutch school was missing, but probably the traditional specialisation of Netherlandish engineers, temporary earthen ramparts in low-lying lands where there was an abundance of water, was not relevant in the eastern Adriatic, as the ground was mainly of stone and earth could even be a relatively scarce commodity.

It seems that like Calergi, Camozzini had a small, specialised library with a few books useful for his profession. The fate of these books after Camozzini's death in 1730 remains unknown. Among the collections that I examined in today's libraries of the eastern Adriatic, there were no books that could have originated from Camozzini's library. Some of Camozzini's books, such as the editions of Vitruvius and Vignola (Tab. 0.13), or the copy of Sardi for military architecture (Tab. 0.15), still survive in numerous copies, but none of these copies bears material evidence of possession connected with Camozzini.¹⁴⁴ However, other books used by Camozzini are particularly rare: copies of De Ville are only in the Valvasor Library and the University Library in Pula;¹⁴⁵ Errard Bar-le-Duc and Dögen appear only in the Zrinski Library;¹⁴⁶ and *Le véritable Vauban* is entirely absent. Evidently, the books used by Camozzini did not remain in the libraries of the eastern Adriatic, and some of his sources regarding military architecture were probably rare at his time too.

Extant sources thus indirectly prove the existence of professional libraries, which also included manuscripts and drawings, in the seventeenth- and early-eighteenth-century eastern Adriatic. The examples analysed above reveal the use of architectural books in professional settings, here engineering and stonemasonry, to nurture architectural knowledge and foster the development of various architectural designs and techniques. Yet, despite the evident existence of these libraries, a deeper analysis of the sources raises queries regarding their accessibility, the extent of their collections, and their impact on the architectural practice of the time.

It is important to note that both Calergi and Camozzini, who evidently possessed professional libraries, were not natives of the eastern Adriatic, but rather settled in Dalmatia due to their service to the Venetian Republic. This means that they were involved in state commissions, had substantial salaries, and were frequently in contact with individuals in Venice.¹⁴⁷ Consequently, they could afford books and readily obtain them, as they had easy access to one of the largest European book markets, probably even while being distant from the capital. The situation seems to have been different for local masters primarily engaged in private or church commissions. Did they also possess professional libraries? While it is indeed reason-

able to assume that they might have, the examination of the drawings in the Korčula Sketchbook does not provide us with sufficient insight to answer this question definitively. Unlike Camozzini's drawings, which were followed by quotations whose sources can be easily traced, the process by which the drawings in this sketchbook were created from early printed books is not yet completely clear.

Although it still is not possible to determine the authors and owners of the Korčula Sketchbook, material evidence of possession found in the copies of architectural books preserved in today's libraries provide insight into the general topic of book ownership among local masters in the eastern Adriatic. A detailed discussion of such book owners, their professions, and cultural identities follows below (see 'Owners and their Books', and Chap. 2, 'Owners: Social Status and Profession'). However, some details follow here in advance. Of the identified owners of architectural books, only four individuals fit the description of local masters: Petar Andrijić, the painter Dominik Divnić (Dinko Divnić, Domenico Difnico, or Dominicus Diphnicus, 1620–1674), the stonemason and architect Ignacije Macanović (1727–1807), and Dominik or Domenico Uvoda.¹⁴⁸ Other names, such as Giuliano Cassani, Paolo Gasparetto, Marcantonio Chiarini or Giovanni Battista Fontana, clearly have Italian origins.¹⁴⁹

While most of the seventy recorded owners of books were noblemen and clergymen, there is only limited evidence for the circulation of architectural books among the workshops of local stonemasons and artists in the eastern Adriatic, particularly during the seventeenth and eighteenth centuries. It is crucial to emphasise that this statement arises out of the findings discussed above about architectural books in the inventories and catalogues of early modern aristocratic and ecclesiastical libraries in the area (see 'Architectural Books in Early Modern Eastern Adriatic Libraries'). The data that I collected reveal how architectural treatises began appearing in both professional and non-professional libraries during the seventeenth century and became more prevalent in the following century. Previously, as is evident from extant examples, library inventories had not listed monographic books on architecture, but had instead included works conveying architectural knowledge within a broader treatment of other disciplines, such as mathematics, Latin military literature, or agriculture.

The Coast and the Inland: Printing Places

In our continuous shifting between past and present, it is time now to turn to the research on architectural book copies preserved in today's libraries of the eastern Adriatic. Although the catalogue resulting from this research reflects the present situation, it is nevertheless a suitable tool for the assessment of

book circulation in the past, too. As data on the provenances of volumes are fragmentary and incomplete, it is simply impossible to reconstruct the previous histories of over 1000 catalogued book copies, ascertain their owners, and determine when and where they were bought and sold. The only type of information that is available for the whole sample of catalogued books is the printing place. Therefore, although the reconstruction of provenance is possible for only a small number of books because we have details about their owners, the printing place allows us to know precisely where all the catalogued book copies come from, even though it does not reveal how they reached their present location. Consequently, a discussion of the printing place of the architectural books currently preserved in the libraries of the eastern Adriatic will follow here first, and an analysis of single book copies, for which more consistent data are available, will then be undertaken.

Across the whole sample of the catalogued books, the predominant printing centre of architectural books in present libraries of the eastern Adriatic is, as can easily be predicted, Venice, from which 292 book copies (27% of the total amount) originated. A range of European cities then follows: Rome (101 entries; 9%), Paris (77 entries; 7%), Nuremberg (64 entries; 6%), Frankfurt (58 entries; 5%), Augsburg (54 entries; 5%), Amsterdam (31 entries; 3%), Padua (27 entries; 3%), Lyon (24 entries; 2%), Bologna (22 entries; 2%), Antwerp (19 entries; 2%), Basel, Brescia, and Vienna (18 entries each; 2%), and other locations with less than 15 entries (Tab. 1.2). Venetian presses dominated the trade in architectural books across the eastern Adriatic, representing almost one third of the total amount of books that I catalogued. Moreover, it is also impressive that the number of book copies printed in Venice (292) is almost triple that of those printed in Rome (101), the second most important printing centre.

As Venice and Rome are the first two printing centres on the list, it is evident that the maritime commercial routes directly from Venice and through Ancona were the main supply channels for architectural books in the eastern Adriatic. Venice and Rome were, at the same time, the closest major printing centres and the capitals of the regions most tightly tied to the Adriatic Sea. While the dominion of the Venetian Republic extended across the largest area of the eastern Adriatic islands and coastline, the Holy See was the linchpin of a broad ecclesiastical network and system of diplomatic connections.¹⁵⁰ Significant communities originating from the eastern Adriatic migrated to Italy, where they established confraternities such as the Scuola di San Giorgio degli Schiavoni in Venice and San Girolamo degli Schiavoni (or Illirici) in Rome.¹⁵¹ Furthermore, both cities were very common destinations for people from the eastern Adriatic, as they travelled to Venice for secular governmental and administrative affairs and to Rome for ecclesiastical matters as well as for pilgrimage.¹⁵² In a sense,

1.2. Books per Printing Place: Town



it is natural that a significant portion of the catalogued books in the libraries of the eastern Adriatic originate from Venice and Rome.

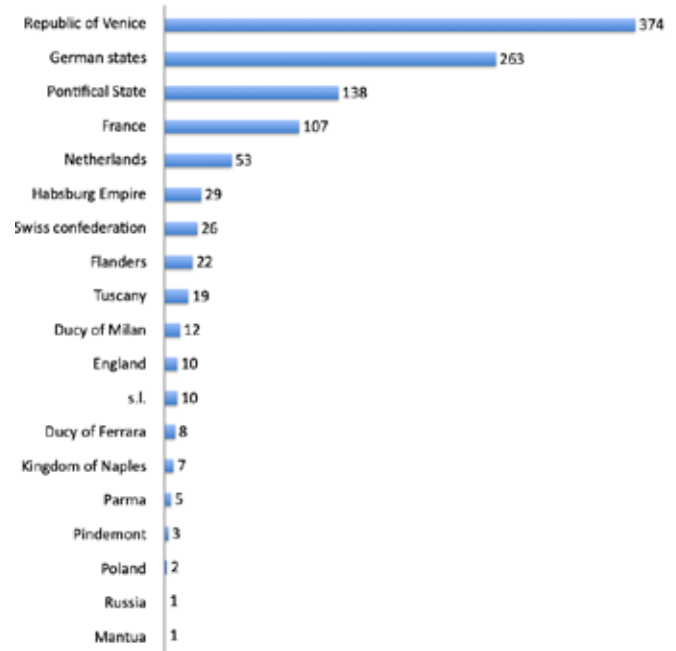
Another significant observation concerns the books printed in the main Italian university cities, such as Padua and Bologna, where many students from the eastern Adriatic enrolled for their education.¹⁵³ There is no particular evidence that the books printed in Paris also circulated across the eastern Adriatic thanks to university students. The table of printing places shows significant numbers of book copies from several printing centres in Western and Central Europe. It is worth stressing that these books could have reached the eastern Adriatic via two commercial routes: on the one hand, direct contacts were established with local booksellers or during events like the Frankfurt Fair, while, on the other hand, intermediaries in Venice also sold books printed elsewhere.

If we consider single political entities or geographical areas, the Republic of Venice maintains its primacy and has an even higher percentage (34%) thanks to other smaller but productive towns in the *terraferma*, such as Padua, Brescia, Verona, Vicenza and, from the eighteenth century, Bassano. However, the book production of the German states, especially because of the three main centres of Nuremberg, Frankfurt, and Augsburg, reaches a considerable 24%, becoming the second most important printing area. It is followed by the Papal States (13%), France (10%), and the Netherlands (5%), as well as other regions under 2% (Tab. 1.3).

However, this type of analysis does not take into account the extremely different geographical, historical, and political conditions surrounding book collections in different cities and states. Particularly, it does not differentiate between the coastal area, from Koper to Kotor, which had established political and trading connections with Venice and the Italian peninsula, and the inland regions, which were under Austrian, Hungarian, or even Ottoman control and were also strongly tied to the German-speaking world. The analysis of the printing places of architectural books in relation to the libraries of coastal and inland regions shows that the commercial routes and supply channels were different, as the case of Valvasor Library already suggested (see above, 'Architectural Books in Early Modern Eastern Adriatic Libraries'). This difference follows historical borders approximately: the territories ruled by the Venetian and Ragusan republics along the coast and the lands under the Habsburg or Ottoman control or in inland regions.

Within the coastal libraries, Venice emerges even more clearly as the main printing centre, reaching 42% with 194 entries. This means that in coastal libraries, less than half of the surviving architectural books were printed in Venice. The next most significant printing places are Rome (43 entries; 9%), Paris (33 entries; 7%), Bologna and Padua (both 17 entries; 4%), though all have considerably smaller percentages. The books printed in

1.3. Books per Printing Place: Political Entity



the German towns decrease to 1% or less, and Paris, Antwerp, London, and Lyon are the only printing centres outside the Italian peninsula to reach 2% (Tab. 1.4). Paris, Lyon, and Basel were well connected to the Po Valley and the Venetian commercial routes, so the books printed in those cities probably arrived in the eastern Adriatic via Venice. However, this was not the only commercial route, as the presence of Roman books traded through Ancona testifies. Finally, the presence of books printed in small towns along the western side of the Adriatic, such as Ferrara, Pesaro, Loreto, Fano, and Ancona, indicates that other minor commercial routes existed for the book trade between the Adriatic's coasts, even though on a much smaller scale. Scholars, in fact, have already investigated the trade of books in both Italian and Slavic languages between the Marche and Dalmatia, outlining the extent to which it occurred.¹⁵⁴

In the libraries of inland areas, Venice still remains the main printing centre, but to a lesser degree with ninety-eight book copies (15%); it is followed by Nuremberg (60 entries; 9%), Rome and Frankfurt (57 entries each; 9%), Augsburg (53 entries; 8%), and Paris (44 entries; 7%). If we consider larger regions instead of single cities, the number of architectural books printed in German centres (253 entries; 40%) is double that of the books printed in the Venetian Republic (127 entries; 20%). This is, of course, the result of production in the three main German printing centres, Nuremberg, Frankfurt, and Augsburg, which was also boosted by the fact that numerous small towns printed between one and five book copies. Rome and Paris both have higher totals of book copies but, due to the larger numbers

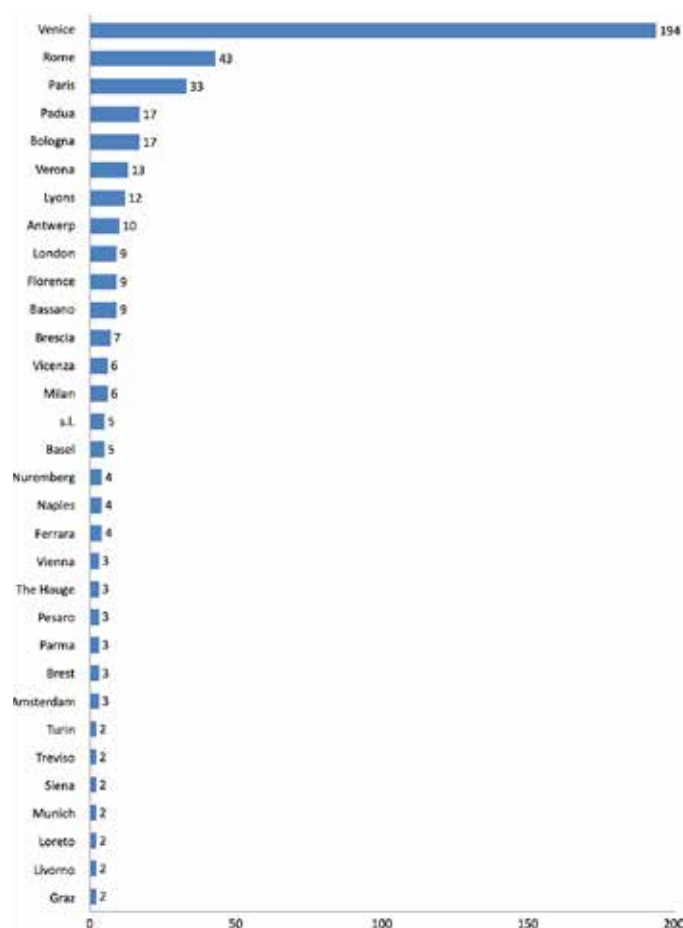
of books in inland regions and the greater numbers of German towns, both cities have lower positions and percentages. However, there are generally more books printed in Amsterdam and the Netherlands in inland libraries than in their coastal counterparts; twenty-eight entries (4%) came from Amsterdam, and 7% from the Netherlands as a whole. The same is true for the Habsburg and Hungarian territories, with Vienna and Buda together accounting for eighteen book copies (2%). However, this is a later phenomenon, occurring in the second half of the eighteenth century and arising because of the architectural handbooks of four authors only: Christian Rieger, Giovanni Battista Izzo, Johann Gottlieb Tielke, and Franz Rausch von Trautenberg (Tab. 1.5).

While in the coastal libraries, architectural books come mainly from Venice, Ancona, or other Adriatic towns because they are printed in or traded through those centres, inland book collections have a predominance of German books traded directly with German lands. Like Valvasor, booksellers and merchants of inland regions must have been familiar with the Frankfurt Fair and similar events, or must have used trade networks and intermediaries in Austrian territories. All told, the data on the printing places of the book copies that are preserved today in the libraries of the eastern Adriatic confirm that the coastline and the inland regions had different supply channels and trade routes.

On the one hand, it is easy to see that the Renaissance Italian treatises, from the various editions of Vitruvius onwards, dominate in the coastal libraries, even in the territories historically under Habsburg control, such as Rijeka. On the other hand, Renaissance Italian treatises are also present in inland regions next to larger collections of later seventeenth- and eighteenth-century German architectural books, which are extremely rare in coastal libraries. This means that along the coastline, Italian architectural books circulated almost exclusively through the maritime commercial routes of the Adriatic, while in the inland areas both Italian and German architectural books circulated through overland commercial routes. The percentage of German books in the coastal libraries (1%) is insignificant, considerably lower than those for the Papal States, France, and Tuscany, but equal to other productive areas of Central Europe, namely Flanders, the Netherlands, and the Swiss Confederation.

However, Italian and German architectural books are not the only ones preserved in the libraries of the eastern Adriatic. The percentages of French and Flemish books are roughly equal for coastal and inland libraries, proving that they circulated to a similar extent through both maritime routes via Venice and overland routes across the German territories. Compared to their coastal counterparts, inland libraries have a modestly, though nevertheless significantly, greater number of Dutch and Swiss

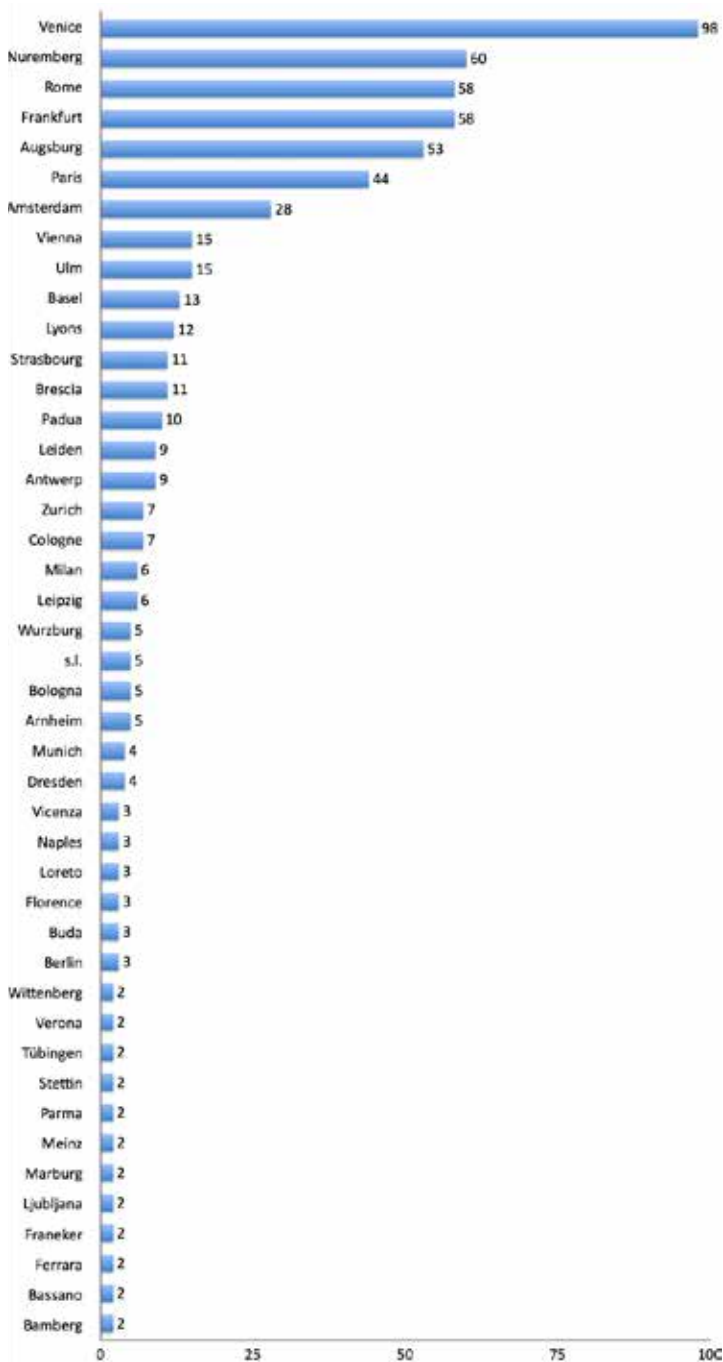
1.4. Books per Printing Place along the Coastline: Town



architectural books. The architectural books of other printing places, such as the small Italian city-states, England, or even Russia, are too few to perform any sort of analysis on.

In conclusion, the analysis of printing places shows that the main route for the circulation of architectural books was through Venice and across the Adriatic Sea and that trade along this route was not limited to books printed in Venice. Other Adriatic routes for the book trade were those from Rome via Ancona and, to a lesser extent, from minor printing centres on the western Adriatic coast. However, the picture is not homogeneous for the entire eastern Adriatic region, as differences between coastal and inland libraries can be observed. Therefore, the commercial routes used for the book trade seem to depend mainly on the geographical location of the towns, rather than on political borders. The example of Rijeka can easily corroborate this assumption. As a matter of fact, in the libraries of this city, which was on the coastline but under the Habsburg Empire, Italian architectural treatises traded through the Adriatic routes prevail over German books.

1.5. Books per Printing Place in the Inland Regions: Town

*The Coast and the Inland: Authors and Titles*

At this point, the following question arises: did the various commercial routes that supplied the coast and the inland with architectural books also transfer different architectural knowledge? At a general level, the answer must be yes, but a more detailed analysis reveals a multifaceted picture. In particular, another factor becomes important: language, and consequently, the different editions of books that, in some cases, appeared in a wide array of reprints and translations. For a detailed explanation, it is necessary to turn now from simple quantitative analysis to a more nuanced, qualitative investigation of the catalogued architectural books, especially in terms of authors, titles, and editions.

As regards the most successful and frequently reprinted Italian Renaissance treatises—those by Vitruvius, Serlio, Vignola, and Palladio—it is noteworthy that in the coastal libraries, editions primarily appear in Italian and occasionally in Latin. On the other hand, in the inland libraries, German translations of Italian or Latin works are quite common (Tabs. 1.6–1.9). This is evident for Vitruvius's *De architectura*. Across libraries along the coast, the catalogue lists nine Italian and four Latin editions; inland libraries house five German, three Latin, and two Italian editions of the seminal Roman architectural treatise. Since Fra' Giocondo's edition in the Research Library in Dubrovnik reached the eastern Adriatic only during the nineteenth century, it is manifest that the most common languages for Vitruvius were Italian along the coast and German in inland regions.

One can say the same for Vignola's *Regola*—at least, for what could be translated into the universal drawing language of Vignola's plates. Along the coastline, a striking 80% of editions of Vignola are in Italian and were printed in Italy (13 copies out of 16; the other three copies are one Latin, one German, and one French edition). In inland libraries, a wide variety of reprints, translations, and adaptations of Vignola's successful treatise appear. Although the German translations are the most numerous, half of them are based not on the original Italian edition, but rather on the French translations or adaptations by Pierre Le Muet and Charles Augustin d'Aviler, the latter of which was expanded by Leonhard Christoph Sturm. Except for the National and University Library in Ljubljana, where four Italian copies are preserved, no Italian editions of Vignola can be found in inland libraries.

Data concerning the editions of Serlio's and Palladio's treatises show a less marked divergence between the coast and the inland regions. Serlio's book spread along the coast, from Istria to Dubrovnik, in only the Italian language. In the inland, it was likewise common in Italian, for instance in the Zrinski Library, but it simultaneously circulated in a few Latin and German translations too. As for Palladio's *Quattro libri*, the extant copies in

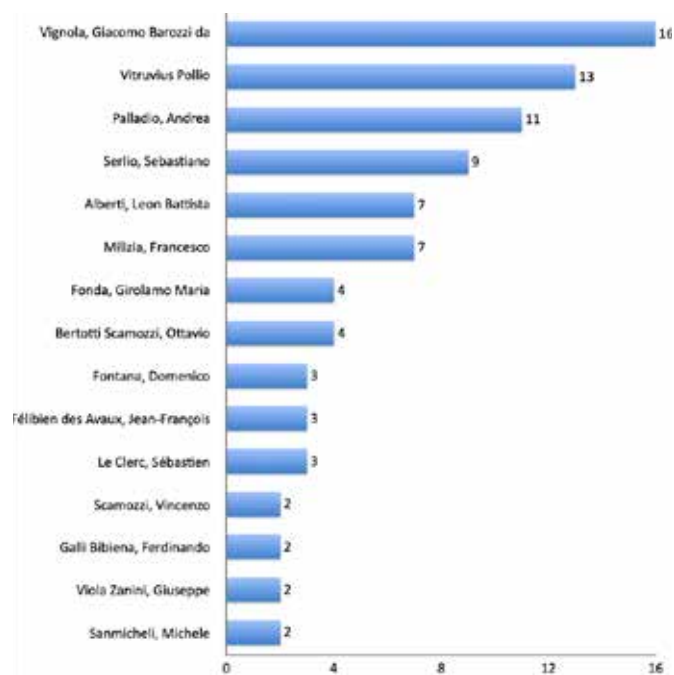
both coastal and inland libraries are the Italian *editio princeps*, or the subsequent reprints, in about 80% of cases. The sole translations are the mid-eighteenth-century bilingual Italian and French edition by Francesco Muttoni, which appears only on the coast, and one copy of the first book in the French translation by Pierre Le Muet in the Valvasor Library. Neither the German translation of the first and second books (Nuremberg, 1698) nor the Dutch translation of the first book (Amsterdam, 1646) is found in the libraries of the eastern Adriatic.

It is also worth highlighting the limited circulation of the other two seminal architectural treatises of the Italian Renaissance, those of Alberti and Scamozzi. Although there is evidence in library inventories and other sources that Alberti's book circulated in early modern Dalmatia, libraries in the area now hold only seven copies. Four are late-eighteenth-century editions, which did not circulate in the timeframe considered here. Of the remaining three sixteenth-century editions, all are in Italian, two in Dubrovnik and one in Rijeka, revealing a circulation occurring exclusively along the coast. With only four catalogued copies in today's libraries, Scamozzi's volumes had an even smaller circulation. While two Italian editions are preserved today on the coast, the inland Valvasor Library contains both a Dutch and a German translation.

The later seventeenth- and eighteenth-century Italian authors of architectural treatises and handbooks, such as Branca, Viola Zanini, Gallaccini, Galli Bibiena, and Milizia, survive in such small numbers that they must have had a rather modest circulation and impact. Actually, they occur in only one or two specialised libraries, such as the Valvasor or Miočević-Rendić libraries, and there is no clear difference between coastal and inland holdings. Andrea Pozzo's two-volume work circulated particularly within the Jesuit network, that is, mainly outside the territories of the Venetian Republic. While the copy formerly in the library of the Jesuit college in Dubrovnik is now lost, the remaining copies are in the area previously under Habsburg rule, from Rijeka to Ljubljana. The five copies of Domenico Fontana's *Della trasportatione dell'obelisco vaticano*, almost equally distributed across the coastal and inland libraries, are the result of a collecting trend that occurred in the nineteenth century and probably later and that arose out of the illustrations engraved by Natale Bonifacio from Šibenik;¹⁵⁵ this volume never circulated in the early modern eastern Adriatic. The same trend also encompasses the single copies of certain rare monographic architectural books, such as Francesco Borromini's *Opus architectonicum* and Luigi Vanvitelli's *Reale Palazzo di Caserta*, both of which are preserved today only in Ljubljana.

As for the other European authors, the data present a fragmented picture heavily influenced by the German books of the Valvasor Library. The books by Joseph Fürtenbach the Elder and the Younger and by Georg Andreas Böckler are almost

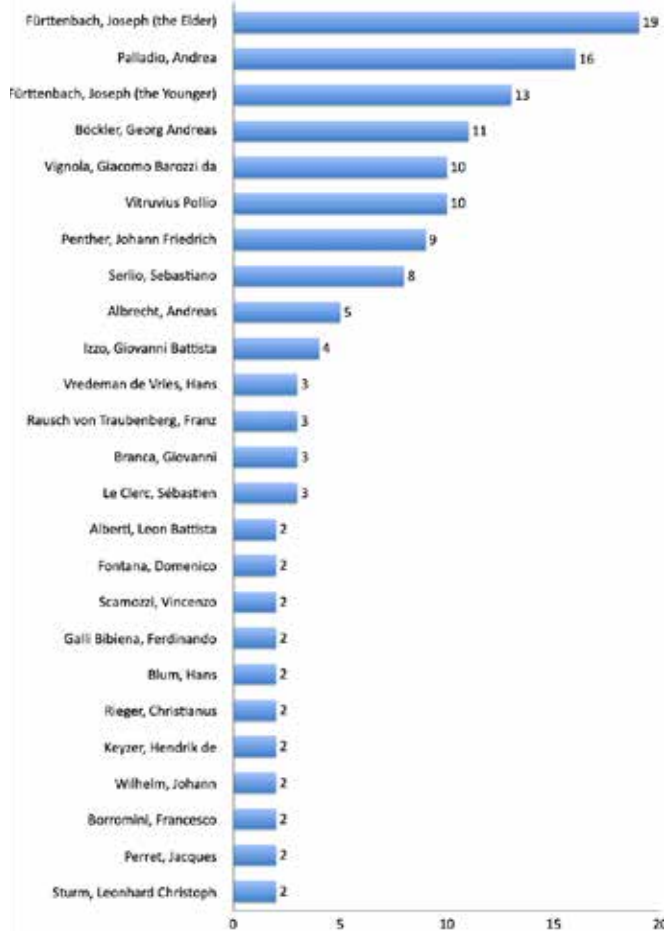
1.6. Books per Author along the Coastline



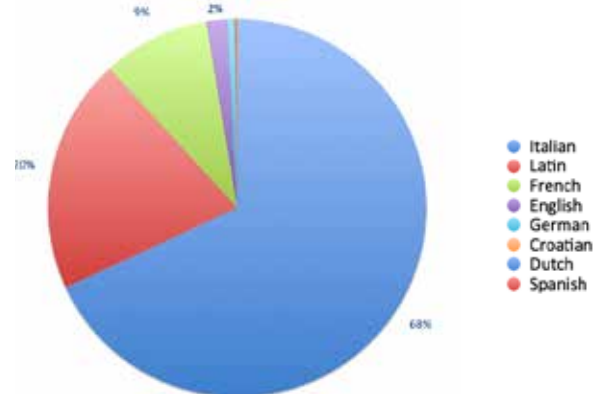
entirely from Valvasor's holdings; only two copies of Fürtenbach the Elder's *Architectura universalis* have another provenance, but they are now in Ljubljana. A similar situation is true for the distribution of the so-called *Säulenbücher* by authors like Hans Blum, Jan Vredeman de Vries, Gabriel Krammer, and Hendrik de Keyser. The only surviving copy outside the Valvasor Library is a seventeenth-century reprint of Blum's book on the five orders, today in Rijeka, a town on the coast but, as mentioned above, under the Habsburg dominion.

Books on the orders, or *Säulenbücher*, were a particular sub-genre that the architectural treatise had developed in German-speaking lands since the sixteenth century. These volumes narrowed architectural theory to the five orders, which were usually presented in a series of full-page illustrations with minimal explanatory text or no text at all. Thus separated from the full scope of architectural theory, the orders became a repertoire of decorative elements easily employed not only by architects and designers but also by stonemasons and woodcarvers. In fact, some *Säulenbücher* were specifically addressed to the many skilful German furniture makers.¹⁵⁶ As an area dominated by family workshops of stonemasons, who were trained in a rather practical way and who reproduced the same solutions for generations, the early modern eastern Adriatic could have potentially represented a quite profitable market for *Säulenbücher*. Nevertheless, they remain quite scarce in today's libraries, particularly along the coast, precisely where the tradition of stonemasonry was deeply rooted. This fact would suggest that

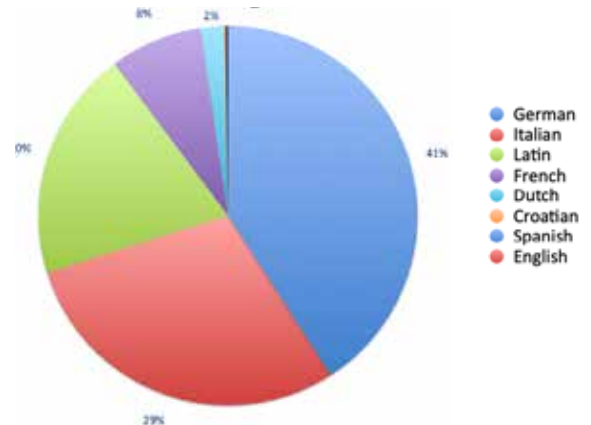
1.7. Books per Author in the Inland Regions



1.8. Books per Language along the Coastline



1.9. Books per Language in the Inland Regions



stonemasons in Istria and Dalmatia, instead of *Säulenbücher*, used personal drawing collections, as well as sets of models and templates like the Korčula Sketchbook, even though this type of item is also quite scarce. The question of the sources that supported the activities of the many stonemasonry workshops in the early modern eastern Adriatic is still an open question for scholars.

It is now time to examine the regional distribution of the group of eighteenth-century handbooks for colleges and schools by Girolamo Maria Fonda, Giovanni Battista Izzo, and Franz Rausch von Traubenberg. While Fonda's handbook for the Nazarene College in Rome is today preserved only in coastal libraries, the volumes by Izzo and Rausch von Traubenberg, addressed to the Theresianum College in Vienna and the Royal Hungarian Academy in Buda, are almost exclusively in inland collections. A copy of Izzo's handbook in the Miočević-Rendić Library is the only exception to this clear difference. Such a sharp dichotomy suggests different educational priorities among noble families residing on the coast and those in

inland regions; the former leaned towards Italian culture, and the latter towards Austria and Hungary.

In summary, it would be misleading to assert that the separate trade routes supplying books to coastal and inland regions conveyed different architectural knowledge. Despite minor discrepancies in language and edition, Italian Renaissance architectural treatises constitute the majority of early printed architectural books in today's libraries both on the coast and in the inland. German treatises slightly prevail solely in the Valvasor Library. Almost the only treatises in coastal libraries are Italian ones, and these volumes also dominate over a lower number of Central European architectural books in inland collections. In terms of quantities, copies of Vitruvius, Alberti, Serlio, Vignola, and Palladio are always more numerous on the coast than in inland regions. Data on the architectural books preserved in today's libraries of the eastern Adriatic prove conclusively that Italian architectural books easily circulated everywhere, while other European treatises spread only across inland libraries and very rarely reached the coast.

Despite this situation for architectural treatises, the field of military architecture shows more complex circumstances. The core of the humanistic culture of warfare, from the writings of Machiavelli to those of Julius Caesar, Frontinus, Vegetius, and Polybius, is similarly distributed across coastal and inland libraries, with a slightly larger number of copies in coastal libraries. The data on the most prominent Italian authors, such as Pietro Sardi, Niccolò Tartaglia, Girolamo Cataneo, and Buonaiuto Lorini, reveal the same trend: their treatises are present in both regions but more so along the coast. The situation is rather different for German authors. The names of Adam Freitag, Georg Andreas Böckler, Daniel Specklin, and Heinrich Ruse appear only in inland family aristocratic collections, such as the Valvasor and Zrinski Libraries; this meant that such volumes were accessible to only a very small number of people. In terms of current location and provenance, the books of French authors like Antoine de Ville and Sébastien le Prestre de Vauban show a slightly lower number of copies and appear across the inland and coastal towns of Istria. For military culture, in an echo of the reception of architectural treatises, coastal libraries present a clear orientation towards Italian Renaissance humanism and military architecture, while later German and French developments received more attention in inland collections.

Within the topic of shipbuilding, mechanics, and crafts, the book *La piazza universale* by Tommaso Garzoni had a wide circulation along the coast and in inland regions, as well as in both secular and ecclesiastical libraries.¹⁵⁷ The few other books on arts and crafts connected to construction—the works by Girard Desargues and Abraham Bosse on stereometry applied to stonecutting and by Mathurin Jousse on carpentry applied to roof structures—can be found only in inland libraries, even though one would expect the contrary.¹⁵⁸ The rest of the results can be deceptive and need careful explanation.

Surprisingly, most of the catalogued copies in the field of shipbuilding and mechanics come from book collections that were marginal if not alien to the eastern Adriatic. For shipbuilding, twenty-one of the thirty-three books recorded in the catalogue the Austrian Navy Library, gathered in Venice through requisitions, moved to Pula in the mid nineteenth century and today almost entirely dispersed; for mechanics, eleven entries out of eighteen are from the Valvasor Library. Therefore, the circulation of architectural knowledge via these books in the early modern eastern Adriatic had to be less than the holdings in today's libraries might suggest. Besides these copies, the few other books on shipbuilding and mechanics are equally distributed between coastal and inland libraries. As one would expect, works on shipbuilding are preserved in the libraries of maritime museums, where they are the legacy of families of shipowners and navigators, and important port cities such as Rijeka. However, they also appear in the inland national libraries in Ljubljana

and Zagreb, as well as in the Valvasor Library. The data on the owners suggests that, rather than circulating among carpenters and other craftsmen employed in shipyards and buildings, books on these topics were in the hands of a few aristocratic and wealthy families of shipowners both in inland regions and along the coast.

For the fourth category, mathematics, the most commonly recorded French textbooks, such as those by Tacquet, Le Clerc, Ozanam, Finé, De la Caille, and Abbot Deidier, are more prevalent in coastal libraries than in their inland counterparts. 80% of these books are preserved in libraries along the coast, and more than half of them are either from former or in current monastic libraries; the latter trend is clear evidence of the role they had in education. In terms of language, Latin or Italian versions are the most common on the coast, while in the inland libraries of Ljubljana and Zagreb, and in Rijeka too, French and German editions are also present. Rarely did original French editions of these textbooks reach coastal libraries; only two or three copies of such volumes are recorded.

The presence of drawing handbooks in different contexts suggests that drawing was not an uncommon practice among the elites of the eastern Adriatic. Seventeenth- and eighteenth-century books on the use of proportional compasses, such as the volumes of Galileo Galilei, Ottavio Fabri, Giovanni Marchelli, and, again, Ozanam, are still in state, monastic, and bishopric libraries along the coast. Among sources on land surveys, Cosimo Bartoli's work has been catalogued in two copies in Pula and Dubrovnik, but copies of Silvio Belli's *Libro del misurar con la vista* and Latino Orsini's *Trattato del radio latino* exist only at the Valvasor Library, whose owner was a geographer and topographer. Finally, the presence of *La squadra mobile* by Antonio Sangiovanni in the library of the Dominican friary in Zagreb suggests that also in inland areas, monks and friars regarded drawing and land surveys as useful disciplines not only in teaching but also, probably, in the management of their estate properties.

Of books on perspective, other than the exceptional collection amassed by Valvasor, only a few copies of the books by Vignola, Daniele Barbaro, Caramuel y Lobkowitz, and Andrea Pozzo are found in other libraries. While only Vignola's *Le due regole della prospettiva pratica* (Bologna, 1682) circulated along the coastline and is today in Dubrovnik, the works of the other authors are exclusively present in the territories formerly ruled by the Habsburgs; they are in Ljubljana and Rijeka. It is worth noting that the latter's copies of Barbaro's, Caramuel de Lobkowitz's, and Pozzo's volumes confirms Rijeka's hybrid position as a site simultaneously on the coast and under Austrian control.

As was previously highlighted, the interest in books on the visual arts emerged relatively late, mainly following a scholarly trajectory during the eighteenth and nineteenth centuries. Libraries of educational and scholarly institutions, including the

Croatian Academy of Sciences and Arts, former Jesuit libraries, and various monastic book collections, in both coastal and inland regions still preserve works by renowned figures such as Vasari, Baldinucci, Orlandi, Baglione, and Milizia. Moreover, the owners of collections with a pronounced focus on the arts, like the Garagnin-Fanfogna Library in Trogir or the Miočević-Rendić Library in Dubrovnik, specifically sought such literature. Notably, libraries along the coast often hold the treatises on painting by Alberti and Leonardo, while in the former Habsburg territories of Zagreb and Rijeka, there is a stronger emphasis on works by Dürer and the Milanese Giovanni Paolo Lomazzo. Furthermore, Cesare Ripa's *Iconologia* appears in two German editions within the Valvasor Library and two Italian editions in Dubrovnik—in the Miočević-Rendić Library—and in Split. This pattern of distribution suggests limited circulation of this work among early modern artists in the eastern Adriatic.

For the seventh category, descriptions detailing both ancient and modern Rome, there is a remarkable presence of these within monastic libraries. Although, in terms of sheer quantity, state and university libraries have larger numbers of guidebooks to Rome, but there were substantial collections of these books within the monastic libraries that I analysed. At times, they are the sole sources of architectural knowledge amidst volumes primarily focused on theology, canon law, and philosophy. An exemplary case is Palladio's guide to Rome. While it is also present in secular libraries, two copies of it are in both the Capuchin friary in Škofja Loka and the Franciscan friary in Fojnica, two complexes secluded within the inland regions of Upper Carniola and central Bosnia, respectively. Moreover, the library in Fojnica boasts one of the earliest and rather rare Roman editions of Palladio's guide, underscoring the value attributed to such architectural resources within monastic libraries.

Generally, the descriptions of ancient and modern towns and regions are more abundant in coastal libraries. This is true for the numerous guidebooks that follow the model of the *Mirabilia urbis Romae* concerning both ancient and modern Rome: thirty-nine copies are in coastal libraries, while thirty-three are in inland collections. The libraries along the coast suggest a livelier interest in antiquities within the eighteenth-century development of archaeology. The lavish collections of drawings of the ruins of Greece, southern Italy, Aquileia, Verona, and of course Split are more numerous on the coast. The same is true for the descriptions of Venice, the other towns of the Venetian Republic and the other city-states of the Italian peninsula, particularly those along the western Adriatic coast. Similar observations can also be made for descriptions, atlases, and collections of city maps of the world, Europe, and Italy. The only books that dominate in inland libraries are the descriptions of the western and Central European regions; most of these were collected by Valvasor in his library.

Although ancient Rome clearly remains a dominant focus throughout the whole period, an increasing interest in the local antiquities of the Adriatic also emerges. This is most visible for Roman amphitheatres, of which the Pula Arena was an outstanding example. While copies of Justus Lipsius's *De amphitheatro liber* are more common in inland areas, probably because they were printed in Antwerp by Plantin, the later *Degli anfiteatri e singolarmente del veronese* by Scipione Maffei appears only along the coast. These books are present particularly in the libraries of Istria; for instance, Maffei's volume is available in Pula and Rijeka, while Lipsius's book is in the Stancoviciana collection in Rovinj. Additionally, Maffei's work was a must in the eighteenth-century coastal libraries that specialised in the arts, such as the Garagnin-Fanfogna and Miočević-Rendić collections. However, no copy of *Descriptio portus et urbis Polae antiquitatum* by Antoine de Ville, one of the first printed accounts of the Roman antiquities of Pula, has been found in the libraries of the eastern Adriatic.

Before Robert Adam produced his lavish plates, other antiquaries like Jacob Spon, George Wheler, and Erhard Reusch described the other outstanding monument of Roman antiquity in the eastern Adriatic—Diocletian's Palace in Split. Spon's and Wheler travel accounts, which describe the ruins of Salona too, are understandably only in the libraries along the coast; two copies in French and Italian are at the Archaeological Museum in Split—though the French edition was donated by the British Museum as a duplicate—and one copy of a German translation is in the University Library in Pula.¹⁵⁹ However, Reusch's travel account is only present in one copy, which is in the Archaeological Museum in Zagreb.¹⁶⁰ Adam's book on Diocletian's Palace also appears only in coastal collections, particularly those of the Split area, where three copies are in the local Archaeological Museum, Town Museum, and the Garagnin-Fanfogna Library in nearby Trogir; two of these copies have the Italian translation of the text in a separate booklet.¹⁶¹ Surprisingly, a fourth copy is catalogued among the books of the Franciscan friary in Trsat, which is close to Rijeka. There, a certain Fra' Ottonis Skolla, evidently interested in archaeology, signed the first volume of *Voyage pittoresque de la Grèce* by Choiseul-Gouffier (Paris, 1782).¹⁶²

Among those books that contributed to the architecture and organisation of residential buildings, from etiquette to economics and from agriculture to gardening, the catalogue shows a rather broad diffusion of the Italian literature on the topic. Castiglione's handbook on good manners, *Il cortegiano*, spread almost equally along the coast and in inland regions, appearing in the libraries of both monasteries and noble families. Grapaldi's Lexicon is similarly distributed across coastal and inland collections. But the works of Dalmatian humanists, such as *Governo della famiglia* by Nikola Vitov Gučetić (Venice, 1589)

and *Della mercatura* by Benko Kotruljević (Venice, 1573), which contain useful suggestions about how to organise and manage a residential building, are almost exclusively along the coastline, especially in monasteries. *De re rustica* and the Renaissance works on agriculture are common in libraries on the coast but are completely absent or appear in only one copy in inland regions. Pietro de' Crescenzi's volume constitutes the only exception to this pattern; four copies are in inland libraries, while there is only one on the coast.

This group of books provided the aristocratic elites of the eastern Adriatic with knowledge of the interior design of palaces and villas and of estate management. Because of their role in the education of the ruling class, these books were present in the libraries of aristocratic families, in Franciscan and Dominican friaries, and in Jesuit colleges; friars could also use them for the administration of monastic estates, as even a brief glimpse of monastic archives reveals that a large number of documents concern just estate management. The Franciscan friary in Dubrovnik held copies of Gozze's *Governo della famiglia*, Agostino Gallo's and Alvise Cornaro's works, the Franciscans in Šibenik had the volumes by Gallo and Cosimo Trinci, and the Dominicans in Dubrovnik owned Gozze's text. The Jesuit college in Dubrovnik had two copies of Castiglione's *Il cortegiano* and one of *De re rustica*. Among the holdings of elite families, the Miočević-Rendić library houses copies of Columella's and Gallo's works, the Garagnin-Fanfogna library has a copy of Morozzi's *Delle case de' contadini* (Florence, 1770), and the Zrinski Library owns a copy of Vincenzo Tanara's *L'economia del cittadino in villa* (Bologna, 1651).

Lastly, the few books containing religious prescriptions that could offer instruction about designing and remodelling churches and chapels are mainly in coastal libraries. Of the four copies of Borromeo's *Instructiones*, only one is in an inland collection; of the remaining three, two are in the Dominican friary in Dubrovnik and the Franciscan friary in Fojnica. Likewise, the only copy of Valier's *Constitutiones et decreta* is on the coast, in the Research Library of Zadar, but it comes from the collection of the Papafava family. Although such printed religious prescriptions modestly circulated to some degree along the coast, where apostolic and diocesan visitors also operated more or less regularly, Borromeo's instructions or similar advice never reached the local clergy of inland areas, at least in the form of printed books.

Owners and their Books

In most of today's libraries, the early printed books have originated from diverse locations and undergone numerous changes in ownership. The transfer of books from hand to hand and from one collection to another was common. Consequently, for

many books, it is exceedingly difficult to determine their previous owners due to the frequency with which books changed hands. On the other hand, some books bear signatures, ex libris, or other indicators of possession that provide valuable clues about their previous owners and the journeys they took through different collections and owners over time.

Information about who owned the architectural books in the present catalogue offers important insight into two crucial aspects of their history. On the one hand, evidence regarding book owners can document how architectural books circulated in the early modern eastern Adriatic, while, on the other hand, the biographies of the different owners provide valuable clues about how they used the books. In concluding chapter one, I discuss key points about the first aspect of book ownership—the circulation of books—and leave a more detailed analysis of the owners' professions and social status for the opening section of the next chapter (see Chap. 2, 'Owners: Social Status and Profession').

Unfortunately, the data on owners, when compared to the more than 1000 catalogued architectural books, is relatively modest and heterogeneous. Overall, it has been possible to identify seventy-four individuals through signatures, ex libris, and other types of material evidence of possession. However, the number of owners has no direct relation with the number of catalogued books, as an individual could possess many books and, vice versa, a book might have had more than one owner. My analysis specifically looks at individual owners and does not include institutions like convents, schools, academies, libraries, and other juridical bodies that were also recorded as owners of the books. For family libraries, the identification of a single individual owner can be challenging because an aristocratic book collection was often a multigenerational enterprise.

Identifying owners and collecting information about them can also be difficult with the scarcity and heterogeneity of the available data. The classification of owners according to the country, geographical area, or ethnic group is even harder and can potentially be misleading. Nevertheless, a preliminary classification based on the names suggests that about half of the owners were of Slavic origin (38 entries; 53%), followed by a significant presence of Italians (26 entries; 36%) and a smaller group of Germans (9 entries; 13%), many of whom were linked to inland libraries (Tab. 1.10).

It is important to note that this classification does not take into account the form in which names were written in possession notes or ex libris. In the early modern eastern Adriatic, Slavic individuals often Italianised or Latinised their names, and Germans in the inland areas frequently Latinised theirs. After documenting the names as they were found in the book copies, I attempted to adjust them to their presumed original forms. In this multicultural and multilingual environment,

definitive categorisation based on my criteria is not straightforward and is characterised by a degree of arbitrariness. In many cases involving individuals proficient in multiple languages, I endeavoured to determine a primary affiliation based on the owner's cultural origins.

For thirty-six owners, it has been possible to determine, through notes of possession or inference from names, the place of origin. Nearly half of these individuals were from or had roots in the territories of the Venetian Republic (17 individuals; 33%). Among them, a significant portion hailed from the Venetian Stato da Màr (12 individuals; 30%), rather than from Venice itself or the *terraferma* (5 individuals; 14%). The second largest group of owners came from the Habsburg Empire (8 individuals; 22%) and included Slavic individuals living under Austrian rule in places like Rijeka, Carniola, or Central Croatia, as well as German-speaking individuals of diverse origins; some of the latter had been previous owners of Valvasor's or Zrinski's books. Of the six owners from the Republic of Ragusa (6 individuals; 17%), five belonged to prominent Dubrovnik aristocratic families, for example the Gučetić, Gundulić, and Tudišić. Other national entities were represented by one or two entries and were primarily associated with single book copies, making them negligible in the analysis (Tab. 1.1). It is crucial to handle these data carefully and analyse owners on a case-by-case basis to prevent misinterpretation. For instance, a copy signed 'Paolo Gozze Roma' might initially suggest a Roman owner, but it actually refers to a member of the Ragusan Gučetić family who temporarily resided in Rome, likely due to a church position.

A more detailed analysis of the geographical area and temporal framework of owners can only be general due to the scarcity of data. From the fewer than forty owners for whom a precise location was established, a notable dispersion of books across the eastern Adriatic is evident, with only two areas having a higher but still modest concentration: the city of Dubrovnik and the Split area, which included the cities of Split and Trogir, and the nearby islands of Brač and Korčula. Regarding the timeframe of the owners, the majority belonged to the seventeenth and eighteenth centuries, with approximately ten owners per century. However, many of the owners recorded in the books date to the nineteenth and even twentieth centuries; since they are beyond the scope of this study, they were not included in the analysis.

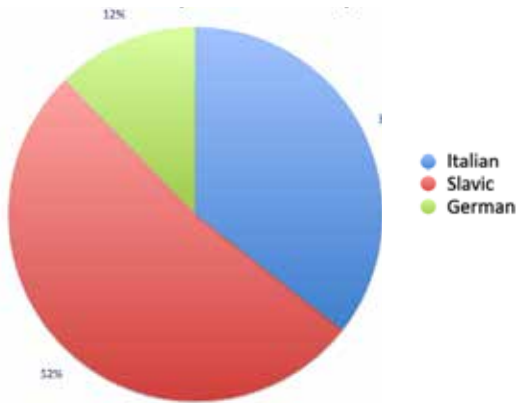
Regarding the question of where the owners acquired the books, the extant material evidence of possession does not provide precise data. The only instance of a purchase recorded on book pages is in a copy of Vitruvius's *De architectura* owned by Giovanni Battista Fontana, a member of the family of architects and engineers from Ticino, Switzerland. On the verso of the last sheet, Fontana noted: 'Io Giovanni Battista Fontana ho comprato questo libro in / Cattaro per lire quindici val lire _____ £ 25'

(I, Giovanni Battista Fontana, bought this book in / Kotor for fifteen lire, worth lire _____ £ 25), with the date 1670 (Ill. 1.4). Even though we have some information about Fontana's activities in the early modern eastern Adriatic, the specifics of this purchase remain puzzling because no booksellers are documented at that time in Kotor. It is plausible that Fontana, attracted to southern Dalmatia by the demand for architects to rebuild the area after the Dubrovnik earthquake of 1667, bought the book directly from the previous owner or, alternatively, from the heirs of the previous owner, who sold off his goods after his demise; the latter scenario would explain the discount price. Scholars have recently determined that Giovanni Battista was the elder brother of the famous architect Carlo Fontana. He worked as a peripatetic master builder in Rome and the eastern Adriatic, where he temporarily settled in Korčula. Like many other Ticinese and Lombard masters, he travelled seasonally, working abroad during the spring, summer, and autumn and returning home to manage the family business during the winter. Despite his peripatetic lifestyle, he was able to get several commissions across a large portion of the eastern Adriatic, from Kotor to Perast, Zadar, and even on the Island of Cres.¹⁶³

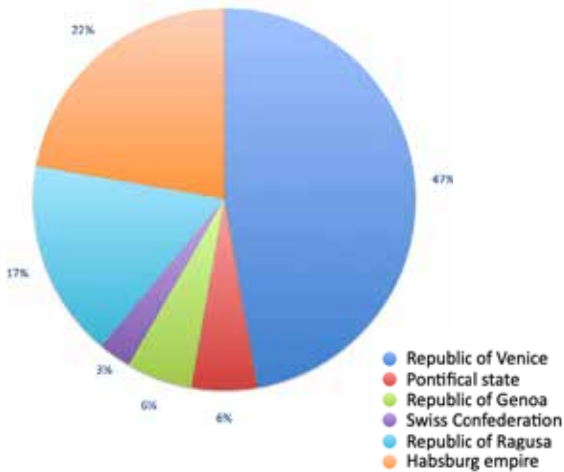
The list of owners in my catalogue provides a foundation for a more precise assessment of which architectural books circulated among specific categories of people or in particular areas of the eastern Adriatic. According to the data I collected, the most recurrent, and thus common, type of owner of architectural books in the early modern eastern Adriatic was a man of Slavic origin residing on the coast in Venetian territories or, to a lesser extent, those of the Dubrovnik Republic; some owners also lived in the inland areas ruled by the Habsburg Empire. The largest extant book collections belong to such individuals. In the holdings of these book owners, a significant number of architectural books are present: on the coast, there are the Garagnin-Fanfogna (17 entries) and Miočević-Rendić (42 entries) collections, while in inland areas, there are the Valvasor (272 entries) and Zrinski (36 entries) libraries. Encompassing a total of 367 copies, these four book collections represent 38% of my catalogued architectural books and 84% of the copies that have evidence of possession dating to the early modern period.

Except for the library of Janez Vajkard Valvasor, the book collections were not exclusively the results of the efforts of their founders—Ivan Luka Garagnin, Ivan Antun Miočević, and Nikola VII Zrinski—but were rather family enterprises. Subsequent members of the families or other individuals who inherited the libraries further enriched the collections, pursuing further the interests of the initial owner. Therefore, it would be misleading to attribute all the books in these collections to the owner who started the library. As a matter of fact, the provenance and the material evidence of possession do not allow us

1.10. Owners per Ethnic Group



1.11. Owners per Political Entity



to determine with certainty the individual who initially bought and owned the books.

Each of these four remarkable libraries has a copy of Vitruvius's *De architectura*, which probably originally belonged to the first owner. As discussed above, Vitruvius's book had widespread circulation in the early modern eastern Adriatic. Of the total number of copies of Vitruvius that contain material evidence of possession in my catalogue, most of them have a Slavic name (10 entries), and only a couple them have an Italian (2 entries) or German (1 entry) name. It is worth noting that only two owners had the original Latin text of *De architectura*, and both of them lived in Habsburg territories: Julije Benzoni in Rijeka signed a copy of the text annotated by Philandrier (Lyon, 1552; Ill. 1.5), and Janez Vajkard Valvasor had the editions by Fra' Giocondo (Venice, 1511) and Barbaro (Venice, 1567).¹⁶⁴ In 1660, Wolfgang Engelbert Auersperg signed a rare copy of Philandrier's *Annotationes* on Vitruvius (Rome, 1544), which is likewise in Latin but which does not include the original text of *De architectura* (Ill. 1.6).¹⁶⁵ Valvasor also had a German translation by Walther

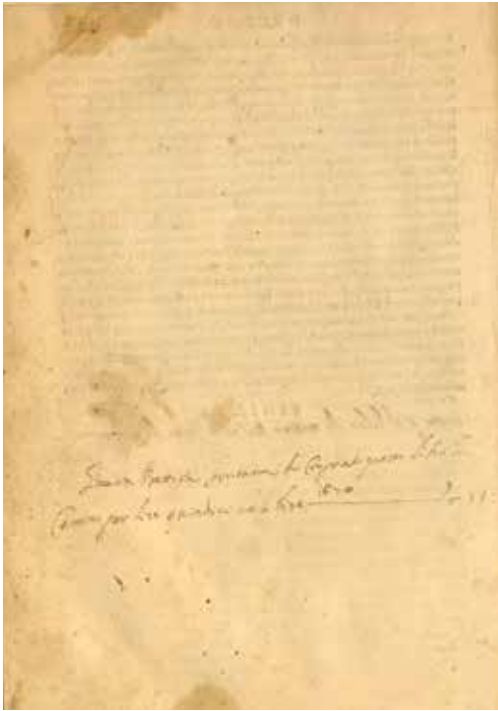
Hermann Ryff (Basel, 1614), as did his teacher in Ljubljana, Janez Ludvik Schönleben, a priest from a German family who had emigrated to Carniola; Schönleben signed an older edition of the same book (Nuremberg, 1548).¹⁶⁶ Among the other copies of Vitruvius's book, the numerous owners of Slavic origin living on the coast preferred Italian translations of the Latin text.¹⁶⁷ All told, it is clear that along the coast, Italian translations of Vitruvius predominated (possibly to the exclusion of Latin texts, while in inland areas, particularly in Ljubljana and Rijeka, both Latin texts and German translations circulated).

Serlio's works are also common in the large extant collections, though the Garagnin-Fanfogna Library lacks a copy of any of his volumes. In terms of owners, there is a more balanced distribution between people of Slavic (7 individuals)¹⁶⁸ and Italian (5 individuals)¹⁶⁹ origin. Palladio is missing from the Miočević-Rendić collection, and the other copies of *I quattro libri* are signed only with Slavic names (5 individuals).¹⁷⁰ With the sole exception of Andrea Pozzo's *Perspectiva*, copies of which are signed by three Slavic individuals,¹⁷¹ the data on the other architectural treatises and books are too fragmentary for such analysis.

Switching from horizontal to vertical analysis enables us to describe in a different way the circulation of architectural books in the early modern eastern Adriatic. On the one hand, the horizontal analysis performed above helped us to understand which books circulated among specific categories of individuals, while, on the other hand, vertical analysis will allow us now to reconstruct the history of a single book copy—to determine its journey through the hands of different owners to its present location. However, only those copies exhibiting evidence of two or more owners are suitable for this vertical analysis. Examples will follow here below to show possible trajectories of architectural books across owners and libraries in the early modern eastern Adriatic and beyond.

Some sixteenth-century book copies show evidence that, before reaching the eastern Adriatic in the seventeenth or eighteenth century, they had circulated on both the Italian peninsula and across German-speaking lands. An example is a copy of Alberti's *De re aedificatoria* (Venice, 1546), previously signed by Giacomo di Sardona from Modena, who acquired it in Rome in 1546. Later, Julije Benzoni obtained the book and subsequently donated it to the municipality of Rijeka in 1779.¹⁷² One can also cite examples of volumes of Vitruvius, Serlio, and others that belonged to the Moravian Jankovskych z Vlasime family (Germanised as 'Wlassim') and that subsequently came into possession of the Zrinski family.¹⁷³

Numerous instances of material evidence of possession in book copies reveal a vibrant internal circulation of architectural books within the eastern Adriatic during the early modern period. For example, the copies of Vignola's *Regola* (Venice, 1626) and Serlio's first to fifth books (Venice, 1559), the latter of



Ill. 1.4. Marcus Vitruvius Pollio, *Architettura*, ed. by Francesco Luci Durantino (Venice, 1535), fol. CXv (ZKZ, R-234)



Ill. 1.5. Marcus Vitruvius Pollio, *De architettura*, ed. by Guillaume Philandrier (Lyon, 1552), title page (SKR, 12.C.50)

which was bound with the *Extraordinario libro* (Venice, 1568), belonged, respectively, during the seventeenth century to the painter Dominik Divnić (Domenico Difnico) of Šibenik and the otherwise unknown master Dominik Uvoda, who was probably from the Split area.¹⁷⁴ In the following century, both volumes came into the possession of the Trogir Bishop Ivan Antun Miočević and are today in the Miočević-Rendić collection. Divnić also signed a copy of Bartolomeo Crescenzi's *Proteo militare* (Naples, 1595), which later travelled to the libraries of Count Galbiani and Miočević-Rendić; today, it is preserved in the University Library in Split.¹⁷⁵ A well-known copy of Vitruvius with Daniele Barbaro's commentary (Venice, 1567) was extensively used during the eighteenth century by the architect Ignacije Macanović in Trogir and also by his father Ivan, who signed it as 'Zuane Raguseo', as he came from Dubrovnik. Eventually, this copy reached Lodovico Riboldi, a member of a Dalmatian family, who donated it to the Archaeological Museum in Split.¹⁷⁶ Similarly, the abovementioned copy of Vitruvius (Venice, 1535) translated into Italian by Francesco Luci, known as 'Durantino', was in the possession of 'Nichollo protto di marangoni', head carpenter in an unknown shipyard, before the architect Giovanni Battista Fontana purchased it in 1670 in Kotor. Evidently, Fontana never brought the book home to Ticino, as Anton Duplančić of Zadar signed it in 1806. Possibly Anton was a relative of Vicko Duplančić, the first custodian of the Municipal

Library in Zadar, and through him the book entered the holdings of what is today the Research Library in Zadar.¹⁷⁷

Like other volumes, architectural books changed hands, often with no documentary trace, so relying on material evidence of possession in book copies can offer only a partial reconstruction of their histories. If we delve into the examples provided above, two possible scenarios for the previous history of the architectural books that are today preserved in the libraries of the eastern Adriatic emerge. In the first scenario, books reached the eastern Adriatic indirectly. They circulated elsewhere previously, either in the Italian peninsula or in German-speaking lands, and then reached the area in a second phase of their history. In the second scenario, books reached the eastern Adriatic directly, often just after they were published, and subsequently circulated among different owners within the area. However, the fragmentary nature and the scarcity of data do not allow us to determine which scenario was more common.

As a conclusion to this chapter on circulation, some general remarks follow. In my research, I collected data from archival sources on the early modern book trade, as well as library inventories; these sources have been complemented with a catalogue of the architectural books preserved today in the libraries of the eastern Adriatic. The analyses performed on the data

extracted from my sources enabled me to depict a rather lively, even if not substantial, book market, where books circulated out of necessity, in the absence of significant printing presses. The location of many eastern Adriatic towns along Venetian sea trading routes placed them in a privileged position for both local sale and Mediterranean trade of books. However, the data currently available are not sufficient for outlining precisely the actual forms of book circulation in the eastern Adriatic. Importantly, it still is not clear whether local customers bought from local bookstores or sent agents to Venice or other centres to purchase books.

The shipping list of Curzio Troiano Navò, alongside other documents, proves that some Italian book printers and dealers attempted to establish commercial connections with the towns in the eastern Adriatic, in particular with Dubrovnik. Besides books, Navò shipped to Dubrovnik a press to bind books and probably sought to establish a retail shop of his father's Venetian printing house there. Curzio Troiano settled for years in the city, working as a bookseller—and as a spy for the Venetian government—and trading his father's editions as well as other books printed in Venice. His period of activity, the second half of the sixteenth century, was crucial for the spread of architectural treatises. During those years, Venetian presses published Italian translations of Alberti's and Vitruvius's Latin texts, the first editions of all of Serlio's books, several reprints of Vignola's *Regola*, and Palladio's *Quattro libri*. Thus, it is likely that Curzio Troiano Navò could trade these architectural treatises in Dubrovnik.

The analysis of some inventories of early modern libraries in the eastern Adriatic demonstrated that some architectural books had circulated since the sixteenth century. But inventories document the presence of architectural treatises in eastern Adriatic libraries only from the seventeenth century onwards. A survey of the catalogues of extant early modern book collections provided a similar result. Moreover, direct and indirect data about professional libraries, the collections used by architects and people involved in the building trade, confirm this picture. The drawings in the Korčula Sketchbook, the library of the engineer Zorzi Calergi, and the notebooks of Giovanni Battista Camozzini prove the circulation of architectural treatises and books in the eastern Adriatic, but they all date to the seventeenth or early eighteenth century. From these sources, it is evident that architectural books had very limited circulation during the sixteenth century, and that they spread among professional, family, and institutional libraries only during the following centuries.

As all the books in the eastern Adriatic were printed abroad, the printing place is particularly interesting for the reconstruction of their origin and circulation across the region. The analysis of the printing places of the architectural books preserved today in the libraries of the eastern Adriatic reveals two sub-



Ill. 1.6. Guillaume Philandrier, *In decem libros M. Vitruvii Pollionis de architectura annotationes* (Rome, 1544), title page (NUK, GS o 710965)

stantially different supply routes for the coastal and the inland regions. In fact, in the libraries along the coast, the significant presence of Venetian volumes, and, to a lesser extent, Roman and French books, indicates that Venice and the other Adriatic centres, such as Ancona, were the main marketplaces for books shipped to the eastern Adriatic. On the other hand, the scarcity of German books suggests that Venetians did not offer those books or that the customers in the eastern Adriatic were not interested in them. In the inland libraries, Italian and particularly Venetian books are present, but there are higher numbers of German books. This means that the book trade in inland regions relied—at least partially—on different trading routes that probably involved direct contact with German lands. Valvasor, for example, turned repeatedly to the Frankfurt Fair for his purchases.

However, the detailed study of authors and titles of the architectural books today preserved in the libraries of the eastern Adriatic shows that no substantial difference in architectural knowledge existed between coastal and inland regions. Italian Renaissance architectural treatises, from Vitruvius to Alberti, Serlio, Vignola, and Palladio, remained the main repositories for architectural knowledge, even in the seventeenth and eighteenth centuries. The differences in political rule, language, and trade routes that fragmented the eastern Adriatic, particularly into coastal and inland regions, did not cause important variations in the architectural knowledge transmitted through the printed books. Rather, only small distinctions differentiate the architectural books along the coastline from those in inland collections. In particular, libraries in the inland demonstrate an interest in Central and Western European architectural knowledge at large—though to a lesser extent than in Italian Renaissance culture—which was completely absent along the coast.

Notes

- 1 Božena Kukolja and Vladimir Magić, eds, *Bibliotheca Valvasoriana: katalog knjižnice Janeza Vajkarda Valvasorija v biblioteki Metropolitani v Zagrebu* (Ljubljana: Mladinska knjiga, 1995), p. 64.
- 2 Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 56–64, 88–106, 120–122.
- 3 Pettegree, Weduwen, and University of St Andrews, 'Universal Short Title Catalogue', accessed: 25 May 2022, online: <https://www.ustc.ac.uk/search>. See also Pettegree, *The Book in the Renaissance*.
- 4 On the practice of sending books on credit and collecting the money later, see Nuovo, *The Book Trade in the Italian Renaissance*, pp. 87–96. For biographical data on Clario, see Neven Jovanović, 'Pismo Danielea Clarija dubrovačkom nadbiskupu o Epidauru, 1505', *Colloquia Maruliana* 32 (2023), 81–85.
- 5 Pierre De Nolhac, 'Les correspondants d'Alde Manuce: Matériaux nouveaux d'histoire littéraire (1483–1514)', *Studi e documenti di storia e diritto* 8 (1887), 267–268, N. 19: 'D.no Aldo Romano viro utriusque lingue doctissimo Clarius Aldo suo S. Accepi nuper litteras toas Ferarie datas octavo calendis aprilis, quibus mihi videris subvereri de nostro amore veteri, ne illu ego violaverim aut dolo malo aut superbia aut utroque, qui non libros mittam quos ad me alias vendendos misisti, aut de illis si venditi sing pecuniam. Quod sentio fatebor ingenue. Speraram te aliam de me habere fidem quam literis expresisti. Nec tibi nec socero tuo irascor, quoniam nullam habeo in vos irascendi causam, nec vos ullam in me identitem. Nunquam mihi in mentem ulla de tua integritate venire posset malla suspitio; quod in me non est nec in amicum alterum me esse puto. Si his ante actis temporibus rarius quam tu et ego volebam ad te scripsi, egre fers et ego. Nonne vidisti et omnem miseram Italiam et Adriaticum mare continuis exarsisse bellis et prelijs et piratarum more incursionibus, et nuper triremes Venetae cepere et depraedatae sunt duas naves nostras 60 mil. aureorum valore oneratas. Libros soceri tui et tuos habeo paratos, quorum onere et molestia cupio liberari; si quis venerit cui nomine vestro possint secure committi, eos consignabo Venecias perferendos. Non is sum quod forte reris ut alieno ditari velim, quod anim boni fortunae est mihi ordo sepe est et abunde dandi quam rapiendi magis studioso. Malam de me mentem si quam induisti exuve, rogo, et me mutuo ut solebas ama. Ragusij. Die octavo Iunij 1510'.
- 6 Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 16–21. However, the most recent entry in the Italian biographical dictionary overlooks his contribution to the Glagolitic: Franco Pignatti, 'Torresano, Andrea', in *Dizionario biografico degli italiani* (Rome: Treccani, 2019), accessed 27 May 2025, online: https://www.treccani.it/enciclopedia/andrea-torresano_%28Dizionario-Biografico%29/.
- 7 Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 88–106; Nuovo, *The Book Trade in the Italian Renaissance*, pp. 298–301. On the production and trade of books in Venice, see also Marino Zorzi, 'Dal manoscritto al libro', in *Storia di Venezia dalle origini alla caduta della Serenissima*, ed. by Alberto Tenenti and Ugo Tucci, vol. 4 (Rome: Treccani, 1996), pp. 817–958.
- 8 Nuovo, *The Book Trade in the Italian Renaissance*, 301.
- 9 Miloš Milošević, 'Šedam nepoznatih pisama Marka Marulića', *Colloquia Maruliana* 1 (1992), 5–31.
- 10 Works by authors from the eastern Adriatic and printed in Venice encompassed Juraj Šižgorić's Latin *Elegiarum et carminum* (1477), Baromić's Glagolitic breviary (1493), Marulić's works in Latin and Croatian vernacular, and many other later works in Latin, Croatian, and Italian by, for instance, Nikola Vitov Gučetić (Nicola Gozze), Frane Petrić (Francesco Patrizi), Benko Kotruljević (Benedetto Cotrugli), and others. For a full account, see Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 56–64.
- 11 For further examples, see Borna Treska, 'Citatelji po zadatku: starija hrvatska književnost i mletački tisak', *Fluminensia: časopis za filološka istraživanja* 34/2 (2022), 597–620; Slavko Harni, 'Venecija u hrvatskoj tiskarskoj topografiji Divkovićeve doba', in *Znanstveni skup: Matija Divković i kultura pisane riječi*, ed. by Marko Karamatić (Sarajevo: Franjevačka teologija Sarajevo, 2014), pp. 309–355; Aleksandar Stipčević, 'Hrvatski autori i "nevaljali" tiskari', in *Knjige poštujući, knjigama poštovan: zbornik o 70. rođendanu Josipa Bratulića*, ed. by Davor Dukić and Mateo Žagar (Zagreb: Matica hrvatska, 2010), pp. 317–328.
- 12 Aleksandar Stipčević, 'Le biblioteche nella sponda orientale dell'Adriatico', in *La Biblioteca Ambrosiana tra Roma, Milano e l'Europa: Conference Proceedings, Milan, 25–27 November 2004*, ed. by Franco Buzzi and Ferro Roberta, (Rome: Bulzoni, 2005), p. 192.
- 13 Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, p. 89: 'Nije se radilo samo o knjigama koje su tiskane u samoj Veneciji, nego i o onima tiskanima u cijeloj Europi, a koje su se prodavale u mletačkim knjižarama'.
- 14 Data provided in biographical sketches by Ivan Kukuljević Sakcinski, 'Tiskari jugoslavenski XV. i XVI. veka', *Archiv za povestnicu jugoslavensku* 1 (1851), 121–154, have to be paired with recent studies and biographical entries: Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 10–21.
- 15 Miroslav A. Lazić, Božidar Vuković: između istorije i imaginacije (Belgrade: Narodna biblioteka Srbije, 2022); Štamparska i književna djelatnost Božidara Vukovića Podgoričanina: radovi sa naučnog skupa (Titograd: Crnogorska akademija nauka i umetnosti, 1986).
- 16 Lavoslav Glesinger, 'Dva dubrovčanina tiskara u Urbino u 16. stoljeću', *Analiz Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 8–9 (1962), 155–164.
- 17 Šime Jurić, 'Dobričević, Dobrič', in *Hrvatski biografski leksikon* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2024), accessed 13 April 2025 online: <https://hbl.lzmk.hr/clanak/dobricevic-dobric-tiskar>; Alfredo Cioni, 'Bonini (Boninis), Bonino', in *Dizionario biografico degli italiani* (Rome: Treccani, 1971), accessed 13 April 2025, online: https://www.treccani.it/enciclopedia/bonino-bonini_%28Dizionario-Biografico%29/.
- 18 Vladimir Simić, 'Between Venice and the Danube: Hieromonk Makarije and His Cyrillic Incunabula at the Turn of the Sixteenth Century', in *The Land between Two Seas: Art on the Move in the Mediterranean and the Black Sea 1300–1700*, Ed. by Alina A. Payne (Leiden: Brill, 2022), pp. 252–270, online: https://doi.org/10.1163/9789004515468_014; Vladimir Simić, 'Early Cyrillic Printed Books and the Migration of Decorative Forms between the Adriatic and the Danube around 1500', *Zograf* 44 (2020), 189–204; Anica Nazor, 'O glagoljskoj tiskari u Senju i njezinim izdanjama (1494–1508)', *Senjski zbornik: prilozi za geografiju, etnologiju, gospodarstvo, povijest i kulturu* 41 (2014), 211–243; Zvonimir Kulundžić, 'Glagoljaska štamparija XV–XVI stoljeća: Kosinj–Senj–Rijeka', *Senjski zbornik: prilozi za geografiju, etnologiju, gospodarstvo, povijest i kulturu* 2 (1966), 167–308.
- 19 Guarneri, 'Editoria e cultura militare a Brescia in epoca moderna: Un primo censimento delle edizioni (1473–1797)'; Cristiano Guarneri, 'Trattati e trattatisti di architettura militare a Brescia nel Cinquecento', in *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo*, ed. by Irene Giustina (Palermo: Caracol, 2015), pp. 31–40.
- 20 Nuovo, *The Book Trade in the Italian Renaissance*, pp. 265–268.
- 21 Bratislav Lučin, 'Marko Marulić i Padova', *Kulturna baština* 39 (2013), 39–58.
- 22 Florio Banfi, 'L'istituzione della Biblioteca Pastrizia di Spalato', *Archivio storico per la Dalmazia* 28 (1939–40), 225–238, 259–264, 287–292, 373–383.
- 23 'Catalogue', NN. 32, 96, 624, 643, 698–699, 715, 722, 726.

- 24 Pettegree, *The Book in the Renaissance*, pp. 78-82; Nuovo, *The Book Trade in the Italian Renaissance*, pp. 282-295.
- 25 Henri Estienne, *The Frankfurt Book Fair*, ed. by James Westfall Thompson (Amsterdam: Gérard Th. van Heusden, 1969).
- 26 Kukulja and Magić, *Bibliotheca Valvasoriana: katalog knjižnice Janeza Vajkarda Valvasorija v biblioteki Metropolitani v Zagrebu*, pp. 211-212, NN. 443-449.
- 27 Introduction to Kukulja and Magić, *Bibliotheca Valvasoriana: katalog knjižnice Janeza Vajkarda Valvasorija v biblioteki Metropolitani v Zagrebu*, 65.
- 28 Luka Ručigaj et al., 'Katalogi in inventarji Auerspergovih knjižnic kot pomniki njenega kulturnozgodovinskega pomena in razvoja skozi čas', *Ars & Humanitas* 13 (2019), 123-150, online: <https://doi.org/10.4312/ars.13.1.123-150>; Branko Reisp, 'O nekdanji knjižnici knezov Auerspergov (Turjaških) v Ljubljani', *Zgodovinski časopis* 43 (1989), 37-7.
- 29 Ivan Kosić, ed. *Bibliotheca Zriniana: katalog izložbe u povodu 350. obljetnice smrti Nikole VII. Zrinskoga*. (Zagreb: Nacionalna i sveučilišna knjižnica, 2014). The 1660 catalogue of the Zrinski Library, together with a other sources related to the family is available at the virtual exhibition Project Zrinski, Nacionalna i sveučilišna knjižnica u Zagrebu, accessed 21 May 2025, online, <http://virtualna.nsk.hr/zrinski/>
- 30 Cristiano Guarneri, 'Circulation, Use, Impact: An Evidence-Based Enquiry into the Consumption of Architectural Books in Baroque Slovenia'. in: *Periferija ali regionalni centri? Tri stoletja umetnosti med Srednjo Europo in Jadranom (1400-1700)*. Edited by Janez Hoefler and Matej Klemenčič. Ljubljana: SAZU, 2026 (forthcoming). Luka Ručigaj. 'Ljubljana Based Bookbinders and the Book-Trade between the Printing Centres and Ljubljana: A Case Study of the Fuerstlich Auerspergsche Fideicommissbibliothek Zu Laybach'. in: *Patrons, Intermediaries, Venetian Artists in Vienna & Imperial Domains (1650-1750)*. Edited by Enrico Lucchese and Matej Klemenčič. (Florence: Edizioni Polistampa, 2022), 331-342.; Stanislav Južnič, 'O arhitekturi v Turjaški Knjižnici', *Knjižnica: Revija za področje Bibliotekarstva in Informacijske Znanosti* 52/2-3 (2008), 7-27, online: <https://doi.org/10.55741/knj.52.2-3.14229>; Anja Dular, 'The Ljubljana Bookbinders of the Sixteenth and Seventeenth Centuries', in *Bookbindings: Theoretical Approaches and Practical Solutions*, ed. by N. Golob and J. Vodopivec Tomažič (Turnhout: Brepols, 2017), pp. 51-66.
- 31 Nuovo, *The Book Trade in the Italian Renaissance*, p. 297.
- 32 Sabine Florence Fabijanec, 'Od sajma do sajma: pomorski obalni promet u ritmu svetaca zaštitnika na Jadranu krajem srednjega vijeka', *Croatica Christiana periodica* 38/74 (2014), 23-40.
- 33 Nuovo, *The Book Trade in the Italian Renaissance*, pp. 305-306.
- 34 Gudelj and Ruso, 'Tiskani renesansni traktati'.
- 35 Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 88-91.
- 36 Egidio Ivetic, *Storia dell'Adriatico: Un mare e la sua civiltà* (Bologna: Il Mulino, 2019), 183; Nenad Vekarić, 'The Population of the Dubrovnik Republic in the Fifteenth, Sixteenth and Seventeenth Centuries', *Dubrovnik Annals* 2 (1998), 7-28.
- 37 Petar Runje, 'Jerolim Mirković – prodavač Marulićeve tiskane Judite u Zadru 1522', *Mogućnosti* 45/4-6 (1998), 231-234.
- 38 Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, p. 98; Maria Consiglia Napoli, *L'impresa del libro nell'Italia del Seicento: La bottega di Marco Ginammi* (Naples: Guida, 1990).
- 39 Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, p. 104; Mario Infelise, *I Remondini di Bassano: Stampa e industria nel Veneto del Settecento* (Bassano: Ghedina e Tassotti, 1980), p. 94.
- 40 Constantin Jireček, 'Beitrage zur Ragusanischen Literaturgeschichte: Beilagen. 4. Inventar einer Buchersendung aus Venedig', *Archiv für Slavische Philologie* 21 (1899), 511-515; Corrado Marciani, 'Troiano Navo di Brescia e suo figlio Curzio: Librai-editori del secolo XVI', *La bibliofilia* 73 (1971), 49-60; Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 100-101; Ivan Lupić, 'Marulić u Dubrovniku', *Colloquia Maruliana* 30 (2021), 9-11.
- 41 See, for instance, Lupić, 'Marulić u Dubrovniku', 9-14. Many 'librari' also worked in the state service to supply the Republic of Ragusa administration with paper and documents bound into books: Relja Seferović, 'Dubrovački knjižari 16. stoljeća u državnoj službi', *Arhivski vjesnik* 51 (2008), pp. 371-393.
- 42 Marciani, 'Troiano Navò di Brescia e suo figlio Curzio: librai-editori del secolo XVI'.
- 43 Marco Moroni, 'Trgovci iz gradova pokrajine Marche aktivni u Dubrovniku u 16. stoljeću', *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 55 (2017), 184-186, online: <https://doi.org/10.21857/m16wjcp5v9>; Aleksandar Stipčević, 'Circolazione dei libri tra le Marche e la Dalmazia nel '500 e '600', in *Marche e Dalmazia tra Umanesimo e Barocco: Conference Proceedings* (Ancona, 13-14 May; Osimo, 15 May 1988), ed. by Sante Graciotti, Marina Massa, and Giovanna Pirani (Reggio Emilia: Diabasis, 1993), pp. 201-202; Marciani, 'Troiano Navò di Brescia e suo figlio Curzio: librai-editori del secolo XVI', 53.
- 44 Nuovo, *The Book Trade in the Italian Renaissance*, pp. 162-194.
- 45 Nuovo, *The Book Trade in the Italian Renaissance*, pp. 136-137.
- 46 Nuovo, *The Book Trade in the Italian Renaissance*, pp. 400-408.
- 47 Ručigaj, 'Ljubljana Based Bookbinders and the Book-Trade between the Printing Centres and Ljubljana: A Case Study of the Fuerstlich Auerspergsche Fideicommissbibliothek zu Laybach'; Dular, 'The Ljubljana Bookbinders of the Sixteenth and Seventeenth Centuries'.
- 48 Marciani, 'Troiano Navò di Brescia e suo figlio Curzio: librai-editori del secolo XVI', 54.
- 49 Jireček, 'Beitrage zur Ragusanischen Literaturgeschichte: Beilagen. 4. Inventar einer Buchersendung aus Venedig', 508.
- 50 Jireček, 'Beitrage zur Ragusanischen Literaturgeschichte: Beilagen. 4. Inventar einer Buchersendung aus Venedig', 510-511.
- 51 From 'Rascia' or 'Raška', the name of the medieval state from which the Kingdom of Serbia developed. See Ivetic, *Storia dell'Adriatico: Un mare e la sua civiltà*, pp. 125, 132; Giuseppe Praga, 'Rascia', in *Enciclopedia italiana* (Rome: Treccani, 1935), accessed 27 May 2025, online: [https://www.treccani.it/enciclopedia/rascia_\(Enciclopedia-Italiana\)/](https://www.treccani.it/enciclopedia/rascia_(Enciclopedia-Italiana)/).
- 52 Jireček, 'Beitrage zur Ragusanischen Literaturgeschichte: Beilagen. 4. Inventar einer Buchersendung aus Venedig', 508-509; Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, p. 21; Seferović, 'Dubrovački knjižari 16. stoljeća u državnoj službi', 375-376.
- 53 Vesna Čučić, 'Prvi tiskari u Dubrovniku s popisom tiskane građe', *Vjesnik bibliotekara Hrvatske* 48/3-4 (2005), 114-121; Stipčević, *Socijalna povijest knjige u Hrvata*, vol. 2, *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*, pp. 21-28.
- 54 Manuela Morresi, 'Treatises and the Architecture of Venice in the Fifteenth and Sixteenth Centuries', in *Paper Palaces: The Rise of the Renaissance Architectural Treatise*, ed. by Vaughan Hart and Peter Hicks (New Haven: Yale University Press, 1998), pp. 270-274.
- 55 These are the most likely editions: Francesco Feliciano, *Libro di arithmetica & geometria speculativa & praticale [...] intitolato Scala grimaldelli* (Venice: Alessandro Bindoni & Mapheo Pasini, 1545); Pietro Borghi, *Libro de abacho* (Venice: Bernardino de Bindoni, 1540).
- 56 Baldassare Castiglione, *Il libro del cortegiano* (Venice: Curtio Navò, et fratelli, 1538); Pietro Crescenzi, *D'agricoltura, dove si contiene il modo di coltivare la terra, seminar, & inserir gli arbori: con la proprietà delle herbe, & di tutti i frutti, et la natura di tutti gli animali* (Venice: Bernardino Bindoni, 1542).
- 57 I was able to identify only the editions of Plutarch (*La prima [-seconda] parte delle vite [...]*

- di greco in latino & di latino in volgare tradotte*, 2 vols [Venice: Bernardino Bindoni, 1537]) and Polybius (*Polibio historico greco tradotto per M. Lodovico Domenichi et nuovamente da lui riveduto & corretto* [Venice: Gabriel Giolito de Ferrari, 1545]).
- 58 Vannoccio Biringuccio, *De la pirotechnia: Libri 10 dove ampiamente si tratta non solo di ogni sorte di diversità di miniere, ma anchora quanto si ricerca intorno a la pratica di quelle cose di quei che si appartiene a l'arte de la fusione over gitto de metalli come d'ogni altra cosa simile a questa* (Venice: Curtio Navò, et fratelli, 1540); Niccolò Tartaglia, *Quesiti, et inventioni diverse* (Venice: Venturino Ruffinelli, 1546).
- 59 Marciani, 'Troiano Navò di Brescia e suo figlio Curzio: librai-editori del secolo XVI', 50-51, 55-56 doc. I, 'Testamento di Niccolò Tartaglia fu Michele di Brescia, dottor di matematica', 10 December 1557.
- 60 'Catalogue', N. 771.
- 61 'Catalogue', NN. 946, 949, 952.
- 62 Angela Nuovo, 'The Prices of Books in Italy (XV-XVI Centuries)', in *I prezzi delle cose nell'età preindustriale: Selezione di ricerche/The Prices of Things in Pre-Industrial Times: Selection of Essays*, ed. by Istituto internazionale di storia economica F. Datini (Florence: Firenze University Press, 2017), pp. 118-119.
- 63 Aleksandar Stipčević, 'Struktura bibliotečnih fondova u Hrvatskoj u 15. i 16. stoljeću', *Slovo: časopis Staroslavenskoga instituta u Zagrebu* 34 (1984), 274.
- 64 Šime Jurić, 'Prilozi biografiji Ivana Gazulića', *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 8-9 (1962), 447-479.
- 65 Aleksandar Stipčević, 'Inventari knjižnica kao izvori za povijest knjige s posebnim osvrtom na inventar Nikole Pavlova Gundulića iz 1469. godine', *Libellarium: Časopis za istraživanja u području informacijskih i srodnih znanosti* 1/1 (2008), 1-8.
- 66 Stipčević, 'Struktura bibliotečnih fondova u Hrvatskoj u 15. i 16. stoljeću', 270.
- 67 Giuseppe Praga, 'Lo "Scriptorium" dell'abbazia benedettina di San Crisogono in Zara', *Archivio storico per la Dalmazia* 7-8/39, 40, 43, 45, 46, 47, 47 (1929-1930), 127-146, 177-189, 314-325, 438-457, 481-494, 542-562, 590-611.
- 68 Josip Kolanović, 'Knjižnice dvaju šibenskih svećenika iz sredine XV. stoljeća', *Croatia Christiana periodica* 3 (1979), 124-130.
- 69 Jurić, 'Prilozi biografiji Ivana Gazulića', 476-477: 'Dimitto omnes et singulos libros meo spectantes ad ius canonicum et ad sacram scripturam ecclesie Sancta Marie Maioris de Ragusio hac lege et conditione quod dicti libri debeant poni in unum locum, ubi procuratoribus dicte ecclesie videbitur, ubi stare debeant perpetuis temporibus, quousque dicti libri durabunt, pro commoditate volentium aliquid videre et legere in dictis libris'.
- 70 Stjepan Krasić, 'Trogiranin Fantin de Valle i njegova knjižnica', *Radovi Instituta JAZU u Zadru* 20 (1973), 367.
- 71 Lujo Margetić, 'Oporuka Marka Marulića', *Colloquia Maruliana* 14 (2005), 25-71; Bratislav Lučin, 'Studia humanitatis u Marulićevoj knjižnici', *Colloquia Maruliana* 6 (1997), 170-201.
- 72 Margetić, 'Oporuka Marka Marulića'.
- 73 Filippo Camerota, *La prospettiva del Rinascimento: Arte, architettura, scienza* (Milan: Electa, 2006), pp. 74-81, 87-106.
- 74 Belamarić, 'Alberti's Pathos Formula in the Chapel of the Blessed Giovanni Orsini of Trogir'.
- 75 Ambroz Kapor, 'Renesansna biblioteka Žilković u Korčuli', *Bibliotekar* 18/1-3 (1966), 97-119.
- 76 Juan Bautista Villalpando and Jeronimo de Pardo, *In Ezechielem explanationes, et apparatus urbis, ac templi Hierosolymitani, commentariis et imaginibus illustratus*, 3 vols (Rome: Aloisio Zanetti, 1596).
- 77 Bratislav Lučin, 'Pogled u knjižnicu Marka Antuna de Dominisa', in *Marko Antun de Dominis, splitski nadbiskup, teolog i fizičar*, ed. by Vesna Tudjina (Split: Književni krug, 2006), pp. 231-270, NN. 55, 57, 99, 103, 131, 167, 174.
- 78 Gudelj and Botica, *Arte et marte*.
- 79 Kukolja and Magić, *Bibliotheca Valvasoriana: katalog knjižnice Janeza Vajkarda Valvasorija v biblioteki Metropolitani v Zagrebu*.
- 80 'Catalogue', NN. 1048, 887, 709.
- 81 'Catalogue', NN. 716, 718, 720, 99, 583, 831.
- 82 'Catalogue', NN. 945, 537.
- 83 'Catalogue', NN. 984, 300, 227, 957, 841.
- 84 'Catalogue', NN. 909-910, 243, 315, 394.
- 85 'Catalogue', NN. 332, 746.
- 86 'Catalogue', NN. 397, 1002.
- 87 'Catalogue', NN. 316, 583, 588.
- 88 'Catalogue', NN. 735, 846.
- 89 'Catalogue', NN. 227, 842, 124, 263, 977.
- 90 'Catalogue', NN. 589, 592, 1092.
- 91 'Catalogue', NN. 451, 52.
- 92 'Catalogue', NN. 408-409, 412, 414-415, 420, 423-424, 427-439.
- 93 'Catalogue', NN. 1056, 1044, 1061 (Vitruvius); 877, 891, 878 (Serlio); 707, 724 (Palladio); 850-851 (Scamozzi).
- 94 'Catalogue', NN. 109, 111 (Blum); 113, 116, 118, 119 (Böckler); 390 (Fréart de Cambray); 529, 530 (de Keyzer); 545 (Krammer); 593 (Liser); 847 (Savot); 858 (Schöfflerle); 1066-1068 (Vredeman de Vries); 1077 (Wilhelm).
- 95 'Catalogue', NN. 40 (Ardüsser); 114, 117, 122 (Böckler); 138, 140 (Borgsdorff); 228, 229 (Cataneo); 242 (Cellarius); 328 (Dürer); 350 (Faulhaber); 375 (Floriani); 389 (Fournier); 393, 395 (Freitag); 484 de (Goldmann); 496 (Griendel von Ach); 507 (Heidemann); 510 (Hillefeld); 511 (Hirsch); 597 (Lombardi); 599 (Lorini); 627 (Manesson Mallet); 635 (Marolois); 652 (Metius); 664 (Millet de Chales); 695 (Pagan); 745 (Perret); 802-804 (Ruse); 839 (Sardi); 844 (Sattler Wissenburg); 857 (Schildknecht); 862 (Schott); 908 (Specklin); 919 (Stevin); 958 (Theti); 970 (Treu); 301 (De Ville).
- 96 'Catalogue', NN. 8, 9 (Aelianus); 205, 206 (Caesar); 1005-1007 (Vegetius); 608, 611 (Machiavelli).
- 97 'Catalogue', NN. 31 (Albrecht); 53 (Barbaro); 152, 153, 158 (Bosse); 192 (Brunn); 280 (Cousin); 320 (Dubreuil); 330 (Dürer); 504 (Halt); 523 (Jamnitzer); 561 (Lautensack); 680 (Niceron); 732 (Pèlerin); 901, 902 (Sirigatti); 921 (Stör).
- 98 'Catalogue', NN. 62, 684, 872, 112.
- 99 Banfi, 'L'istituzione della Biblioteca Pastrizia di Spalato'.
- 100 Banfi, 'L'istituzione della Biblioteca Pastrizia di Spalato', 228-229.
- 101 Inge Šegvić-Belamarić, *Stare i rijetke knjige iz knjižnice Klasične gimnazije u Splitu: bibliofilski prilog povijesti humanizma u Dalmaciji* (Split: Glavno povjerenstvo državne uprave za zaštitu kulturne i prirodne baštine, 1995).
- 102 ZKZD, Ms. 703, 'Catalogo dei libri del sopresso Ginnasio dei Gesuiti di Ragusa consegnati alla Direzione di quel Ginnasio', c. 1870.
- 103 'Catalogue', N. 527. The library of the Jesuit college in Rijeka is today preserved in the University Library in Rijeka, which also holds books from the Jesuit libraries of Trieste and Graz.
- 104 Jasenka Gudelj and Petar Strunje, 'Andrea Palladio e i disegni del Palazzo di Diocleziano a Spalato', in *Norme e modelli: Il Rinascimento e l'Adriatico orientale*, ed. by Jasenka Gudelj and Laris Borić (Rome: Aracne, 2023), pp. 112-113; Duško Kečkemet, 'Crteži i grafike Dioklecijanove palače Fischera von Erlacha', *Peristil* 30 (1987), 127-138.
- 105 Arsen Duplancić, 'Sudbina knjižnice splitske obitelji Martinis-Marchi', in *Knjižnica splitske obitelji Martinis-Marchi: katalog izložbe*, Ed. by Arsen Duplancić (Split: Arheološki muzej, 2001), pp. 5-31.
- 106 'Catalogue', N. 370.
- 107 'Catalogue', NN. 692, 46.
- 108 Arsen Duplancić, ed., *Knjižnica splitske obitelji Martinis-Marchi* (Split: Arheološki muzej, 2001).
- 109 Fani Cega, 'Knjižnica Garagnin Fanfogna u Muzeju grada Trogira', *Informatica museologica* 29/1-2 (1998), 52-59; Fani Celio Cega, 'Povijest knjižnice obitelji Garanjin Fanfonja u Trogiru', *Radovi Zavoda za hrvatsku povijest Filozofskoga fakulteta Sveučilišta u Zagrebu* 29 (1996), 129-137.
- 110 'Catalogue', N. 711.
- 111 'Catalogue', NN. 1015, 1016, 1027.
- 112 'Catalogue', N. 1053.
- 113 'Catalogue', N. 271.
- 114 'Catalogue', NN. 3, 6, 617.
- 115 'Catalogue', NN. 551-553, 953.
- 116 Relja Seferović, 'Foundation of the Library of the Institute for Historical Sciences CASA in Dubrovnik: Preliminary Insight', *Dubrovnik Annals*, no. 23 (9 September 2019): 129-130, online: <https://doi.org/10.21857/97v64t5g5y>.
- 117 'Catalogue', NN. 1045, 1049, 1051.

- 118 'Catalogue', NN. 20 (Alberti); 879, 884 (Serlio); 1011, 1013, 1025 (Vignola); 848 (Scamozzi).
- 119 'Catalogue', NN. 380, 520.
- 120 'Catalogue', NN. 180 (Branca); 834 (Sanvitali); 446 (Gallaccini); 1039 (Visentini); 662 (Milizia).
- 121 'Catalogue', NN. 355, 660.
- 122 'Catalogue', NN. 798 (Ripa); 25 (Leonardo); 471 (Gautier); 760 (Pilae); 656, 657 (Milizia).
- 123 'Catalogue', NN. 57, 369.
- 124 'Catalogue', NN. 683, 11.
- 125 'Catalogo della libreria della nobil signora Marietta, vedova di Michele Luca di Giorgi Bona', 1839, Arhiv Hrvatske akademije znanosti i umjetnosti, published in Slavica Stojan, *U salonu Marije Giorgi Bone* (Dubrovnik: Zavod za povijesne znanosti Hrvatske akademije znanosti i umjetnosti, 1996), pp. 134-151.
- 126 Stojan, *U salonu Marije Giorgi Bone*, pp. 75-89, 134-151.
- 127 Ivica Prlender, 'Gučetić', in *Hrvatski biografski leksikon* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002), accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic>; Ljerka Schiffer-Premec, 'Gučetić, Nikola Vitov', in *Hrvatski biografski leksikon* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002), accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic-nikola-vitov>; Olga Perić, 'Gučetić, Ivan', in *Hrvatski biografski leksikon* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002), accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic-ivan>; Mijo Korade, 'Gučetić, Ivan Ml.', in *Hrvatski biografski leksikon* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002), accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic-ivan-ml>.
- 128 Gorana Stepanić, 'Knjižna ostavština obitelji Gundulić: od Frana Franova (1539-1589) do Frana Marinova (1666-1687)', *Colloquia Maruliana* 33 (2024), 177-193; Šapro-Ficović, 'Knjižnica isusovaca u Dubrovniku', 23.
- 129 Državni arhiv u Dubrovniku (State Archive in Dubrovnik) Arhiv Bassegli/Gozze, Kutija 152 (former 136), 'Indice alfabetico / della Biblioteca / di / Casa Gozze / Collazionato d'Ordine / Dei Fratelli Paolo, e Melchiorre de / Gozze / per proprio uso, e degli amici / MDCCCXIX', 1819.
- 130 The copies of Vitruvius's and Alberti's treatises probably passed to the library of the Franciscan friary in Dubrovnik, where they are recorded in the catalogue. While Vitruvius's volume is presently missing, the copy of Alberti's book bears no evidence of possession that can confirm its provenance. See 'Catalogue', NN. 21, 1041.
- 131 Gudelj and Ruso, 'Tiskani renesansni traktati', 101, 109 n. 1; a copy of this book is today in the library of the Dubrovnik Classical Gymnasium, which is housed in the former building of the Jesuit College. See 'Catalogue', N. 1017.
- 132 Paula Lee, 'François Cointeraux and the School of "Agritecture" in Eighteenth-Century France', *Journal of Architectural Education* 60/4 (2007), 39-46.
- 133 Fisković, 'Crteži graditelja i kipara'; Jasenka Gudelj, 'The "Korčula Sketchbook" and the Architectural Culture of the Early Modern Dalmatia' (paper presented at the 68th Annual Meeting of the Renaissance Society of America, Dublin, 30 March 2022).
- 134 Goran Nikšić, 'Graditeljski polet i procvat klesarstva u Korčuli 15. i 16. stoljeća', in *Scripta in honorem Igor Fisković. Zbornik povodom sedamdesetog rođendana. Festschrift on the Occasion of His 70th birthday*, ed. by Miljenko Jurković and Predrag Marković (Zagreb: FF Open Press - izdanja Filozofskog fakulteta u Zagrebu u otvorenom pristupu, 2013), pp. 247-259, online: <https://doi.org/10.17234/9789531755887>; Goran Nikšić, 'Korčulani u Mantovi – organizacija klesarske radionice za veliku narudžbu', *Peristil* 56 (2013), 81-86; Goran Nikšić, *Marko Andrijić i njegov doprinos dalmatinskom renesansnom graditeljstvu* (doctoral thesis, Filozofski fakultet Sveučilišta u Zagrebu, 2012; Joško Belamarić, *Stone of the Eastern Adriatic* (Split: Public Institution ReraSD, 2016), pp. 66-86.
- 135 Fisković, 'Crteži graditelja i kipara', 238.
- 136 Fisković, 'Crteži graditelja i kipara', 264-266.
- 137 Gudelj, 'The "Korčula Sketchbook" and the Architectural Culture of the Early Modern Dalmatia'.
- 138 Archivio di Stato di Venezia, Senato, Deliberazioni, Mar, Registri, 133, Appointment of Zorzi Calergi as engineer in the service of the General Procurator of Dalmatia and Albania Antonio Priuli, 12 September 1667.
- 139 Milan Ivanišević, 'Namjera gradnje grčke pravoslavne crkve u Splitu', *Kulturna baština*, no. 36 (27 December 2010), 32.
- 140 Arsen Duplančić, 'Prilog povijesti početaka arheologije u Saloni', *Tusculum: Časopis za solinske teme* 13/1 (1 December 2020), 91-116; Perislav Petrić, 'Topografske bilješke splitskog polja', *Kulturna baština*, no. 17 (31 December 1987), 135-142.
- 141 Ivanišević, 'Namjera gradnje'.
- 142 Petrić, 'Topografske bilješke splitskog polja', 140-141.
- 143 Darka Bilić, *Inženjeri u službi Mletačke Republike: inženjeri i civilna arhitektura u 18. stoljeću u mletačkoj Dalmaciji i Albaniji* (Split: Književni krug, 2013); Joško Kovačić, 'Mjernik i graditelj Giovanni Battista Camozzini', *Kulturna baština* 24-25 (1994), 85-102; Arsen Duplančić, 'O Mihovilu Luposignoliju, vojnim inženjerima i mjernicima u Dalmaciji u 18. stoljeću', *Prilozi povijesti umjetnosti u Dalmaciji* 29 (1990), 264.
- 144 Catalogue', NN. 1040-1062, 1010-1034, 837-843.
- 145 'Catalogue', NN. 301-303.
- 146 Catalogue', NN. 332, 315.
- 147 Bilić, *Inženjeri u službi Mletačke Republike: inženjeri i civilna arhitektura u 18. stoljeću u mletačkoj Dalmaciji i Albaniji*.
- 148 'Catalogue', NN. 51, 283, 1025, 1047, 884.
- 149 'Catalogue', NN. 596, 883, 885, 1040.
- 150 For the diplomatic relations between Rome and Dubrovnik, for instance, see Nikša Varežić, *Dosta je reči u Rimu da bi se reklo čitavom svijetu: Dubrovačka Republika i Sveta Stolica tijekom 16. i 17. stoljeća* (Zagreb: Hrvatska akademija znanosti i umjetnosti, Zavod za povijesne znanosti u Dubrovniku, 2018).
- 151 Andrea Zannini, *Venezia città aperta: Gli stranieri e la Serenissima, 14.-18. sec.* (Venice: Marcianum Press, 2009); Jasenka Gudelj, 'The Hospital and Church of the Schiavoni/Illyrian Confraternity in Early Modern Rome', *Confraternitas* 27/1-2 (2016), 5-29; Jasenka Gudelj, Francesca Coltrinari, and Giuseppe Capriotti, eds., *Visualizing Past in a Foreign Country: Schiavoni/Illyrian Confraternities and Colleges in Early Modern Italy in Comparative Perspective* (Macerata: Edizioni Università di Macerata, 2018), online: <https://www.bib.irb.hr/976376>.
- 152 Gudelj, 'Architettura e diplomazia tra Roma e Dubrovnik', 188-195.
- 153 Stijepo Obad, 'Studenti dalmati all'Università di Padova', *Atti di Centro di ricerche storiche Rovigno* 31/1 (2001), 469-478; Michele Pietro Ghezzi, *I dalmati all'Università di Padova dagli atti dei gradi accademici 1601-1800* (Venice: Società Dalmata di Storia Patria, Scuola dalmata dei SS. Giorgio e Trifone, 1992); Gian Paolo Brizzi, Damir Barbarić, and Péter Sárközy, *Annali del Collegio unghero-illirico di Bologna, 1553-1764* (Bologna: Clueb, 1988); Damir Barbarić, 'Bolonjski Ugrasko-Illirski zavod u kulturnoj povijesti Hrvatske', *Prilozi za istraživanje hrvatske filozofske baštine* 14 (1988), 55-76.
- 154 Stipčević, 'Circolazione dei libri tra le Marche e la Dalmazia nel '500 e '600'; Sante Graciotti, ed., *Il libro nel bacino adriatico (secc. XV-XVIII): Conference Proceedings* (Venice, Fondazione Giorgio Cini, 7-10 November 1989) (Florence: L.S. Olschki, 1992).
- 155 Milan Pelc, *Natale Bonifacio* (Zagreb: Institut za povijest umjetnosti, Gradska knjižnica 'Juraj Šižgorić', 1997).
- 156 Kruf, *Storia delle teorie architettoniche da Vitruvio al Settecento*, pp. 215-221.
- 157 'Catalogue', NN. 461-475.
- 158 'Catalogue', NN. 313, 115, 525.
- 159 'Catalogue', NN. 801-803.
- 160 'Catalogue', N. 689.
- 161 'Catalogue', NN. 2-4, 6-7.
- 162 'Catalogue', NN. 5, 223.
- 163 Cristiano Guarneri, 'On the Trail of a Peripatetic Vitruvian Reader: New Insights on Giovanni Battista Fontana in the Late Seventeenth-Century Eastern Adriatic', *Ars Adriatica* 14 (2024), 209-240, online: <https://doi.org/10.15291/ars.4639>.
- 164 'Catalogue', NN. 1042, 1044, 1056.
- 165 'Catalogue', N. 1043.
- 166 'Catalogue', NN. 1061, 1059.

- 167 'Catalogue', NN. 1040, 1047, 1049, 1051, 1053, 1054.
- 168 'Catalogue', NN. 877-878, 879, 881-882, 884, 891.
- 169 'Catalogue', NN. 883, 885, 889.
- 170 'Catalogue', NN. 706, 707, 711, 724.
- 171 'Catalogue', NN. 772, 776, 777.
- 172 'Catalogue', N. 22.
- 173 'Catalogue', NN. 1025, 879, 884.
- 174 A family of altar makers named Dall'Acqua, a possible Italianisation of the Slavic 'Uvoda', was active during the eighteenth century in the Šibenik and Split areas. See Radoslav Tomić, 'Djelatnost altarista Pija i Vicka Dall'Acqua u Dalmaciji', *Radovi Instituta za povijest umjetnosti*, 2/17 (1993), pp. 67-79.
- 175 'Catalogue', N. 283.
- 176 'Catalogue', N. 1047.
- 177 'Catalogue', N. 1040.



USE

The extensive scholarship on early modern architectural treatises has investigated in detail both authors and content, but has rarely considered the use of these books. Furthermore, scholars have assessed the impact of the theoretical principles and ready-made models provided in architectural treatises on actual building and design in a wide range of contexts. As a result, their research on architectural treatises has highlighted the knowledge contained in these books, the various contexts of its production and, sometimes, of its dissemination, and their influence on building. Consequently, architectural historians typically do not engage in physical analysis of the medium of architectural knowledge—the book.

The numerous copies of architectural treatises preserved in libraries worldwide have seldom been physically analysed to determine who the owners were and how they read and used these books. Historians of architecture have performed this analysis only for a few prominent authors and architects of the Italian Renaissance, such as Antonio da Sangallo the Younger, Daniele Barbaro, and Vincenzo Scamozzi, whose extant, extensively annotated book copies have been thoroughly examined.¹ However, these individuals, who have been particularly important in early modern scholarly studies of architecture cannot be representative of the broad audience of architectural books.

As my analysis of owners will soon demonstrate (See below, ‘Owners: Social Status and Profession’), learned architects and scholars were not the only ones owning and using architectural books. Less prominent individuals in the building trade, such as master builders, carpenters, and stonemasons, often had and used at least a few architectural books, even if they did not possess extensive libraries. Typically, they were familiar with the titles that offered a practical approach, with clear illustrations and ready-made models following the examples of Serlio, Vignola, and the many *Säulenbücher*. Because of the very low rate of literacy at the time, it is quite probable that the bulk of these masters could barely read and write, if they were literate at all. For instance, in 1697, Nikola Morosini, Nicolò dello Gaudio, and the

architect Ilija Katičić, the last director overseeing construction work in Dubrovnik Cathedral, asked someone to write a contract for them because, they admitted, they could not write. In the same years, Ivan Macanović sent a proxy to Sinj to sign the contract for the building of a Franciscan friary there, since he himself could not write, even though he drew a detailed design of the new monastic complex.²

Consequently, a wide array of reading practices was pursued for architectural books; the particular technique depended on the owner and their degree of literacy. Rather than filling the margins with annotations or cross-referencing authors, as learned architects and scholars usually did, masters who were barely literate or who had no reading and writing skills had a non-verbal approach to architectural books. In order to reconstruct the ‘using’, if not the ‘reading’ strategies of these owners of architectural books, we must take into account two aspects of the physical analysis of the book copies: written annotations and non-written material evidence of use. In addition to the customary types of evidence, such as notes of possession, marginalia, and reading marks, I have also focused on drawings, signs of engraved lines, holes created by pairs of compasses, and folded pages or corners.

Rather than narrowing the scope to a few book copies that belonged to exceptional figures, this chapter offers an evidence-based examination of the reading interests and practices that were typical for the average owner of an architectural book. My study here is based on a large set of data, extracted from more than 200 book copies. This does not mean that the investigation privileged quantitative analysis. On the contrary, qualitative analysis of the material evidence of possession and use for each book copy has been fundamental to my research methodology; considerable attention has been paid to each piece of material evidence of possession and use. Combining an evidenced-based approach, a substantial number of copies, and consideration of non-written forms of material evidence of use, I seek to extend the boundaries of current research on the

reception of architectural books to include a larger and more varied group of owners and users.

Production and consumption of architectural books was not a local phenomenon. On the contrary, in the early modern period, it assumed a supra-regional dimension, affecting all of Europe—from the Italian peninsula to Britain, from Portugal to Russia—occasionally even transcending European borders. However, because of the low rate of literacy and the high degree of specialisation of the knowledge contained in architectural books, it would be misleading to conclude that the consumption of these books was a global, mass phenomenon. Nevertheless, though this phenomenon involved a very small part of the population, users of architectural books were distributed over a large area that encompassed different regions, geographical locations, and national entities. Throughout this huge space, owners of these works engaged with a common, fairly limited set of authors and titles, and had similar strategies for using the volumes. They browsed, read, observed, studied, annotated, and copied the books, following a series of connected steps by which theoretical architectural knowledge was translated into designs and actual buildings.

These patterns render the investigation of the use of architectural books in a particular region such as the eastern Adriatic an interesting case study for the whole area that was characterised by consumption of this literary genre. The data collected during physical analysis of book copies obviously highlights some features specific to the region, but it also reveals some practices that were generally common in the process of consuming architectural books wherever they were disseminated. Therefore, the results presented in this chapter have both particular and general value for architectural history.

In examining the consumption of architectural knowledge through the medium of the printed book, the present chapter aims to address inquiries fundamental to architectural history. These questions revolve around two main themes: reading interests and reading practices. For reading interests, my analysis considers what different types of owners—architects, patrons, stonemasons, and masters—might expect from the various types of architectural books, and particularly from architectural treatises. What kind of knowledge were they searching for? What topics most interested them? Did they look only for the elements of the five orders, or did they also seek more general design principles, advice on particular building types, or ideas about construction materials and techniques? Finally, did they search for theoretical knowledge or practical notions? Did they study the books to elevate themselves by gaining cultural knowledge, particularly of Greek and Roman classical architecture, or did they simply look for beautiful and up-to-date, ready-made models?

For reading practices, this chapter investigates the strate-

gies of different types of readers, describing the broad spectrum of tasks they performed on, with, and through architectural books. How did they use architectural books and treatises? Did they read the books to learn architectural theory in their *studioli*, or did they rely on them to solve practical issues at a construction site? Did they write notes in the margins, underline words and sentences, place reading marks, or fold corners of pages to mark the most interesting parts? Did they draw in the blank spaces or trace plates on other sheets? Did they use pen and ink or a red pencil, sketch free-hand or draw with a ruler and a pair of compasses?

The physical analysis of more than 200 architectural book copies and the detection in them of a substantial body of material evidence of possession and use—namely, several thousand different pieces—will answer the above questions. At the same time, my research results comprehensively describe the interests of the owners and their reading practices for architectural books. Thus, the present chapter explains the consumption of architectural books, an aspect of these volumes that extends beyond the boundaries of the eastern Adriatic to assume a general significance for the architectural history of the early modern period.

Owners: Social Status and Profession

The first question to be addressed regarding the use of architectural books is the identities of the owners of the book copies preserved today in the libraries of the eastern Adriatic. In other words, it is now appropriate to resume the discussion from the previous chapter. In Chapter One (see 'Owners and Their Books', I presented a quantitative and qualitative analysis of the data concerning the ownership of the book copies in my catalogue with the purpose of establishing their previous histories and provenances. However, the same data also provide valuable insights into the use of architectural books. In particular, an investigation of the backgrounds, social status, and professions of owners is a useful starting point for considering the use of the architectural books that I catalogued.

Before I embark on this discussion, it seems prudent to devote a few lines to the different types of material evidence of possession that I have detected in the catalogued book copies. Most of the volumes bear the stamp of the library they are presently in, whether a state or ecclesiastical institution, and in some cases, those of previous libraries as well. The various dominions and governments of the eastern Adriatic frequently changed during the past two centuries, resulting in the proliferation of stamps on the initial pages of books. In addition to the names of current Slovenian, Croatian, Bosnian, and Montenegrin libraries, many book copies bear the stamps of preceding Yugoslavian, Italian, or Austro-Hungarian institutions. These data provide details regarding the recent institutional history



Ill. 2.1. Jean Cousin, *Livres de perspective* (Paris, 1560), front endpaper (NKZG, M 24380-2°)



Ill. 2.2. Francesco de Marchi, *Dell'architettura militare* (Brescia, 1599), front endpaper (NSKZ, BZ 372)



Ill. 2.3. Leon Battista Alberti, *I dieci libri dell'architettura*, transl. by Pietro Lauro (Venice, 1546), fol. 2r (FSD, 1-II-14)



Ill. 2.4. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570), title page (ZKD, A-II-50)

of each library and its book collections; however, they do not elucidate the early modern use of the books.

Furthermore, handwritten shelfmarks can be considered useful indicators of possession. It is not uncommon for a single book copy to display multiple shelfmarks. Similarly, it is not uncommon to encounter the current shelfmark of the volume, typically on a label affixed on the front or back cover, alongside the preceding ones. Such evidence of possession is usually located on the front endpaper; less frequently, it is on the title page. While librarians used to write modern shelfmarks in pencil, early modern and nineteenth-century owners utilised pen and ink for this purpose. Occasionally, owners would obliterate or cross out old shelfmarks; however, more often, they would simply add the new shelfmark next to the previous one. The addition of a new shelfmark does not necessarily indicate a change of ownership. In modern libraries, for instance, it may result from a reorganisation of storage facilities or a compilation of a new catalogue. Examination of older shelfmarks can provide valuable material evidence that may be employed to determine previous owners or the provenance of a book copy. The most detailed inventories of early modern libraries, such as the Gučetić Library inventory of 1819 (see Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries'), record the shelfmarks of the books listed, allowing us to potentially identify the copy in its present location.

The older types of material evidence of possession are more interesting for investigating the use of architectural books in the early modern period. Clearly, handwritten notes of possession are of the utmost importance; they are typically inscribed on the title page, where they appear at the top or the bottom or are adjacent to the printer's mark. Less frequently, they may be found on the front endpapers or the final printed sheet. Bookplates and ex libris are equally important, though less common in the book copies of my catalogue. Examples of simple, handwritten bookplates or more complex, printed ex libris, with emblems and mottos like those of Janez Vajkard Valvasor or Nikola Zrinski (Ills. 2.1-2.2), are rare in the architectural books that survive in the libraries of the eastern Adriatic. Even in the extensive monastic or elite libraries, the handwritten note of possession remained the most prevalent method for marking ownership of book copies (Ills. 2.3-2.4).

A third way to identify a book's owner is the context and history of a library collection; this approach can be fruitful even in the absence of material evidence of possession in an individual book copy. Such is the case for some well-preserved libraries, for instance the Valvasor, Zrinski, Garagnin-Fanfogna, or Miočević-Rendić collections, which originated from the collection of one individual or a few members of a family. In these instances, it is possible to establish a connection between a single book copy and one or more owners, even when there



Ill. 2.5. Michele Bonotto, *Nuovi elementi delle matematiche universali* (Venice, 1772), title page (ZPZHAZU, Miočević-Rendić collection, C140)

are no ex libris or notes of possession. For ecclesiastical institutions, such as the libraries of monasteries or bishoprics, inferring the owner of a book copy with no material evidence of possession is more challenging and can often result in no definite conclusion.

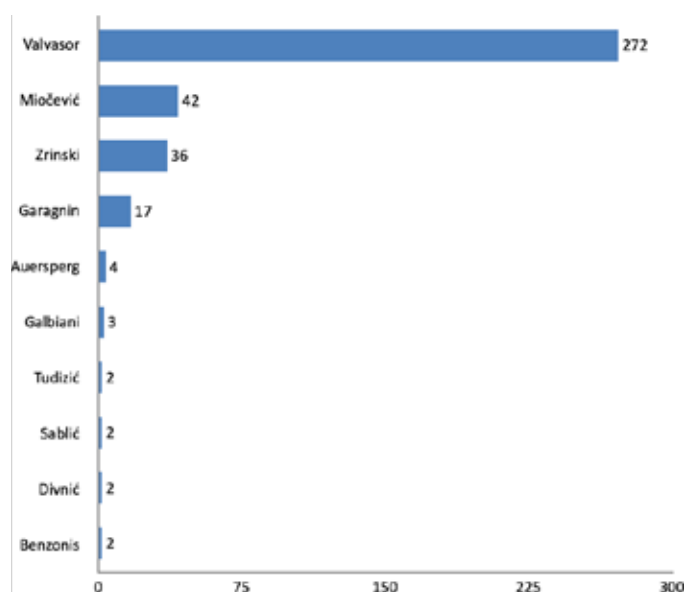
Together, different types of material evidence of possession and the collecting context of the catalogued book copies have enabled me to identify seventy-four individual owners (Tab. 2.1). The number of books possessed by each owner varies considerably, from only one copy to the 272 copies of Janez Vajkard Valvasor. The latter example comprises almost 25% of the architectural books in my catalogue; I already cautioned the reader in the Introduction about the distortion that this large collection can cause in the data analysis. While a few individuals, such as Ivan Antun Miočević or Nikola Zrinski, are represented by several dozen entries, most owners are recorded in a single book copy (Tab. 2.2). Nearly half of the total number of catalogued book copies contain various types of evidence of one or more owners. Specifically, 491 (44%) of the 1094 architectural books present evidence to have had at least one previous owner.

Most of the catalogued book copies are associated with a single owner. As previously stated (see above, Chap. 1, 'Owners and Their Books'), there are cases where two, or even three,

2.1. Identified Owners of Architectural Books

Surname	Name	Patronymic	Dates	Location	State	Profession / social status
Andrijić	Petar		1700-1800	Korčula (?)	Republic of Venice	Stonemason
Auersperg	Wolfgang Engelbert		1610-1673	Ljubljana	Habsburg empire	Nobleman
Bacilidrichi	G.					
Baldinesia	Giacomo			Biroze (?)		
Baltazar	Bogišić		1834-1908	Cavtat	Republic of Ragusa	
Barbo	Carlo		1700-1800	Venice (?)	Republic of Venice	
Baričević	A.					
Benzonis	Julio de		1700-1800	Rijeka	Habsburg empire	Nobleman
Buran	Antonio					
Buseti	Josephi Gabriel pl.					
Cassani	Giuliano					Stonemason
Chiarini	Marcantonio	Niccolò	1652-1730	Bologna	Pontifical State	Painter
Chrazenpacheij	Georgij					
Conti	Pietro Antonio					
Divnić	Domenico		1620-1674	Šibenik	Republic of Venice	Painter
Drasković	J.C.		1800-1900	Zagreb	Habsburg empire	
Duplančić	Anton		1750-1850	Zadar	Republic of Venice	Collector
F.	Joseph Maria					
Ferrari Cupilli	J.					
Floriančić	Join Disma	Grienfeld				
Fontana	Giovanni Battista		1600-1700		Swiss Confederation	Architect
Francetić	Petar		1645-1725	Rijeka	Habsburg empire	Clergyman
Gaj	Velimir					
Galbiani	Get.			Šibenik	Republic of Venice	
Gallo	Nazario					
Garagnin	Ivan Luka		1722-1783	Trogir	Republic of Venice	Clergyman
Gasparetto	Paolo					Stonemason
Ghigliotti	Carlo Giuseppe			Genoa	Republic of Genoa	
Grafis	P.					
Grisoni	Francesco		1772-1841	Koper/Italy	Republic of Venice	Nobleman
Gučetić	Julius					Nobleman
Gučetić	Orsatto Vladislao			Dubrovnik	Republic of Ragusa	Nobleman
Gučetić	Paolo			Rome	Pontifical State	Nobleman
Gudelj	Šimun					
Gundulić	Frane	Frane		Dubrovnik	Republic of Ragusa	Nobleman
Gundulić	Marin	Frane		Dubrovnik	Republic of Ragusa	Nobleman
Kovač	Damir Dr					
	Ivan					Collector
Lipoch	Bausimivic Yanjch de					
List	Frane					
Macanović Ignacije	Brač				Republic of Venice	Stonemason
Manchenheim	Wolfgang Gottfried					
Martinuzzi	Carlo	Lorenzo	1673-1726	Friuli	Republic of Venice	Architect
Matyas	Floriano			Zadar	Republic of Venice	
Miočević	Ivan Antun		1700-1800	Trogir	Republic of Venice	Clergyman
Mladinić	Trifun		1680-1708	Brač	Republic of Venice	Scholar
Nani	Agostino			Venice	Republic of Venice	Procurator
Nicolò						Carpenter
Olschki	Leo					Collector
Orwell	Ed.					
Pilloni	Sebastiano		1700-1800	Split (?)	Republic of Venice	Painter
Políteo	Giorgio		1827-1913	Split-Padua	Scholar	
Riboldi	Lodovico			Split	Republic of Venice	
Rossa	Georgi Mgri					
Sablić	Juraj			Cres	Republic of Venice	
Schramm	H.					
Schrönleben	Janez Ludvik		1618-1681	Ljubljana	Habsburg empire	Clergyman
Seon	Moralp.					
Skolla	Otto		1800-1900	Šoštanj	Habsburg empire	Clergyman
Spinola	Nicola Genoa				Republic of Genoa	Nobleman
Stanković	Petar		1771-1852	Barba	Habsburg empire	Clergyman
Šubić	Mirko					
Šubić	Valentin					
Thomaceo	Jo. Baptistae		1600-1700			
Thury de Naghy	Benedictus					
Trabucco	G.					
Tudizić	Frano Sigismondi		? - 1760		Republic of Ragusa	Clergyman
Ubertis	Franc. Hiarca de		1700-1800	Venice	Republic of Venice	Nobleman
Uvoda	Domenico			Split	Republic of Venice	Stonemason
Valvasor	Janez W.		1600-1700	Ljubljana	Habsburg empire	Nobleman
Wlassim	B.W. de			Bitov	Habsburg empire	Nobleman
Zorzi	Bartolomeo				Ecclesia Sancta Sofia	Clergyman
Zrinski	Nikola		1620-1664	Čakovec	Habsburg empire	Nobleman
Zuanne (Ivan)	Raguseo			Dubrovnik	Republic of Ragusa	Stonemason

2.2. Books per Owner

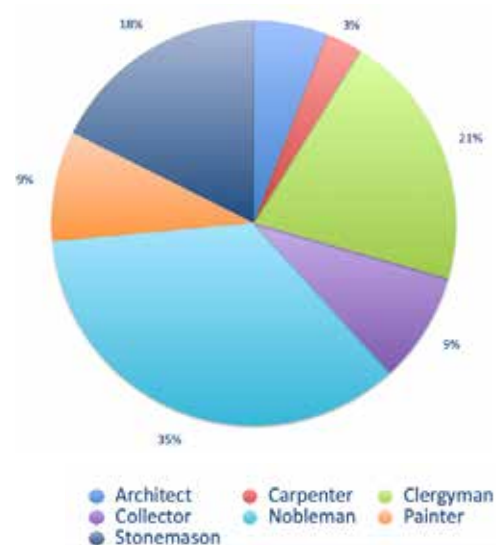


different individual owners are recorded. This number may increase when we consider the material evidence of possession left on book pages by the various modern libraries that have owned the volumes. As was customary, new owners frequently obliterated the signature of their predecessor (Ill. 2.5) or pasted their *ex libris* on top of the existing one (Ill. 2.1).

Now that the types of material evidence of possession and their features have been introduced, the following section will analyse the social status and professions of the recorded owners (Tab. 2.1). It may appear surprising that none of the owners refers to themselves as 'architect' or 'engineer' in the handwritten notes of possession. Seemingly, no architectural book currently preserved in the libraries of the eastern Adriatic with material evidence of possession was owned by an architect or an engineer in the early modern period. A review of the names of owners revealed only two individuals who could be described as 'architects': Giovanni Battista Fontana, the owner of a copy of Vitruvius in the Italian translation by Durantino (Venice, 1535), and Carlo Martinuzzi, the owner of *Tutte l'opere d'architettura* by Serlio (Venice, 1600).³ Since the early Renaissance, the distinctions between the architect, the engineer, and other, lower-ranked professionals in the building trade have been fluid in terms of the work and tasks they performed, the positions they held, and the titles they used. As is widely known, the title of 'architect' was honorific and was often self-proclaimed by particularly learned builders who were attempting to improve their social status.⁴

It is worth noting that both Fontana and Martinuzzi were not native to the eastern Adriatic, but had migrated there from northern Italy. Fontana, who was born in Ticino, settled in

2.3. Owners per Profession or Social Status



Korčula and worked in the Bay of Kotor, Zadar, and Cres at the end of the seventeenth century.⁵ Martinuzzi, probably from Cividale in Friuli, moved to and settled in Ljubljana in the same period and worked in the city and the neighbouring Habsburg region of Carniola, as well as in Venetian Istria.⁶ Also of interest is the case of Ignacije Macanović, a member of a typical, multi-generational family of qualified stonemasons from Brač who were active in the Split area in the late seventeenth and eighteenth centuries.⁷ He signed a copy of the Italian edition of Vitruvius containing Daniele Barbaro's commentary (Venice, 1567); this copy would have been accessible to his entire workshop. Even though modern scholars consider Macanović to have been an architect since he was able to design entire buildings and draw architectural designs, he self-identified as a 'proto', a title that, according to the standards set in the Venetian Republic and the eastern Adriatic, had a different meaning than 'architect'. The meaning of 'proto' will be addressed below in due course.

In contrast to the limited number of architects, the material evidence of possession in the architectural books from my catalogue indicates a relatively large number of masters—various types of craftsmen employed in subordinate positions within the building trade. Five stonemasons and one carpenter have been identified among the book owners. While architects represent only 6% of the total number of individual owners of architectural books, masters account for 18% (Tab. 2.3). Like Macanović, many of them wrote their titles or professions next to their names. For the sake of convenience, a full transcription of their notes of possession and the titles of the books in which they appear follows below:

- 'Di Pietro Andrich', in C. Ballard, *Trattato di miniatura* (Venice, 1766);
- 'Giulian Cassani muratore' (Ill. 2.6), in G.P. Lomazzo, *Trattato dell'arte della pittura, scoltura, et architettura* (Milan, 1585);
- 'de me Paolo Gasparetto muraro son que[st]o libro' (Ill. 2.7), in S. Serlio, *Il terzo libro* (Venice, 1544);
- 'Di io Uvoda di solche' and 'Domenico Uvoda: sevispist: vel: sev: s' (Ill. 2.8), in S. Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562);
- 'Questo libro è di mistro Nichollo Protto di mara[n]goni' (Ill. 2.9), in Vitruvius Pollio, *Architettura* (Venice, 1535);
- 'Questo libro è di me Protto Ignazio Mazanovich' (Ill. 2.10), in Vitruvius Pollio, *I dieci libri dell'architettura [...] tradotti et commentati da monsignor Barbaro* (Venice, 1567).⁸

With the exception of Petar Andrijić, who was presumably a member of the eponymous dynasty of stonemasons from Korčula, the owners proudly appended their title and profession to their name. This practice is of considerable significance when compared to the approach of Fontana and Martinuzzi, who chose to omit any reference to their profession of 'architect'. In contrast to them, the craftsmen in possession of architectural books have both Italian and Slavic names. While the identities of three of the abovementioned individuals remain unknown, Andrijić and Macanović were natives of central Dalmatia.

Moreover, the number of books they owned was not negligible. These works included two of the first Italian editions of Vitruvius, copies of Serlio's third book on Roman antiquities and the collection of his first to fifth books that was bound with the *Extraordinario libro*, as well as the treatise on the arts by Lomazzo. Such a list comprises a valuable group of the most significant Italian Renaissance works on architecture. The linguistic proficiency and handwriting style evident in these masters' notes of possession and marginalia denote disparate levels of education and literacy. While Gasparetto and Macanović have confident handwriting in which they articulate simple yet proficient Italian sentences, Cassani, Uvoda, and Master Nicolò appear to lack skill in writing, and their Italian shows a degree of halting or even incorrect grammatical constructions. However, it should be noted that Uvoda, and probably others, could have been Slavic-speaking individuals. Although the brevity and simplicity of Serlio's text made it accessible to those with limited literacy, the content of Vitruvius's treatise was challenging and problematic for such individuals, particularly in the unclear Italian translation by Durantino that was in possession of the head carpenter Master Nicolò.

The title of 'proto', claimed by two of these masters, requires

further clarification. In Venice and Venetian territories—these masters worked in the *Stato da Màr*—the *proto* was clearly defined as a specialised and highly ranked builder or craftsman. Even though this term often appears in archival documents and was commonly used in spoken language,⁹ it did not enter dictionaries until the eighteenth and nineteenth centuries.¹⁰ In these sources, *proto* is defined as 'the first in some art', meaning the most proficient or skilled master practitioner in a specific craft. Accordingly, the designation 'proto di marangoni', or 'chief carpenter', is an apt self-description by Master Nicolò. The earliest modern archival sources indicate that the term 'proto di marangoni' was used in the context of the so-called Arsenali, the state shipyards that operated in Venice, as well as in Hvar, Korčula, and Dubrovnik. It can therefore be concluded that Master Nicolò was employed in shipbuilding, rather than in the building trade.¹¹

In contrast to Master Nicolò, Ignacije Macanović wrote just 'proto' before his name, thereby intending it as a title rather than a working position, though he worked as communal *protomagister* in Trogir. Although the meaning of the word—'the first in some art'—remains identical, the context and the usage differ. The scholarship on early modern Venetian architectural history indicates that the professionals granted the title of 'proto' were skilled builders who were capable of designing and constructing an entire building, but who usually lacked the humanistic and literary culture of learned architects. If architects investigated the principles of ancient architecture through study of Vitruvius and Roman antiquities, the *proti* learned the art of building through direct experience on construction sites, developing practical skills instead of theoretical knowledge. However, recent analyses have introduced a more nuanced interpretation of this professional figure, demonstrating that, in some cases, the *proto* exhibited a certain degree of literary culture and theoretical knowledge.¹²

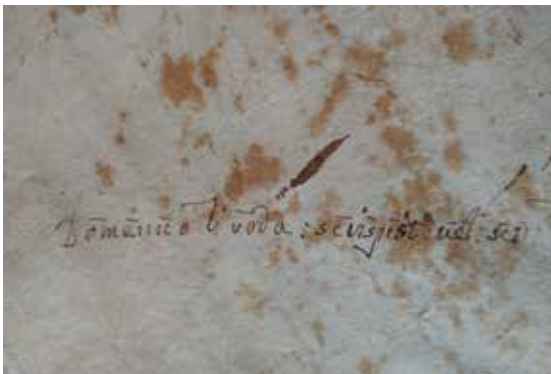
Despite the lack of comprehensive research on the early modern owners of architectural books, examples of book copies signed by stonemasons do exist, though a relatively small number are known. However, the architectural market in the early modern eastern Adriatic was markedly different from its counterparts in Venice, Florence, Rome, and other Italian urban centres. Qualified craftsmen, typically organised into family workshops, dominated the market in the eastern Adriatic. They were responsible for the entire building process, from the initial design stage to the extraction of stone, the supply of material and labour, the management and direction of the construction site, and the decorations and finishing of the building. In the early modern eastern Adriatic, the role of architect was effectively redundant, as these highly skilled master builders, stonemasons, and bricklayers were able to provide patrons with all the necessary expertise and materials.



Ill. 2.6. Gian Paolo Lomazzo, *Trattato dell'arte della pittura, scoltura et architettura* (Milan, 1585), title page (NSKZ, 62.539)



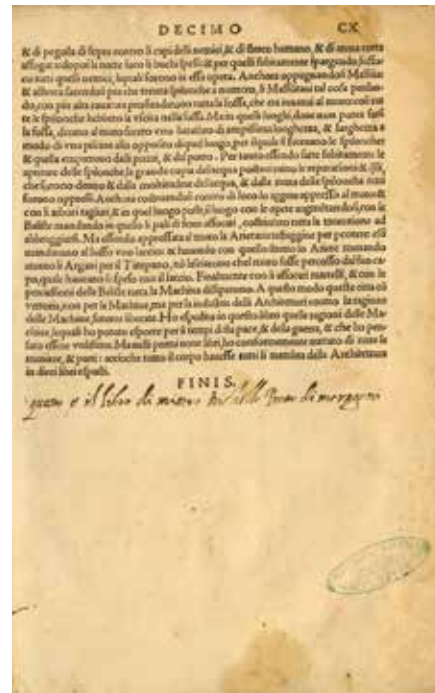
Ill. 2.7. Sebastiano Serlio, *Il terzo libro* (Venice, 1544), fol. CLVv (CRSR, CXLVII/2; 391/L 1995)



Ill. 2.8. Sebastiano Serlio, *Extraordinario libro di architettura* (Venice, 1568), back endpaper (ZPZHAZU, Miočević-Rendić collection, C 135)



Ill. 2.10. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), front endpaper (AMS, R 1294)



Ill. 2.9. Marcus Vitruvius Pollio, *Architettura*, ed. by Francesco Lucii Durantino (Venice, 1535), fol. CXr (ZKZ, R-234)

In light of the above arguments, it seems reasonable to posit that the craftsmen who possessed architectural books were not significantly inferior in terms of rank, knowledge, and skills to the architects Fontana and Martinuzzi. To gain a full understanding of the distinctive features of the architectural market in the early modern eastern Adriatic, it is essential to devote particular attention to its characteristics. It is not possible to account for the apparent absence of architects and the considerable presence of craftsmen among the owners of architectural books if we look only to the categories of the Italian Renaissance. The men who signed the book copies under examination belonged to the upper echelons of the local building trade, even though they identified themselves simply as ‘muratore’ or ‘proto’, rather than as ‘architect’ or ‘engineer’— terms that were common for their counterparts on the Italian peninsula.

Furthermore, such a self-definition by professionals working in the building trade reflects another feature of the architectural market in the early modern eastern Adriatic. The more talented or ambitious designers of the Italian Renaissance had undoubtedly emancipated themselves from the medieval professional guilds, thereby laying the foundations for the emergence of the new figure of the architect and claiming their artistic freedom. Conversely, the established architectural market in the eastern Adriatic was characterised by a more restrictive structure that confined craftsmen to the professional guilds, even when they were able to transform their work and role to those of a designer.

However, although it is reasonable to posit that the stonemasons and *proti* who signed architectural books in the eastern Adriatic performed tasks similar to the ones accomplished by the architects and engineers of the Italian Renaissance, this hypothesis implies neither that they worked in comparable contexts or employed analogous approaches, nor that they used the same architectural books in the same way. As will be demonstrated in this chapter, material evidence of use reveals some distinctive reading practices that appear to diverge from the current—albeit limited—understanding of the use of architectural treatises in contemporary Italy. Marginalia, defined here as extensive annotations and references inscribed in the margins of pages, are completely absent from the catalogued books. However, evidence of copied or retraced drawings is pervasive. It appears that those who engaged with architectural books in the eastern Adriatic placed greater emphasis on the visual elements than on the text. Moreover, the evidence of use frequently suggests that books were shared among the various members of a workshop. In summary, architectural books in the eastern Adriatic supported practical, daily work in stonemasonry workshops, rather than the theoretical, solitary study of a single individual.

It should be noted, however, that architects and craftsmen

were not the only artists to own architectural books, and, more generally, that artists were not the only category of individuals to handle them. The list of owners of architectural books includes three painters. Marcantonio Chiarini, a Bolognese painter, signed a valuable *editio princeps* of Serlio's *Regole generali* (Venice, 1537). Dominik Divnić (Domenico Difnico) of Šibenik wrote his name on a seventeenth-century reprint of Vignola's *Regola* (Venice, 1626) and on a copy of Bartolomeo Crescenzi's *Proteo militare* (Naples, 1595). Finally, Sebastiano Pilloni, an eighteenth-century painter active in Split, signed a copy of Ottavio Fabri's *L'uso della squadra mobile* (Padua, 1673).¹³ Chiarini was a celebrated master of *quadratura* painting, and his virtuosic perspective views catapulted him into the orbit of major European courts; in contrast, Divnić and Pilloni were unassuming painters primarily engaged in the production of local devotional altarpieces.¹⁴ Despite the different roles of these three artists, however, they used a similar assortment of architectural books.

In their study of the five orders, Chiarini and Divnić did not engage with Vitruvius, Alberti, or Palladio, all of whom presented a complete body of architectural knowledge. Instead, they consulted Serlio and Vignola, who provided more concise, extensively illustrated, and effective volumes on the subject. It seems likely that Divnić occasionally purchased a book on navigation and land survey, such as *Proteo militare* by Crescenzi, with the same objective. Crescenzi presented an instrument that could perform a multitude of tasks, including the designing of columns in accordance with the proportions of the five orders. Ultimately, Pilloni's selection of a manual on a drawing instrument (the mobile square), that was published in Padua and presumably designed to complement the university curricula, appears a logical choice for a painter.

The largest cohort of individuals in possession of architectural books in the early modern eastern Adriatic were the nobility and clergy. In contrast to artists and masters, individuals in these groups were typically able to afford the most expensive volumes. Vitruvius, as well as Renaissance authors from Alberti onwards, addressed their architectural treatises to such readers who were engaged on the other side of the building trade, as clients or patrons.¹⁵ Together, the volumes that belonged to noblemen (12 entries; 35%) and clergymen (7 entries; 21%) comprise more than half of the total number of architectural books for which the owner's social status or profession is known (Tab. 2.3). This indicates that, based on the limited sample examined, noblemen and clergymen in the early modern eastern Adriatic possessed architectural books more often (56%) than did architects, stonemasons, carpenters, and painters (39%). In other words, the data suggest that the dissemination of architectural knowledge through printed books was more prevalent among those who financed construction projects than among the professionals of the building trade.

The list of book owners includes several members of Dubrovnik aristocratic families, for instance the Gundulić (Gondola), Gučetić (Gozze), and Tudišić (Tudisi). These owners signed copies of Serlio's third and fourth books (Venice, 1544), Palladio's *editio princeps* (Venice, 1570), Pietro Sardi's *Corno dogale dell'architettura militare* (Venice, 1639), and even a catalogue of engravings from the De Rossi printing house (Rome, 1741).¹⁶ The richness of the Ragusan nobility's libraries is also evident from the inventories analysed above (see Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries'). It would be erroneous to assume that family libraries were the sole means by which noblemen and clergymen in Dubrovnik became acquainted with architectural books. The Franciscan and Dominican friaries, as well as the Jesuit college, which provided the local ruling class with the best education, owned several architectural treatises, including copies of Vitruvius, Alberti, Serlio, Vignola, and Palladio.¹⁷ These collections are unrivalled among the other ecclesiastical libraries in the area.

The Split area was also remarkable for its early modern book collections, although it was not as rich in books as was the Republic of Ragusa. In particular, the small but wealthy town of Trogir was home to the book collections of the clergymen Ivan Luka Garagnin and Ivan Antun Miočević in the eighteenth century; both libraries had extensive holdings of architectural books. In Rijeka, Petar Frančetić, a Franciscan friar in the Trsat Friary and a specialist in local history, owned a copy of Andrea Pozzo's *Perspectiva pictorum et architectorum* (Rome, 1693).¹⁸ A century later, the city councillor Julije Benzoni had an Italian translation of Alberti's *De re aedificatoria* (Venice, 1546) and a copy of Vitruvius's text annotated by Guillaume Philandrier (Lyon, 1552).¹⁹ The available evidence suggests that there were few owners of architectural books in the eastern Adriatic, despite the existence of extensive collections, such as those of Valvasor or Zrinski. Such individuals appear to have emerged as book collectors in the context of limited interest in architectural books.

The resources available to different groups of individuals for the purchase of architectural books varied. As previously stated, members of the nobility and clergy could afford the most expensive editions of architectural books, which were costly because of their large formats and numerous illustrations. A review of the *Early Modern Book Prices* database, which was created as part of the ERC-funded EMoBOOKTRADE project and which covers the period of 1540–1630, reveals intriguing insights into the retail prices of the principal Italian Renaissance architectural treatises. The most expensive volumes were those of Vitruvius and Palladio, which reached 1440 and 1920 Venetian denari, respectively. Vignola's *Regola*, which is shorter in terms of page count but contains more illustrations, was also expensive, with a price of approximately 1000 Venetian denari. Despite its smaller size and more limited set of illustrations,

Alberti's *De re aedificatoria* had a comparable price of up to 960 Venetian denari. The most affordable treatise was that of Serlio, costing up to 720 denari for a miscellanea of different books and about 540 denari for a single book.²⁰

It seems unlikely that the relatively low prices assigned to Serlio's books were the consequence of the nature of the product, namely large-format books with many lavish, full-page illustrations. Rather, they were the result of the considerable production of various editions and reprints that saturated the market. In any case, analysis of the various values of architectural treatises collected in *Early Modern Book Prices* yields highly disparate data, as the retail price was contingent on a multitude of factors, including the time and place of publication, the size of a book, its press run, and its physical characteristics.

In the second half of the sixteenth century, Plantin sold in Antwerp a copy of Philandrier's annotated edition of Vitruvius (Lyon, 1552), which was owned by Julije Benzoni, for a price between 428 and 685 Venetian denari. However, the cost of the same book in 1609 in Naples ranged from 892 to 1190 Venetian denari. In 1539, Giolito estimated the retail price of Durantino's Italian translation of Vitruvius (Venice, 1535) to be 360 Venetian denari at a new shop in Pavia. Giovanni Battista Fontana bought the same edition in 1670 in Kotor for fifteen lire, instead of an estimated value of twenty-five lire (Fontana was likely referring to another currency).

The price of Serlio's collected works printed in Venice by Sessa was subject to significant fluctuations; its cost depended on the size of the edition. Plantin sold the folio edition, which he published in 1559 and which was similar to that of Domenico Uvoda, for 2700 Venetian denari, while the quarto reprint of 1566 was offered at 600 or 720 denari. In the years following its publication, the quarto *Tutte l'opere d'architettura* (Venice, 1600), owned by the architect Carlo Martinuzzi in Ljubljana, was available for purchase in the Giunti bookshop in Venice for 2400, or even 2976 lire.

For Palladio's *editio princeps*, a copy of which was in the Gundulić family's library in Dubrovnik, the price fluctuated over time. A few years after the book's publication in 1570, Plantin offered it for sale at 480 Venetian denari. However, during the first half of the seventeenth century, the price in the Giunti bookshop in Venice increased to 1920 denari.

In conclusion, the considerable variability of book prices and the fragmentary nature of the data preclude the establishment of a straightforward and simple connection between the value of a book and the social status of its owner. Moreover, the data presented in *Early Modern Book Prices* pertain only to the period of 1540–1630 as well as solely to the Italian peninsula and Antwerp. It is evident that while a considerable number of individuals from the eastern Adriatic did indeed purchase books in Venice, as was demonstrated above (see Chap. 1, 'Book

Trade in the Adriatic'), the owners recorded in the catalogue of architectural books are from a subsequent period and a different, yet not distant, geographical area. Although, in theory, the members of aristocratic families could afford to purchase more expensive books than could architects, painters, stonemasons, carpenters, and other craftsmen, an analysis of the available book prices does not provide clear evidence to support this assertion.

All of the abovementioned groups of individuals were engaged in the building trade, assuming different roles and employing diverse sets of skills. Their approaches to architecture were shaped by their individual backgrounds and perspectives. Given the disparate needs and views of these groups, it is unsurprising that they used architectural books differently. The material analysis of the volumes has revealed the interests and practices of various groups of owners. The easiest method for illustrating how diverse types of owners used architectural books in a range of ways is to undertake a comparative analysis of similar books or even of two copies of the same edition that were owned by different groups of individuals. In the first part of this chapter, I seek to use a comparative methodology to elucidate the disparate interests and reading practices of owners, as well as the different disciplines they sought in architectural books. Subsequently, in the second part, I will focus on single elements of architectural knowledge, such as basic principles and definitions, the classical system of architectural orders, the design of particular building types, construction materials and techniques, and urban design and infrastructures.

The Book of the Artist, the Book of the Patron

One of the most striking differences in the use of architectural books can be observed via a comparison between book copies owned by individuals on opposite sides of the building trade. On the one hand, there were artists such as architects, craftsmen, or masters, and on the other hand, there were clients or patrons. These individuals, belonging to different social classes and engaged in different occupations, nevertheless found themselves united by their involvement in the building trade, though each individual had their own purposes and perspectives. It was also frequently the case that such participants in the building trade were acquainted with some particularly successful architectural books, which were disseminated widely among both artists and patrons. Examination of the array of reading interests and practices is extremely enlightening.

Among the numerous book copies analysed in the course of my research, two stood out as particularly noteworthy examples from central and southern Dalmatia. The first is a copy of the volume containing Serlio's first to fifth books (Venice, 1559), which is bound together with the *Extraordinario libro* (Venice,

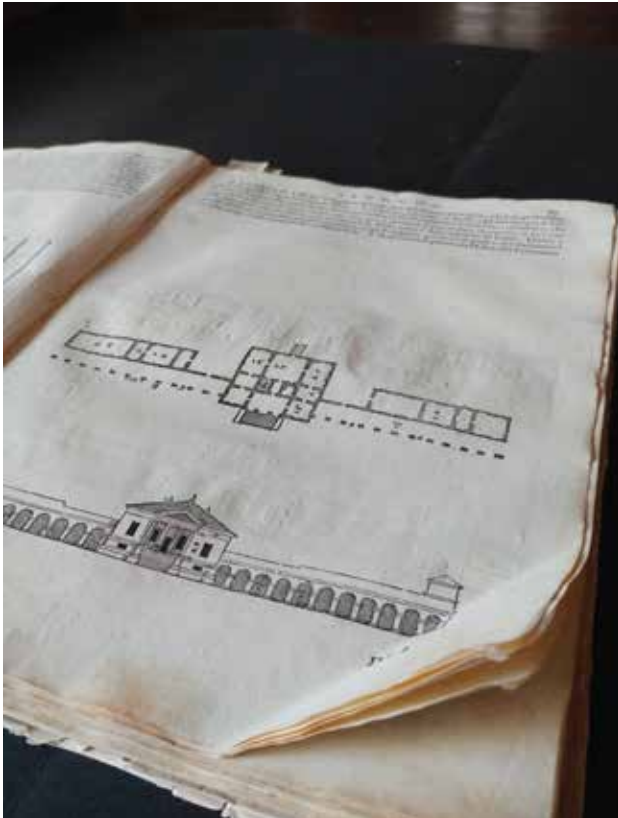
1568). This volume is signed by an unknown master, Domenico (Dominik) Uvoda, and was subsequently in the collection of Ivan Antun Miočević in Trogir.²¹ The second is an *editio princeps* of Palladio's *Quattro libri*, which belonged to Marin Franov (1622–1667) and his son Frano Marija Marinov Gundulić (1666–1687) in Dubrovnik.²² Both of these book copies contain evidence of extensive use, albeit of very different natures.

The first notable distinction between the two book copies is the varying degrees of soiling evident on their sheets. The pages in Serlio's volume display a considerable degree of wear, whereas those in Palladio's book are still relatively clean. It is not difficult to envisage the different settings in which the owners may have perused these books. One might imagine them in a workshop on the one hand, and an aristocratic palace on the other. The soiled margins, and especially the corners, of Serlio's pages indicate that the reader or readers engaged in manual labour while using the book in a workplace. It is widely documented that at that time, members of the nobility were frequently no cleaner than common people. Nevertheless, it is worthwhile to consider the possibility that the pristine pages of Palladio's copy may be linked to the numerous surviving stone washbasins and wells in both the urban palaces and suburban villas of the Dubrovnik aristocracy.²³

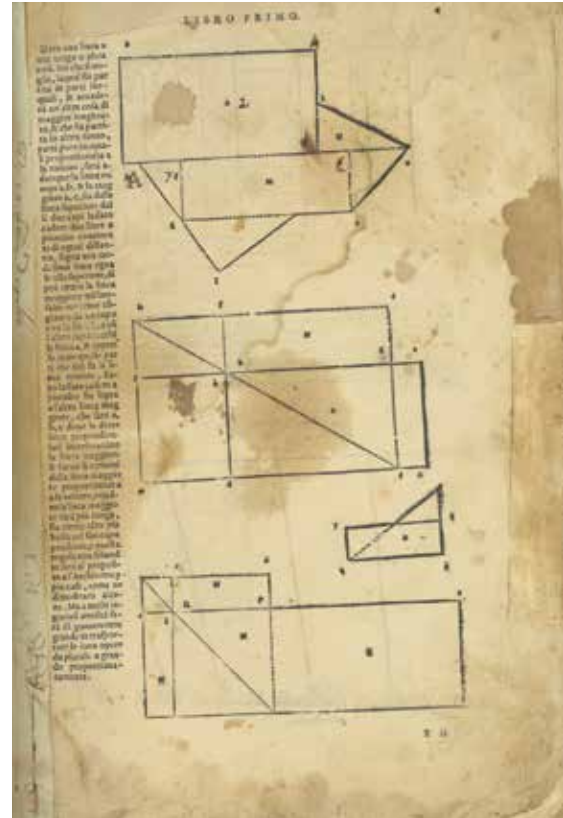
This seemingly inconsequential detail of the soiling of pages suggests a markedly different use of architectural books. Marin and Frano Gundulić were able to read and comprehend Palladio's Italian text, presumably in a room dedicated to reading, such as a *studiolo*. They could study the text and illustrations of the book in a process that was not subjected to time constraints. Conversely, Uvoda promptly used Serlio's books to address practical issues related to his profession. He primarily consulted the illustrations, appending brief explanatory captions to them to facilitate the rapid identification of suitable models for emulation.

From our current perspective, the manner in which the Gundulić nobles engaged with Palladio's volume can appear respectful of the book. They used pen and ink solely for the purpose of signing their names on the title page, and they did not make any annotations throughout the rest of the book. The presence of numerous folded sheets suggests that both the signed owners preferred to highlight the sections of the book that held their interest by folding the corners, or even an entire page.²⁴ Additionally, small plus signs, traced in pencil under full-page plates, provide further evidence of respectful use. However, it is important to note that these indications of use may also belong to a later reader, who consulted the book after it had been moved to the library of the Austrian Royal Gymnasium in Dubrovnik.²⁵

In contrast, the readers of Serlio's books made use of the margins and the illustrations to record brief notes, underscored



Ill. 2.11. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570), II.14, p. 55 (ZKD, A-II-50)



Ill. 2.12. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), I.1, fol. 4r (ZPZHAZU, Miočević-Rendić collection, C 135)

selected words, and frequently traced pointing hands (manicules) as reading marks. The readers deployed a variety of writing instruments, including pencil, red pencil—the so-called *sanguigna*, a typical tool for artists—as well as pen and ink. The ink stains throughout the book indicate a lack of dexterity in the use of the pen.²⁶ This detail suggests that rather than a practical artist well versed in deploying the pen, the owner was a master builder or a stonemason, in whose workshop the book circulated and was used in a variety of ways by different individuals. Such a scenario would explain the considerable diversity of writing implements and reading practices observed in this copy of Serlio.

A more detailed examination of the content of the passages marked in the books reveals a significant divergence in the interests of the owners. The Gundulić largely neglected Palladio's first book on the fundamental tenets of architecture, which encompassed the architect's education, building materials and techniques, the five orders, doors, vaults, and stairs. Instead, they devoted considerable attention to Palladio's subsequent book on palaces and villas. The corner of a single page was folded to mark a specific building, and, occasionally, a larger number of

pages were folded to highlight a group of buildings.²⁷ The owners appear to have read Palladio's *I quattro libri* as a sale catalogue, selecting the buildings they considered to be the most beautiful or interesting; these were both urban palaces and country villas (Ill.2.11). Naturally, their focus was consistent with their role as patrons of architecture.

Conversely, Uvoda began to use his copy on its very first pages, starting with Serlio's first and second books on geometry and perspective, which, according to Serlio, represent the foundations of the architectural discipline. Reading marks, underlined sentences and words, written keywords, letters or numbers noted on the vertices of the geometrical figures, and stains of haematite or ink indicate the first two books were used extensively and in a variety of ways (Ill.2.12).²⁸ In fact, those training in the workshop were required to gain proficiency in geometrical drawing and perspective, which were considered fundamental skills for their profession. However, this was not the only obligation incumbent upon them.

Furthermore, Uvoda and his associates devoted considerable attention to the five orders. The evidence of use is scattered across the fourth book, showing that the reader(s) engaged with



Ill. 2.13. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV.6, fol. 17r (ZPZHazu, Miočević-Rendić collection, C 135)

the text at different levels. Several handwritten captions in pen and ink can be found in close proximity to an illustration or, on occasion, also within a plate. These captions consist of one or two words that elucidate the nature of the architectural element being represented, and they are extracted from Serlio's explanatory text. For example, the reader labelled the Doric base below the illustration as 'Basa dorica' and the Ionic capital as simply 'Capitelo' (Ill. 2.13).²⁹ Similarly, the plates of the *Extra-ordinario libro* have been assigned numerical identifiers and are accompanied by brief descriptions of the gates, such as: 'Toscano di basso rilievo' (Tuscan in bas-relief).³⁰ Here, the reader provided a concise summary of Serlio's textual explanation of the gate at the beginning of the book: 'La presente porta è di opera Toscana, ma di basso rilievo di un Rustico dilicato' (This gate is of Tuscan work, but in a delicate rustic bas-relief).³¹ In a few words, the readers sought to enhance the intelligibility of Serlio's illustrations by appending short yet informative descriptions. The objective was to present the fundamental features of specific architectural elements directly within the illustration itself, rather than requiring the reader to search for them in the text.

If such evidence of use suggests a relatively superficial read-



Ill. 2.14. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), II.2, fol. 27r (ZPZHazu, Miočević-Rendić collection, C 135)

ing of the book and its architectural models, it also demonstrates a more profound understanding of the principles of the five orders. The reader(s) highlighted particular and intricate passages in the text, such as Serlio's explanation of how to ascertain the height of the base in an Ionic column by using the appropriate module.³² Furthermore, the many reading marks and underlined passages in Serlio's text about the three theatrical stage sets at the end of the second book (Ill. 2.14) indicate interest in more learned material.³³

The variety of evidence of use in this copy of Serlio suggests the involvement of different readers with varying levels of expertise. While some readers devoted their attention to specific questions, such as the measurements of architectural elements or the distinction between comic and satiric stage sets, others required explanatory captions to identify a particular architectural element, such as a capital or a Doric base. It seems plausible to suggest that an individual with a comprehensive understanding of architecture, potentially Domenico Uvoda, endeavoured to adapt the book for the use of trainees or apprentices, who were likely to possess only a rudimentary grasp of the subject matter. The captions appended to the

illustrations were addressed to an individual who was unable to differentiate among the five orders and their elements, yet who required Serlio's models for some specific purpose, probably related to stone carving. This copy of Serlio displays all the hallmark of having been used within one of the numerous workshops of stonemasons in the early modern eastern Adriatic. The Dall'Acqua family, a surname that can be interpreted as the Italianised version of the Croatian 'Uvoda', managed such a multigenerational stonemasonry workshop. They designed, carved, and assembled altars during the eighteenth century in the churches of the Šibenik and Split regions. Although an individual named Dominik, or Domenico is not yet documented, it would be the perfect framework to contextualise the reading interests and practices of such a copy of Serlio's books.³⁴

The comparison of these two copies of Serlio and Palladio, which are similar in terms of content and format, demonstrates two distinct sets of interests and reading practices held by different owners. The Gundulić noblemen adopted a theoretical approach that was typical of a patron. The knowledge acquired from Palladio's *Quattro libri* was not intended for practical application; rather, the objective was to select appropriate models and subsequently engage a professional capable of translating the theoretical architectural knowledge into practice. Conversely, Domenico Uvoda and his workshop required an immediate translation of the knowledge and models contained in Serlio's books into actual built structures. Moreover, they adapted Serlio's copy with annotations and reading marks, thereby facilitating rapid and convenient access to the book for all members of the workshop, regardless of their literacy levels or architectural expertise.

Ultimately, the diverse perspectives of owners occupying contrasting yet complementary roles in the building trade prompted the Gundulić noblemen and Domenico Uvoda to concentrate on discrete aspects of two seminal architectural treatises of the Renaissance. As patrons, the Gundulić were primarily concerned with buildings, particularly private residences, which were often marked by folded pages and creased corners. As designers and builders, Uvoda and his associates in the workshop were mostly interested in the design process and fundamental components of architecture. Patrons and artists, respectively, focused on the result and the means of architecture.

Vitruvius and Renaissance Authors

Another important difference in reading practices emerges between responses to Vitruvius and to early modern Renaissance treatises. Compared to the literary, wordy tone of Vitruvius's text, the Renaissance treatises displayed a close relationship between text and image. While Vitruvius opened his

treatise with the architect's education, the definitions and the basic principles of architecture, Serlio and subsequent architects began their volumes with drawing, namely geometry and perspective, which acquired a foundational role in the architect's training. The practical skill of drawing replaced theoretical concepts as the basis of architectural knowledge. This significant shift also affected reading practices.

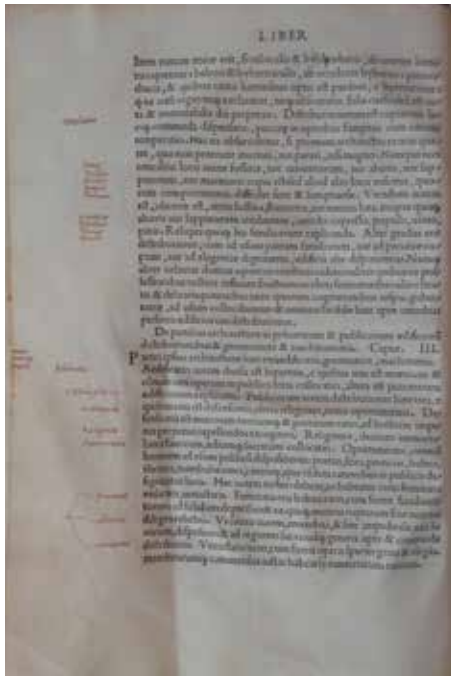
In other words, the use of an architectural treatise can depend not only on the readers but, in some cases, also on the content of the book itself. To understand how much the literary style of an architectural treatise influenced reading practices, we can reverse the elements of the comparison. It is time to prove that similar owners used different architectural books in quite dissimilar ways.

Throughout the eastern Adriatic, only one copy of Fra' Giocondo's edition of Vitruvius (Venice, 1511) survives today.³⁵ However, this book clearly came to the area only after the early modern period: the Genoese nobleman Nicola Spinola signed it, and then in 1799, the book was in the hands of Carlo Giuseppe Ghigliotti, a Capuchin friar who impoverished the ecclesiastical libraries in Genoa during the turbulent years of the Democratic Republic.³⁶ Therefore, this copy of Vitruvius reached Dubrovnik, where it is preserved today, via an unknown route in a later period, probably during the nineteenth century.

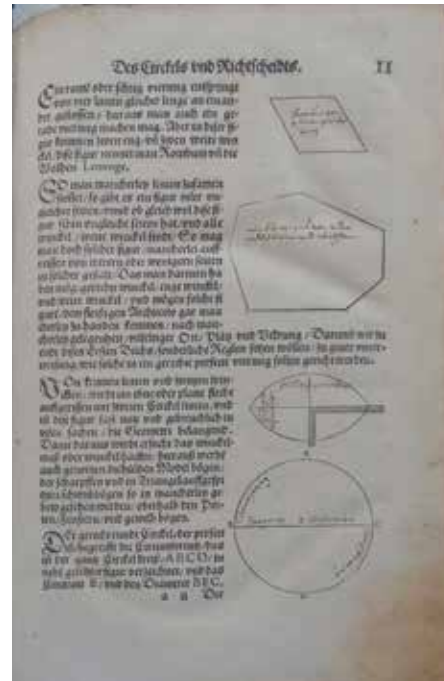
The history of a copy of Walther Hemann Ryff's miscellaneous volume on architecture, geometry, perspective, and ballistics, generally known as *Perspectiva Teutsch*, is no less obscure.³⁷ The copy belongs to the Valvasor Library, but a dated and partially erased note of possession—'1575 / Jonas [...]—signals a previous owner.³⁸ A sumptuous, customised cover, bearing the half-Latinised title of *Perspectiva teutsch* and the date of 1551, encourages one to think that the book previously belonged to a wealthy German-speaking man, most likely an aristocrat or a merchant, rather than an architect, painter, or craftsman.

Despite their different histories, these book copies circulated in similar, even if geographically distant, environments. Nevertheless, they were quite dissimilar in terms of content and style. On the one hand, Fra' Giocondo's edition of Vitruvius, with its philologically correct version of the text and unique set of illustrations, was a milestone in the Renaissance rediscovery of Roman classical architecture.³⁹ On the other hand, Ryff's heterogeneous compilation of translations and adaptations of previous texts, excerpts, and illustrations mainly from Italian Renaissance treatises—such as Serlio, Alberti, Cesariano, Tartaglia, and Dürer—comprised a messy, ponderous, all-embracing handbook with a markedly practical approach.⁴⁰ The members of the Genoese and Central European elite used these two book copies for different purposes, implementing contrasting reading practices across their pages.

In orderly and beautiful sixteenth-century cursive writing,



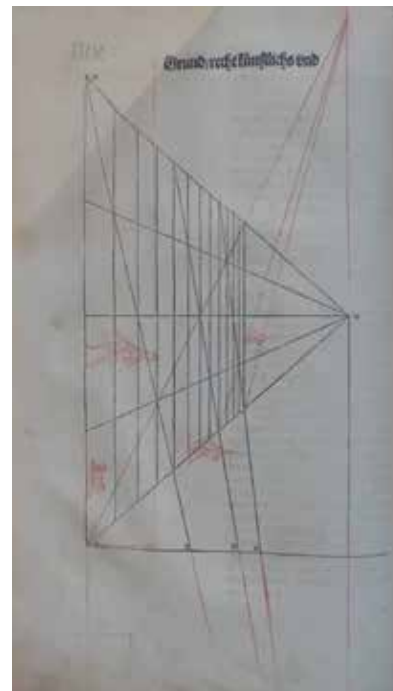
Ill. 2.15. Marcus Vitruvius Pollio, *M. Vitruvius per locundum solito castigatio factus cum figuris et tabula ut iam legi et intelligi possit*, ed. by Fra' Giovanni Giocondo (Venice, 1511), fol. 5v (ZKD, A III 91)



Ill. 2.16. Walther Hermann Ryff, *Der furnembsten, notwendigsten, der gantzen Architectur angehorigen, mathematischen, und mechanischen Kunst, eygetheiler Bericht, und vast klare, vertandt der lehr Vitruvij, in drey furneme Bucher abgetheiler* (Nuremberg, 1547), I, fol. 11r (NKZG, M 6469-4°)



Ill. 2.17. Walther Hermann Ryff, *Der furnembsten, notwendigsten, der gantzen Architectur angehorigen, mathematischen, und mechanischen Kunst, eygetheiler Bericht, und vast klare, vertandt der lehr Vitruvij, in drey furneme Bucher abgetheiler* (Nuremberg, 1547), front paste-down (NKZG, M 6469-4°)



Ill. 2.18. Walther Hermann Ryff, *Der furnembsten, notwendigsten, der gantzen Architectur angehorigen, mathematischen, und mechanischen Kunst, eygetheiler Bericht, und vast klare, vertandt der lehr Vitruvij, in drey furneme Bucher abgetheiler* (Nuremberg, 1547), II, fol. XIIIv (NKZG, M 6469-4°)

Nicola Spinola noted down the keywords of Vitruvius's text, particularly in the first book, in the margins. Browsing the pages, one can read, for instance, a vertical list of all the disciplines with which an architect should be familiar: 'Grammatica / Graphidos scientia / Geometria / Optica / Arithmetica [...] Philosophia / Physiologia / Medicina / Astrologia etc.' (Grammar / Science of drawing / Geometry / Optics / Arithmetic [...] Philosophy / Physiology / Medicine / Astrology etc.). There is also a list of the basic principles of architecture: 'Architectura / Fabrica / Ratiocinatio [...] Eurythmia / Symmetria / Decor / Statio / Distributio' (Architecture / Construction / Reasoning [...] Eurythmy / Symmetry / Propriety / Arrangement / Distribution). Finally, Spinola placed the Vitruvian triad of 'firmitatis / utilitatis / venustatis' (Firmness / Utility / Beauty) on the prongs of a trident next to the relevant passage in the text (Ill. 2.15).⁴¹ The noting of keywords in the margins of a text had been a common reading practice even for medieval manuscripts, and today it is a well-recognised type of evidence of use, as is evident, for example, in the *Material Evidence in Incunabula* database. Vitruvius's systematic exposition and organisation of arguments in the opening chapters of the first book made this reading practice particularly useful. The presence of marginal keywords is likewise common in the initial pages of editions of Vitruvius even outside the eastern Adriatic.

The readers of Ryff's book performed a conceptually similar activity, but through different means. The evidence of use reveals that a course in drawing was taught through this book, probably with a focus on military architecture. A late-sixteenth- or early-seventeenth-century reader also extracted keywords in the first book on geometry, relying extensively on Serlio's first and second books; these words are written on the corresponding elements in the illustrations (ill. 2.16).⁴² Unlike the stonemason Domenico Uvoda, who scattered a variety of comments across his copy of Serlio, these readers were methodical and labelled every single element of the geometrical shapes. This was a clear attempt to learn the full nomenclature of Euclidean geometry via tangible, graphic representations of the shapes, rather than through abstract words.

Moreover, the readers also enjoyed colouring the illustrations in pencil, red pencil, and watercolour throughout Ryff's various books, focusing particularly on the plates linked to ballistics and perspective.⁴³ This copy seems to have belonged to the son of a noble cavalryman, who disregarded the instruction on military architecture and found the artistic side of drawing pleasing. But this naïve approach nevertheless reveals a deep understanding of drawing principles and, above all, an interest in learning drawing by putting theoretical precepts immediately into practice. The regular polygons inscribed in circles that are sketched on the pasted-down paper of the front cover are a perfect example of this methodical and empirical approach



Ill. 2.19. Walther Hermann Ryff, *Der furnembsten, notwendigsten, der gantzen Architectur angehorigen, mathematischen, und mechanischen Kunst, eygetheiler Bericht, und vast klare, vertandt der lehr Vitruvij, in drey furneme Bucher abgetheiler* (Nuremberg, 1547), II.2, fol. XXXVv (NKZG, M 6469-4°)

to learning geometric drawing (Ill.2.17).⁴⁴ Purely geometric rules also underpin some sketches of human figures that populate the empty spaces of the perspective plates. The stylish gentlemen with a hat, stick, and dog in red pencil evoke not a joke or an entertaining game, but rather an exercise in adjusting proportions according to a figure's or object's position in space. The reader carefully calibrated the height of the man in the foreground with that in the background through a third man on the right in a middle position. In this way, the three men have the same height (Ill. 2.18).⁴⁵ In another plate representing a town street, the reader painted shadows on the buildings and placed a man in the background; his eyes, which look through a gate, correspond to the vanishing point of the illustration (Ill. 2.19).⁴⁶ The list of plates on which there is evidence of the reader retracing geometrical constructions is very long.⁴⁷

Even though these two book copies circulated in similar aristocratic contexts, they reveal quite different approaches to learning the rudiments of architecture. The contrasting ways in which Vitruvius and Ryff (who was strongly influenced by Serlio) articulated the basics of architecture, prompted a radical change in the reading strategies deployed for the initial chapters of their treatises. Vitruvius's first book stimulated a literary, wholly theoretical approach that was crystallised in the

well-established techniques of extracting keywords. In contrast, Ryff's volume encouraged a practical, empirical method of study that could be summarised with the modern and anachronistic expression of 'learning by doing'. Architectural books that differ in contents and style prompted similar owners to implement disparate reading strategies.

Drawing and Perspective

Interest in learning drawing and perspective is particularly evident from the numerous traces of use discovered in the architectural books I analysed. Drawing and perspective were basic skills and techniques for architects, painters, other artists, engineers, surveyors, master builders, and qualified stonemasons. Drawing was a fundamental means of communication in many stages of the building trade, from the presentation of the design to the client to the realisation of templates for various decorative elements. As a result of the widespread custom of producing ready-made architectural elements in stone quarries or nearby workshops, then shipping them and assembling them on the construction site,⁴⁸ the role of drawing held strategic importance for all of the individuals involved in the building trade of the early modern eastern Adriatic.

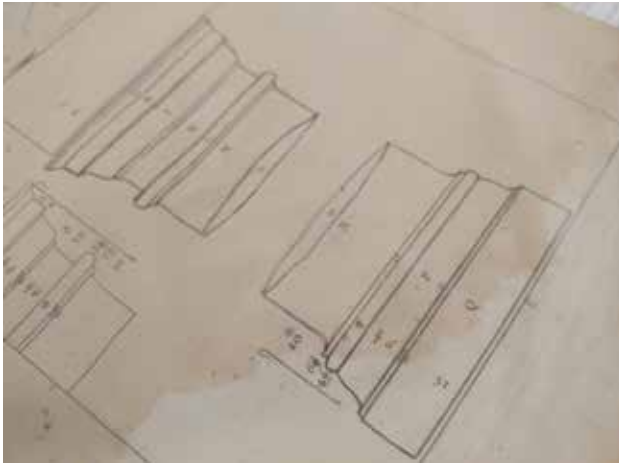
Drawing was also fundamental for land surveys, estimates of the costs of construction and materials, and many tasks related to military architecture and warfare. For this reason, artists were increasingly not the only individuals studying and practising the basic skills of drawing: gradually across the early modern period, patrons—whether noblemen or clergymen—also sought these skills. As has already been noted, the presence of drawing handbooks in the libraries of bishoprics, monasteries, and Jesuit colleges indicates that the people educated in those institutions were trained in the use of drawing tools, such as rulers, squares, movable squares, pairs of compasses, proportional compasses, quadrants, and so on.

One of the most common drawing exercises performed by readers on the plates of the analysed architectural books was extending receding parallel, though apparently converging, lines of perspectival illustrations to determine the vanishing point. It is easy to find evidence of this practice on many of Serlio's gates and triumphal arches, both in the collection comprising his first to fourth books and the *Extraordinario libro*, as well as in Palladio's and Vignola's plates of the five orders (Ill. 2.40).⁴⁹ On the one hand, this exercise could be a test for the owner's drawing skills, or, on the other hand, it could be a way to check the geometric precision of the perspectival representation. In either case, the process of extending perspectival lines facilitated the immediate translation into practice of the theoretical principles learned from the book—a kind of training in which the reader could engage directly on the book's pages with only a ruler.

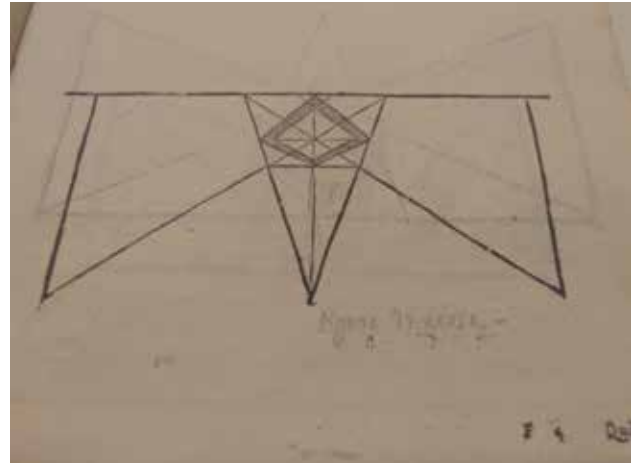
Equally as common as the drawing of receding, parallel lines was the redrawing of a geometric construction lying behind a geometric shape, a perspectival view, or an architectural design. The reader followed the drawing process explained in the text step by step, tracing lines directly on the illustration to get the desired result. This exercise had the goal of facilitating the understanding and memorisation of long and complex processes that were not immediately comprehensible from a lengthy textual explanation and the final illustration. As is evident from the presence of different types of material evidence of use, readers performed varying exercises. Sometimes, they simply retraced the edges of complex geometric shapes, like the Platonic solids in *La pratica della prospettiva*, the perspectival handbook by Daniele Barbaro (Venice, 1569), or they followed the outlines of columns and other architectural elements, as occurred in the German translation of Serlio at the Valvasor Library (Basel, 1606) and in an eighteenth-century reprint of Palladio (Venice, 1766; Ill. 2.20).⁵⁰ On other occasions, readers traced the 'invisible' lines of a geometric construction that had been omitted to make the illustration clearer.⁵¹ Finally, the widespread presence of engraved lines on the plates encourages one to think that readers frequently copied an image on a separate sheet, which they placed on the illustration, tracing the lines of the plate underneath that was visible through the paper.

In the chapters on drawing and perspective in architectural treatises, as well as in handbooks on drawing and land surveys, readers frequently corrected and supplemented the illustrations by adding certain elements. The unknown reader of Cosimo Bartoli's *Del modo di misurare* (Venice, 1564) added some relevant elements in pointed or hatched lines on the geometric shapes, such as the height of triangles or other shapes composed of triangles, for instance a regular hexagon (Ill. 2.21).⁵² This reading strategy is so common that it is impossible to provide here a full list of examples. Another common mode of completing an illustration was the insertion of handwritten letters at the vertices of geometric shapes or in images that did not have these labels. The reader of Barbaro's *La pratica della prospettiva* (Venice, 1569) methodically added letters to many illustrations, while copies of other architectural books that focus on geometric drawing, such as those of Serlio and Ryff, display more sporadic use of this practice.⁵³

It is not unusual that the most critical readers corrected discrepancies between text and image in architectural books. The unknown readers of Barbaro's *Perspettiva* and Serlio's *Tutte l'opere d'architettura* (Venice, 1600) adjusted in the illustrations those letters that did not correspond to the written text. The former replaced a 'K' with an 'R' and followed the text so closely that he was able to detect a mistake in the advice for articulating the surfaces of a complex Platonic solid; next to the illustration, he wrote: 'Si deve cavar q[uest]o / triangolo' (One must remove



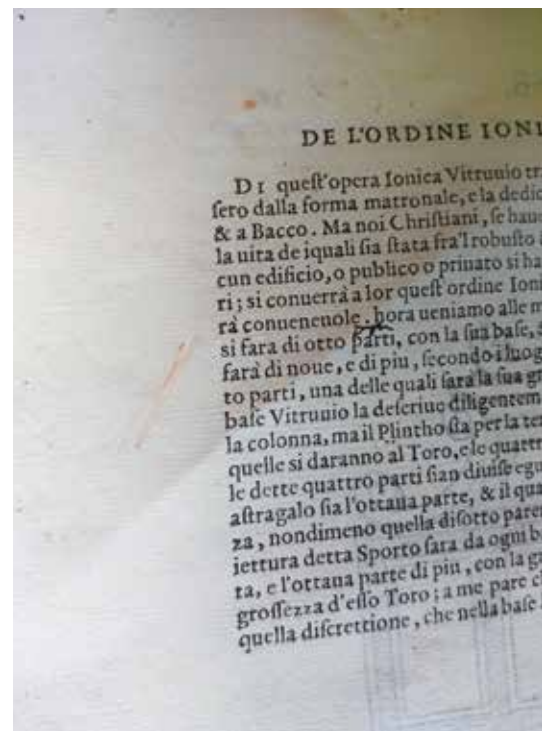
Ill. 2.20. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1766),
II.14, p. 17 (ZKD, A II 12)



Ill. 2.22. Sebastiano Serlio, *Tutte l'opere d'architettura, et prospettiva*
(Venice, 1600), II, fol. 44v (SKS, R-667)



Ill. 2.21. Cosimo Bartoli, *Del modo di misurare le distantie* (Venice, 1564),
II.23, fol. 65v (ZPZHAZU, Miočević-Rendić collection, B 24)



Ill. 2.23. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice,
1559–1562), IV.7, fol. 36v (ZPZHAZU, Miočević-Rendić collection, C 135)

this triangle).⁵⁴ In addition to likewise emending the letters in some illustrations, the latter reader recorded severe criticism of mistakes. In the explanation of centralised, one-point perspective, Serlio mistook one line for two lines, and the reader exclaimed in the margin: 'falso' (false). Then, below an illustration placed upside down by the printer, he observed: 'Figura inversa' (Inverted shape) (Ill. 2.22).⁵⁵

As for the media of these drawing exercises, readers frequently deployed pencil or red pencil and ruler; more rarely, they turned to pen and ink or charcoal. Some owners used one medium for an entire book, while others employed different media on different pages, or even simultaneously on the same page. Particularly, the combined use of pencil and red pencil, and a few blends of pen and ink with watercolour have been found (Ill. 2.23).

Some unusual, engraved lines and marks on the pages of architectural books are worthy of special attention because they signal the use of a drawing tool typical for an architect, the ivory stylus. While engraved lines on illustrations can be imprints resulting from redrawing during the copying process, they can also appear for other reasons. In the margins of Durantino's Italian translation of Vitruvius, the owner marked three passages with an engraved 'X'⁵⁶ that was produced with an ivory stylus or another pointed tool (Ill. 2.46). The ivory stylus was commonly used by architects and draughtsmen for tracing 'linee occulte' (hidden lines).

Daniele Barbaro, in his edition of Vitruvius, writes of 'linee occulte' and 'linee manifeste' (visible lines), in particular in Book 9, where he describes the complex geometric constructions of sundials and other solar clocks; however, he does not explain how to trace these lines.⁵⁷ The drawings by Andrea Palladio, who collaborated with Barbaro on the interpretation of Vitruvius's text and who also provided illustrations, offer evidence of the practice of tracing both types of lines. As Howard Burns has shown, Palladio engraved many lines on his drawings as guides for complex geometric construction and then re-traced only some of them with ink to create a final, clean drawing.⁵⁸ Scamozzi, describing the tools used for drawing, explains that the architect must trace 'linee occulte' with an ivory stylus: 'Nel disegnare le piante degli edifici in buona forma noi osserviamo de tirare col stiletto di Avorio, e dapoi con la penna' (In drawing the plans of buildings well, we observe to draw with an ivory stylus, and then with a pen). He also advises that

[...] per tirare le linee occulte, o morte, [the architect must use] la puntina dello stilo d'avorio, o con una punta d'un temperarino, o d'ago non pungente; tanto che calchino gentilmente la carta, e non con le punte de' compassi; perché si logorano, e guastano, & alla fine tagliano la carta⁵⁹

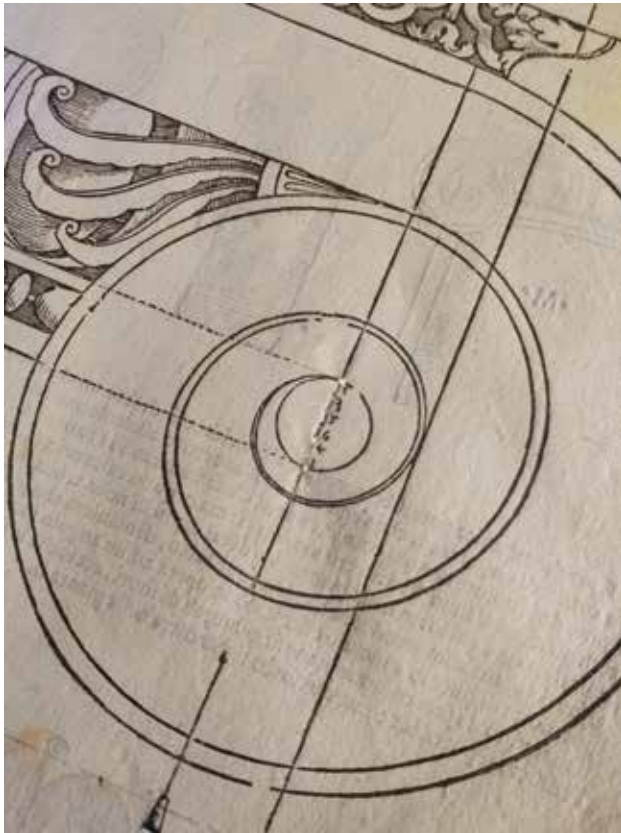
([...] to draw the hidden, or 'dead,' lines, [the architect must use] the point of an ivory stylus, or with the point of a small penknife, or a blunt needle; so that they gently press the paper, and not with the points of compasses; because these wear down, and spoil, and ultimately cut the paper).

This particular type of ivory stylus was not on the desks of every reader; therefore, it is proof that an architect or another master with particular expertise in drawing technique used this copy of Vitruvius.

Although the ivory stylus was a common tool for an architect, a pair of compasses was probably the most iconic of the architect's tools. The frequent appearance of holes in several book copies suggests the use of a complete set of drawing tools, including a pair of compasses, at least by some readers. According to the material evidence of use that I found in my research, the holes produced by a pair of compasses appeared mainly in the drawing of circles or arcs and, less frequently, in the measurement of distances in the illustrations. In fact, the holes left by a pair of compasses at the centre of circles or arcs are rather common, while double holes—or even small indentations or light abrasions—at the geometrical vertices of architectural elements are rare.

The plates of the Ionic order, which often offer detailed representations of the geometric construction of volutes, are the best place for finding a good sample of holes produced by a pair of compasses. In more than one copy of Serlio's fourth book, readers pierced the page at all six centres of the circular arcs required for the drawing of the volute (Ill. 2.24). There is evidence that several readers thus used a pair of compasses to train themselves in this vexing question of Renaissance architecture. As no trace of the arcs of the volutes can be found in any copy, it is possible to infer that readers only simulated the act of drawing a volute or traced the volute on a sheet superimposed on top of the book page. Curiously, copies of Serlio showing evidence of this highly refined exercise in architectural drawing come from aristocratic libraries, namely from those of the Tudišić family in Dubrovnik (Venice, 1540, ill. 2.34; this copy later passed to the Jesuit College) and of the Zrinski family in Zagreb (Venice, 1544), rather than from the collections of architects or stonemasons. It is also surprising that in the two copies noted above, the holes produced by the pair of compasses are often on the same pages and in the same illustrations.⁶⁰ There is evidence of holes from compasses in copies of Alberti (Florence, 1550) and Vignola (Rome, 1620), too, though not always on the plates of the Ionic volute (Ills. 2.33; 2.57).⁶¹

Similar sets of drawing tools were also on the desks of engineers engaged in designing fortifications, and consequently, similar material evidence of use appears in many copies of treatises on military architecture. The education and training of



Ill. 2.24. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV:7, fol. 38r (ZPZHazu, Miočević-Rendić collection, C 135)

engineers in early modern fortification, the design principles of which were firmly grounded in geometric drawing, demanded the execution of drawing exercises directly on the illustrations of treatises, even more than did training in civil architecture. Because the shooting trajectories of cannons determined the shape of bastions, glacis, and other fortified works, drawing them with different media when the illustration did not show them was common, particularly on maps and plans. Again, this strategy was a means for both assessing the efficiency of the system of fortification being represented and testing the skills that one had acquired.

Two very different examples, among many instances, come from the Valvasor Library: copies of Carlo Theti's early treatise on fortification (Rome, 1569) and Buonaiuto Lorini's volume in a German translation (Frankfurt, 1616).⁶² The comparison between the illustration quality of the two books demonstrates, on the one hand, the outstanding development of architectural treatises in fewer than thirty years—between the dates of the *editiones principes* of the two books—and, on the other hand, the shift from the woodcut to the engraving technique. The



Ill. 2.25. Carlo Theti, *Discorsi di fortificationi* (Rome, 1569), fol. 19r. (NKZG, M 6139 privez. 1)

shooting trajectories of cannons drawn on these very different illustrations also highlight a significant change.

The lines for the trajectories in Theti's book, engraved with an ivory stylus, are quite inaccurate: they seem to indicate only that cannon shots must come from the sides of the bastions and that they are directed diagonally towards an undefined area between the next bastion and the countryside (Ill. 2.25). The individual who drew these lines might be 'Georgij Chrazempacheij', the owner who, before Valvasor, signed a copy of Aelianus's *De militaribus ordinibus instituendis more graecorum* (Venice, 1552),⁶³ which appears at the beginning of a ponderous volume that contains, in the following order: Theti's *Discorsi di fortificationi*, Girolamo Cataneo's *Libro nuovo di fortificare* (Brescia, 1567) and *Modo di formar con prestezza le moderne battaglie* (Brescia, 1567), Silvio Belli's *Libro del misurar con la vista* (Venice, 1569), and Giovanni M. Cicogna's *Il primo libro del trattato militare* (Venice, 1567).⁶⁴ In contrast, the lines for cannon trajectories in Lorini's book, which are drawn with pencil and ruler, show a strong awareness of the design principles of military architecture. Besides the axes of the bastions and the basic lines of geometric construction, the reader outlined the shooting trajectories for cannons in some very specific parts of the fortress: on the fronts of the bastions, on the other side of the moat along the counterscarp, and on the glacis beyond the moat (Ill. 2.26).⁶⁵

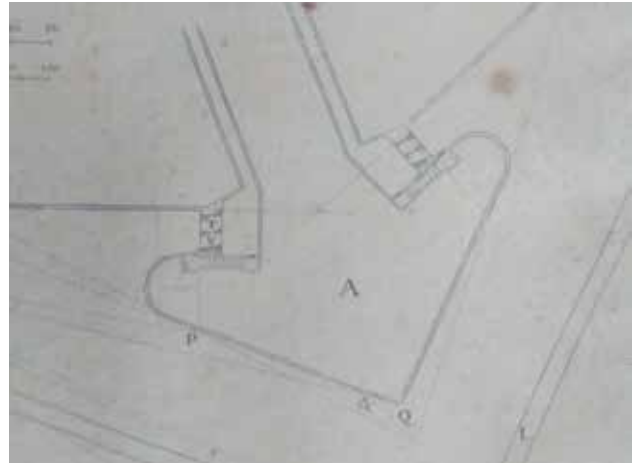
Although the engineers of the Italian Renaissance rejected circular bastions in fortifications after the 1510s, pairs of compasses did not disappear from their drawing sets. Even if these tools were no longer deployed to draw circular fortified works, they were necessary for many other tasks of the design process, as is evident from the material evidence of use in military architecture book copies. First of all, the pair of compasses was

essential for basic geometric construction because the best fortresses—that is, the ‘regular fortresses’—were based solely on regular polygons.⁶⁶ Secondly, military engineers used pairs of compasses to ascertain measures in books and then to transfer them to a drawing or to accomplish even more complex operations, for which proportional compasses might be used. In a copy of a mathematical handbook written by Alessandro Bonvicino for the Accademia Delia in Padua (Padua, 1665), the reader scratched the paper of the page only on the vertices of the illustration, where he repeatedly took measurements, probably in many different combinations, with a pair of compasses.⁶⁷

Moreover, it is worth noting that the use of composite drawing tools, such as the proportional compass or the mobile square, did not appear in the book copies that I analysed; as was outlined in the previous chapter, handbooks for such instruments circulated in the educational institutions frequented by noblemen and clergymen of the eastern Adriatic. Unfortunately, the use of these tools produces generic evidence that can easily look like holes from simple pairs of compasses. One should assess whether these tools were deployed by considering a drawing sketched on a separate sheet, rather than a book illustration, which was the source. None of the few loose sheets found between the pages of the book copies I analysed contained evidence of such instruments. Nevertheless, it is reasonable to suppose that not only architects and military engineers but also noblemen and clergymen used these more complex drawing tools.

Drawing, however, was more than a practical discipline requiring the deployment of specific tools. Material evidence of use in architectural books also reveals interest in the theoretical study of drawing. In a copy of Giovanni Battista Izzo's *Elementa architecturae civilis* (Vienna, 1764), the reader created a bookmark with some handwritten letters and a mathematical exercise in Chapter IV.3 ‘De scenographia seu elevatione perspectiva’ (On Scenography and Perspective Elevation), also adding a letter to the corresponding plate at the end of the volume. Furthermore, the folded corner of a page indicates an interest in Chapter IV.1 ‘De instrumentis delineationi servientibus, tum de Idea, protographia ichnographia describenda’ (On the Instruments Serving for Delineation, and also on Describing the Idea, Protography, and Ichnography), where Izzo presents drawing tools and explains the different types of architectural representation.⁶⁸ Previously, Domenico Uvoda had already lingered over a seminal passage by Serlio on architectural drawing, underlining some keywords:

Ma lassando da banda queste narrationi, le quali poco importano all'Architetto; verrò alle particolar misure di tutte le cose. E per procedere ordinatamente in queste antichità. La prima cosa sarà la Lenografia, cioè la pianta. La



Ill. 2.26. Buonaiuto Lorini, *Fünff Bücher von Vesting Bawen* (Frankfurt, 1616), plate 4 (NKZG, M 11308-4°)

seconda sarà l'Ortografia, che è il diritto, altri lo dicono il profilo. La terza cosa sarà la Sciografia, cioè la fronte, e li lati di qualunque cosa.⁶⁹

(But leaving aside these narrations, which are of little importance to the Architect, I will come to the particular measurements of all things. And to proceed in an orderly fashion in these antiquities. The first thing will be Ichnography, that is, the plan. The second will be Orthography, which is the elevation; others call it the profile. The third thing will be Sciagraphy, that is, the front and the sides of anything).

In response to his needs as a working stonemason, Uvoda focused on the essential point in the theory of architectural drawing: the three primary types of representation—plan, elevation, and section—which can best describe an existing building or a project design. Serlio curiously places this topic in the ‘Proemio’ of the third book on antiquities, rather than in the first or second books on drawing and perspective.

Painting and Mathematics

It is widely known that, since the Renaissance, architecture has been considered an in-between realm, a crossroads of different disciplines and skills that are today rather distant, or even irreconcilable. To cite the most significant examples, a discussion of the multidisciplinary education of the architect opens Vitruvius's *De architectura*, and Daniele Barbaro undertook a markedly transdisciplinary study of architecture to translate and interpret Vitruvius's treatise.⁷⁰ According to Leon Battista Alberti, painting and mathematics were the most important disciplines

in the architect's education: 'Ma quai de le arti giovino a l'Architetti, & gli siano al tutto necessarie, sono la pittura, e la mathematica' (But which of the arts are useful to Architects, and are entirely necessary to them, are painting and mathematics). Significantly, the unknown owner of a copy of Alberti's *De re aedificatoria* (in the Italian translation by Pietro Lauro; Venice, 1546) in Dubrovnik annotated this passage with the words: 'che fa gio[var] l'archit[et]to' (what benefits the architect).⁷¹

The multidisciplinary education of the architect was not the only result of the in-between position of architecture. If, on the one hand, architects were trained in painting and mathematics, on the other hand, painters and mathematicians were interested in the multidisciplinary content of architectural books. Material evidence of use in the architectural books I analysed confirms this further effect of the transdisciplinary position of architecture.

As the treatises on drawing and perspective written by painters, such as Lorenzo Ghiberti, Piero della Francesca, and Leonardo da Vinci, remained in manuscript form and did not have wide circulation, architects like Serlio and Vignola, or scholars like Daniele Barbaro, became pioneers in the dissemination of these skills via printed books.⁷² Thus, it is obvious that painters constituted an important section of the audience of architectural books. Even though drawing was probably the most common activity performed on architectural books, as I have previously shown, the approaches of architects and painters differ.

The Šibenik painter Dominik Divnić (Domenico Difnicio) signed a copy of Vignola's *Regola* that clearly shows his interest in drawing immediately on the title page. In the right margin, he sketched a copy of the Corinthian capital of the tabernacle on the title page, the most emblematic of the architectural elements there. At the same time, he also squared Vignola's portrait inside the tabernacle to copy it, probably at a different scale, on a separate sheet (Ill. 2.27). In so doing, Divnić also demonstrated an interest in the human figure, as well as architecture, employing the typical methodology of a painter. Across the subsequent pages, the plates of the five orders have no evidence of use, suggesting that Divnić did not copy the capitals from these illustrations or that, even if he did, he did not seek the same exactitude he used for Vignola's portrait.⁷³

Other examples of drawn copies of non-architectural subjects appear in the copy of Serlio's book owned by Domenico Uvoda. On the plates representing the Doric order of Porta Borsari in Verona, he sketched a copy of the bull's head in the margin. Similarly, for a Doric gate of the *Extraordinario libro*, he drew a copy of the grotesque masks above the entablature. In both cases, Uvoda showed interest in neither the architectural composition of the gates nor in the five orders; rather, he focused on decorative details of animal or human figures.⁷⁴ It is



Ill. 2.27. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1626), title page (ZPZHAZU, Miočević-Rendić collection, C 137)

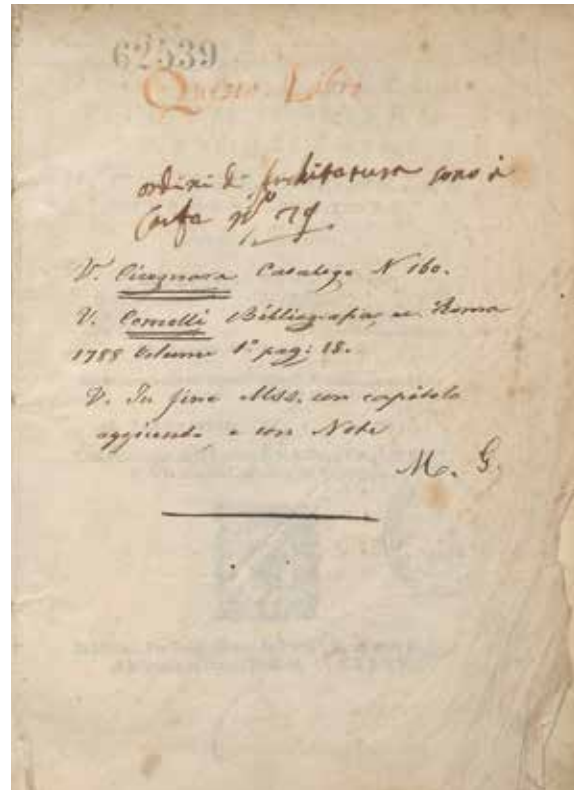
worth recalling that, due to the heterogeneity of the material evidence of use in this book copy, these drawings could have been executed by someone else in the workshop, rather than Uvoda himself.

The traces of a yellowish patina found on some illustrations in a copy of Durantino's Italian translation of Vitruvius that was owned by 'Nicolò proto di marangoni' and Giovanni Battista Fontana, are curious for several reasons. The reader created them via a copying process based on pressure; he impressed on a sheet a trace of the printed illustration that was subsequently redrawn. Consideration of the content of the illustrations where this patina occurs reveals that the reader had no interest in architecture. Many of the illustrations with patinas belong to the ninth and tenth books on gnomonics and mechanics. The patina on illustrations of buildings and other architectural elements do not extend across the whole illustration but is limited to only a part of it, where the reader had a particular interest. Almost all of these small areas of patina cover statues or human bodies, from caryatids to the sculptures over the pediment of the temple (Ill. 2.28). It is evident that at least one of the readers of this copy of Vitruvius had a marked interest in drawing the human figure, and it is easy to imagine that he could have been a painter.⁷⁵

A copy of Giovanni Battista Lomazzo's treatise is a curious example of an interest in painting. While the title of *Trattato dell'arte della pittura, scoltura, et architettura* would seem to indicate a broad treatment of the visual arts, Lomazzo discusses mainly painting. On the title page, there is a note of ownership, 'Giulian Cassani muratore'—that is, not really a painter or someone interested in the art of painting. On the front endpaper, Cassani also wrote a reference that clarifies his interests:



Ill. 2.28. Marcus Vitruvius Pollio, *Architettura*, transl. by Francesco Luci Durantino (Venice, 1535), IV,3, fol. XXXVIIr (ZKZ, R-234)



Ill. 2.29. Gian Paolo Lomazzo, *Trattato dell'arte della pittura, scoltura et architettura* (Milan, 1585), front endpaper (NSKZ, 62,539)

'ordini di Architettura sono a / Carta n. 79' (Architectural orders are at / Sheet N. 79) (Ill. 2.29).⁷⁶ Chapter I.23, titled 'Della proportione dell'ordine Toscano' (On the proportion of Tuscan order), opens the section on the five orders. Surprisingly, there is no evidence of use on these pages. Nevertheless, a large number of reading marks, underlined words, corrections, supplements, and annotations, probably by another owner, appear throughout the chapters on painting. A note, seemingly in Spanish—'perdio la vista el autor de edad de 32 años' (the author lost his sight at the age of 32)—points out the passage in which Lomazzo explains when he went blind.⁷⁷ No details on this mysterious, Spanish-speaking reader are available, but according to a bookseller's note in Italian that quotes a volume published in 1788,⁷⁸ this copy of Lomazzo's treatise reached the eastern Adriatic in a later period, probably during the nineteenth century.

In addition, this later reader started to study Lomazzo's text from his definition of painting and basic division between theory and practice. Then, he focused on the proportions of the human body, the expression of emotions, primary and secondary illumination, perspective, and colouring—basically, almost all the skills needed by a painter. In the 'Proemio' of the fifth book, which discusses perspective, the reader particularly con-

centrated on one page, placing reading marks and underlining words throughout the text:

Niun pittore ne scoltore dee seguitare nell'opere sue, la proportion naturale, & propria delle cose; ma debbe l'uno e l'altro seguitare la proportione visuale. [...] Adunque è necessario conformarsi all'occhio, & ciò non si può dare in alcuna maniera seguitando la proportione naturale; ma bisogna del tutto che osservi la proportione a l'occhio visuale; che così conseguirà i tuoi fini, cioè honore & utilità. [...] & gli scoltori nell'opere sue attenendosi al giudizio, hanno da se seguitare non la perfettione naturale, & propria delle cose ma quella che ritrova alla vista.⁷⁹

(No painter or sculptor should follow, in their works, the natural and true proportion of things; but both must follow visual proportion. [...]) Therefore, it's necessary to conform to the eye, and this cannot be achieved in any way by following natural proportion; but it is entirely necessary to observe proportion according to the visual eye; for thus you will achieve your goals, that is, honour and utility. [...] and sculptors in their works, adhering to judgment,



Ill. 2.30. Gian Paolo Lomazzo, *Trattato dell'arte della pittura, scoltura et architettura* (Milan, 1585), IV.6, pp. 218–219 (NSKZ, 62.539)

must follow not the natural and true perfection of things, but that which is found in the sight).

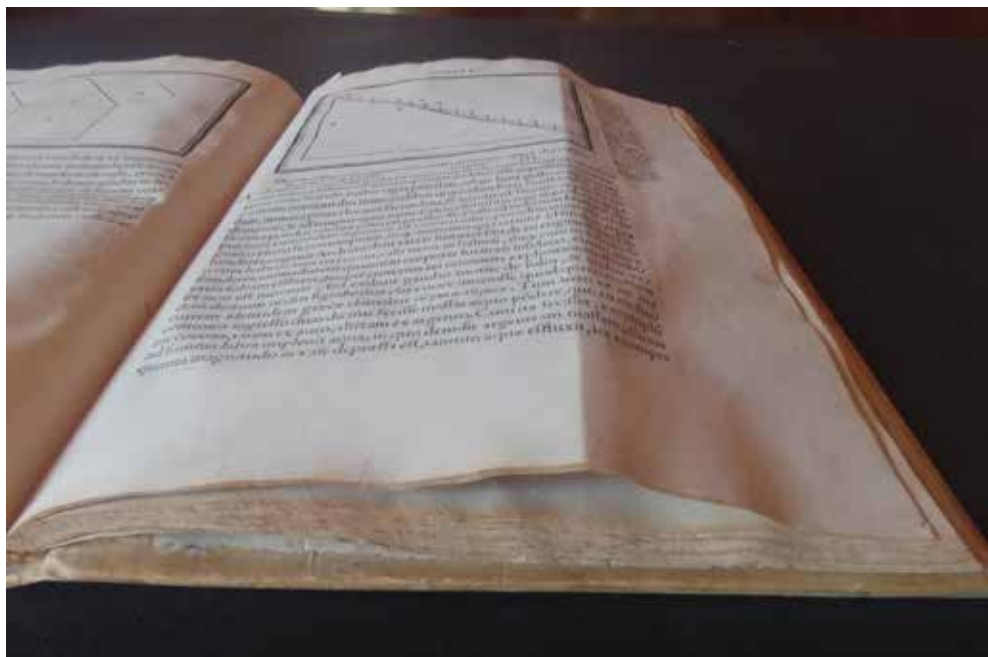
Lomazzo explains that painters and sculptors should follow not the natural proportions of things, but rather the 'proportione visuale', namely the deformations of natural proportions created by the viewer's eyes.

Except for some heads sketched in the margin of a page (Ill. 2.30), there are no drawings in this copy of Lomazzo's treatise, perhaps because the book has no illustrations. However, a book such as Albrecht Dürer's *De symmetria partium in rectis formis humanorum corporum*, which has a gorgeous set of full-page illustrations, stimulated the reader to perform drawing exercises. Both of the copies preserved in the eastern Adriatic (in Rijeka and Zagreb), contain various pieces of evidence of drawing practice. The Zagreb copy has a curious system of notation, composed of letters, numbers, and even symbols of the planets and zodiacal signs that mark chapters and paragraphs in the margins of pages. The reader, furthermore, drew several lines in pencil on many illustrations, partly in attempts to retrace Dürer's images and partly for other, unclear purposes.⁸⁰ The Rijeka copy has several folded corners, some reading marks, and a few copies drawn in pen and ink. None of the copies bears useful material evidence of possession, although the Rijeka copy has a customised cover with a coat of arms and inscription—unfortunately, somewhat threadbare and hardly legible;

it also has an obliterated motto in the front endpaper, and it lacks a title page.⁸¹

Architectural books were also interesting for physicians, natural philosophers, and, more generally, scholars engaged in various areas of the disciplines based on mathematics and having many practical applications. The broadening of architecture to incorporate the sciences dated back to Vitruvius's *De architectura*, which presented the architect's domain as composed of three main disciplines: *aedificatio*, or the art of building, explained from the first to the eighth books; *gnomonica*, or the art of designing and constructing sundials, treated in the ninth book; and *machinatio*, or mechanics, developed in the tenth and last book. Furthermore, the eighth book was completely devoted to water and hydraulics, and ideas of astronomy and mechanics were contained in the following books, making Vitruvius's volume a quite significant source for mathematicians.⁸² Vitruvius's treatise played an important role in early modern advances in many scientific disciplines, particularly by facilitating the dissemination of ancient Roman and Greek knowledge.

Conversely, architects and patrons who read Vitruvius mainly for knowledge of architecture demonstrated a marked interest in the final books of the treatise. Material evidence of use, especially folded page corners, is generally abundant, suggesting widespread interest in the ninth and tenth books across many of the sixteenth- and seventeenth-century editions of



Ill. 2.31. Marcus Vitruvius Pollio, *M. Vitruvius per locundum solito castigatior factus cum figuris et tabula ut iam legi et intelligi possit*, ed. by Fra' Giovanni Giocondo (Venice, 1511), IX.3, fol. 85r (ZKD, A III 91)

Vitruvius that I analysed. Copies of Fra' Giocondo's edition (Venice, 1511) and the Italian translation by Durantino (Venice, 1535) bear signs of folded pages and corners, which, in some cases, group together more than one and up to five sheets; these appear in the last two books in a higher concentration than the rest of the book (Ill. 2.31).⁸³ A copy of Walther Hermann Ryff's *Vitruvius teutsch* (Nuremberg, 1548) contains evidence of use across all ten books, with an average of four pieces of evidence per book; however, the ninth and the tenth books are slightly above this average, including five pieces of evidence each, such as folded corners, reading marks, and paper bookmarks.⁸⁴ Even the little used copy of Daniele Barbaro's translation of Vitruvius (Venice, 1629), which was in the Zrinski Library, has three folded corners in the ninth book, as well as some slightly yellowed sheets next to them, suggesting that the volume had been open only on those pages.⁸⁵ As a matter of fact, there is evidence that the readers of these copies of Vitruvius's book were more interested in hydraulics, astronomy, gnomonics, and mechanics than in the elements of the five orders or the design of Roman houses and temples. It is important to note that such a focus is visible in the books that belonged both to aristocratic families and to architects or masters; that is, it does not vary with the type of owner.

The exploration of the connections between architecture and mathematics can also proceed in the opposite direction. Vitruvius provided significant scientific knowledge that could

interest individuals other than solely architects, while many mathematical handbooks contained valuable ideas for architecture. A miscellaneous volume on arithmetic, geometry, and land surveys demonstrates well the process of moving from mathematics to architecture. It contains Giovanni F. Peverone's treatises on arithmetic and geometry (Lyon, 1558), Pietro Cataneo's *Le pratiche delle due prime matematiche* (Venice, 1559), and Alessandro Piccolomini's *Della grandezza della terra, et dell'acqua* (Venice, 1558).⁸⁶ The homogeneity of the topics and the publication dates suggest that this volume resulted from the purchase of multiple books, probably in a Venetian bookstore, which also would have provided the books with a unique binding.

Even if the title page of Peverone's book is missing, the volume contains at three other points the signatures of two members of the Sablić family from Cres: Juraj Sablić ('Ex libris Georgi Sablich de Chersio') and his son Petar ('Ex libris Petrij Georgij Sablich de Chersio'). In Cataneo's work, some words on the bottom of the title page have been crossed out with a black ink line; they indicate the existence of an owner before the Sablić family.⁸⁷ The handwriting of Juraj and Petar is very similar and appears in annotations, reading marks, and keywords noted in pen and ink throughout the three books in this bound volume. The sporadic presence of manicules in red pencil could indicate a third reader, but the similar style of articulation rather suggests that these hands were again by one of the two members of the Sablić family. Today, Sablić is still a common surname on

the Island of Cres and along the nearby coast, but no historical information is available on this family, since its members never appeared in documents linked to either local nobles and land-owners or to the stonemasons working in the area.⁸⁸

Probably both father and son began their study with the very basics of mathematics, carefully noting down in the margins of the first chapters of Peverone's and Cataneo's works the operations and various strategies for assessing the accuracy of the results, in addition to writing keywords next to chapter titles, placing manicules, and writing 'obs.[erv]a' next to the most important passages.⁸⁹ Other evidence of use shows a similar interest in basic geometric shapes and a methodical checking of all the interesting topics in the final index. In the treatise by Cataneo, the interests of the readers emerge more clearly. Reading marks and folded page corners appear in the text devoted to questions of measurement, particularly in the chapters explaining multiplication and division with *moggio* and *stao*, two units for the volumetric measurement of grain.⁹⁰ The readers noted 'terra' (land) next to the chapter title of 'Del vero e pratico modo del misurar la terra' (On the True and Practical Method of Measuring the Land) and 'misurar li boschi' (measuring woods) next to that of 'Del misurar de i boschi' (On the Measuring of Woods).⁹¹ These various pieces of evidence of use suggest a landowner engaged in learning the mathematical skills required to manage a family estate, whether it was big or small.

It seems that for Sablić, as for many other landowners, estate management was more than the purchase of more fields and the yield of those properties; it also involved the building of structures required for a farm. Both father and son focused particularly on: 'colone quadrangular' (quadrangular columns), a note written next to the chapter titled 'Del quadrare le colonne' (On Squaring Columns); 'muraglie' (walls), an annotation in 'Del riquadrare le muraglie' (On Squaring the Walls); and 'li casamenti' (the buildings), a keyword from 'Del misurar i casamenti' (On Measuring Buildings). Finally, a manicule in red pencil marks the chapter titled 'Modo di saper quanti mattoni vadino ne le muraglie' (Method for Knowing how Many Bricks Go Into the Walls).⁹² On a blank endpaper at the end of Cataneo's work, one of the readers wrote out a problem and its solution:

Volendo misurare un muro, o terreno, il qual per la sua longhezza sia pertiche, o brazzi 49, et per la larghezza 35, Volendo saper la sua quadratura, moltiplicarete, 49, via, 35, troverete esser, 1715, e tanto sarà la quadratura del muro o terreno, e così farete d'ogni altra cosa.⁹³

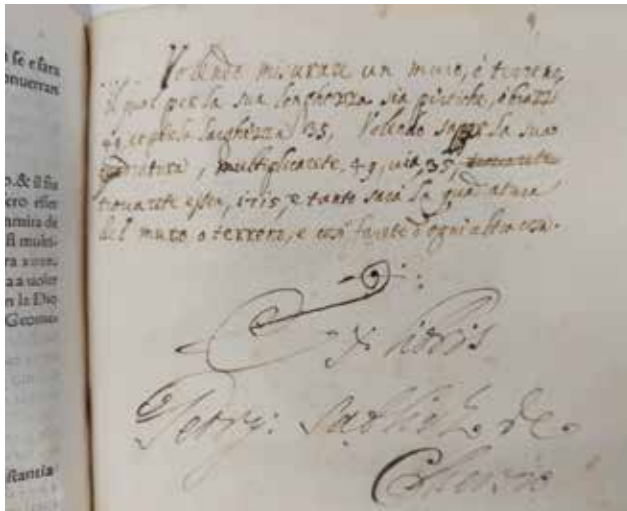
(If you want to measure a wall or a piece of land, which is 49 perches or braccia in length, and 35 in width, if you want to know its area, you will multiply 49 by 35, and you will find it to be 1715, and that will be the area of the

wall or land, and you will do the same for everything else).

He performed the mathematical operation that gave the result on the bottom of the same page (Ill. 2.32). Rather than an abstract exercise, this seems to have been an actual problem of estate management, carefully written down by the father to explain to the son (or someone else) a basic skill with many potential applications. The page, subsequently signed by Petar Sablić, perfectly encapsulates the passing from father to son of a book that was a fundamental tool in the management of the family estate.

A copy of Cosimo Bartoli's *Del modo di misurare* (Venice, 1564), with no evidence of ownership and from the Miočević-Rendić collection, is a quite similar example. Here, the unknown reader filled the margins of some pages with long sequences of mathematical operations, putting into practice the procedures explained in the text.⁹⁴ Therefore, the list of the annotated chapters can easily illustrate his reading interests: II.5, 'Come si misurino i triangoli d'angoli sotto squadra, o acuti, & del modo di ritrovar i lati l'un per l'altro' (How to Measure Less Than Right, or Acute Triangles, and the Method for Finding the Sides One by the Other); II.6, 'Come si misurino i campi in triangolo di tre angoli acuti, & di duoi lati uguali, & un disuguale' (How to Measure Triangular Fields with Three Acute Angles, and with Two Equal Sides and One Unequal Side); II.10, 'Come si misuri universalmente qual si voglia sorte di triangoli' (How to Universally Measure Any Kind of Triangle); II.14, 'Come si misuri un campo quadrilungo di lati disuguali & d'angoli sotto & sopra squadra' (How to Measure a Quadrangular Field with Unequal Sides and Acute and Obtuse Angles); II.23, 'Come si misuri un campo di sei facce, & sei angoli uguali che sia regolare' (How to Measure a Field with Six Equal Sides and Six Equal Angles that Is Regular); II.24, 'Come si misuri un campo di più facce, o lati diverse che sia irregolare' (How to Measure a Field with Multiple Faces, or Diverse Unequal Sides, that Is Irregular); II.30, 'Come si misurino i campi che hanno dello ovato' (How to Measure Fields that Are Oval); II.31, 'Come si misurino i campi che hanno del quadrilungo, & dello ovato' (How to Measure Fields that Are Partly Quadrangular and Partly Oval); III.6, 'Come si misurino le colonne generalmente' (How to Measure Columns Generally); and III.17, 'Come si misurino i corpi tondi' (How to Measure Round Bodies).⁹⁵ In other words, the reading interests of the owner of this book stretched from the operations of plane geometry, such as the survey of land plots with different shapes, to those of solid geometry, such as the volumetric calculation of columns and, more generally, of spherical bodies.

The reader of Bartoli's work also sought to put into practice the mathematical knowledge contained in the book by envi-

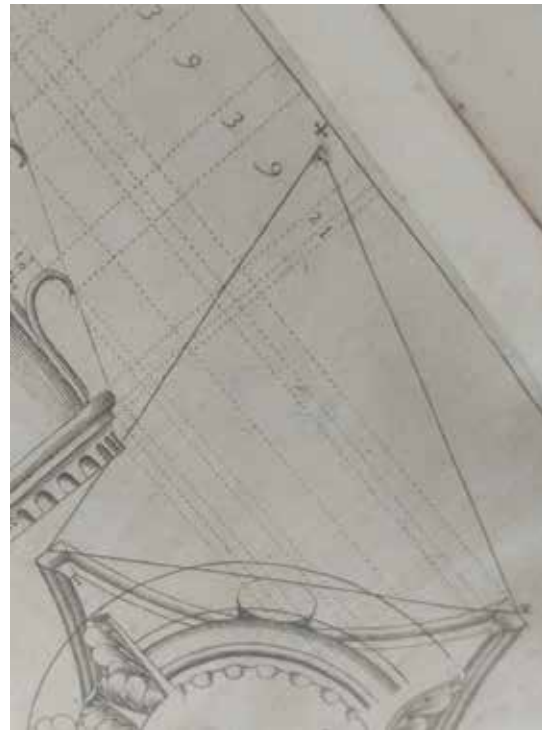


Ill. 2.32. Pietro Cataneo, *Le pratiche delle due prime matematiche* (Venice, 1559), back endpaper (KHAZU, R-1643 privez. 1)

sioning tasks he could have faced in real life. In the chapter about calculating the areas of triangles, he focused on the height, for which he sharply drew on the illustrations with dotted lines in pen and ink, and at the bottom of the page, he applied the skill that he thus acquired to an indisputably architectural task. Inside a square framework of pointed lines, he sketched semicircular and pointed overlapping arches to calculate the difference in height of four *brazzi*.⁹⁶

However, the reader also used the book for his more leisureed acquisition of knowledge, sketching some stars in pencil next to more demanding mathematical operations and collecting some notes on a more practical subject than any application of mathematics to architecture. In the blank margins of an unnumbered page at the beginning of the volume, where Bartoli proudly lists his sources, including 'Alberto Durerò [...] Euclide [...] Leonbattista Alberti [...] Tolomeo [...] Vitruvio', the reader wrote down three medical recipes: 'Segreto per fare stagniare / il sangue del naso / si piglia orticha e si fa seccare / a l'ombra e poi si fa polvere e si / piglia come tre bacalia' (Secret to stop / nosebleeds / take nettle and dry it / in the shade and then make it into a powder and take / about three buckshot). Unfortunately, the margin of the page has been cut, but the other recipes continue with a 'thalasso' (thalassotherapy) to cure weals and a 'melagna di noci bianche' (white walnut paste).⁹⁷

Although these notes seem to concretise the multidisciplinary idea of the architect presented by Vitruvius, who listed medicine among the architect's desirable areas of knowledge, it is difficult to ascertain whether the unknown owner of this book aimed to achieve such an education. More likely, he kept this book close at hand when he encountered someone or something offering insight into medicinal herbs. These annotations



Ill. 2.33. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620), plate XXV (SKR, 31 A 1/30)

are interesting evidence of the fact that the owner took the book with him out of the house, probably because he used it in performing the daily tasks of his profession.

Architectural Principles and the Orders

If one can draw a conclusion from the material evidence of use in the architectural books in eastern Adriatic libraries, early modern readers do not seem to have been particularly interested in the basic principles of architecture. Nonetheless, they focused somewhat, even if not to a great extent, on the five orders and other decorative parts of the classical language of architecture. In general, evidence of use remains scarce in the first books of the most theoretical treatises, such as Vitruvius and Alberti, and then becomes richer and more complex in the chapters on the orders in works with a more practical approach, such as that of Vignola and, above all, of Serlio.

The only book copy displaying a systematic study of Vitruvius's basic concepts of architecture, which he articulated in the first three chapters of the first book, is the Latin edition by Fra' Giocondo (Venice, 1511), which came from the Genoese Spinola family and reached the eastern Adriatic only in the nineteenth century. Thus, it has to be considered a volume outside the

eastern Adriatic in the early modern period. I have already outlined the meticulous extraction of keywords and concepts that the reader performed in this book as he listed in the margins all the basic principles of Vitruvian architecture.⁹⁸ Compared to this approach, the few other indications of interest in Vitruvius's initial chapters appear episodic and superficial. A copy of the Italian translation by Durantino (Venice, 1535), which is signed by Master Niccolò and Giovanni Battista Fontana, has folded corners on seven pages across the first to the fifth chapters of the first book. There is clear evidence that the readers considered this section with the explanation of the basic principles of architecture important at a general level; there is no evidence that they explored these tenets in much detail.⁹⁹

Ivan and Ignacije Macanović, who owned Barbaro's Italian translation of Vitruvius (Venice, 1567), had a slightly keener and deeper interest in the first book. They folded five single-page corners from the first to the third chapter and also placed two reading marks, one in the discussion of the multidisciplinary education of the architect¹⁰⁰ and the other next to the consideration of the architect's tasks in designing buildings. Here, close to the latter marks, a manicule highlights the following sentence: 'Trattando adunque della forma bisogna, che egli sappia ordinare, disporre, misurare, distribuire, ornare, & soddisfare al diletto degli occhi con bella, & gratiosa maniera' (When dealing with form, it is necessary that he knows how to order, arrange, measure, distribute, ornament, and satisfy the delight of the eyes in a beautiful and graceful manner).¹⁰¹ However, this copy of Barbaro's translation has five pages missing in the first and second chapters. A handwritten page, carefully copied in terms of both content and layout from another complete copy, evidences an attempt to fill this lacuna, but the adjacent blank pages reveal that the task was never finished. Despite their efforts, Macanović could hardly gain full knowledge of Vitruvius's basic principles of architecture from this incomplete book copy, even if they strove for such a comprehensive understanding.

Indeed, the fate of Alberti's book was not dissimilar. In the copy donated by Julije Benzoni to the municipality of Rijeka in 1779, the reader did no more than fold the corners of the fourth, fifth, sixth, and ninth chapters in the first book.¹⁰² Nevertheless, it seems that Alberti's text enjoyed a certain popularity among the readers in the eastern Adriatic because of his complex treatment of the concept of beauty. Two different copies of *De re aedificatoria*, which were also used in the different contexts of Rijeka and Dubrovnik, display many reading marks highlighting similar concepts in both identical and varying chapters. The reader of Pietro Lauro's translation (Venice, 1546) marked the paragraph 'Che cosa è bellezza' (What Is Beauty) in VI.2 and annotated a passage in VI.4 on the origin of beauty with the word 'maraviglia' (marvel).¹⁰³ The reader of Cosimo Bartoli's translation (Florence, 1550), formerly in the library of the Ragu-

san Jesuit college, likewise marked the opening sentence of VI.2 and then focused on IX.5, which was devoted to the 'tre [...] cose principali che fanno gli ediftij begli' (three [...] main things that make buildings beautiful), and on the subsequent chapter on proportions.¹⁰⁴

Even though Alberti's masterful treatment of abstract concepts such as beauty impressed more than one reader in the eastern Adriatic, most artists who possessed an architectural book studied it for more practical purposes, often seeking knowledge of the five orders. Usually, they looked to a different type of architectural treatise, one containing rich sets of illustrations and short texts—the model contrived by Serlio and Vignola. Of the total number of copies of Vitruvius's and Alberti's books, only between 15% and 20% bear material evidence of use in the chapters on the basic principles of architecture: for Vitruvius, four copies out of twenty-two, and for Alberti, one copy of six. This percentage increases to 30% if we take into account the copies of Serlio that have annotations, reading marks, indications of drawing, and other types of evidence of use in the fourth book on the orders: five copies out of seventeen now have evidence of use. This does not mean that Vitruvius and Alberti were not used for the study of classical architecture. On the contrary, 15–20% of the catalogued copies still bear signs of use in the sections on the orders. Readers in the eastern Adriatic, as elsewhere, simply preferred the more readily accessible plates of Serlio and Vignola to the long and difficult texts of Vitruvius and Alberti.

The reader of the copy of Alberti's *De re aedificatoria* that was formerly in the library of the Jesuit college in Dubrovnik (Florence, 1550) paid considerable attention to the orders, and to the Corinthian order in particular. From the material evidence of use, it is clear that he copied some of the illustrations. A hole created by a pair of compasses is still visible at the centre of the plan of the Corinthian capital, while the profile of the corresponding entablature has abrasions and traces of glue, suggesting that the reader pasted a sheet on the page to retrace the illustration. He also studied the different syntaxes of the columns in Chapter IX.7 'Del modo del por' le colonne, della misura & della collocazione loro' (On the Method of Placing Columns, their Measurement, and their Collocation), placing a reading mark next to the sentence: 'Restaci a trattare del collocarle [le colonne], & del situarle' (It remains for us to discuss placing them [the columns], and situating them), which introduces an important explanation.¹⁰⁵

However, the other book copies of Alberti and Vitruvius show a more superficial approach that is mostly characterised by folded page corners encompassing different quantities of pages.¹⁰⁶ Only in the edition of Vitruvius used by Macanović is there evidence of use beyond folded corners. The readers drew hands in the margins pointing to two passages in Chapter III.2,

which are not, however, directly connected to the five orders. The first contains a mention of the Theatre of Pompey that has moral overtones rather than a focus on the theatre as one of the most renowned Roman buildings displaying what Renaissance architects deemed a perfect Doric order.¹⁰⁷ The second passage presents the suggestion of placing load-bearing arches above intercolumniation to avoid cracks in the entablature.¹⁰⁸

The largest number of folded corners usually appears in the pages on the orders; the highest totals are in the copies of Serlio's and, to a lesser extent, Vignola's treatises. For instance, there are five folded corners in a reprint of Vignola (Rome, 1620), twenty-two in Serlio's *Regole generali* from the Zrinski Library (Venice, 1544), nineteen in a different edition of Serlio that belonged to Sigismund Tudišić (Venice, 1540), fifteen in a copy of the collection containing the first five books that belonged to Domenico Uvoda (Venice, 1559), and ten in *Tutte l'opere d'architettura* (Venice, 1600).¹⁰⁹ These volumes also contain multiple folded corners that join together more than one page; fully folded pages also occur, highlighting complex systems of remarks.

Unlike Vitruvius and Alberti, whose works were illustrated only during the sixteenth century, the later authors of architectural treatises designed their volumes with a close connection between text and image. For some topics, such as the five orders, this shift in format made architectural treatises more accessible to those who were barely able to read or were illiterate. Therefore, it is logical that Serlio's and Vignola's pages on the orders have more varied and multifaceted material evidence of use, evoking different reading practices that appear in overlapping layers on the same sheet. Such a variety highlights a range of interests, from the design of single elements of the orders to their general composition in gates, windows, façades, and other parts of buildings.

The analysis of the holes produced by pairs of compasses on the pages of Serlio and Vignola, for instance, provides useful insight into the broad interest in single elements of the orders. Unlike copies of Vitruvius and Alberti, where the holes are only at the centres of circles, such as in the plan or section of a column shaft, they appear at many other points in Serlio's and Vignola's books, indicating pairs of compasses were used for several different operations. The readers of Serlio and Vignola deployed this instrument to outline the torus of a pedestal base, the upper profile of a curved pediment, and the concave sides of the abacus of a Corinthian capital (Ill. 2.33).¹¹⁰ Moreover, as I showed above (see 'Drawing and Perspective'), pairs of compasses were necessary tools for performing the most difficult task: drawing the Ionic volute (Ill. 2.34).

In addition to the indications of drawing on illustrations, more common evidence of use, such as reading marks or underlined words, reveals interest in the details of single elements of the five orders. This is particularly the case for the study of

those features of the orders that were not self-evident or easily obtainable through the direct application of simple drawing methods to the illustration, especially proportions. Generally, when a reader marked a passage in the text that accompanies the plates of the orders, it is usually devoted to measurements. The copy of Serlio that, as noted above, belonged to Domenico Uvoda and others offers numerous examples, from the proportions of a pedestal base to the overall height of a column and its entablature.¹¹¹ In a few cases, the reader extracted the information about dimensions from the text and noted it next to the illustration. This is what Uvoda did when he wrote 'Basa ½ del [sic] colona' (Base ½ of the column) adjacent to the elevation of the Ionic base (Ill. 2.35).¹¹²

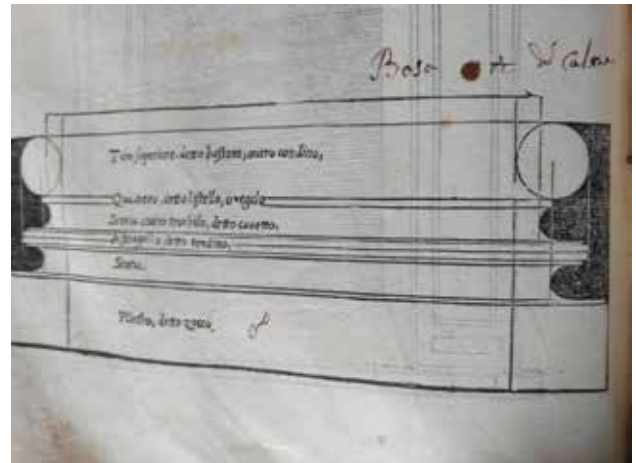
Other types of material evidence of use in the pages on the orders evoke these varying interests of readers. In addition to receding lines in perspectival views (on this, see above, 'Drawing and Perspective'), readers traced the vertical axes of symmetrical compositions, as well as the line articulating the ground in other illustrations. Such types of evidence of use recur in the plates of door and window frames, gates, porticoes, and whole façades—that is, in all of the compositions that follow the presentation of the basic elements of the orders (for instance, in Serlio's treatise). Among the several examples in copies of Serlio's and Vignola's books,¹¹³ there is a particularly high frequency of this reading strategy in the copy of Serlio that belonged to the Zrinski Library (Ill. 2.36).¹¹⁴ Along some of the axes, which are engraved or traced with pencil or pen and ink, it is possible to see the holes produced by a pair of compasses (Ill. 2.37).¹¹⁵ In this case, it was used not to draw circles, but rather to take measurements and transfer them to another sheet, where the reader was drawing a copy of the illustration in the book.

Thus, readers demonstrated an approach to the five orders in Serlio's *Regole generali* that was similar to their use of the *Extraordinario libro*. In both cases, they focused not on the principles of classical architecture, but rather on ready-made examples that were easy to copy and employ in everyday working practice. It would be easy to connect this approach to the many stonemasonry workshops operating in the early modern eastern Adriatic, and so to the use they made of architectural books, as opposed to the strategies of the so-called learned architects; however, the evidence points elsewhere. Domenico Uvoda, for instance, traced the receding lines on the gates of the *Extraordinario libro* but not on the sample designs in Serlio's fourth book, where he instead focused on the elements of each order and their proportions. In fact, the approach to the plates of the orders as a catalogue of ready-made solutions also appears often in copies of Serlio's works that belonged to noblemen and clergymen, such as the Zrinski family or Sigismund Tudišić.

Some observations need to be put forward before I conclude this examination of the reception of the basic principles of



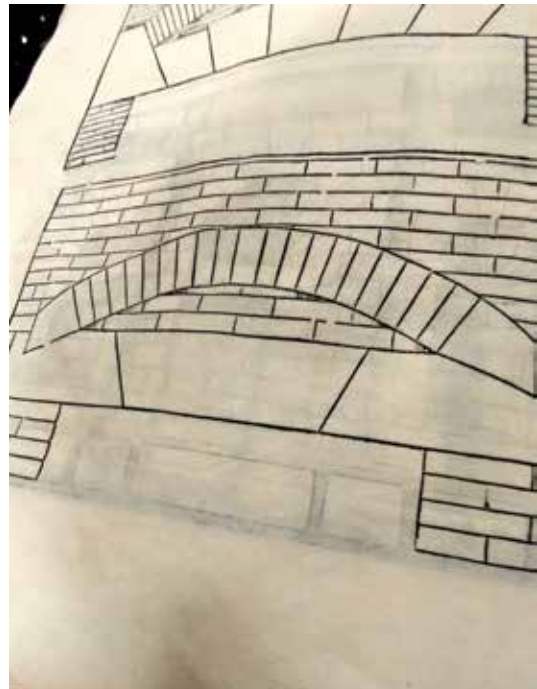
III. 2.34. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1540),
fol. XXXVIIIr (ZKD, A-II-46/4)



Ill. 2.35. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV.7, fol. 36r (ZPZHAZU, Miočević-Rendić collection, C 135)



Ill. 2.36. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1544), IV.6, fol. XXVr (NSKZ, BZ 364)



III. 2.37. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1544),
VI.5, fol. VIr (NSKZ, BZ 364)

architecture. From the material evidence of use related to the five orders, a strong interest in the Doric and Ionic orders emerges. In almost all of the catalogued book copies that have signs of interest in the orders, the evidence of use remains scarce or inexistent in the chapters on the Tuscan, Corinthian, and Composite orders, while it is significantly greater in quality and quantity for the Doric and Ionic orders. It is not possible to establish the reason for this phenomenon, but one can speculate that, rather than personal attitudes, such a pattern occurred because the artists on the eastern Adriatic considered these two orders the most difficult.

Furthermore, it is worth noting the absence of such material evidence of use in Palladio's *I quattro libri*. The copies of Palladio's volume in my catalogue contain no significant evidence of use in the chapters of the first book devoted to the basic principles of architecture and the orders. The copy of the *editio princeps* (Venice, 1570) that belonged to the Gundulić family has just one folded page corner and a small reading mark at the beginning of the chapter on the Corinthian order.¹¹⁶ While Scamozzi is not discussed here because of the few catalogued book copies, the lack of evidence of use in Palladio's first book requires more detailed explanation. Unlike from the copies of Vitruvius, Serlio, and Vignola, none of the works by Palladio in my catalogue was owned by an artist of any type. This is clear from the notes of possession, as well as from the evidence of use and the general cleanliness of the pages. The treatment of copies of Palladio's books reveals a substantial difference in the reader's interests that reinforces the varying uses of artists' and patrons' books that were noted above (see 'The Book of the Artist, the Book of the Patron').

Material evidence of significant interest in Palladio's five orders just appears in a copy of the eighteenth-century reprint of *I quattro libri* (Venice, 1766) that is today in Dubrovnik and that has no signs of ownership. The late-eighteenth- or early-nineteenth-century reader paid particular attention to the Tuscan and Doric orders, to the instructions about the proper use of each order, and to the correct design of entasis. This reader pursued a range of reading strategies, encompassing reading marks, drawn copies, and geometric constructions.¹¹⁷ It is worth mentioning the evidence of a modest interest in the orders in Izzo's contemporaneous *Elementa architecturae civilis* (Vienna, 1764), despite the fact the book copy comes from a very different context—that is, from an inland region. The reader folded the corners of the opening pages of two chapters devoted, respectively, to the origins of the orders and their syntax: 'De columnarum origine & conditionibus' (On the Origin and Condition of Columns) and 'De conjunctione ordinum' (On the Joining of Orders).¹¹⁸ As was common practice, by folding the initial page, the reader intended to mark the whole chapter as particularly worthy of interest.

If we return to Palladio, a *longue durée* perspective can explain the absence of material evidence of use noted above. The data from the catalogue of architectural books, as well as the statistical analysis of them, reveal an eighteenth-century revival of interest in Palladio's treatise. Although the above-mentioned 1766 edition is modest evidence, since it is only one copy, it can corroborate the emergence of Palladianism in the eastern Adriatic during the second half of the eighteenth century. While material evidence of use dating to this period in the copies of Vitruvius, Alberti, Serlio, and Vignola is very scarce when compared with evidence of use in previous decades, such evidence remains small for Palladio's volumes in terms of quantity, but nevertheless indicates an increasing interest if it is considered in the context of the complete absence of this evidence across the preceding centuries. Interest in the basic principles of architecture and the orders as outlined in the other canonical architectural treatises clearly diminished, but the popularity of Palladio seems to have grown.

Antiquities and the Adriatic

Exalted to the highest rank of exemplum, the classical architecture of ancient buildings and ruins held an important place in Renaissance architectural treatises, as well as in other books related to architecture. The material evidence of use in the book copies that I analysed shows that readers in the early modern eastern Adriatic were generally aware of the Renaissance appropriation and adaptation of the classical language of architecture. The plates offering meticulous surveys and reconstructions of antiquities, for instance in Serlio's and Palladio's volumes, bear signs of a wide array of reading and drawing practices. As one would expect, readers devoted particular attention to the local antiquities of the eastern Adriatic, which stretched from Pula to Split and attracted many local and foreign scholars and architects.¹¹⁹

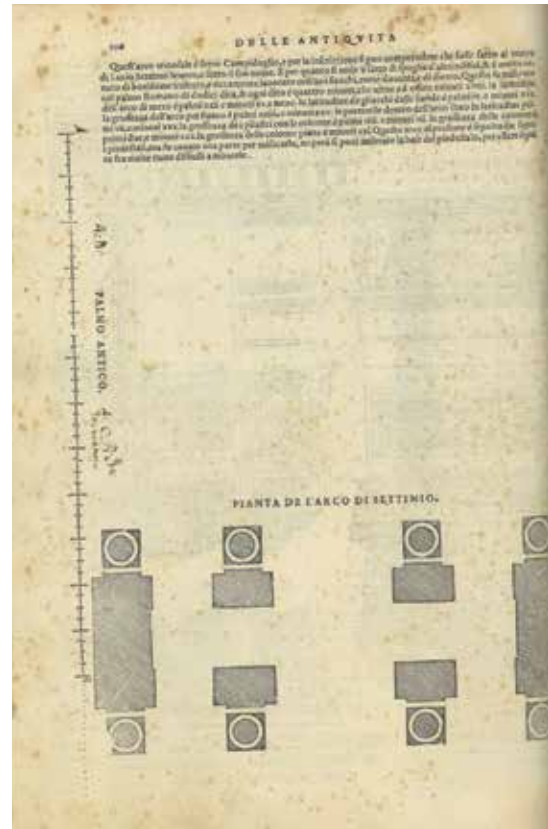
Quite practical men such as Domenico Uvoda and his associates had sporadic interest in the antiquities depicted in Serlio's *Terzo libro*; the evidence of use for this book is less than for Serlio's other books. Reading marks and folded corners are limited to a few triumphal arches. Among the highlighted structures is also the Arch of the Sergii in Pula, which, however, did not necessarily arouse a particular interest in readers, even if they marked it with a folded corner. Rather, readers had a keener interest in the architectural elements of the Veronese antiquities. They copied the bull's skull of the Doric entablature on the interior of Porta Borsari, while there is a note of 'base' (base) made in pen and ink on the plinth in the illustration of the Arco dei Gavi, and a manicule in red pencil appears at the corresponding passage in the text on the previous page.¹²⁰ The close connection between the two annotations concerning the Arco

dei Gavi, which are evidently related to each other, proves that one reader could simultaneously use different media: a red pencil to draw the manicule and pen and ink to write 'base'.

Moreover, Uvoda's copy of Serlio's book demonstrates once again his marked interest in more practical questions, for instance those related to the architectural survey of antiquities. In the 'Proemio' (Proem) to the third book, a reader underlined the different types of graphic representation suggested by Serlio, namely plan, cross-section, and elevation. Next to the Arch of Septimius Severus, he extended the scale of the Roman palm in natural size with a dotted line to compare it to a unit of measurement with which he was more familiar: the feet or, as he wrote, 'piede segmentum' (Ill. 2.38).¹²¹ All told, it seems that the practical procedures concerning architectural surveying and drawing were of greater interest to readers than were architectural antiquities and their decorative details.

A similar but even more selective approach is demonstrated by Janez Vajkard Valvasor in his copies of Serlio and Palladio. Even though his copy of the Latin edition of Serlio (Venice, 1569)¹²² has no evidence of use in the third book on antiquities, the later German translation (Basel, 1609), which was more easily accessible to Valvasor at a linguistic level, has a few pieces of evidence. Valvasor underlined with red pencil the words 'Diser Tempel wirt Vesta [...] Tivoli' (This temple is called Vesta [...] Tivoli) and folded together the corners of the two leaves concerning the Arch of the Sergii, thus signalling his particular interest in these two buildings.¹²³ In Palladio's *I quattro libri* (Venice, 1601), he not only displayed a broad interest in several Roman temples—those of Antonino and Faustina, Jupiter, Mars, Bacchus, Concord, and, of course, the Pantheon—but also marked with a folded corner the page on the twin temples in Pula.¹²⁴ Despite his generally limited attention to antiquities, Valvasor did not fail to notice some important ancient monuments in Istria, a region that, though partly ruled by the Venetian Republic, was geographically contiguous with the main object of his study, Carniola.

Pula's antiquities elicited curiosity from the more distant Ragusan aristocracy, too. The copy of Palladio's *editio princeps* that was formerly in the hands of the Gundulić (Gondola) family seems to display evidence of careful and methodical study of the fourth book on antiquities. A folded page marks the beginning of Chapter 3 'De gli aspetti de i tempii' (On the Appearances of Temples), where Palladio explains the different types of Roman temples; the reader studied this classification before embarking on the long series of examples provided in the following pages. Surprisingly, however, for the Pula temples, he followed the same strategy as had Valvasor in Carniola, folding together the corners of all the pages in which Palladio described those Istrian antiquities.¹²⁵ Nevertheless, the subtle difference between the seventeen, single-folded corners through-



Ill. 2.38. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), III.4, p. 106 (ZPZHAZU, Miočević-Rendić collection, C 135)

out the fourth book and the isolated, multiple-folded corner on the Pula twin temples signals a substantial shift. If readers simply browsed through the plates of the antiquities and marked with a folded corner the most attractive ones, the multiple-folded corner highlighting the Pula temples suggests a more attentive approach. The readers marked not only the illustrations but the whole chapter, indicating that they went through the descriptive text, too.

A copy of Serlio's *Libro terzo* that belonged to another Ragusan noble, the Jesuit Sigismund Marija Tudišić (Sigismondo Tudisio, 1692–1760), is even more remarkable for its peculiar combination of interest in antiquities and drawing practice. The copy is missing the title page, the dedication, and also the closing pages with the colophon; the same is true for the *Regole generali di architettura* (Serlio's fourth book), with which the *Libro terzo* is bound. Even if it is not possible to establish the printing date, this must be one of the first editions printed by Francesco Marcolini in 1540 or 1544. No evidence records the owners who preceded Tudišić, but the removal of the opening and closing pages probably indicates an attempt to hide their name when the book was resold. In fact, this is not the only

example with a missing title page, and across my catalogue of architectural books, there is actually a high percentage of missing title pages.

On the first available printed page, Tudišić recorded: 'Ex Dono Sigismundi Tudisi / Coll. Ragusini Soc. Jesu' (From the gift of Sigismund Tudišić / Of the Ragusan College of the Society of Jesus); this is the only handwritten note by him. Then, there are three small, randomly inserted sheets that, in a different writing style, bear some tentative translations of a Latin passage on Pompey's life and references to other books.¹²⁶ Even if these notes appear contemporary to Tudišić and might suggest an interest in ancient Roman history, they have no apparent connection with the contents of Serlio's book. Unfortunately, it is not clear whether the abundant evidence of drawing practice within this book on antiquities was from Tudišić or a previous, unknown owner.

Nonetheless, the reader(s) of this copy of Serlio's *Libro terzo* demonstrated a lively interest in classical Roman architecture. First of all, an exceptional number of folded corners mark almost all the building types presented by Serlio, from theatres and amphitheatres to bridges, triumphal arches, and bath complexes. Secondly, but not less importantly, the copy displays a complete repertoire of the drawing exercises that it was possible to execute in a book such as Serlio's *Terzo libro*. The reader extended the parallel, receding lines with an ivory stylus in the illustrations of the triumphal arches of Septimius Severus and Constantine in Rome, and of Trajan in Benevento.¹²⁷ He also engraved circles on the apses of the supposed Temple of Bacchus, or Santa Costanza, on the arches of the Theatre of Marcellus and Portico of Pompey, and in the niches of the Baths of Diocletian.¹²⁸ Evidence of similar drawing exercises also appears in the copy of Serlio's fourth book bound in the same volume, even if to a lesser extent.¹²⁹

But, again, a shift in the reader's approach clearly emerges for the antiquities of Pula. The page with the plan of the Arena has been perfectly folded along its main axis, and two arcs in pen and ink on the left and right sides seem to have been an attempt—sadly, unsuccessful—to draw the oval shape of the amphitheatre (Ill. 2.39). On the Arch of the Sergii, the reader traced with pencil and ruler not only the receding lines, performing the usual exercise of finding the vanishing point, but also the vertical axis and the lines for the ground and arch impost (Ill. 2.40). Passing from ancient Roman monuments to the local, eastern Adriatic antiquities of Pula, the reader exchanged the ivory stylus, with which he scored 'invisible lines' into the sheet, for other drawing tools that enabled him to trace more visible and definitive lines. Even the practice of studying and redrawing antiquities in this copy of Serlio becomes more explicit and authoritative for the Pula antiquities.

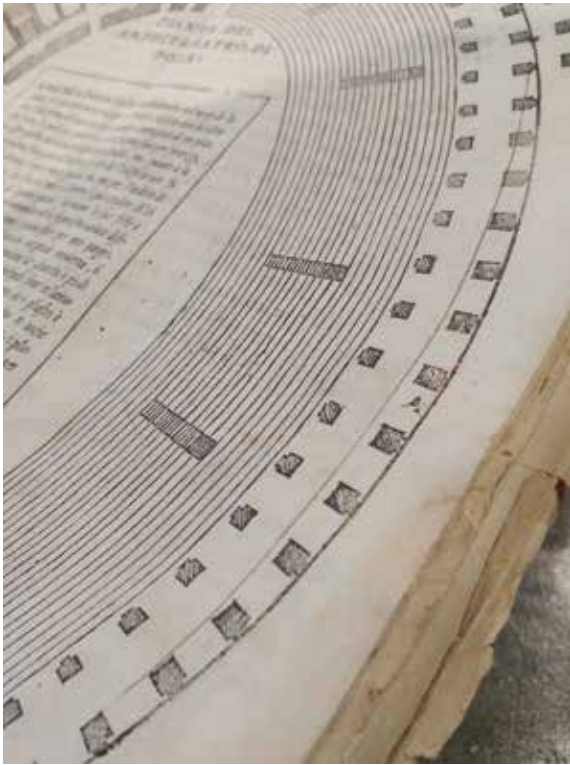
In addition to writing treatises, some of the leading archi-

tects of the Italian Renaissance, such as Palladio and Scamozzi, also compiled more popular guides to ancient and modern monuments in Rome. This trend increased in the following century, when authors with very different backgrounds contributed to a quite buoyant market with a long series of guidebooks about Rome. As the features of such volumes suggest, this market developed out of a long-standing phenomenon, pilgrimage, and two relatively new and swiftly intensifying phenomena—artists' study trips and the Grand Tour. Consequently, the authors of guidebooks had to satisfy an extremely varied audience, from simple pilgrims to high clergymen, from artists and architects to noblemen living across Europe. Usually, the guides were bought in the bookstores of Rome, even if often the books were printed in other major printing centres—such as Venice—and used during visits to churches and other sites before the buyer returned home.

The physical analysis performed on the volumes of this very popular literary genre, which, as we have seen, was widespread in the libraries of the eastern Adriatic, has revealed a rather limited interest in antiquities. Instead, the readers of these books focused on the Christian monuments of Rome. Such a focus is logical because the bulk of the buyers were high-ranking clergymen who, after having visited Rome, brought back books to family or monastic libraries in the eastern Adriatic. Conversely, architects and artists of the eastern Adriatic, who could have had an interest in classical antiquities, rarely travelled to Rome.

A copy of *Cose maravigliose dell'alma città di Roma* (Rome, 1625), a compilation of various previous guides, including *L'antichità di Roma* by Andrea Palladio, was first published in 1559 and is a typical example of this phenomenon.¹³⁰ The unknown owner rigorously ticked many of the churches described in the guide. As the guide was printed in 1625, the year of the Jubilee proclaimed by Urban VIII, it is plausible that the owner marked all the churches he visited during his pilgrimage—impressively, seventy-two of the 168 churches described in the guide. The list of visited churches would have been typical of a pilgrim's tour, in which the devotional purpose prevailed over the artistic and architectural significance of buildings. Consequently, our pilgrim missed various masterpieces of Renaissance architecture listed in the guide, and also completely disregarded the second part of the guide devoted to antiquities. He wholly overlooked the original text by Palladio, whose name appears neither on the title page nor in any other part of the book.

However, the bulk of these texts, for instance those by Pomponio Leto, Lucio Mauro, Bernardo Gamucci, Giacomo Lauro, Jean-Jacques Boissard, and Fioravante Martinelli, do not contain any evidence of possession or use. Such a scenario is common for many ready-consumable books like these guides to Rome, as well as for the many copies of the learned discussions



Ill. 2.39. Sebastiano Serlio, *Il terzo libro* (Venice, 1540),
p. LXXVII (ZKD, A-II-46/3)



Ill. 2.40. Sebastiano Serlio, *Il terzo libro* (Venice, 1540),
p. CXXVII (ZKD, A-II-46/3)

of the buildings and customs of the ancient Romans by Flavio Biondo. With sixteen entries in my catalogue, Biondo is the author with the fourth largest number of book copies, but his lengthy and expensive volumes usually have no evidence of use, suggesting limited study of them for architectural purposes. It is evident that the architects and builders of the eastern Adriatic, in addition to the patrons, did not turn to guides to Rome as sources for knowledge of Roman antiquities.

Gradually, in the seventeenth and eighteenth centuries, new products rivalled and outstripped architectural treatises and the books of the *Mirabilia urbis Romae* genre in the quantity, variety, and accuracy of images of antiquities. Even though Dalmatia played a role in broadening the boundaries and conception of antiquity from the Roman-centred perspective of the Renaissance to the multi-location approach of the eighteenth century, the number of copies of these new products must have been low in the eastern Adriatic, and their use sporadic. Of the four copies of Robert Adam's book on Diocletian's Palace in Split, two reached the eastern Adriatic between the end of the eighteenth and the beginning of the nineteenth century,¹³¹ while the other two arrived even later.¹³² In the libraries of the Garagnin-Fanfogna family in Trogir and the Franciscan friary in Trsat, they were not easily accessible, and, despite the

excellent plates, had limited use, which was mainly focused on aristocratic delight and scholarly study. The fact that the Garagnin-Fanfogna Library also preserves a printed Italian translation of the English text suggests that the owners enjoyed not only the illustrations, but also the textual descriptions.¹³³

Books such as those by Robert Adam, Giovanni Pietro Bellori, Julien-David Le Roy, Bernard de Montfoucon, Giandomenico Bertoli, and many other scholars and early archaeologists were extremely expensive. The professionals working in the building trade in the late-eighteenth-century Adriatic, mainly engineers in the service of state bodies or communes and the stonemasons still grouped into family workshops, could not afford them. Only wealthy aristocratic lay or clerical scholars could purchase them, and usually, these individuals pursued primarily scholarly study. Such reading practices took place and further developed in the new academies, museums, and universities of the nineteenth century, but that topic goes beyond the purpose of this book.

Renaissance Architecture

Art and architectural treatises provided a wide range of information not only about antiquities, but also about Renaissance architecture, which spread in various forms across Europe over the centuries. Serlio detailed the Roman architecture of the early sixteenth century, publishing full-page illustrations of Bramante's most renowned buildings according to his original designs, which were not executed, as is the case for the Tempietto in San Pietro in Montorio. Some decades later, Palladio complemented his architectural treatise with a full catalogue of his works in a set of standardised illustrations that present ambitious designs for some unfinished or even unrealised buildings. Across many reprints and editions, publishers also supplemented the most essential of the Renaissance architectural treatises, Vignola's *Regola*, with additional plates illustrating his works and also those of Michelangelo.

The architectural treatise was gradually shifting from a corpus of theoretical principles that articulated good design to a work focused on the author's projects—a catalogue of ready-made examples that could be simply copied and put into practice. In this slow process, which occurred in different European countries over two or three centuries, architectural treatises spread knowledge of the buildings of the Italian Renaissance. At the same time, Vasari began to assemble the most durable narrative of the Italian Renaissance, which added words and biographical details to the illustrations in the architectural treatises.

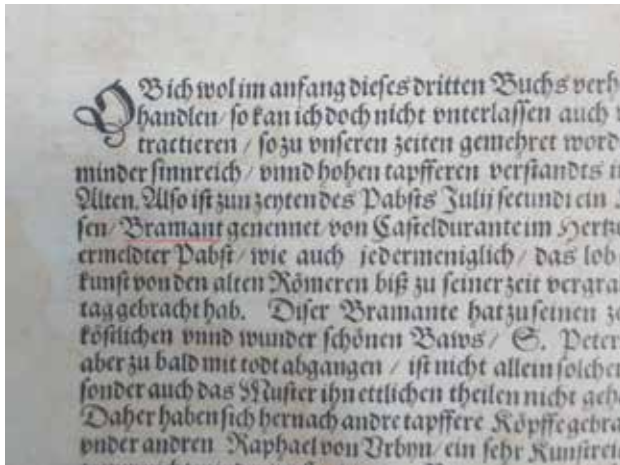
My physical analysis of book copies in the libraries of the eastern Adriatic revealed a general and broad interest in the art and architecture of the Italian Renaissance. The most highly regarded artist of the Italian Renaissance, according to the evidence I found, was Donato Bramante, whose works, mainly disseminated by Serlio and Palladio, received particular attention from readers in the eastern Adriatic. As is widely known, both Serlio and Palladio included Bramante's works in their books on antiquities, as only his designs were worthy of being juxtaposed with classical Roman architecture. A volume containing all of Serlio's books (Venice, 1600), though unfortunately with no evidence of possession, bears signs of folded corners in the *Libro terzo* for the pages concerning St Peter's Basilica, San Pietro in Montorio, and the Cortile del Belvedere; the reader even included in the last folded corner all four sheets on the courtyard.¹³⁴ A similar interest is evident in the books of the Valvasor Library: in the German translation of Serlio (Basel, 1609), the reader underlined the name 'Bramant' on the pages that discuss St Peter's Basilica (Ill. 2.41) and San Pietro in Montorio with red pencil. In the reprint of Palladio (Venice, 1601), folded corners marked not only several antiquities in the fourth book but also the chapter titled 'Del tempio di Bramante' (On Bramante's Temple).¹³⁵

Likewise, when the Ragusan nobleman Sigismund Tudišić read the 1544 edition of Serlio's third and fourth books (Venice, 1544), he marked with folded corners the discussions of Bramante's Tempietto and Cortile del Belvedere.¹³⁶ Above all, however, some holes created by a pair of compasses and some engraved circles on the circular staircase designed by Bramante at the end of the Belvedere suggests an interest in Renaissance architecture that extended beyond literary or theoretical learning. The reader drew a circle on the central platform of the circular stairway (Ill. 2.42), which, in Serlio's perspectival view, appears oval.¹³⁷ This was probably an attempt to transpose the measurements from the illustration to a separate sheet, where the reader was redrawing the complex interplay of concave and convex circular volumes in Bramante's stairway.

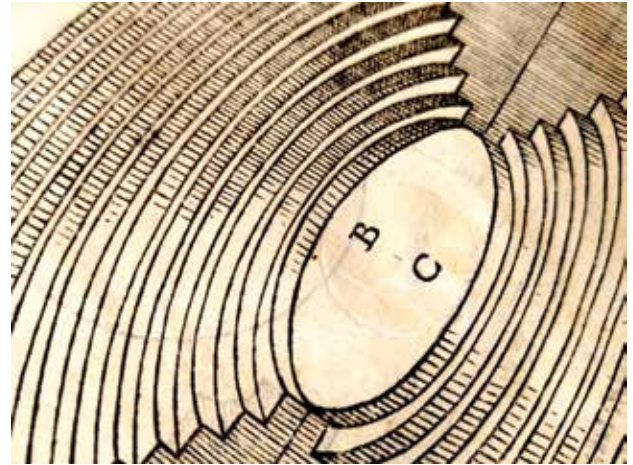
As I already explained above, it seems that Palladio's catalogue of his designs for private palaces and villas, which he included in the second book of *I quattro libri*, attracted interest more from patrons than from artists and designers in the eastern Adriatic. It is helpful to quote here a brief note in *La pratica della prospettiva* by Daniele Barbaro (Venice, 1569), who was a close collaborator and client of Palladio. In the section on the entasis of the column, Barbaro observes, 'come dice Andrea Palladio nel suo libro delle case private' (as Andrea Palladio says in his book on private houses), and the unknown reader noted the bibliographical reference in the margin: 'Andre Palladio / delle case privaed [sic]' (Andrea Palladio / on private houses) (Ill. 2.43).¹³⁸ The same reader, evidently an individual well versed in the art of the Italian Renaissance, adjusts the birthplace of Piero della Francesca, replacing Barbaro's inaccurate mention of 'Pietro dal Borgo S. Stefano' with the correct name of 'Sepolcro'.¹³⁹

If we return to the architecture of Rome in the mid-sixteenth century, an edition of Vignola's *Regola* (Rome, 1620), signed by 'Faust' and now in Rijeka, sheds some light on its reception in the eastern Adriatic. The reader folded the corners of the plates of two doorframes, one by Vignola in Palazzo della Cancelleria (Ill. 2.44), and the other by Michelangelo in the Palazzo dei Conservatori at the Campidoglio. In addition, he focused on one of the most admired details of Michelangelo's architecture, the Ionic capital on the ground-floor arcade of Palazzo dei Conservatori, to which the *Nuova et ultima aggiunta delle porte d'architettura di Michel Angelo Buonartoti* devoted two full-page illustrations: front and side elevations and an impressive view from the bottom, instead of a plan.¹⁴⁰

Readers' interest in the Italian Renaissance within the books of the eastern Adriatic was not limited to architecture, as has been already outlined for Piero della Francesca. A copy of Giovanni Paolo Lomazzo's *Trattato dell'arte della pittura, scoltura, et architettura* (Milan, 1585) that is signed 'Giulian Cassano muratore' demonstrates a thorough knowledge of Michelangelo's painted works in Rome. Lomazzo introduces 'tre historie di



Ill. 2.41. Sebastiano Serlio, *Von der Architektur fünff Bücher* (Basel, 1606), fol XLIV (NKZG, M 24823-2°)



Ill. 2.42. Sebastiano Serlio, *Il terzo libro* (Venice, 1540), p. CXLVII (ZKD, A-II-46/3)



Ill. 2.43. Daniele Barbaro, *La pratica della prospettiva* (Venice, 1569), IV.5, p. 139 (SKR, 8.B.36)



Ill. 2.44. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620), plate XXXIII (SKR, 31 A 1/30)

Michel'Angelo, dipinte nel Vaticano in Roma' (three histories painted by Michelangelo in the Vatican in Rome), but then, in the following lines, he lists only two paintings: 'il Giudizio di Christo, & Santo Pietro tirato in Croce, che tutte due sono nella Pavolina (the Judgement of Christ, and the Crucifixion of Saint Peter that are both in the Paolina Chapel).' The reader supplemented this passage with a note in the margin about the third work, Michelangelo's fresco in the Cappella Paolina: 'la conversione di S. Paolo' (the conversion of Saint Paul).¹⁴¹ More extensive and varied signs of interest in Renaissance painting can be found in the copy of Serlio owned by Domenico Uvoda. Here, two levels of material evidence of use overlap in Chapters 11 and 12 of the fourth book, the *Regole generali* on the five orders; these two levels of use create a complex system of references. Single and double manicules in pen and ink appear in both the left and right margins to mark several lines about Polidoro da Caravaggio, the *Triumph of Caesar* by Mantegna, and the frescoes by Melozzo da Forlì in the sacristy of Loreto Cathedral—the Basilica della Santa Casa, an Adriatic building that the reader may have known firsthand. Furthermore, passages underlined with red pencil highlight the 'sala d'Agostino Chisi [...] in Roma' (Agostino Chigi's hall [...] in Rome) and other details about early-sixteenth-century painting.¹⁴² As I have already shown (see 'Antiquities and the Adriatic'), the reader of this book simultaneously used different media, particularly pen and ink alongside red pencil; thus these two layers of reading do not necessarily belong to different individuals.

Finally, the genre of artist biographies, which followed the model of Vasari's *Vite*, had limited circulation in the early modern eastern Adriatic, as is evident from the few entries in the catalogue and the total absence of these works in the inventories of early modern libraries. The copies of Vasari's seminal *Vite* are, with only one exception, late-seventeenth- and eighteenth-century reprints,¹⁴³ while similar works by later authors, such as Filippo Baldinucci, Giovanni Baglione, Pellegrino A. Orlandi, or Tommaso Temanza, are rare and generally devoid of evidence of use.¹⁴⁴ The only exception, a copy of Baldinucci's *Notizie de' professori del disegno* (Florence, 1681), contains evidence of the nineteenth-century Illyrian Movement, as reading marks and underlined words concentrate on the lives of Dalmatian artists, for instance Andrea Schiavone and others.¹⁴⁵ It is easy to notice the same phenomenon in the books on antiquarianism and early archaeology that were used by nineteenth-century local scholars. This phenomenon reveals the growth of a proto-national identity, rather than specific interest in the arts or architecture.

Construction Materials and Techniques

Depending on the authors, a more or less large or detailed part of many architectural treatises focuses on building materials and construction techniques. This was a useful topic for both clients and those designing and constructing buildings to know. On the one hand, professionals working at different levels in the building trade usually learned about materials and techniques empirically, through direct experience in the workshop or construction site, but they could also consult a book in search of 'new' knowledge—often that of classical antiquity—to gain better theoretical insight into what they already knew. On the other hand, patrons, who had to supervise and check the quality of the works they financed, would have sought an understanding of this generally unfamiliar topic. Professionals and patrons approached building materials and construction techniques with different, even opposing, points of view, as the material evidence of use in the architectural books that I analysed highlights.

According to my data, the authors most commonly consulted for study of building materials and techniques were Vitruvius and, to a lesser extent, Alberti. Both of them discuss at length the ways in which natural materials had to be extracted or collected, processed, combined according to precise criteria, and finally assembled in the building. Readers frequently marked or annotated the chapters discussing these questions, suggesting interest in the topic. In contrast, the precise but shorter accounts by Palladio and the skimpy information provided by Serlio on construction materials and techniques are generally devoid of material evidence of use; therefore, they must not have satisfied their readers and owners. The almost complete absence in eastern Adriatic libraries of Scamozzi's treatise, which offers probably the most complete and detailed discussion of the topic, results in a historiographical lacuna that later architectural treatises can only fill partially.

Since ancient Roman times, brick masonry has been the main building technique across large parts of the northern and central Italian peninsula. The discussion of the topic by Vitruvius and Renaissance authors, particularly Serlio and Palladio, naturally reflected the most widespread architectural practice in Italy. By contrast, the use of brick masonry in the early modern building trade was almost completely unknown on the opposite shore of the Adriatic. It is worth recalling that the bricks for the St Nicholas Fortress in Šibenik, as well as for the Pontone Bastion in Zadar, came directly from Venice because no kiln for clay operated in the area.¹⁴⁶ However, a more recent investigation of the circulation of building materials around the Adriatic has proven that small quantities of terracotta products, such as tiles and bricks, were produced in Dubrovnik and Istria.¹⁴⁷ Nonetheless, owing to the abundant deposits of good-

quality limestone throughout the region, an entirely opposite building paradigm based on cut stone developed in the eastern Adriatic from antiquity through the early modern period. Except for Scamozzi, Antonio Rusconi's edition of Vitruvius (Venice, 1590), and a few French books—which are extremely rare or wholly absent in eastern Adriatic libraries—the other treatises of the Italian Renaissance devoted little attention to stone quarrying and building. Material evidence of use in the chapters and passages devoted to stone in the analysed architectural book copies is quite scarce, suggesting a tenuous interest by readers in the eastern Adriatic. Evidently, neither architects and stonemasons nor patrons needed the knowledge of stone provided by books because they often acquired better, more detailed information through firsthand experience in the construction of buildings, or from their cultural environment, whether that was a workshop, a guild, the individuals involved in executing a commission, or an administrative post devoted to overseeing works on buildings.

As I previously explained (see Introduction), there was no circulation of books on stereotomy, the art of cutting three-dimensional solids into particular shapes so that they could be assembled into complex structures, such as stone vaults. This topic was primarily discussed by French authors, from Philibert de l'Orme to Amédée-François Frézier, and none of their works has been identified in eastern Adriatic libraries. Only two copies survive of the volumes by Abraham Bosse and Girard Desargues;¹⁴⁹ both volumes probably had a very modest circulation in Carniola but not on the coast. The only evidence of a specific interest in stonecutting comes from the copy of Alberti (Venice, 1546) that was donated in 1779 to the city of Rijeka by the municipal councillor Julije Benzoni, but signed by Giacomo Sardona from Modena with the location and date of: Rome, 1546. The reader marked a line regarding the most suitable sand for cutting and polishing marble slabs. It is interesting to note that Alberti here refers to Pliny, deeming Ethiopian sand the best for this purpose, but also suggests a similar and more local option 'in un guado del mare Adriatico, la quale usano gli antichi' (in a ford of the Adriatic Sea, which the antiques used), as well as the 'bene acconcia' (well-arranged) sand from Pozzuoli.¹⁵⁰ In these comments, two different interests intersect: on the one hand, the practical need to select a basic material for stonecutting, and, on the other hand, attention to a type of local sand particularly valued by ancient Roman builders.

Evidently, the substantial quarrying, cutting, and building of stone along the coast of the eastern Adriatic did not require the supplementary details that could be gleaned from architectural treatises or other printed books; rather, craftsmen still relied on the traditional rules and practices passed within workshops or professional guilds from master to apprentice. The book was simply not necessary for the communication of

the large body of knowledge regulating the stone trade in all its phases, and the professionals operating in this trade neither wrote nor used books until quite recently.¹⁵¹ Stonemasons of the early modern eastern Adriatic did not expect to learn their craft from books, though, in a few cases, they hoped to improve it through some tricks and tips validated by the authority of the ancient Roman builders.

More generally, in the copy of Barbaro's edition of Vitruvius (Venice, 1567) that belonged to the eighteenth-century stonemason and architect Ignacije Macanović from Trogir, the reader folded together the top-right corners of eight different sheets about building materials and techniques. He marked the chapters from II.3 to II.8 concerning bricks, sand, mortar, pozzolana, stone quarries, and, above all, the different types of masonry, but in a very broad way that left no detailed traces. The only evidence of more specific interest is a single folded corner on the bottom-left corner of the page discussing the Greek stone masonry called *opus isodomum* and *pseudoisodomum*.¹⁵² Macanović here focused on a Greek, rather than a Roman, building technique, not for cultural reasons, but rather because of similarities to the building practice of the early modern eastern Adriatic.

Likewise, Guillaume Philandrier's Latin edition of *De architectura* (Lyon, 1552), which was given by Benzoni to the city of Rijeka, evidences a general interest in building materials and techniques. A reader, apparently someone other than Benzoni because of the differences in handwriting, methodically numbered the paragraphs of the annotations appended by Philandrier to the end of each of Vitruvius's chapters; only sporadically did he do the same for the original Vitruvian text. While this reading practice would have facilitated reference to annotations written down in a separate notebook, which is unfortunately now lost, the placement of the numbers also proves that the reader was deeply interested in Philandrier's comments and only occasionally in Vitruvius's text. However, a series of seven chapters on building materials and techniques in the second book comprise the only pages where the reader numbered both Vitruvius's text and Philandrier's annotations, suggesting a particular interest in this topic.¹⁵³

One other book contains some evidence of use in the discussion of building materials and techniques: an extensively annotated copy of Ryff's *Vitruvius teutsch* (Nuremberg, 1548) that was previously used in the area between Austria and Bohemia and was brought to Zagreb by Ivan Kukuljević-Sackinski in the nineteenth century. Here, the reader marked one page specifically, folding the corner just on the passage where Vitruvius lists some examples of buildings constructed with the different types of masonry that had been explained previously. A few sheets later, a paper bookmark still lies where Ryff's explanation of the Greek construction technique called *opus emplecton* occurs.¹⁵⁴ All told, the material evidence of use in copies of

Vitruvius reveals a general but superficial interest in ancient Greek and Roman construction techniques. Some readers in the early modern eastern Adriatic mainly concentrated on Greek masonry techniques, as they were compatible with local building practices, and so immediately applicable, in contrast to the Roman modes of construction that were based on bricks and concrete.

Alongside general interest in the masonry techniques described in architectural treatises, more substantial and more focused attention to specific aspects of masonry construction is apparent in the book copies that I analysed. Above all, it seems that readers in the early modern eastern Adriatic were particularly preoccupied with mortar recipes and mixing, aspects of a fundamental step in the execution of strong and durable masonry. While some readers demonstrate again a rather general interest, simply folding the corners of the pages on the preparation of lime for paving or plastering in Vitruvius or on the best mixture for lime or chalk mortar in Alberti,¹⁵⁵ others sought greater detail.

The reader of Alberti's copy that belonged to the Jesuit college in Dubrovnik marked the passage on the three types of masonry—'lo ordinario, lo ammandorlato, & lo incerto (the ordinary, the almond-shaped, and the uncertain)'—and their different applications in buildings; particularly, he focused on the process through which mortar hardens to create durable masonry. Alberti introduces here a metaphor to explain the right pace for laying bricks, likening the bricklayer to swallows building a nest and waiting for the first branches to dry before laying the next layer of branches. Finally, the reader noted 'la chalcina q[uan]do / [h]a bona presa' (the lime when / it has set well) in the margin next to the concluding sentence: 'Dicono che la calcina ha fatto presa, quando ella ha gittato fuori una certa lanugine, o vero un fiore, conosciuto da Muratori' (They say that the lime has set when it has cast out a certain fuzz, or a 'flower,' known by Masons) (Ill. 2.45).¹⁵⁶ An even more specific question preoccupied the reader of the copy of Durantino's translation of Vitruvius that was owned by the carpenter Master Nicolò and by Giovanni Battista Fontana. Using an ivory stylus, the reader placed an engraved 'X' in the margin next to Vitruvius's explanation of how porous stones absorb too much the mortar's dampness, causing the stones and mortar to separate from each other, thus resulting in a weak building (Ill. 2.46).¹⁵⁷

Plasterwork and fresco painting were topics that concerned more than one reader of Vitruvius, who discussed both at length in his seventh book. The readers of Walther Ryff's and Daniele Barbaro's translations of Vitruvius marked the second and third chapters of the seventh book with folded corners.¹⁵⁸ Here, Vitruvius warns against the use of not fully heated and crushed lime, arguing that, if cut with a trowel, good-quality lime must have no clots and must stick to the iron of the tool.

Then, he explains how to build wattle walls and vaults and how to properly decorate them with the appropriate plaster and decoration. The reader of *Vitruvius deutsch* had a less intense interest in painting and colours.¹⁵⁹ Conversely, Macanović, in his edition of Vitruvius commented by Barbaro, deployed extensively folded corners, reading marks, manicules, and even some notes (unfortunately, now almost illegible) to mark the following chapters; he particularly focused on the uses of *minium*, or cinnabar.¹⁶⁰ It is surprising how two readers who were geographically so far from each other—a German-speaking, unknown reader living in the area between Austria and Bohemia, and a professional stonemason operating in central Dalmatia—shared very similar interests in plasterwork and painting for coating walls and for decoration.

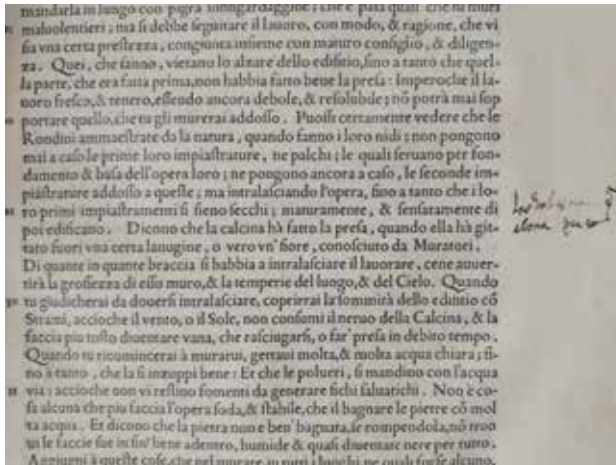
From the architectural books in my catalogue, it is also evident that many readers in the eastern Adriatic and beyond worried about foundations. Reading marks, signs of folded corners of pages, and annotations reveal the attention paid by readers to the chapters in editions of Vitruvius, Alberti, and occasionally other texts on this topic. Readers tended to focus mostly on specific problems in the design and construction of foundations, rather than on general principles; they placed precise reading marks on single passages, instead of more generally folding page corners of whole chapters.

Copies like those of the Italian translation of Alberti's treatise by Pietro Lauro (Venice, 1546) or Philandrier's edition of Vitruvius (Lyon, 1552) at first glance display a general interest in foundations. Once they are analysed in greater detail, they reveal particular attention to specific issues and quite tangible concerns. In Alberti's treatise, the reader noted 'fonda / menti' (foundations) in the left margin next to the beginning of an important passage on foundations (Ill. 4.47). Of course, the act of extracting a keyword from the text suggests an interest in the topic, but this keyword may also derive from the title assigned by Pietro Lauro to the chapter, which, in his Italian translation, sounds otherwise incomprehensible:

Varie sono le generationi de luoghi, e però di niuno è da fidarsi di subito, se prima non si cavano condutti cisterne e pozzi, ma ne paludi debbonsi ficcare pali arsicciati profondamente con legieri martelli, ma con spesse botte.¹⁶¹

(Various are the origins of places, and therefore one should not immediately trust any of them, unless conduits, cisterns, and wells are first dug; but in swamps, deeply charred piles must be driven in with light hammers, but with frequent blows).

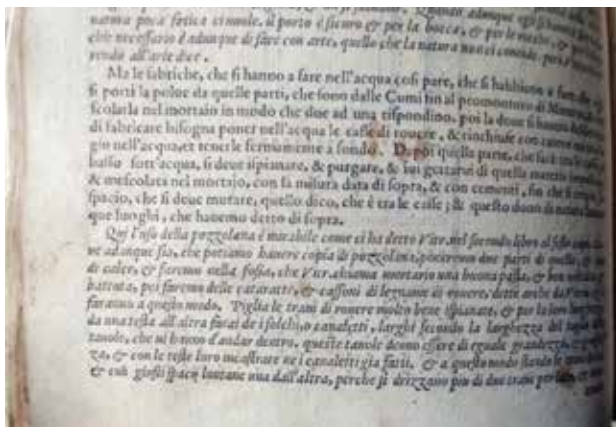
In Philandrier's edition of Vitruvius, the readers numbered the paragraph of Vitruvius's text in Ill.3, indicating that both Vitruvius



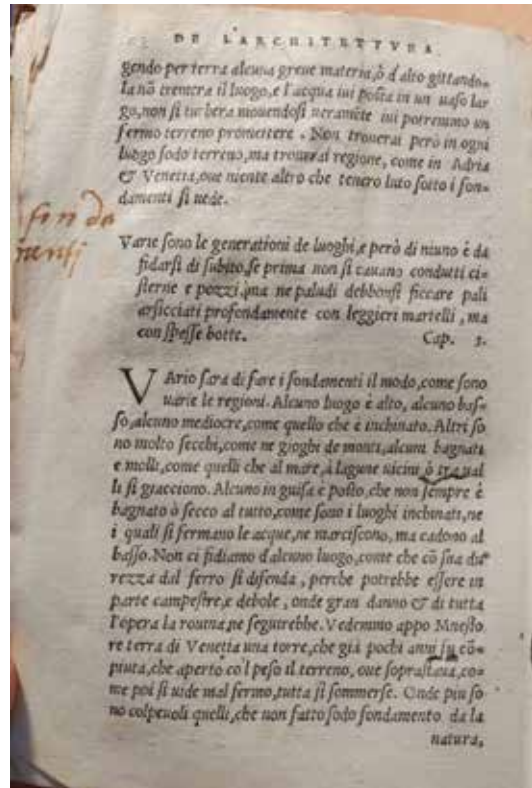
Ill. 2.45. Leon Battista Alberti, *L'architettura*, transl. by Cosimo Bartoli (Florence, 1550), III.10, p. 79 (ZKD, A-III-45)



Ill. 2.46. Marcus Vitruvius Pollio, *Architettura*, transl. by Francesco Luci Durantino (Venice, 1535), II.8, fol. XVIIr (ZKZ, R-234)



Ill. 2.48. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), V.12, p. 268 (AMS, R 1294)



Ill. 2.47. Leon Battista Alberti, *I dieci libri dell'architettura*, transl. by Pietro Lauro (Venice, 1546), III.3, fol. 50v (FSD, 1-II-14)

and Philandrier's discussions of foundations interested them.¹⁶² Moreover, both of these volumes reveal some very specific interests that seem derived from professional experience in architecture. The reader of Alberti's treatise underlined the words 'altrove di tufo' (elsewhere in tuff) in the chapter where Alberti lists the various types of soil and indicates the most resistant variety. On the other hand, in the explanation of piling techniques for reinforcing non-solid or marshy soils, the reader of Vitruvius's treatise marked two lines about the machine for driving piles into the ground, a topic to which Philandrier devoted an illustration in his commentary.¹⁶³

As is clear from the collected data in the catalogued architectural book copies and the scholarship, the weak and damp soils that made foundations with piles necessary were a frequent problem for builders in the early modern eastern Adriatic, who frequently worked in coastal towns or directly on the seashore. The chapters on harbour construction have been repeatedly marked in various ways across different copies of Vitruvius, though, significantly, only in copies used along the coast; copies from inland libraries do not contain these marks.¹⁶⁴ In the volume owned by Macanović, the reader focused on Vitruvius's explanation of the artificial harbour construction

that he suggested for the protection of moored ships in those places not provided with a natural gulf or bay. He also drew a manicule at the beginning of Barbaro's comment on this passage, which opens with the significant sentence: 'Qui l'uso della pozzolana è mirabile come ci ha detto Vitruv. nel secondo libro al sesto capo' (Here the use of pozzolana is admirable, as Vitruvius told us in the second book, sixth chapter). (Ill. 4.48). As Barbaro stresses, here Vitruvius gives a basic recipe for mortar in these constructions, that has the proportion of two parts of pozzolana and one of lime. I will explain further below (see Chap. 3, "Materials and Techniques") how a type of mortar with hydraulic properties could be obtained with the addition of red clay and was known in central and southern Dalmatia. Instead of this mortar, however, architects and builders eagerly sought to get the original pozzolana from Naples or to look for a similar product on the Adriatic coast in order to realise the mortar suggested by Vitruvius.¹⁶⁵ Furthermore, the reader folded the corner of the page where Barbaro praises the walls of the Venetian Arsenal as an example of a fortified harbour.¹⁶⁶ The reader paid such close attention to both this chapter and Barbaro's commentary that he even completed with two handwritten letters a word that had not been perfectly executed in the printing process.¹⁶⁷

Moreover, Macanović's copy of Vitruvius contains a folded page corner and a reading mark in another chapter on foundations, the eleventh chapter of the sixth book. Here, the reader placed a manicule next to Barbaro's comment that introduces a confused passage in Vitruvius's text about the arrangement of the wall structure from the foundations to the top cornice; the manicule thus highlights the importance of the perfect alignment of the upper parts with the underground lower pilasters in the foundations and the necessity of having load-bearing or flat arches above the openings.¹⁶⁸ Although the reader thus looked beyond the single building element of foundations to embrace the holistic view proposed by Vitruvius, foundations remained one of the most critical issues for builders in the eastern Adriatic. In order to fully grasp the temporal extent of the phenomenon, particularly in some areas such as Dubrovnik, one can turn to a small, eighteenth-century booklet by Angelo Santini titled *Regole ed avvertimenti pratici per fabricar con sodezza* (Ferrara, 1770). The only material evidence of use in the otherwise perfectly clean copy of this book that is preserved in the library of the Franciscan friary in Dubrovnik is a folded corner at the beginning of the third chapter titled 'Delli fondamenti' (On Foundations).¹⁶⁹

If we return briefly to the load-bearing arch, it is worth highlighting a pertinent passage on its construction that was marked in a copy of Cosimo Bartoli's Italian translation of Alberti's *De re aedificatoria* (Florence, 1550). Here, the reader particularly focused on the disposition of stones or bricks sug-

gested by Alberti for the load-bearing arch: 'Ma le seconde pietre ad arco, che a canto a queste si innalzano, se faranno di pietre grandi, avvertisci che amendue accostino le reni l'un all'altra con linea a filo' (But the second stones in the arch, which rise next to these, if they are made of large stones, ensure that both haunches approach each other with a plumb line).¹⁷⁰ The same volume also has a folded corner in the following chapter, where Alberti explains how it is possible to build some types of vaults without the need for centring.¹⁷¹ There are no other signs of interest in arches and vaults in the architectural books of the eastern Adriatic, proof that the local builders learnt the construction techniques necessary for building these architectural elements mainly from firsthand, on-site experience.

Closely tied to foundations, flooring was also a topic of some concern for the early modern readers of architectural books. Among the books in my catalogue, three copies show evidence of interest in flooring techniques: two copies of Vitruvius and one Alberti, all of which have folded corners in the relevant chapter for this topic.¹⁷² In addition to folding down a page corner, the reader of the copy of *Vitruvius teutsch*—which, as noted before, comes from Austria and Bohemia and reached the eastern Adriatic only in the nineteenth century—added a reading mark to the commentary by Walther Ryff. This mark highlights a passage in which Ryff explains how to beat the upper layer of the floor in order to level it perfectly because Vitruvius did not give enough detail on this task.¹⁷³

As regards timber, the book copies that I analysed show sustained, and even detailed, interest. Readers marked the chapters on the supply, seasoning, and cutting and finishing of trees for building in the treatises of Vitruvius and Alberti, but with two different purposes. Most frequently, they highlighted the entire chapter on wood with reading marks next to the title or folded corners on the first page; less often, they pointed out more precise issues. The reader of Philandrier's edition of Vitruvius, for example, numbered the paragraphs of the ninth and tenth chapters of the second book in the margins, both in Vitruvius's text and Philandrier's comments; he deployed this method only in the nine chapters that particularly interested him, mainly those on building materials and construction techniques.¹⁷⁴

It is also worth noting that such general interest in woodwork emerges almost exclusively in book copies that circulated in inland regions, such as *Vitruvius teutsch*, or in areas that specialised in supplying wood. For instance, both the copies of Alberti's treatise and of Philandrier's edition of Vitruvius were in the hands of Julije Benzoni, a city councillor in Rijeka. It is widely known that Rijeka was an important hub for the timber trade, particularly for the especially long beams required by the largest civil and ecclesiastical buildings; such beams were hardly available in central and southern Dalmatia. Wood from Rijeka regularly reached even Dubrovnik.

The question of the supply of wood appears to have been important from the book copies that I analysed. More than the skills and technologies required in carpentry—that is, in cutting, assembling, and joining wooden beams in various types of structures—wood supply was a topic of interest for readers in the early modern eastern Adriatic. Vitruvius's praise of the fir trees from the Apennines attracted more than one reader because Vitruvius clearly explains the different characteristics between the timber obtained from the trees of the Tyrrhenian and from those of the Adriatic sides of the Apennines. For those who worked in the eastern Adriatic, mainly in areas where tall and straight trees suitable for timbering were scarce, such as central and southern Dalmatia, the presence of fir trees on the other side of the sea surely sounded useful. One of the owners of the copy of Durantino's translation of Vitruvius—either the carpenter Master Nicolò or Giovanni Battista Fontana—engraved an 'X' with an ivory stylus in the margin next to the line where the word 'Adriatico' appears in the discourse on fir trees of the Apennine.¹⁷⁵

In conclusion, for building materials and construction techniques, the evidence of use in architectural books reveals that readers in the eastern Adriatic had a strong interest in the supply of materials. Rather than learning the properties of building materials, readers sought suggestions on where to find good-quality materials. In particular, they were focused on commodities that were scarce or of bad quality in the eastern Adriatic, such as timber and volcanic sand like pozzolana. The problem was not how to build, but rather where to find some building materials.

The only other topics that garnered attention were mortar and foundations. For mortar, readers focused on the type of sand and the addition of some components to impart hydraulic properties to the mixture. For foundations, the readers mainly emphasised piling techniques that would solidify wet or non-solid soils. In both cases, it was the presence of water—whether salty seawater or fresh water—that made hydraulic mortar and piling foundations necessary.

All told, the material evidence of use in architectural books reveals the technical knowledge that circulated among the individuals involved in the building trade. Since they perused the knowledge of materials and techniques in architectural books only to a limited degree, readers had to master a substantial amount of practical, unwritten, and implicit knowledge. Architectural books, which do not necessarily represent the whole picture, suggest that the building trade in the early modern eastern Adriatic relied extensively on such knowledge, which was sometimes complemented by the codified, theoretical knowledge from the books.

Building Types: Palaces and Villas

As the physical analysis of the architectural book copies today preserved in the libraries of the eastern Adriatic has highlighted, readers devoted considerable attention to the study of particular building types. Like Vitruvius's *De architectura*, Renaissance architectural treatises offered both explanations of general principles and an examination of different building types, which were often presented through real or fictitious examples. Readers focused particularly on residential buildings (town palaces as well as countryside villas), churches, and theatres.

The material evidence of use did not reveal a use of architectural books that was peculiar to a certain group of readers. It seems that artists, noblemen, and clergymen were almost equally interested in both general principles of architecture and building types; among building types, it is possible to detect some trends but no sharp subdivisions. Noblemen were more interested in palaces and villas, but they paid attention to churches, too, which they often commissioned. In their turn, clergymen devoted attention to churches because of their profession, but they also appreciated suggestions useful for making their houses more beautiful and comfortable.

Every reader had to deal with a leitmotif of many architectural treatises: the close intertwining of ancient and modern building types. While Vitruvius presented ancient Roman building types, Renaissance authors also discussed them in light of their extensive investigations of the ruins of antiquity. This activity was not purely a scholarly endeavour for Renaissance artists; rather, it had a practical purpose. As is widely known, some architects juxtaposed the investigation of ancient Roman building types with the design of new buildings that responded to the needs of their own time. Probably, the most obvious example of this trend is the second book of Andrea Palladio's *Quattro libri*, where he presents his palaces and villas together with the different types of atria and reconstructions of Roman and Greek houses. Previously, Leon Battista Alberti had gone even further, referring to both ancient pagan temples and Christian churches as 'templa' (temples) and thus making no distinction between them at the level of building type.

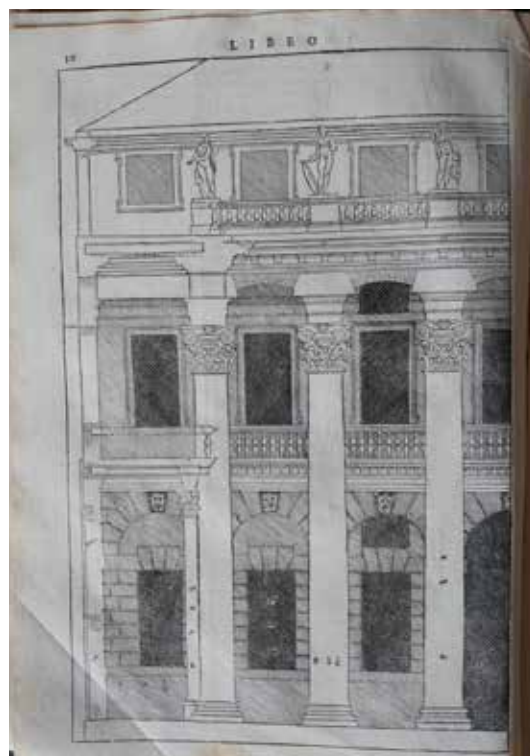
In this amalgam of ancient and modern, which could be so fully blended that the two categories were indiscernible, readers of the architectural books in eastern Adriatic libraries looked more to ancient buildings than to their modern counterparts. For temples and churches, they relied almost exclusively on Vitruvius and Alberti; Serlio's fifth book had more limited circulation, and the few surviving copies of it rarely bear material evidence of use. The same can be said of theatres, for which Serlio, with his discussion of stage sets at the end of the second book, offered information that complemented what Vitruvius and Alberti had previously written on theatre design.

Finally, there was a broader set of sources for residential buildings, not only the extensive discussion by Palladio but also the useful knowledge disseminated via books of other genres, such as Francesco Maria Grapaldi's *De partibus aedium* or the treatises of economics and agriculture.

The material evidence of use in the chapters on residential buildings suggests that readers mainly focused on single rooms and ready-made examples of palaces and villas, while mostly disregarding general principles of composition and design. In the second book of Palladio's treatise, no evidence of use can be found in the brief second chapter, where he explained the basic principles for the design of a residential building. In contrast, there are numerous folded page corners in the third, fourteenth, fifteenth and sixteenth chapters, which are devoted respectively to examples of urban palaces, villas of Venetian and Veneto landowners, and other unrealised schemes. As has already been noted, none of the copies of Palladio's treatise belonged to architects, artists, or stonemasons; rather, they were owned by noble families and religious monasteries and colleges. Therefore, this focus on the final product, instead of on the principles for designing it, may reflect the patron's point of view.

The most common material evidence of use in Palladio's chapters on urban palaces and villas is the multiple folded corner, with which the reader marked several pages of interesting content. In the first edition owned by the Gundulić family, multiple folded corners join together three leaves of Chapters 14 and 15, encompassing the descriptions of Villa Emo in Fanzolo, Villa Saraceno in Finale Vicentino, Villa Ragona in Ghizzole, Villa Pojana in Pojana Maggiore, Villa Valmarana in Lisiera, and Villa Trissino in Meledo (Ill. 2.11).¹⁷⁶ Likewise, in the 1642 reprint that formerly belonged to the Zrinski family, a folded corner unites four leaves of the chapter on urban palaces, highlighting Palazzo Antonini in Udine, Palazzo Della Torre in Verona, and Palazzo Chiericati, Palazzo Porto, and Palazzo Thiene in Vicenza.¹⁷⁷ In a later copy of 1766, where the name of the owner has been erased from the title page, folded corners extend for more than ten pages, including all of Chapter 3, which contains Palladio's complete discussion of urban palaces of his own design, and some of the subsequent chapters, too.¹⁷⁸ The use of the single folded corner was considerably more restrained, limited to the marking of a few precise passages of text or of some illustrations, for instance the plan and elevation of Palazzo Antonini, the courtyard of Palazzo Porto (Ill. 2.49), the descriptive text on La Rotonda, and an unspecified palace on a 'sito [...] piramidale' (pyramid-like [...] plot).¹⁷⁹

Regarding the ancient house, some readers showed particular interest in the different types of atria, as explained by Vitruvius and interpreted by Palladio. The so-called Tuscan atrium was marked with a folded corner in the copy of Palladio's treatise



Ill. 2.49. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570)
II.3, p. 10 (ZKD, A-II-50)

owned by Valvasor, while the Corinthian atrium received substantial attention in the *editio princeps* of the Gundulić family, where the beginning of the chapter was marked with a folded corner and there was also a half-folded page highlighting the illustration presenting the *all'antica* cloister of the Santa Maria della Carità monastery in Venice (Ill. 2.50).¹⁸⁰ In addition, the reader of Philandrier's edition of Vitruvius paid particular attention to the passage about the measurements of the complex atrium and *tablinum*, as well as of their elements. He noted the topics of the text in the margin—'quadratis ostio[rum]' (on square doorframes) and 'hic pars pro ...' (here a part for ...)—and emended an incorrect passage in Vitruvius's text, adjusting 'autem maiorum in minoribus utemur' (but we shall use the greater on the lesser [walls]) to 'autem minorum in maioribus utemur' (but we shall use the lesser in the greater [walls]).¹⁸¹

The complex description of room measurements in the Roman *domus* was at the centre of the reading efforts of Macanović and his stonemasons too; they heavily marked the fifteen pages devoted to this topic in their copy of Barbaro's edition of Vitruvius (Venice, 1567). Besides a number of both single and multiple folded corners, red pencil marks appear in the margin next to two sentences, and the readers also underlined the most important parts of these sentences. The first one, taken from Barbaro's commentary, is on the atrium:

Questo Atrio adunque sarà 80 pie di lungo & piedi 53 e mezzo largo, & haverà l'Alte di 8 piedi senza la grossezza delle colonne. L'altezza veramente de gli Atri è la istessa in tutti, cioè dal piano alla trave, che è la catena del tetto, che sostiene l'arco, o la cassa di tutto il colmo.

(This Atrium then will be 80 feet long and 53 and a half feet wide, and it will have the Alae of 8 feet without counting the thickness of the columns. The height of the Atria, truly, is the same in all, that is, from the floor to the beam, which is the tie-beam of the roof that supports the arch or the framework of the entire ridge).

The second one, appearing in Vitruvius's text, is about the *triclinium*:

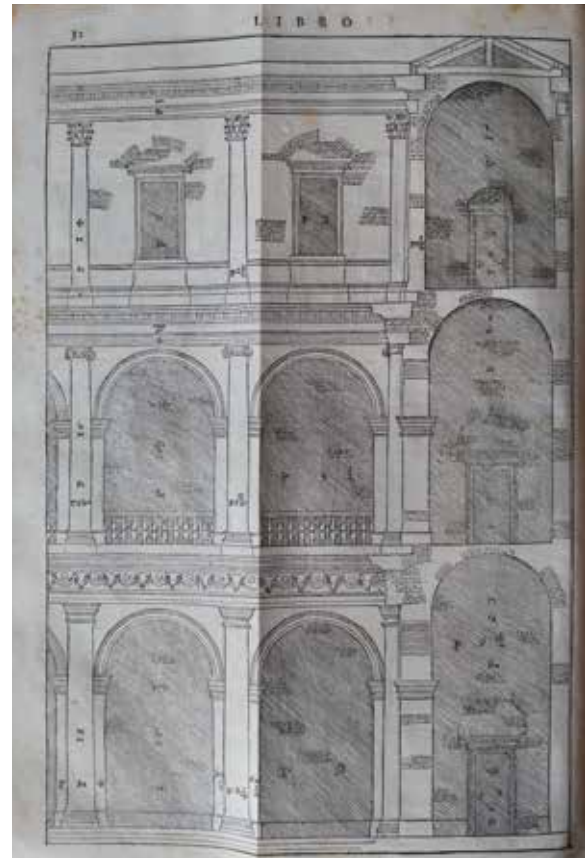
Quanto sarà la larghezza de i Triclini due volte tanto esser deve la lunghezza. Le altezze di tutti i conclavi, che saranno più lunghi, che larghi, deono esser compartite in questo modo, che posta insieme la lunghezza, & la larghezza, si pigli di quella somma la metà, & tanto si dia per l'altezza.¹⁸²

(The length of Triclinia should be twice their width. The heights of all conclaves that are longer than they are wide should be proportioned in this way: that taking together the length and the width, one should take half of that sum, and that much should be given for the height).

As is evident, the readers were clearly focused on the three-dimensional design of the rooms, rather than on the general composition of the Roman house.

Moreover, Macanović's interests were not limited to room dimensions, as one of the deepest and most acute readings appears in this part of Vitruvius's text. Signs of folded corners are also in the chapters on other spaces, such as *cavedi*, as well as in those on proportions, the suitable orientation of buildings and rooms, and the importance of foundations. Finally, Macanović also marked with a folded corner the beginning of the chapter on the Greek house,¹⁸³ thus participating in the eighteenth-century expansion of antiquities beyond classical Roman architecture.

De partibus aedium, the learned lexicon of the parts of a building written by the humanist Francesco Maria Grapaldi, deserves special attention. It was a lengthy, digressive work compiled in Latin and based on ancient sources. Though usually deemed by scholars to have been of some importance for the architectural development of the early modern concept of the house, it was, in fact, not an easy book for architects and art-



Ill. 2.50. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570), Il.6, p. 32 (ZKD, A-II-50)

ists to comprehend. Of the four copies in eastern Adriatic libraries, only one has significant material evidence of use. The title page is missing, but the details of the edition were written on the front endpaper, together with the date when it was given to someone unknown and the name of the donor: 'Die primo Januarij 1690. / Ex munere Ill.mi D. Triphonis Mladinei' (On the first day of January 1690. / From the gift of the Illustrious Lord Trifun Mladinić). The Mladinić (or Mladineo) were a noble family from the Island of Brač, and two different individuals named 'Trifun' are documented in the second half of the seventeenth century: the first acted as a representative for the Brač nobles in a dispute over galleys in front of the Venetian Senate in 1657, while the second (1680–1708) was a historian known for his incomplete *Storia dell'isola della Brazza*.¹⁸⁴ It is not possible to establish which one was the owner of Grapaldi's book, but ownership by the Mladinić family is a confirmation that the reader used *De partibus aedium* for personal or scholarly purposes, not just for professional knowledge.

The readers of this volume folded several multiple and single page corners in the discussion of the specific rooms of the

house, such as the *coenaculum*, *coquina*, *gyneeceum*, and *cubiculum*.¹⁸⁵ They also marked with lines in the margins two passages in the chapters about the *bibliotheca*, the description of the *pluteum*, and the consideration of the *armamentum*, which had to house not only weapons, but also agricultural and other artisanal instruments.¹⁸⁶ The readers, furthermore, showed a certain interest in some of the rustic buildings and spaces that were suitable for a villa, such as the *hortus*, the *leporarium*, and the *granarium*.¹⁸⁷

Triphonis Mladinei, or whoever left this evidence of use in Grapaldi's book, was not the only reader in the eastern Adriatic interested in the country house and, more broadly, estate management. While the folded corner in the chapter on rustic buildings of Fra' Giocondo's edition of Vitruvius may belong to the history of this volume before it arrived in the eastern Adriatic in the nineteenth century,¹⁸⁸ the folded corners in the 1550 Italian translation of Alberti's treatise are almost surely rooted in Dubrovnik. The reader of the latter copy, formerly in the library of the Jesuit college, marked a passage on the illness caused by 'aria trista & mal sana' (sad and unhealthy air) in the countryside. Here, Alberti explains that in an urban palace, many constraints on neighbouring plots, such as streets, squares, or buildings, can impede getting a fully satisfying design. In contrast, the design of a villa is almost completely unrestricted but, as Alberti warns in the passage marked by the reader, the building must be properly located to guarantee exposure to the sun and good winds.¹⁸⁹

There are also other interesting reading marks on a quite similar topic. Within a group of eight leaves that are joined together via multiple folded corners that highlight the first six chapters in the ninth book on ornaments,¹⁹⁰ three lines in the margins mark praise of the garden, deemed by Alberti as the healthiest site for human comfort and needs. In the marked passages, Alberti discusses the gardens of suburban villas, which were located immediately outside the city walls and were thus visible to people coming from the town. He particularly lingered on the pleasing effect of a garden located in such a position on people, encouraging them to enter and join

[...] fiorite praterie & campi molto aprichi, & ombre di fresche selve, & limpidissime fontane & chiari rivi, & luoghi da notare, & altre cose che altrove dicemmo appartenersi alle Ville, si per diletto, come per bisogno.¹⁹¹

([...] Flowery meadows and very sunny fields, and the shade of cool woods, and very clear fountains and bright streams, and places for swimming, and other things that elsewhere we said pertain to Villas, both for delight and for necessity).

It is hard to believe that a connection was not made with the refined villa culture of Dubrovnik, or with the buildings in Gruž, the inlet of Rijeka Dubrovačka, and Konavle.

Despite the broad diffusion of villa culture across the whole eastern Adriatic, there was little circulation and use of treatises on garden architecture and landscape design. The only copies of this genre, mainly developed in Central and Northern Europe from the seventeenth century onwards, are in the Valvasor Library. However, the copies of Nicolas de Bonnefois's *Le jardinier françois* (Amsterdam, 1654), Peter Laurenberg's *Horticultura* (Frankfurt, 1654), and the books by Jacopo Strada and Caspar Schott on the design of fountains (Frankfurt, 1618) and hydraulics (Wurzburg, 1658) are mostly devoid of material evidence of use.¹⁹² If their presence in the Valvasor Library was of little importance for the eastern Adriatic, their influence on gardens has to be considered irrelevant.

Finally, as regards the extensive literature on agriculture, both ancient and modern, it seems that readers in the eastern Adriatic scarcely used these books, if they consulted them at all, for learning about the architectural design of villas. Since the seminal book by James S. Ackerman on the villa, related literature and agricultural treatises have been considered by scholars as basic components of the rebirth of villa culture in Renaissance Italy.¹⁹³ Though mainly focused on farming, agricultural treatises provided useful suggestions about the best sites for villas and auxiliary buildings, as well as for estate management. As with Grapaldi's *De partibus aedium*, scholars, physicians, pharmacists, and learned landowners were the audience of these books, which would have been difficult for architects and gardeners to comprehend.

The books of classical authors, such as the popular miscellanea containing the writings of Cato, Columella, Palladius, and Varro or the editions of single authors, both in Latin and the vernacular, circulated widely in the eastern Adriatic and are still present in a good number of copies in today's libraries. The same is true for the early modern works by Pietro de' Crescenzi, Charles Estienne, Agostino Gallo, Alvise Cornaro, and Africo Clementi. Material evidence of use in these volumes shows that they were also extensively read and studied, though not for the designing of villa complexes or gardens. The frequently used copies of *De re rustica* and Crescenzi's *Opera di agricoltura*, or the heavily annotated copy of Estienne's Italian translation of *L'agricoltura, et casa di villa*, demonstrate a significant interest that is, however, completely focused on agriculture,¹⁹⁴ and as such beyond the scope of this book.

Because of the Physiocratic movement, agriculture experienced another revival during the eighteenth century; the focus was on further increasing production through scientific techniques of farming and more extensive use of machines. A new wave of publications, mainly in Italian, invaded the eastern

Adriatic, where many landowners espoused this approach to agriculture and estate management that was characteristic of the Enlightenment. The broad diffusion of Cosimo Trinci's *L'agricoltore sperimentato*, produced in many editions and reprints,¹⁹⁵ epitomises well this revival of agriculture. With simple and clear language, Trinci's volume addressed the farmer directly, instead of the landowner, as had similar, earlier publications in the libraries of the eastern Adriatic, such as *L'accorto fattor di villa* by Santo Benetti (Venice, 1761).¹⁹⁶ This focus on peasants and their work led to closer attention to their living conditions and, in some cases, to their houses, for instance in *Delle case de' contadini* by Ferdinando Morozzi (Florence, 1770). Significantly subtitled *Trattato architettonico*, a copy of this book was in the library of the Garagnin-Fanfogna, a family that had a leading role in attempts to reform agriculture in the areas of Trogir and Split; the volume still contains some working papers of the owner Ivan Luka Garanjin (Gianluca Garagnin, 1722–1783) between its pages.¹⁹⁷ However, as is common for eighteenth-century books, copies of agricultural treatises have very little material evidence of use, making it impossible to analyse the readers' interests and reading practices in detail.

Building Types: Churches

While the readers of architectural books could find extensive recommendations and numerous ready-made examples for palaces and villas, information on church buildings was far more limited. Paradoxically, Vitruvius devoted both his third and fourth books to the temple, simultaneously discussing the five orders; he thus wrote more about temples than about houses. But early modern readers had to adapt his prescriptions and the models of classical Greek and Roman temples to Christian churches, and this was not an easy task. Alberti also examines religious buildings and their parts in great detail, like Vitruvius including them in the same book as the orders (his seventh book). But his explanations of churches were wordy and complex, with an esoteric and outdated language that is complemented by illustrations only in Cosimo Bartoli's Italian translation (Florence, 1550); only one copy of Bartoli's volume is housed in eastern Adriatic libraries.

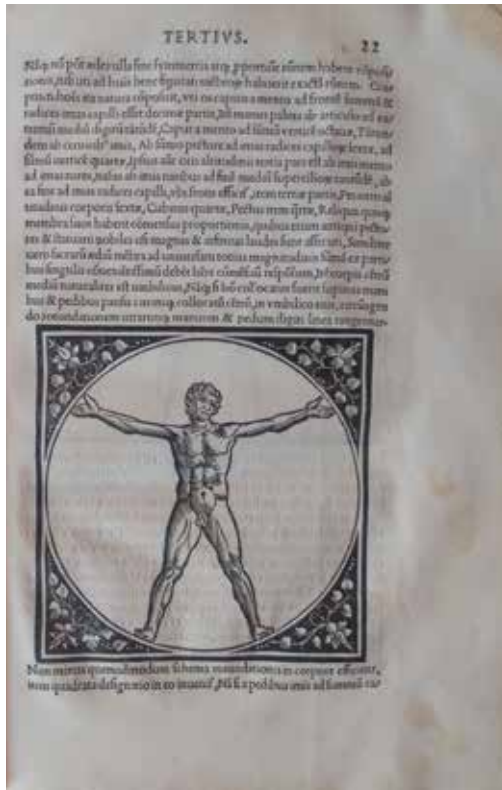
The most common architectural treatises in the eastern Adriatic—the volumes of Serlio, Vignola, and Palladio—were less useful in designing churches than were the works of Vitruvius and Alberti. Serlio's fifth book, which was wholly devoted to churches, was present in slightly more than half of the copies of his treatise, nine of seventeen copies. The circulation of editions of Serlio's earlier, single books, such as *Terzo libro* on antiquities, *Regole generali*, or *Extraordinario libro*, limited the diffusion of his later books (like the fifth), which were printed with the previous ones only after 1551. Vignola's and Palladio's treatises

were almost completely devoid of examples of churches. Vignola provided only models for the five orders, and after the additions to later editions, his treatise offered designs for some doors and windows, though not for churches or for other buildings. The only church in Palladio's *Quattro libri* is the centrally planned one in Maser, which is close to Villa Barbaro, because he designed his most famous churches in Venice after his treatise was published in 1570. Therefore, architects in the eastern Adriatic could have had knowledge of Vignola's and Palladio's churches only from firsthand experience.

With this limited set of sources, architects, stonemasons, and patrons in the eastern Adriatic mainly referred to copies of Vitruvius, Alberti, and Serlio for designing churches. But they studied these volumes, as is evident from the material evidence of use, broadly and at different scales, from the large scale of general composition to the smaller frameworks of specific topics such as the location and design of altars and light. Readers became familiar with the possibly anthropomorphic nature of the church plan, which was so extensively explored by Francesco di Giorgio Martini and then spread in print by Pietro Cataneo, in the commentaries on Vitruvius; there are no copies of Cataneo's treatise in the libraries of the eastern Adriatic. The owners of both Fra' Giocondo's edition of Vitruvius (Venice, 1511) and Walther Ryff's *Vitruvius teutsch* (Nuremberg, 1548) marked the illustration of the man inside the circle and the square—or a page of the text next to it—by folding the whole page or a corner of it (Ill. 2.51).¹⁹⁸

Interest in the relationship between the proportions of the temple and those of the human body extended for some readers to the different types of temples and their classification according to the five orders. One owner of the copy of Durantino's Italian translation of Vitruvius (Venice, 1535)—either the carpenter Master Nicolò or the architect Giovanni Battista Fontana—traced an engraved 'X' on the different temple plans at the beginning of Chapter III.2. The reader of the *Vitruvius teutsch* marked his volume more extensively, using folded corners to highlight Chapters III.1 to III.3 and also IV.4 on the *pronaos* and *naos*, in which Ryff inserted a church model by Cesare Cesariano (Ill. 2.52).¹⁹⁹ Inside the doorway and the side niches of the elevation of a temple front, a certain Gabriel Michael Sommer signed an annotation with the date and location of 29 May 1660 in Trautenau (Ill. 2.53),²⁰⁰ which is now Trutnov in the northern Czech Republic.

Ignacije Macanović showed the broadest interest in the Roman temples that were explained in his copy of Daniele Barbaro's edition of Vitruvius (Venice, 1567). He recorded his interest solely through a series of single and multiple folded corners—suggestive of a more general interest—but he covered a wide range of topics: proportions, composition, the five orders, interior spaces, doorways, and the altars devoted to gods.²⁰¹



Ill. 251. Marcus Vitruvius Pollio, *M. Vitruvius per locundum solito castigatio factus cum figuris et tabula ut iam legi et intelligi possit*, ed. by Fra' Giovanni Giocondo (Venice, 1511), III.1, fol. 22r (ZKD, A III 91)



Ill. 253. Marcus Vitruvius Pollio, *Vitruvius deutsch*, transl. by Walther Hermann Ryff (Nuremberg, 1548), III.2, fol. CXVv (KHAZU, R-913)



Ill. 252. Marcus Vitruvius Pollio, *Vitruvius deutsch*, transl. by Walther Hermann Ryff (Nuremberg, 1548), V.4, fols. CXLVIIIv-CXLIXr (KHAZU, R-913)



Ill. 2.54. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), V, fol. 2v (ZPZHazu, Miočević-Rendić collection, C 135)

Given the several churches designed and built by Macanović and other members of his circle or workshop on the Island of Brač and in the Split area, there is substantial evidence to corroborate this interest in classical temples.

In Vitruvius's discussion of temples within the copy of Barbaro's Italian translation (Venice, 1629) that belonged to the Zrinski family, it is interesting to note a reading mark traced in pencil in the margin. The reader highlighted a line of the short Chapter IV.5, in which one learns that, as in Christian churches, the entrance of the temple should face towards the west, allowing the altars for the sacrifices to the gods to face towards the east.²⁰² This attention to the orientation of religious buildings may reflect mere curiosity, rather than professional interest. The Zrinski were a family of soldiers, military men, *bans* of Croatia, and poets, but not priests; neither Nikola VII Zrinski—the founder of the library—nor his brother Petar, nor his son Adam, ever held an ecclesiastical post.

Nevertheless, one might think that a book like the copy of Alberti (Florence, 1550) formerly in the library of the Jesuit col-

lege in Dubrovnik would show evidence of a deeper interest in ecclesiastical architecture. But such a hypothesis would be incorrect. The evidence of use in the seventh and eighth books does not apparently concern church architecture. The reading mark in Chapter VII.5, which discusses porticoes, stairways, and interior spaces of churches (or temples, as Alberti called them), emphasises the proportions of intercolumniations in colonnades. The folded corner in VII.11, where vaults in temples are considered, seems to highlight the technique for constructing a brick vault, and that in VIII.3, where chapels, tombs, and other monuments are examined, marks a passage on pyramids and monumental columns.²⁰³ Pyramids, while perhaps a topic potentially of general architectural interest, were of literally no use for designing early modern religious buildings.

The copy of Serlio signed by Domenico Uvoda has several reading marks and underlined words in the fifth book; these suggest a detailed reading of the text accompanying the different church models. The readers focused on the proportions of the church, underlining for the first design based on a circular plan the fact that the diameter equals the height of the façade and the other ratios between the church's parts. There is also a clear interest in the arrangement of secondary but necessary spaces—that is, in Serlio's advice about locating sacristies and lodgings for priests under belltowers or about obtaining further underground space by raising the church's floor. Furthermore, the readers underlined a passage in which Serlio stresses how terraces must be 'ben commessi, ben cementati, e pendenti' (well-joined, well-cemented, and sloping) in order to allow for the drainage of rainwater so that flooding is avoided. Finally, a big but clumsy manicule highlights the important sentence: 'Questo vuole Vitruvius' (This is what Vitruvius requires) (Ill. 2.54). In the previous lines, Serlio explained that, as Vitruvius suggests, stairways leading up to temples must have an odd number of steps, so that one could start and end the ascent with their right foot.²⁰⁴

This copy of Serlio, which belonged to Uvoda and later landed in the hands of the Trogir Bishop Ivan Antun Miočević, is the only one with evidence of significant attention to the church models in the fifth book. Although all of Serlio's centrally planned designs could hardly be executed, even in the less constrained era of the Baroque, the reader sought to grasp from the descriptions some general and useful advice at a range of scales, from the overall composition of the church to its smallest parts. In a sense, it was an attempt to go beyond ready-made models that were almost impossible to realise and extract from them the abstract principles that guided Serlio in his designs.

Even though Serlio's fifth book had limited popularity in the early modern eastern Adriatic, at least according to the material evidence of use in architectural books, it was not the only book

on temples and churches. As I showed above (see 'Antiquities and the Adriatic', and 'Renaissance Architecture'), his third book on antiquities contains numerous ideas about the design of ecclesiastical buildings. Moreover, in addition to ancient Roman temples, Serlio presents the greatest masterpieces of the Italian Renaissance that, even if they offered some inspiration, could hardly be a model for new churches in the eastern Adriatic. I am speaking here of Bramante's designs for San Pietro in Montorio and St Peter's Basilica in Rome.

Building Types: Theatres and Baths

While houses and temples were building types for which ancient models could be reinterpreted for early modern needs and fashions at least to some degree, such reinterpretation was more difficult, if not impossible, for theatres and baths. Nevertheless, material evidence of use in the architectural books that I analysed suggests that readers in the early modern eastern Adriatic devoted significant attention to these building types. This was probably due to a strong consciousness of the ancient Roman origins of many towns along the coast; more or less prominent ruins could be found from Pula to Zadar and from Split to Dubrovnik.

With its cross-disciplinary artistic and technical aspects tied to literature, music, architecture, acoustics, and harmony, the theatre played a pivotal role in the development of Renaissance architecture. Attempts to revive classical theatre as both a play and a building, the latter so thoroughly described by Vitruvius and Alberti, involved some of the most renowned authors of architectural treatises, such as Serlio, Palladio, and Scamozzi. However, there is no trace of the groundbreaking theatres by Palladio and Scamozzi in their treatises. Serlio briefly describes in his books the temporary theatre he helped design in 1539 in Vicenza; he provides a plan and cross-section of the theatre and, above all, examples of three types of stage sets.

No complete architectural model of an early modern theatre was available in the eastern Adriatic via printed books until the late eighteenth century, when Ottavio Bertotti-Scamozzi published some plates of the Teatro Olimpico in Vicenza.²⁰⁵ Therefore, readers in the region had to make do with ancient theatres, which were accurately described and represented in Vitruvius and Renaissance architectural treatises.

However, there is little evidence in the books of my catalogue that architects or patrons in the eastern Adriatic were interested in the general structure of the ancient theatre. Holes produced by a pair of compasses are still visible at the centre of the theatre plan in Bartoli's Italian translation of Alberti's treatise (Florence, 1550).²⁰⁶ Since there is no other evidence of use on the plate, it is likely that a reader, maybe in the Ragusan Jesuit

college, traced the design of the theatre plan on a superimposed sheet. Similar evidence of copying appears on the double-page illustration of the theatre plan at the opening of the fifth book in Ignacije Macanović's copy of Barbaro's translation of Vitruvius (Venice, 1567). Here, the reader engraved diagonal lines to draw the Vitruvian geometric construction that is based on two overlapping but differently oriented triangles (Ill. 2.55). A few pages later, a folded corner marks the beginning of Chapter V.3 'Del theatro' (On the Theatre), and in V.6 'Della conformatione del theatro' (On the Design of the Theatre), where Vitruvius explains—and Barbaro offers a lengthy commentary on—the design method, a reading mark in the margin highlights a passage about the transverse axis separating the stage from the orchestra.²⁰⁷

The interest in the theatre evident in Macanović's copy of Vitruvius extends beyond the architectural design of the building to encompass the theatre's technical aspects. More than scenery and stagecraft, for which the relevant chapter is marked at the beginning with only one folded corner, musical harmony and the Vitruvian acoustic vases attracted the reader's attention. In the chapters on these topics, there are multiple folded corners, and the reader also annotated the opening of the chapter on harmony with big and beautiful characters in the margin: 'Dell'Armonia' (On Harmony). Macanović shared an interest in harmony and acoustics with the owners of *Vitruvius teutsch* (Nuremberg, 1548), who also folded a page corner at the beginning of the relevant chapter. Someone in the Zrinski family probably had a similar interest as well, because their well-preserved copy of Vitruvius (Venice, 1629) contains a series of yellowed pages only in these chapters, as they had been used and opened at this point repeatedly.²⁰⁸

In a sense, Serlio's second book provided complementary information to Vitruvius's discussion as it offered the design of a new theatre based on ancient models. After having noticed and redrawn the gorgeous and accurate plates of the Theatre of Marcellus or the Theatre of Pula in the third book,²⁰⁹ the reader of the copy of Serlio owned by Sigismund Tudišić concentrated on the end of the second book. Here, Serlio presented an ideal reconstruction of the three basic types of stage sets of the Roman theatre—tragic, comic, and satiric, according to Vitruvius—and appended an essay on artificial lighting. In a margin of the last essay, the reader of a copy of *Tutte l'opere d'architettura* (Venice, 1600) recorded a note about the different types of lighting described by Serlio: 'NB / fuoco / tuono / lampo / fulmine' (Note well / fire / thunder / lightning flash / lightning bolt). In the text discussing comic scenery, the reader underlined some words in a passage where Serlio explains that to create a beautiful sense of progression in building height, smaller houses must stand forward and the taller ones further back.²¹⁰

The same passage attracted the reader's attention in the



Ill. 2.55. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), V.12, p. 268 (AMS, R 1294)

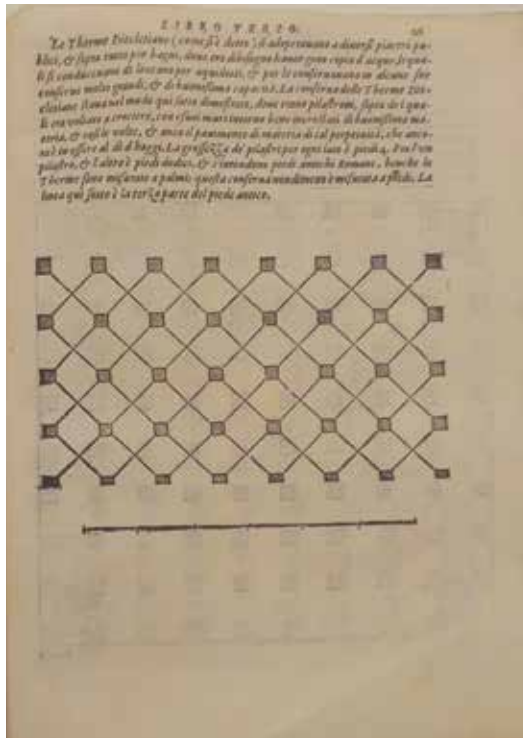
copy of Serlio signed by Uvoda and today housed in the Miočević-Rendić Library. It is hard to reconstruct the reader's interest in the three types of stage sets and in artificial lighting based on the material evidence of use in this book copy. The reader extensively underlined in red pencil or pen and ink groups of or single words, but not entire sentences, in the chapters on both topics. Therefore, the focus of the reader's interest is not always clear. In the introduction, the reader underlined some words in the explanation of the sloping stage, one of the main scenographic innovations introduced by Serlio. Then, it is possible to identify a passage where Serlio refers to Vitruvius for the idea of setting a satiric play in a rustic environment, and a suggestion on the use of silk for the reproduction of natural elements such as leaves and grass.²¹¹ What is clear here is a complex entanglement of different layers of interests which, more than in any other Serlio's books, are difficult to unravel.

Evidently, Macanović also paid attention to the design of ancient Roman baths, which immediately follow the chapters on the theatre in Vitruvius's text. Although the reader marked the interesting parts simply by folding page corners, the distribution and position of these folded corners allow us to outline rather precisely what was of particular interest. As usual in this book copy, the reader marked with a folded corner the begin-

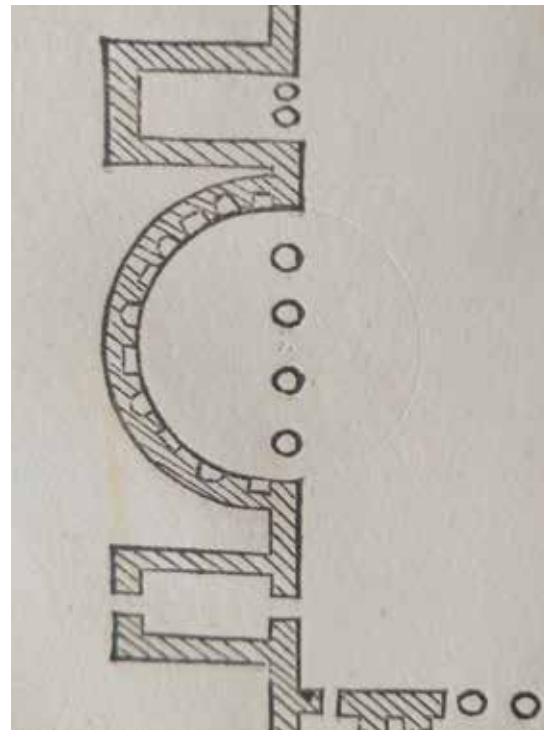
ning of the chapter, in this case V.10 on the arrangement of various spaces in baths. Further folded corners highlight the organisation of different spaces and functions inside the *palaestra* or gymnasium, as well as Barbaro's commentary on the technology of suspending the floor with *suspensurae*, which covered the hypocaust cavity for the flow of hot air and for the heating of the *calidarium*.²¹²

Similarly, the owners of Serlio's third book could acquaint themselves with the various aspects of Roman baths through examples of the most renowned bath complexes in Rome. A reader of the 1540 Venetian edition that formerly belonged to Sigismund Tudišić marked the pages devoted to the Baths of Titus and Diocletian.²¹³ In contrast, the reader of the complete collection of Serlio's books (Venice, 1600) lingered on a specific element of the Baths of Diocletian: the huge reservoir and its structure of pilasters and cross vaults, which had to supply the enormous quantity of water required in the complex (Ill. 2.56).²¹⁴

Finally, the reader of the copy of Alberti previously in the Ragusan Jesuit college also focused on the Baths of Diocletian, but with a more practical approach. On the double-page illustration representing the plan of the bath complex, engraved, curved lines and holes on the semicircular *exedrae* along the perimeter are clear evidence of copying (Ill. 2.57).²¹⁵ This sug-



Ill. 2.56. Sebastiano Serlio, *Tutte l'opere d'architettura, et prospettiva* (Venice, 1600), III, fol. 96r (SKS, R-667)



Ill. 2.57. Leon Battista Alberti, *L'architettura*, transl. by Cosimo Bartoli (Florence, 1550), VIII.10, p. 322 (ZKD, A-III-45)

gests that readers of architectural books in the eastern Adriatic were interested in the technological equipment of Roman baths and also in their elaborate plans.

Material evidence of use relative to the topics of theatres and baths in the architectural books that I analysed appears mainly in the copies of Vitruvius's, Alberti's, and Serlio's works and reveals a typical humanist interest in these classical building types. Theatres and baths could not serve as models for similar early modern buildings. Alongside this purely scholarly enquiry, material evidence of use proves that some readers approached theatres and baths with more practical goals, copying illustrations, studying design principles, and investigating technological features. Such study evokes an attempt to adapt the architectural knowledge of antiquity to contemporary needs and re-employ it in radically different buildings, if not in other building types.

Urban Layout and Infrastructure

The final aspect of early modern architectural discourse that emerges from material evidence of use in the books of eastern Adriatic libraries concerns the design of towns and the main infrastructures in them. Since Vitruvius's treatise, urban layout

has been a matter of discussion in architectural treatises, as have the infrastructures that characterise it. Without a doubt, city walls were the most visible and impactful type of infrastructure; as is widely known, they were part of military architecture which became an autonomous discipline in the sixteenth century, distinguished by its own set of rules, authors, and books. However, other less prominent, or even invisible, infrastructures crisscrossed towns—and they were no less important. Structures such as streets, bridges, harbours, embankments, aqueducts, wells, underground pipelines, and cisterns were also part of the architect's or engineer's domain.

Frequently, the appropriate design and construction of such infrastructures were more difficult to forge and execute than were single buildings. The impact of faulty fortifications, awkward embankments, or a malfunctioning water supply system could potentially affect many more people than a badly designed house or church. Above all, the architect's or engineer's errors in accomplishing these tasks could result in significant financial losses with possible repercussions for all the social strata of a town. It is obvious that, confronted with such important and delicate assignments, designers sought reputable and validated knowledge in architectural books in order to minimise the risk of mistakes.

The topic of town design and urban layout was one of the most theoretically developed in early modern architectural discourse. Despite the emergence of the ‘ideal city’ in the Italian Renaissance and its spread throughout Europe, the building of entirely new towns, or new districts as expansions of already existing towns, was relatively uncommon. As a border region frequently subject to the control of distant political entities and constantly threatened by Ottoman invasions, the eastern Adriatic was a particularly suitable terrain for the planning of new towns as strongholds in strategic positions. Nonetheless, the most interesting examples of town design along the coast—in Dubrovnik, Ston, Korčula and Pag—all date from before the spread of the printed book as a medium for communicating architectural knowledge. In inland areas, which were more directly exposed to Turkish attacks, some new towns were established, but they were small in number.

In other words, readers of architectural books in the eastern Adriatic sought ideas of town design most likely for the purpose of applying them in limited urban interventions rather than for the goal of building new towns or ‘ideal cities’ from scratch. In fact, only one reader paid attention to the recommendations for the best site for a town. He did so in a copy of Alberti’s *De re aedificatoria* (Florence, 1550), and this unique reader is clear evidence that very few people interested in architectural books envisioned the foundation of new towns. It is fascinating that a reader in the early modern Republic of Ragusa marked in this copy of Alberti a passage on public spaces and buildings within the city: ‘A tutti i Cittadini si appartengono tutte le cose Publiche, le quali sono parti della Città’ (All Public things, which are parts of the City, belong to all Citizens). Two pages later, he underlined the following words: ‘[che] essa Città possa porgere aiuto a suoi, ornamenti a se stessa, diletto a gli Amici, & a Nimici spavento’ ([that] the City may offer aid to its inhabitants, ornament to itself, delight to its Friends, and terror to its Enemies). Then, Alberti offered—and the reader underlined—the observation that men initially established towns in the mountains for security, but these sites were not convenient because of water shortages. This Ragusan reader also marked a significant passage on the advantages and disadvantages of coastal towns:

I liti per condurre Mercantie son molto opportuni; ma come si dice, ogni Città di mare è troppo vaga, & troppo si diletta di cose nuove; & eccitata & vessata troppo continovamente dalla forza & dal maneggio de faccendieri, va del continuo fluttuando.²¹⁶

(The coasts for transporting goods are very opportune; but as they say, every maritime City is too fickle, and too much delights in new things; and is too continually

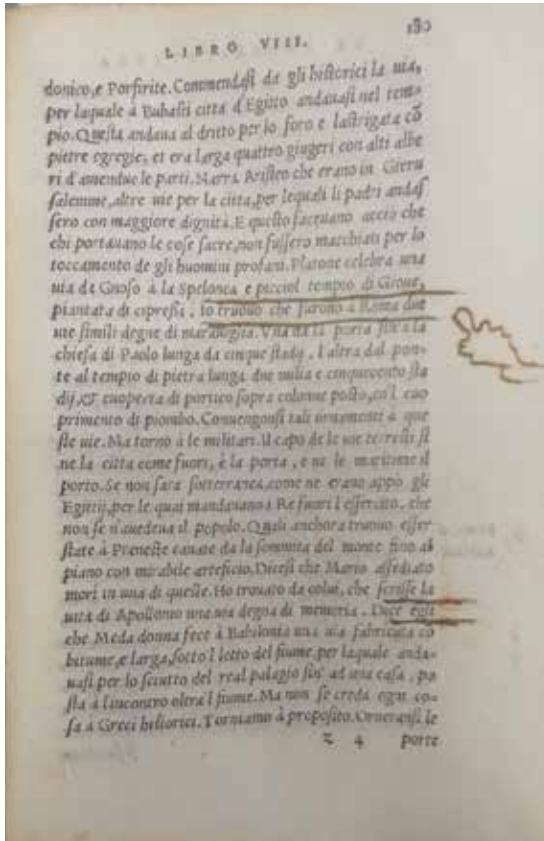
excited and vexed by the force and dealings of busy-bodies, it goes on continually fluctuating).

It is not necessary to stress how well these words from Alberti fit Dubrovnik.

Vitruvius does not leave room for individual experimentation in town design. In Chapter I.6, he presents an octagonal town with a regular grid of orthogonal streets. This model was not supposed to be adjusted, and the architect’s only task consisted of determining the best orientation of the street grid to avoid air stagnation or unhealthy winds, the discussion of which occupies most of the chapter. The majority of the readers that left evidence of use in this chapter focused exclusively on Vitruvius’s consideration of winds. The Genoese Nicola Spinola, the owner of the copy of Fra’ Giocondo’s edition of Vitruvius that is now in Dubrovnik, carefully noted in the margins the various types of winds—‘venti frigidi / venti calidi / venti humidi’ (cold winds / warm winds / humid winds)—as well as their names and directions—‘solanus orien. / austrum mer. / favonium occid. / septentrio septen’ (solanus east / asutrum south / favonium west / septentrio north).²¹⁷ Similarly, Macanović’s copy of Barbaro’s translation of Vitruvius has a folded corner at the beginning of the chapter, but the corrections on the inverted letters in the wind rose illustration reveal the main focus of the reader.²¹⁸ Probably, winds were not as important in inland regions that were far from the sea; the German-speaking reader of *Vitruvius deutsch* (Nuremberg, 1548) lingered on the map of the radial city taken by Ryff from Cesariano’s Italian translation. However, he simply folded the corner of the page, and thus, it is not possible to determine his interests more precisely.²¹⁹

If we return to Alberti, it is worth noting that all three of the sixteenth-century copies of *De re aedificatoria* in my catalogue display material evidence of use in Chapter VIII.6, which discusses the streets, gates, triumphal arches, intersections, and squares of cities. In all three copies, from Rijeka to Dubrovnik, the readers marked, even if in different ways, the same page containing a review of the most famous streets of antiquity that Alberti had compiled from classical sources. The owner of the Rijeka copy, which was signed ‘Iacomo di Sardona di Modena. 1546. in Roma’ and given by Julije Benzoni to the municipality in 1779, has the most detailed evidence of use. The reader traced a doodle on the margin, probably an attempt to draw a manicule (Ill. 2.58), and also underlined the beginnings of the sentences that he found to be of most interest, those on the most renowned street in ancient Rome and on a street paved in bitumen in Babylon. On the verso of this sheet, the reader also marked the passage where Alberti asserts that Hadrian’s Bridge in Rome was originally covered.²²⁰

The Dubrovnik copy, formerly in the library of the Jesuit



Ill. 2.58. Leon Battista Alberti, *I dieci libri de l'architettura*, transl. by Pietro Lauro (Venice, 1546), VIII.6, fol. 180r (SKR, 3G.34)

college, shows the broadest interest in town design. Different chapters in the fourth and fifth books bear material evidence of use, mainly related, as I noted above, to the features of a republican town. The readers folded together the corners of two pages to mark all of Chapters V.6 and V.7. The former describes the houses of the officials who governed a republic, in addition to its primary and secondary temples, chapels, and tabernacles; the latter focuses on different types of cloisters, which were considered appropriate lodgings for pontifices. Other folded corners highlighting the description of the most massive city walls completed the Ragusan-oriented interests of this reader.²²¹

Copies of Palladio's *I quattro libri* contain little evidence of interest in town design and urban layout. The only evidence appears in the copy at the Valvasor Library (Venice, 1601), in which the reader folded a corner of the illustration of Palladio's reconstruction of the Roman Forum.²²² A copy that is quite similar in terms of its temporal and cultural context, the one in the Zrinski Library (Venice, 1642), reveals a deeper and more methodical study of bridges. With multiple folded corners, the reader marked all of the chapters from III.3 to III.8; these discuss technical and design suggestions for building bridges in stone and



Ill. 2.59. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570), III.4-21, pp. 11-47 (ZKD, A-II-50)

wood, and also offer examples taken from other sources or created by Palladio himself. It is easy to connect this very specific interest with the intense military activity of the members of the Zrinski family. The marked chapters also include the description of the famous bridge built by Caesar on the Rhine, as well as a system for constructing wooden bridges with no middle piers—two topics that would have been quite useful knowledge for a military leader.²²³

As material evidence in early modern architectural books shows, bridges were a topic of interest for readers in Dubrovnik too. The copy of Serlio's third book owned by Sigismund Tudišić has a double folded corner highlighting the pages describing certain ancient bridges.²²⁴ The Gundulić family's edition of Palladio's treatise reveals a similar, and even broader, interest in the third book of *I quattro libri*. Here, the multiple folded corners extend across roughly eighteen sheets, marking the chapters from III.4 to III.21 (Ill. 2.59). This group of pages contains again all the chapters on bridges (including Palladio's design for the Rialto Bridge in Venice and the wooden bridge in Bassano), Greek and Roman city squares, ancient Roman basilicae and the 'modern basilica', the latter of which is his basilica in Vicenza.²²⁵ Gundulić's copy of Palladio's treatise also indicates an interest in public spaces and buildings, which, as usual, were highly regarded by Ragusan nobility.

Among books from inland libraries, the greatest insight into the use of architectural books for designing bridges appears in Ryff's *Perspectiva teutsch* (Nuremberg, 1547), a handbook on perspective that covers a wide range of topics. Next to an illustration detailing the geometric method for tracing depressed arches, which was taken from Serlio, the reader sketched a five-span bridge, showing one of the most obvious and direct architectural applications of the theoretical principles of perspec-



Ill. 2.60. Marcus Vitruvius Pollio, *Architettura*, transl. by Francesco Lucii Durantino (Venice, 1535), V.12, fol. LVIIr (ZKZ, R-234)

tive.²²⁶ Because the drawing is in black pencil, the author cannot be the German sixteenth-century owner, whose name has been obliterated on the front pastedown, but rather Janez Valvasor, who bought the book in the second half of the seventeenth century. It is important to stress that this sketch is the only evidence of a reader putting into practice knowledge of bridges. The material evidence of use that was discussed above consisted only of folded corners, which, of course, suggest an interest in the topic but a rather general one.

Hydraulic knowledge was also an essential expertise in urban settlements, particularly along the coast or on islands, as is the case for much of the eastern Adriatic. Close contact with and management of water requires a broad set of skills—from techniques for building on water, to regulating fluctuations in river levels, locating and preserving drinkable water, to the construction of various hydraulic machines. All of these tasks were part of the architect's work, and for this reason, architectural treatises such as those of Vitruvius and Alberti contain knowledge relevant for performing such tasks.

Vitruvius devoted the twelfth chapter of his fifth book to harbours and structures built on water; in the copy of Durantino's translation (Venice, 1535), one of the readers marked this chapter by folding a page corner (Ill. 2.60).²²⁷ Here, Vitruvius also explains the technique for constructing piling foundations so that wet soils would solidify against wooden poles and the structure would then have a firm base. This construction technique was useful not only for harbours and port structures but also, more broadly, for any building erected on soft soil. In addition, the copy of Durantino's translation of Vitruvius also betrays other signs of interest in water, particularly in the eighth book, which discusses how to recognise the qualities of rain and spring water in order to exploit the properties of each.²²⁸ These topics would have been particularly useful for the book's owners, the carpenter Master Nicolò, who was probably a shipbuilder, and the architect Giovanni Battista Fontana.

The assessment of water quality was a crucial task for architects, but even more so for noblemen engaged in the governing of towns, in military leadership during wartime, and simply in estate management. Alongside the recommendations on how to find and convey water to specific sites, readers in the eastern Adriatic extensively investigated the diverse aspects of this topic.²²⁹ Advice on searching for water interested different types of readers, from architects and stonemasons working in maritime environments, such as Macanović, to noblemen in regions far from the sea, for instance the owners of *Vitruvius teutsch* (Nuremberg, 1548).²³⁰

After identifying a spring of drinkable water, it needed to be conveyed and then collected in a place suitable for its preservation. The reader of Philandrier's edition of Vitruvius (Lyon, 1552) shows a particular interest in Chapter VIII.6, where the Roman writer explains the different types of aqueducts and the related networks that distribute water from the main source to public fountains throughout the city. He carefully numbered all the paragraphs of Vitruvius's text, as he did for the other chapters of the eighth book, as well as those of Philandrier's commentary.²³¹ The reader of *Vitruvius teutsch* had a similar approach because he marked with a folded corner a page of Ryff's commentary on Vitruvius.²³² For the topic of water conservation, there is evidence of use only in the copy of Alberti that was formerly in the Jesuit college in Dubrovnik (Florence, 1550), where the reader folded page corners in the chapter on wells and water tanks.²³³ All in all, the material evidence of use in architectural books reveals interest in the whole process of searching for, transporting, collecting, and preserving drinkable spring water, even if such interest and information were scattered across different book copies and authors.

Notes

- 1 Igoshina, Ank'ev, and Markova, 'Kommentarii Daniele Barbaro na polyakh izdaniya Vitruviya 1511 goda iz GMII im. A.S. Pushkina: put' atributsii i opyt datirovki'; Isard, 'Vincenzo Scamozzi in the World of Books: I. The Materials of Architectural Knowledge; II. A New Latin Notebook and the Role of Eruditio in Vincenzo Scamozzi's Architectural Theory and Practice'. On the four book copies of Vitruvius owned by Sangallo, see Benelli, 'Dicie Vitruvio: Antonio da Sangallo il Giovane e il De Architectura.
- 2 Fisković, 'Ignacije Macanović i njegov krug', 211–213.
- 3 'Catalogue', NN. 1040, 889.
- 4 For more on Venice and the Venetian Republic, see the essays in Giuliana Mazzi and Stefano Zaggia, 'Architetto sia l'ingegniero che discorre: Ingegneri, architetti e protti nell'età della Repubblica' (Venice: Marsilio, 2004).
- 5 Guarneri, 'On the Trail of a Peripatetic Vitruvian Reader: New Insights on Giovanni Battista Fontana in the Late Seventeenth-Century Eastern Adriatic'.
- 6 Guarneri, 'Circulation, Use, Impact: An Evidence-Based Enquiry into the Consumption of Architectural Books in Baroque Slovenia'; Igor Sapač, 'Baroque Architects in Slovenia/Baročni arhitekti na Slovenskem', in *18th Century Architecture in Slovenia: Mature Baroque/Arhitektura 18. stoletja na Slovenskem: obdobje zrelega baroka*, ed. by Asja Krečič and Igor Sapač (Ljubljana: Arhitekturni muzej Ljubljana, 2007), pp. 250–251.
- 7 Fisković, 'Ignacije Macanović i njegov krug'; Fisković, 'Od Macanovićeve skice do izradbe pročelja crkve u Nerežišćima na Braču'.
- 8 'Catalogue', N. 51, title page; 596, front endpaper; N. 883, fol. Vr; N. 884, I 1, fol. 6r; Ext., plate VIIIv; N. 1040, fol. CXr; N. 1047, front endpaper.
- 9 Ennio Concina, *Pietre parole storia: Glossario della costruzione nelle fonti veneziane (sec. XV–XVIII)* (Venice: Marsilio, 1988), sub vocem.
- 10 *Vocabolario degli accademici della Crusca quarta impressione* (Florence: appresso Domenico Maria Manni, 1733), 3:755; Giuseppe Boerio, *Dizionario del dialetto veneziano* (Venice: coi tipi di Andrea Santini e figlio, 1829), 468.
- 11 Ennio Concina, *L'Arsenale della Repubblica di Venezia: Tecniche e istituzioni dal Medioevo all'età moderna* (Milan: Electa, 1984); Robert C. Davis, *Shipbuilders of the Venetian Arsenal: Workers and Workplace in the Preindustrial City* (Baltimore: Johns Hopkins University Press, 1991); Pasquale Ventrice, 'L'Arsenale di Venezia e i cantieri navali della marina', in *Il contributo italiano alla storia del pensiero: Tecnica* (Rome: Treccani, 2013), accessed 28 May 2025, online: [https://www.treccani.it/enciclopedia/l-arsenale-di-veneziana-e-i-cantieri-navali-della-marina_\(Il-Contributo-italiano-alla-storia-del-Pensiero-Tecnica\)](https://www.treccani.it/enciclopedia/l-arsenale-di-veneziana-e-i-cantieri-navali-della-marina_(Il-Contributo-italiano-alla-storia-del-Pensiero-Tecnica)); Ivetic, *Storia dell'Adriatico: Un mare e la sua civiltà*, pp. 183–184; Martino Ferrari Bravo and Stefano Tosato, eds., *Gli arsenali oltremarini della Serenissima: Approvvigionamenti e strutture cantieristiche per la flotta veneziana (secoli XVI–XVII)* (Milan: Biblion, 2010).
- 12 Martin Gaier, *Architettura 'venetiana': I protti veneziani e la politica edilizia nel Cinquecento* (Verona: Cierre, 2019); Martina Frank, 'Protti, periti, mediatori, giudici al servizio di fratelli litigiosi: saggezza strategica e competenza professionale nella Venezia tardobarocca', *Acta Histriae*, 22 (2014), pp. 95–106; Mazzi and Zaggia, 'Architetto sia l'ingegniero che discorre: Ingegneri, architetti e protti nell'età della Repubblica'; Manfredo Tafuri, *Venezia e il Rinascimento: Religione, scienza, architettura*.
- 13 'Catalogue', NN. 885, 1025, 283, 342.
- 14 Eugenio Rizzoli, 'Chiarini, Marc'Antonio', in *Dizionario biografico degli italiani* (Rome: Treccani, 1980), accessed 15 January 2025, online: https://www.treccani.it/enciclopedia/marc-antonio-chiarini_%28Dizionario-Biografico%29/; Sanja Cvetnić, 'Divnić, Dominik', in *Allgemeines Künstlerlexikon*, 2021, accessed 15 January 2025, online: https://www.degruyter.com/database/AKL/entry/_10190470/html; Radoslav Tomić, 'La pittura in Dalmazia e in Istria intorno al 1700: I protagonisti e le loro opere', *Saggi e Memorie di storia dell'arte* 30 (2006), 310.
- 15 For more on Alberti's audience, see Howard Burns, 'Leon Battista Alberti', in *Storia dell'architettura italiana: Il Quattrocento*, ed. by Francesco Paolo Fiore (Milan: Electa, 1998), p. 123. On the audience for architectural treatises in Venice, see Morresi, 'Treatises and the Architecture of Venice in the Fifteenth and Sixteenth Centuries', pp. 266–267, 273–275.
- 16 'Catalogue', NN. 882, 886, 706, 838, 516.
- 17 'Catalogue', NN. 1041, 21, 876, 1017, 706.
- 18 'Catalogue', N. 772.
- 19 'Catalogue', NN. 22, 1042.
- 20 EMOBookTrade, 'Early Modern Book Prices', database, 2022, accessed 18 September 2023, online: <https://emobooktrade.unimi.it/db/public/prices>.
- 21 'Catalogue', NN. 879, 884.
- 22 'Catalogue', N. 706, On the identification of the owners, see Stepanić, 'Knjižna ostavština obitelji Gundulić: od Frana Franova (1539–1589) do Frana Marinova (1666–1687)', 181–182; Gudelj and Ruso, 'Tiskani renesansni traktati', 108.
- 23 Nada Grujić, 'Zidni umivaonici XV i XVI stoljeća u stambenoj arhitekturi dubrovačkog područja', *Radovi Instituta za povijest umjetnosti*, no. 23 (1999), 63–82.
- 24 'Catalogue', N. 706: II.6, p. 31, U12; IV.3, p. 7, U12; IV.16, p. 63, U12; IV.18, p. 68, U12; I.6, p. 9, U13; I.7, p. 10, U13; I.17, p. 37, U13; II.3, pp. 4, 5, 10, 18, U13; II.6, pp. 29, 31, U13; II.14–15, pp. 55–60, U13; II.17, p. 77, U13; III.4–21, pp. 11–47, U13; IV.6, p. 13, U13; IV.7, pp. 19–22, U13; VI.8, p. 24, U13; IV.13, pp. 50, 51, U13; IV.16, p. 62, U13; IV.18, p. 69, U13; IV.25, p. 100, U13; IV.26, p. 104, U13; IV.27, pp. 107–112, U13; IV.30, p. 126, U13; IV.31, pp. 129–132, U13.
- 25 'Catalogue', N. 706, I.17, p. 38, U5; IV.6, p. 13, U5; IV.7, p. 16, U5; IV.8, p. 24, U5; IV.14, p. 53, U5; IV.15, p. 57, U5; IV.16, p. 62, U5; IV.18, p. 67, U5; IV.20, p. 77, U5; IV.21, pp. 86, 87, U5; IV.26, p. 105, U5; IV.28, p. 113, U5; IV.30, p. 126, U5; IV.31, p. 130, U5.
- 26 'Catalogue', N. 884, I, fol. 16r; II, fol. 23v; III.4, pp. 28–29, 125, 136; IV.8, fol. 56v.
- 27 'Catalogue', N. 706, II.6, p. 31, U12; II.3, pp. 4, 5, 10, U13; II.6, p. 29, U13; II.14, pp. 55–60, U13; II.17, p. 77, U13.
- 28 'Catalogue', N. 884, I, fol. 13r, U1; II, fol. 6r, U2; I, fol. 2v, U4 and U8: 'diabolicum'; fol. 7v, U8: 'Il monte a cavarlo cava su cava'; I, fol. 14v, lines 9, 11, U5; II, fol. 22v, line 5, U5; fol. 24v, U5, fol. 25r, lines 1, 17, 20, U5 and U6; fol. 26r, lines 15–16, U6; fol. 26v, lines 6, 7, 8, 11, 16, U6, lines 18, 23, U5; fol. 27r line 5, U5, lines 4, 11, 14, 15, U6; fol. 27v, line 1, U6, passim, U5.
- 29 'Catalogue', N. 884, I, fol. 15r, U2: 'quad. perfetto'; III.4, p. 129, U2: 'Base'; IV, fol. 1v, U7: 'guarda'; IV.6, fol. 17r, U2: 'Basa doric[a]'; fol. 17v, U2: 'Capitelo / dorico'; fol. 19v, line 3, U7: 'senza misure'; IV.7, fol. 36v, U7: 'Basa 1/2 del colona'; fol. 37v, U7: 'capitelo'; IV.9, fol. 61r, U2: 'val cosa io'.
- 30 'Catalogue', N. 879, U7, fol. 1r, 'Tosc.'; fol. 2r: 'Toscana di basso rilievo'; fol. 3r: 'tuscan'; fol. 4r: 'toscano'; fol. 5r: 'dorico'; fol. 6r: 'dorico'; fol. 35r: 'composto di / bono rilivo'.
- 31 'Catalogue', N. 879, A IIIr.
- 32 'Catalogue', N. 884, IV.6, fol. 17r, U5, line 21; fol. 19r, U13, U5, line 12; fol. 25r, U13, fol. 27r, U13; fol. 28r, U13; fol. 30v, U6, lines 2, 6, 24, fol. 35r, U13; fol. 36r, U13; IV.7, fol. 36v, U1, line 1, U5, line 6; fol. 41r, U13; fol. 51r, U13; IV.9, U5, fol. 60v; fol. 63r, U8, U13; fol. 64r, U13; fol. 14v, U13; IV.11, fol. 68v, U5, lines 27, 44, 53, U6, lines 27, 29, 36, 52; IV.12, fol. 69v, U5, line 18, U6, lines 18, 46, 49, 50, 51; fol. 70r, U10; fol. 71r, U13.
- 33 'Catalogue', N. 884, II, fol. 24v, U5; fol. 25r, U5, U6, lines 1, 17, 20; fol. 26r, U6, lines 15–16; fol. 26v, U5, lines 18, 23, U6, lines 6, 7, 8, 11, 16; fol. 27r, U5, line 5, U6, lines 4, 11, 14, 15; fol. 27v, U5, line 1, U6, passim.
- 34 Radoslav Tomić, 'Djelatnost altarista Pija i Vicka Dall'Acqua u Dalmaciji', *Radovi Instituta za povijest umjetnosti*, 2/17 (1993), pp. 67–79.
- 35 'Catalogue', N. 1057.
- 36 Francesca Nepori, 'Padre Carlo Giuseppe Ghigliotti e le biblioteche religiose a Genova durante la Repubblica Democratica Ligure (1797–1805)', in *Itinerari del libro nella storia: Per Anna Giulia Cavagna a trent'anni dalla prima lezione*, ed. by Francesca Nepori, Fiammetta Sabba, and Paolo Tinti (Bologna: Pàtron, 2017), 259–268.
- 37 'Catalogue', N. 806.
- 38 'Catalogue', N. 806, front pastedown, P1: '1575 / B. D. [...obliterated] / Jonas [...obliterated]', P2 of

- Janez V. Valvasor; title page, P5; 'A bibliotheca / metr. ecclesiae / zagrabiensis'.
- 39 Vincenzo Fontana, 'L'ordine dorico nel Vitruvio di Fra Giocondo', in *Vitruvio nella cultura architettonica antica, medievale e moderna: Atti del convegno internazionale di Genova 5-8 novembre 2001: Scritti in onore di Claudio Tiberi*, ed. by Gianluigi Ciotta et al., (Genoa: De Ferrari, 2003) 2: 500-504; Ingrid D. Rowland, 'Vitruvius in Print and in Vernacular Translation: Fra Giocondo, Bramante, Raphael and Cesare Cesariano', in *Paper Palaces: The Rise of the Renaissance Architectural Treatise*, ed. by Vaughan Hart and Peter Hicks (New Haven: Yale University Press, 1998), 105-121; Pagliara, 'Vitruvio da testo a canone', pp. 33-37; Lucia Ciapponi, 'Fra Giocondo Da Verona and His Edition of Vitruvius', *Journal of the Warburg and Courtauld Institutes* 47 (1984), 72-90.
- 40 Kruff, *Storia delle teorie architettoniche da Vitruvio al Settecento*, pp. 214-215.
- 41 'Catalogue', N. 1057, I.1, fol. 1r, U3, lines 34, 37, 40; fol. 1v, U3, lines 8, 18, 21, 24, 25, 28, 31, 33, U5, lines 12-13, 18-30, 33-39; fol. 2r, U3, lines 1, 3, 5; fol. 2v, U3, lines 2, 7, 15, U5, lines 1-18; fol. 3r, U3, lines 12, 13, 15, 22, 28, 32, U5, lines 1-24, 28-32; fol. 4r, U3, lines 8, 9, 10, 12, 15, 16, 17; fol. 4v, U3, lines 1, 3, 5; fol. 5r, U3, lines 1, 4, 9, 10, 12, 13; I.2-3, fol. 5v, U3, lines 5, 9-11, 13-14, 25, 27, 28, 30, 31, 35, 37, 39; I.4, fol. 6r, U3, lines 3, 15, 18, 19, 23, 36; fol. 6v, U3, lines 37-39; fol. 7r, U3, lines 3, 6, 14-16, 17, 19, 20, 21, 23, 30; I.5, fol. 7r, U3, lines 37, 38, 39; fol. 7v, U3, lines 1, 10, 13, 20, 24; fol. 8r, U3, lines 3-4, 6-7; I.6, fol. 8v, U3, lines 15-16, 18, 19-20; fol. 9r, U3, lines 2, 3, 4; fol. 9v, U3, lines 3-5; VIII.3, fol. 79r, U3, lines 26, 29, 33, 34, 37, 38, 39.
- 42 'Catalogue', N. 806, I.1, fol. 1r-IVr, U2.
- 43 'Catalogue', N. 806, 'Von Künstlichen gebrauch zu mancherlen vorthail und behendigkeit des Circferls und Richtscheids aus Geometrischen grund zu gemeiner ein leitung in die cew Perspectiva': I.1, fol. IIIv, U17; II.2, fol. XIVv, XVIv, XVIIr, XVIIIv, XXVr, XXXr, XXXII, XXXIIIv, XXXVv, XXXVIIv, XLIV, XLIIIv, XLIVv, XLVIIr, LIV, LIIr, U17; III.1, fol. VIIv, XXIVr, U17; 'Des Ander buch der klaren und berstendlichen unterrichtung der fürnembsten normendigten der gantzen Architectur ungehdrigen Mathematischen und Mechanischen künst: Der Geometrischen Bürenmeisteren', I, fols. IVv, VIr, VIv, U17; II, fol. XIIIr, U17; 'Von der Grundtleung erbawung und befestigung der Sted Schlösser unnd Flecken [...]', I, fol. IIv, U17; II, fol. XXVIIIr, U17.
- 44 'Catalogue', N. 806, Front pastedown, U11.
- 45 'Catalogue', N. 806, 'Von Künstlichen gebrauch [...]', II.2, fol. XIIIv, U11.
- 46 'Catalogue', N. 806, 'Von Künstlichen gebrauch [...]', II.2, fol. XXXVIIIv, U11.
- 47 'Catalogue', N. 806, 'Von Künstlichen gebrauch [...]', II.2: I.1, fols. VIv, VIIr, U10; fols. XXI, XXIIr, U10; I.2, fols. XXVIIv, XXVIIIv, XXXIIIv, XXXIVr, XXXIVv, XXXVv, XXXVIIr, XLIIr, LXIIr, U10; II.2, fols. XIIr, XIIIr, XIIIv, XIVv, XVr, XXIIIv, XIVr, XXVIIv, XXXIIr, XXXIIIv, XXXIVv, XXXVv, XXXVIIv, XVIr, Lv, U10.
- 48 Radovan Ivančević, 'Trogirska krstionica (1467) i montažne konstrukcije dalmatinske graditeljske škole', *Prilozi povijesti umjetnosti u Dalmaciji* 30 (1990), 145-185.
- 49 See, for instance, 'Catalogue', N. 882, III.4, fols. CXI, CXV, CXIX, CXXXVII, U10; N. 886, IV.5, fol. Xr, U10; N. 890, IV.7, fol. 165v, U10.
- 50 'Catalogue', N. 54, III.5, p. 51, U9; III.8, p. 60, U9; III.16, p. 93, U9; N. 891: I.1, fol. 14v, U10; II.3, fol. IXr, U10; N. 712, I.12, p. 11, U9; I.14, p. 17, U9.
- 51 'Catalogue', N. 891, I.3, fol. XIIr, U14 and U16.
- 52 'Catalogue', N. 57, II 5, fol. 53r, U2; II.23, fol. 65v, U2.
- 53 'Catalogue', N. 54, I.5, pp. 9, 10, 11, U2; I.6, p. 15, U2; II.1, p. 27, U2; III.1, p. 44, U2; III.12, p. 71, U2; N. 890, I, fols. 5v, 12r, U2; II, fol. 46v, U2; N. 806, II.2, fol. XXVIIIv, U2.
- 54 'Catalogue', N. 54, III.8, p. 58, U1; III.15, p. 89, U1.
- 55 'Catalogue', N. 890, I, fol. 5v, U1; II, fol. 20v, U4; fol. 44v, U4.
- 56 'Catalogue', N. 1040, II.8, fol. XVIIr, U5; II.10, fol. XXI, U5; III.2, fol. XXVI, U5.
- 57 See, for example, Vitruvius Pollio, *I dieci libri dell'architettura di M. Vitruvio tradutti et commentati da monsieur Barbaro eletto patriarca d'Aquilegia. Con due tauole, l'una di tutto quello si contiene per i capi dell'opera, l'altra per dichiarazione di tutte le cose d'importanza*, ed. by Daniele Barbaro (Venice: per Francesco Marcolini, 1556), 2p. 38, lines 6-7 (IX.9).
- 58 Howard Burns, 'I disegni', in *Mostra del Palladio, Vicenza, Basilica Palladiana*, ed. by Renato Cevese (Milan: Electa, 1973), p. 134.
- 59 Scamozzi, *L'idea della architettura universale*, I.13, p. 48; I.14, p. 49.
- 60 'Catalogue', N. 886, IV.5, fol. VIIr, U16; IV.6, fol. XIXv, U16; IV.7, fols. XXXVIIIr, XLIIr, U13; N. 887: IV.5, fols. VIIr, XIVr, U16; IV.6, fol. XXVIIr, U16; VII.7, fols. XXXVIIIr, XLIIr, U16.
- 61 'Catalogue', N. 24, VII.8, p. 224, U16; VIII.7, p. 303, U16; VIII.10, p. 322, U16; N. 1024, pp. XIIIr, XXVr, U16.
- 62 'Catalogue', NN. 958, 599.
- 63 'Catalogue', N. 9.
- 64 'Catalogue', NN. 598, 228-229, 62, 256.
- 65 'Catalogue', N. 523, pls. 4-5, U10.
- 66 'Catalogue', N. 745, pls. D, F; N. 1017, plate between pp. 128-129.
- 67 'Catalogue', N. 131, p. 73, U15.
- 68 'Catalogue', N. 518, IV.1, p. 226, U13; IV.3, pp. 244-245, U5; pls. IV-VI, U2.
- 69 'Catalogue', N. 884, III, Proemio, p. 5, U6.
- 70 Angelini, *Sapienza, prudenza, eroica virtù: Il mediomondo di Daniele Barbaro*; Sanvito, *Daniele Barbaro alla riscoperta dell'Antico inedito*.
- 71 'Catalogue', N. 21, IX.10, fol. 214r, line 1, U4.
- 72 Camerota, *La prospettiva del Rinascimento: Arte, architettura, scienza*, pp. 58-195.
- 73 'Catalogue', N. 1025, title page, U9 and U10.
- 74 'Catalogue', N. 884, III, p. 137, U9; N. 879, fols. 7v-8r, U9.
- 75 'Catalogue', N. 1040, I.1, fol. IIr, U15; III.3, fols. XXXI, U15; IV.3, fol. XXXVIIr, U15; IX.3, fol. LXXXVv, U15; IX.7, fol. XCr, U15; IX.8, fols. XCVI, XCIr, U15; X.4, fol. XCVI, U15; X.8, fol. XCVIIIr, U15; X.13, fol. CIIIv, U15; X.14, fol. CIVv, U15; X.18, fol. CVIv, U15; X.20, fol. CVIIv, U15.
- 76 'Catalogue', N. 596, front endpaper, P1, U7.
- 77 'Catalogue', N. 596, VI.6, p. 299, U7.
- 78 'Catalogue', N. 596, front endpaper, P9; 'V Cicognara Catalogo N. 160. / V. Comolli Bibliografia, a Roma / 1788 volume 1° pag. 18 / V. In fine Mss. un capitolo / aggiunto, e una Nota / M.G.'
- 79 'Catalogue', N. 596, V.1, p. 247, U5 and U6, lines 2, 13-15, 24-25.
- 80 'Catalogue', N. 326, passim, U5, U9, U11.
- 81 'Catalogue', N. 325, front endpaper, obliterated P3; passim, U13; fol. 44v, U8; fol. 117r, U9.
- 82 An annotated copy of Vitruvius that belonged to the mathematician Marcantonio Gandino is, for instance, in the Treviso Municipal Library: Vitruvius Pollio, *I dieci libri dell'architettura di M. Vitruvio tradutti et commentati da monsieur Barbaro eletto patriarca d'Aquilegia. Con due tauole, l'una di tutto quello si contiene per i capi dell'opera, l'altra per dichiarazione di tutte le cose d'importanza* (In Vinegia: per Francesco Marcolini, 1556) Treviso, Biblioteca Comunale, I 19A 6.
- 83 'Catalogue', N. 1057, IX.3-5, fols. 85-88, U12; IX.7, fol. 89r, U13; IX.9, fol. 92v, U12; X.9, fol. 99v, U13; X.10-14, fols. 101-103, U12; X explicit fol. 110r, U13; N. 913: VIII.2-5, fols. LXXVII-LXXX, U13; IX.1-4, fols. LXXXIII-LXXXVII, U13; IX.5-6, fol. LXXXVIIIv, U13; X.2-5, fols. XCV-XCVI, U13.
- 84 'Catalogue', N. 1058, VIII.1, fol. CCXLIIIr, U13; VIII.7, fol. CCLIXr, U13; IX.6, fol. CCLXXXVIIv, U13; IX.7, fol. CCXXXVIIIv, U13; IX.8, fol. CCLXXXIV, U13; IX.9, fol. CCLXXXIIIr, U13; fols. CCLXXXV-CCLXXXVI, U5; X.5, fol. CCXCIVr, U13; X.10, fol. CCCIVv, U13; X.11-12, fols. CCCVI-CCCVII, U5; X.15, fol. CCCXI-CCCXII, U5; X.19, fol. CCCXIV, U13.
- 85 'Catalogue', N. 1048, IX.4, pp. 379-384, U13; IX.5, p. 390, U13; IX.8, p. 398, U13.
- 86 'Catalogue', NN. 756, 231.
- 87 'Catalogue', N. 756, p. 61, P1: 'Ex libris / Petrij Georgij Sablich / de Chersii'; N. 205, title page [A Ir], obliterated P1 and P1: 'Ex libris Georgi Sablich de Cherso'; fol. 11r, obliterated P1; back endpaper, P1: 'Ex libris / Petrij Sablich de / Chersio'. Another P1 'Ex libris / Georgi Sablich / de Chersio' is on the title page of Piccolomini's book, which I did not include in my catalogue.
- 88 Borić and Gudelj, *Uveliko i u malo*.
- 89 The list could be very long; see, for instance, 'Catalogue', N. 756, pp. 15, 17, 22, 29, 73, U13; pp. 20, 21, 41, 42, 49, 60, 108, U5; N. 205, fols. 3v,

- 4r, 6v, 7r, 10v, 15r, 17r, 18v, 19v, 36r, 37r, 38r, 39r, 73r, 76v, 77r, 78r, 79v, U3; fols. 7r, 9v, 11r, 12v, 14v, 17v, 18r, 30v, 77v, 78r, 79r, 82r, U5; fol. 17v, U6; fols. 39r, 52r, U7; fols. 2v, 7r, 9r, 11v, 12r, 19v, 35v, 40r, 41v, 45v, 53r, 71-72, 76v, 77v, U13.
- 90 'Catalogue', N. 231, fols. 11v, 12r, U13.
- 91 'Catalogue', N. 231, fols. 73r, 76v, U3.
- 92 'Catalogue', N. 231, fols. 77r, 77v, 78r, U3; fol. 79r line 13, U5.
- 93 'Catalogue', N. 231, back endpaper, U7.
- 94 'Catalogue', N. 57, I,9, fol. 16r, U7; II,5, fols. 53r, 53v, U7; II,6, fol. 54r, U7; II,10, fols. 58r, 59r, U7; II,14, fol. 61r, U7; II,23, fol. 65v, U7; II,24, fol. 66v, U7; II,30, fol. 71r, U7; II,31, fol. 71r, U7; III,6, fol. 74r, U7.
- 95 Besides what is listed in the previous footnote, see 'Catalogue', N. 57, I,9, fol. 15v, U5 and U11; II,5, fol. 53r, U2; fol. 53v, U11; II,23, fol. 65v, U2; II,24, fol. 66r, U11; III,17, fol. 83r, U5.
- 96 'Catalogue', N. 57, II,5, fol. 53v, U11.
- 97 'Catalogue', N. 57, fol. A2v, U8.
- 98 'Catalogue', N. 1057. For further details, see Chapter 2.3.
- 99 'Catalogue', N. 1040, I,1-5, fols. III-VIII, U13.
- 100 'Catalogue', N. 1047, I,1, pp. 16, 20, U13; p. 22 line 7, U5; I,2, pp. 26, 27, U13; I,3, p. 38, U13.
- 101 'Catalogue', N. 1047, I,3, p. 37 line 29, U5.
- 102 'Catalogue', N. 22: I,4, fol. 9r, U13; I,5, fol. 12v, U31; I,6, fol. 13v, U13; I,9, fol. 18r, U13.
- 103 'Catalogue', N. 22: VI,2, fols. 117v, 118v, U5; VI,4, fol. 122v line 16, U4; 'maraviglia'.
- 104 'Catalogue', N. 24, VI,2, p. 161, lines 41-43, U5; IX,5, p. 336, U6; IX,6, p. 341, lines 42-45, U5.
- 105 'Catalogue', N. 24: VII,8, p. 224, U16; VII,9, p. 232, U15; IX,7, p. 348, lines 18-21, U5.
- 106 'Catalogue', N. 22: VI,13, fol. 136r, U13; N. 1040: IV,3, fol. XXXVIr, U13; N. 1058: III,3, fol. CXXIIIr, U13; IV,7, fol. CLVIr, U13; N. 1047: III,1, pp. 109, 111, 114, 120, U13; III,2, pp. 125-128, U13; III,3, pp. 144, 147, 152, U13; IV,1, p. 164, U13; IV,2, pp. 168, 170, U13.
- 107 'Catalogue', N. 1047, III,2, p. 128, U5: 'Del Theatro di pietra intende il Filandro il Theatro di Pompeio, i cui vestigij sono in campo de Fiore. Né valse al buon Pompeio, che gli vi ponesse ogni studio per farlo eterno, facendolo di pietra, perché troppo grande è la forza del tempo, et la ingiuria che egli fa alle cose. Ma quali non gli sono soggette?'
- 108 'Catalogue', N. 1047, III,2, p. 129, U5: 'Vero è che al sopradetto difetto, si sul provvedere facendo sopra gli Architravi molti archi, & lasciandoli bene fermare, & asciugare, lasciandovi anche di sotto il vano, perché quegli archi levano il peso agli Architravi'.
- 109 'Catalogue', NN. 1024, 887, 886, 884, 890.
- 110 'Catalogue', N. 886: IV,5, fol. VIIr, U16; IV,6, fol. XIXv, U14 and U16; IV,7, fol. XLlr, U16; N. 1024: pl. XXV, U16.
- 111 'Catalogue', N. 884: IV,6, fol. 17r, line 21, U5; fol. 19r, line 12, U5; fol. 30v, lines 2, 6, 9, 24, U6; IV,7, fol. 36v, line 6-7, U5 and U1; N. 890: IV,6, fol. 139r, line 24, U5; fol. 140v, lines 4, 8, U6; IV,7, fol. 158v, line 8, U5 and U6.
- 112 'Catalogue', N. 884, IV,7, fol. 36v, U2.
- 113 'Catalogue', N. 886, IV,5, fol. Xr, U10 and U14; N. 890, IV,7, fol. 164v, U10; N. 891, IV,6, fol. XXIIr, U14; N. 1024 pls. VII, XXIII, U10 and U16.
- 114 'Catalogue', N. 887, IV,5, fol. VIIr, U10 and U16, fol. XIv, U10, U13, U14, U16; fol. XVv, U10 and U14; IV,6, fol. XXIIIr, U10; fols. XVIIr, XXXVIr, U10 and U14; IV,7, fol. XLv, XLlr, U10; IV,8, fol. LIXr, U10.
- 115 'Catalogue', N. 887, IV,5, fol. VIIr, U10 and U16; IV,6, fol. XXVIIr, U10 and U16; IV,7, fol. XLlr, U16; N. 896, pl. XXXII, U10 and U16.
- 116 'Catalogue', N. 706, I,17, p. 37, U13; p. 38, U5.
- 117 'Catalogue', N. 712, I,12, p. 11, line 12, U5; I,13, p. 11, lines 28, 37, 42, U5 and U10; I,14, p. 13, U10 and U9; I,15, p. 21, U10.
- 118 'Catalogue', N. 518, III,2, p. 138, U13; III,9, p. 177, U13.
- 119 Gudelj, *Europska renesansa antičke Pule*.
- 120 'Catalogue', N. 884, III, p. 123, U13; p. 137, U9; p. 128, U5; p. 129, U2.
- 121 'Catalogue', N. 884, III, p. 5 line 46, U5; p. 106, U2.
- 122 'Catalogue', N. 877.
- 123 'Catalogue', N. 891, III,4, fol. XIIr, line 1, U6; fols. LIX-LX, U13.
- 124 'Catalogue', N. 707, IV,9, p. 34, U13; IV,12, p. 41, U13; IV,15, p. 58, U13; IV,20, p. 81, U13; IV,21, p. 85, U13; IV,27, p. 109, U13; IV,30, p. 124, U13.
- 125 'Catalogue', N. 706, IV,3, p. 7, U12; IV,3, p. 13, U10 and U13; IV,8, p. 28, U13; IV,13, p. 50, U13; IV,16, p. 62, U13; p. 63, U12; IV,18, p. 68, U13; p. 69, U122; IV,25, p. 100, U13; IV,26, p. 104, U13; IV,27, pp. 107-112, U13; IV,30, p. 126, U13; IV,31, p. 129, U13.
- 126 'Catalogue', N. 882, III, small paper fols. between leaves XVI-XVII, XXX-XXXI.
- 127 'Catalogue', N. 882, III, p. CX, U10, U14 and U16; p. CXV, U10, U14, U16; p. CXIX, U10 and U14.
- 128 'Catalogue', N. 882, III, p. XIX, U14 and U16; p. XLIX, U16; p. LIX, U10 and U16; p. XCVIII, U16.
- 129 'Catalogue', N. 886, IV,5, fol. Xr, U10 and U14; IV,6, fol. XIXv, U14 and U16; fol. XXVIr, U10; IV,7, fol. XXXVIIIr, U16; fol. XLlr, U16.
- 130 'Catalogue', N. 719.
- 131 'Catalogue', NN. 5, 6.
- 132 'Catalogue', NN. 4, 7.
- 133 'Catalogue', N. 3.
- 134 'Catalogue', N. 890, III, fols. 64v, 65r, 67r, 117-120, U13.
- 135 'Catalogue', N. 891, III,4, fol. XVIv line 6, U6; fol. XIXr line 1, U6; N. 620: IV,17, p. 64, U13.
- 136 'Catalogue', N. 882, III, pp. XLIV, CXLII, CXLIV, CXLVII, U13.
- 137 'Catalogue', N. 882, III, pp. CXLVI, CXLVII.
- 138 'Catalogue', N. 54, IV,5, p. 137, line 18, U7.
- 139 'Catalogue', N. 54, 'Proemio', fol. A2r, line 19, U1. On Barbaro's mistake, see Camerota, *La prospettiva del Rinascimento: Arte, architettura, scienza*, pp. 149-151.
- 140 'Catalogue', N. 1024, pls. XXXIII, XL, and s.n. (but LXVI), U13.
- 141 'Catalogue', N. 596, V,17, p. 272, line 15, U2.
- 142 'Catalogue', N. 884, IV,11, fol. 68v, lines 27, 29, 36, 44, 52-53, U6, lines 27, 44, 53, U5; IV 12, fol. 69v, lines 18, 46, 49, 50, 51, U6, line 18, U5.
- 143 'Catalogue', NN. 987-992.
- 144 'Catalogue', NN. 50, 47, 682, 952-953.
- 145 'Catalogue', N. 50, vol. II, pp. 124, 174, 270, U5; vol. III, p. 275, U5; vol. II, pp. 81-83, 91, U6.
- 146 Jasenka Gudelj, 'Stato da Mar: L'architettura: Il Cinquecento in Istria e in Dalmazia', in *Storia dell'architettura nel Veneto: il Cinquecento*, ed. by Donata Battilotti et al. (Venice: Marsilio, 2016), p. 262.
- 147 Jasenka Gudelj and Cristiano Guarneri, 'Materiali e costruzione nell'Adriatico', in *Geografia e storia dell'architettura. Il Rinascimento*, ed. by Francesca Mattei (Rome: Carocci, 2026) forthcoming.
- 148 For the complex history of the editions of Rusconi's book, see Anna Bedon, 'Giovanni Antonio Rusconi: Illustratore di Vitruvio, artista, ingegnere, architetto', in *Della architettura*, by Giovanni Antonio Rusconi, Facsimile (Verona-Vicenza: Colpo di fulmine-Centro internazionale di studi Andrea Palladio, 1996), pp. IX-XXI; Kruff, *Storia delle teorie architettoniche da Vitruvio al Settecento*, p. 78; Anna Bedon, 'Il "Vitruvio" di Giovanni Antonio Rusconi', *Ricerche di storia dell'arte*, no. 19 (1983), 84-90.
- 149 'Catalogue', NN. 155, 313.
- 150 'Catalogue', N. 21, VI,10, fol. 132r, line 13, U5.
- 151 Belamarić, *Stone of the Eastern Adriatic*.
- 152 'Catalogue', N. 1047, II,3-8, pp. 75-90, U13; II,8, p. 86, U13.
- 153 'Catalogue', N. 1042, II,4-10, pp. 49-75, U7.
- 154 'Catalogue', N. 1058, II,8, fol. LXXVIv, U13; fols. LXXVIr-LXXXIr, U5.
- 155 'Catalogue', N. 1047: VII,1-3, pp. 309-316, U13; N. 21: II,11, fol. 44r, U13; III,10, fol. 59r, U13.
- 156 'Catalogue', N. 24: III,6, p. 71; III,10, p. 79.
- 157 'Catalogue', N. 1040, II,8, fol. XVIIr, line 5, U5.
- 158 'Catalogue', N. 1058, VII,2, fol. CCXXIIIv, U13; VII,2, fol. CCXXVIIr, U13; N. 919: VII,1-3, pp. 309-316, U13; VIII,3, p. 314, U13.
- 159 'Catalogue', N. 1058, VII,5, fol. CCXXXIIr, U13; VII,12, fol. CCXXXVIIIr, U13.
- 160 'Catalogue', N. 1047, VII,8, p. 323, line 10, U5; VII,9, p. 324, line 29, U5; VII,11-13, p. 325, U13; VII,14, p. 326, line 11, U5, line 18, U7.
- 161 'Catalogue', N. 21, III,3, fol. 50v, line 3, U5, line 8, U3.
- 162 'Catalogue', N. 1042, III,3, pp. 110-124, U7.
- 163 'Catalogue', N. 21, III,2, fol. 50r, line 19, U6; N. 915, III,3, p. 110, lines 27-28, U5.
- 164 'Catalogue', N. 1040, V,12, fol. LVlr, U13; N. 1047, V,12, p. 268, U5; p. 270, U13; p. 271, U2.
- 165 Gudelj, 'The Circulation of Building Materials'; Guarneri and Ivić, 'Books, Buildings and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 166 'Catalogue', N. 1047, V,12, p. 270, U13.
- 167 'Catalogue', N. 1047, V,12, p. 271, line 30, U2.

- 168 'Catalogue', N. 1047, VI.11, p. 304, line 35, U5 and U13.
- 169 'Catalogue', N. 833, III, p. 18, U13.
- 170 'Catalogue', N. 24, III.13, p. 87, lines 1-2, U5.
- 171 'Catalogue', N. 24, III.14, p. 90, U13.
- 172 'Catalogue', N. 24, III.16, p. 95, U13; N. 1058, VII.1, fol. CCXXIr, U13; N. 1047, VII.1-3, pp. 309-316, U13.
- 173 'Catalogue', N. 1058, VII.1, fol. CCXXIIr, line 35, U5.
- 174 'Catalogue', N. 1042, II.9, p. 66, U7; II.10, p. 74, U7.
- 175 'Catalogue', N. 1040, II.10, fol. XXIV, line 18.
- 176 'Catalogue', N. 706, II.14-15, pp. 55-60, U13.
- 177 'Catalogue', N. 709, II.3, pp. 5-12, U13.
- 178 'Catalogue', N. 712, II.3-7, pp. 3-34, U13; II.3-4, pp. 7-22, U13.
- 179 'Catalogue', N. 706, II.3, pp. 5, 10, 18, U13; N. 707, II.17, p. 71, U13.
- 180 'Catalogue', N. 706, II.4, p. 25, U13; N. 706: II.6, p. 29, U13; p. 31, U12.
- 181 'Catalogue', N. 1042, IV.4, p. 229, lines 1, 8, 10, U1.
- 182 'Catalogue', N. 1047, VI.4, p. 290, lines 4-8, U5; VI.5, p. 292, lines 26-29, U5 and U6.
- 183 'Catalogue', N. 1047, VI.1, p. 274, U13; VI.2, p. 279, U13; VI.3-4, pp. 281-290, U13; VI.3, pp. 282, 284, U13; VI.6, p. 295, U13; VI.10, p. 300, U13; VI.11, p. 304, U13.
- 184 Dubravka Dujmović, 'Nekadašnji vlasnici knjiga XVI stoljeća iz fonda splitske Sveučilišne knjižnice', *Kulturna baština*, nos. 28-29 (1997), 148.
- 185 'Catalogue', N. 494, II.3, fol. 64v, U13; II.4, fols. 84-87, U13; II.5, fols. 89-94, U13; II.6, fols. 97-98, 103v, 104r, U13; II.10, fol. 122v, U13.
- 186 'Catalogue', N. 494, II.9, fol. 117r, lines 7-10, U5; II.10, fol. 120r, lines 5-6, U5.
- 187 'Catalogue', N. 494, I.5, fol. 24r, U13; I.7, fol. 41v, U13; II.1, fols. 204-206, U13.
- 188 'Catalogue', N. 1057, VI.8, fol. 65r, U13.
- 189 'Catalogue', N. 24, V.14, p. 147, lines 25-28, U5.
- 190 'Catalogue', N. 24, IX.1-6, pp. 328-344, U13.
- 191 'Catalogue', N. 24: IX.2, p. 329, lines 33-37, U5; p. 330, lines 9-13, 20-22, U5.
- 192 'Catalogue', NN. 129, 557-558, 863.
- 193 James S. Ackerman, *The Villa: Form and Ideology of Country Houses* (Princeton: Princeton University Press, 1990), pp. 108-123.
- 194 'Catalogue', NN. 267, 237, 286, 285, 335.
- 195 'Catalogue', NN. 972-975.
- 196 'Catalogue', N. 69.
- 197 'Catalogue', N. 673, for instance, between pp. 41 and 42.
- 198 'Catalogue', N. 1057, III.1, fol. 22v, U12; N. 1058, III.1, fol. CIIv, U13.
- 199 'Catalogue', N. 1058: III.2, fol. CXIVr, U13; III.3, fol. CXXIIIr, U13; fol. CXXVIIv, U10; IV.4, fol. CXLVIIIv, U13.
- 200 'Catalogue', N. 1058, II.2, fol. CXVv, U8. The note, partially illegible, is written on a small sheet pasted on a large ink stain that probably aims to cover a previous note or sign of possession.
- 201 'Catalogue', N. 1047: III.1, pp. 96, 99-104, 109, 111, 113, 120, U13; III.2, pp. 125-128, U13; IV.4, p. 176, U13; IV.6, p. 190, U13; IV.8, p. 197-202, U13.
- 202 'Catalogue', N. 1048, IV.5, p. 182, line 6, U5.
- 203 'Catalogue', N. 24: VII.5, p. 212, lines 35-37, U5; VII.11, p. 240, U13; VIII.3, p. 272, U13.
- 204 'Catalogue', N. 884: V, fol. 1v, line 9, U6; fol. 2v, line 12, U5; fol. 11v, line 14, U6; fol. 12r, lines 17, 18-19, U6; fols. 13r-14v, U13.
- 205 'Catalogue', NN. 78-81.
- 206 'Catalogue', N. 24, VIII.7, p. 303, U16.
- 207 'Catalogue', N. 1047: plate between pp. 202 and 203, U14; V, p. 223, U13; V.6, p. 247, line 29, U5.
- 208 'Catalogue', N. 1058, V.5, fol. CXXIIv, U13; N. 1048, V.4-5, pp. 233-247, U15.
- 209 'Catalogue', N. 882: p. XLIX, U16; pp. L, LII, U13.
- 210 'Catalogue', N. 890: II, fol. 50r, line 10, U6; fol. 52r, U7.
- 211 'Catalogue', N. 884: II, fol. 25r, lines 1, 17, 20, U6; fol. 26r, lines 15-16, U6; fol. 26v, lines 6, 7, 8, 11, 16, U6, lines 18, 23, U5; fol. 27r, lines 4, 11, 14, 15, U6, line 5, U5; fol. 27v, line 1, U5; passim, U6.
- 212 'Catalogue', N. 1047: V.10, pp. 262, 263, U13; V.11, p. 266, U13.
- 213 'Catalogue', N. 882, III, pp. XCII, XCVIII, U13.
- 214 'Catalogue', N. 890, III, fol. 96r, U13.
- 215 'Catalogue', N. 24, VIII.10, p. 322, U14 and U16.
- 216 'Catalogue', N. 24: IV.2, p. 100, lines 19-20, U5; p. 102, lines 4-7, 31-34, U5, lines 12-13, 16-18, U6.
- 217 'Catalogue', N. 1057: I.6, fol. 8v, lines 15-16, 18, 19-20; U3; fol. 9r, lines 2, 3, 4, U3; fol. 9v, lines 3-5, U3.
- 218 'Catalogue', N. 1047: I.6, p. 54, U13; p. 60, U2.
- 219 'Catalogue', N. 1058, I.6, fol. XLIXv, U13.
- 220 'Catalogue', N. 21: VIII.6, fol. 180r, U5; N. 22: VIII.6, fol. 180r, line 11, U5, lines 11, 25, U6; fol. 180v, U5; N. 24: VII. 6, p. 287, U13.
- 221 'Catalogue', N. 24: IV.3, p. 105, U13; V.4, p. 128, U13; V.6-7, pp. 131-134, U13; V.8, p. 135, U13.
- 222 'Catalogue', N. 707, III.18, p. 34, U13.
- 223 'Catalogue', N. 709, III.3-8, pp. 9-16, U13.
- 224 'Catalogue', N. 882, III, pp. LXXXVII-XC, U13.
- 225 'Catalogue', N. 706, III.4-21, pp. 11-47, U13.
- 226 'Catalogue', N. 806, I.1, fol. XVIr, U11.
- 227 'Catalogue', N. 1040, V.12, fol. LVIr, U13.
- 228 'Catalogue', N. 1040, VIII.2-5, fols. LXXVIIr-LXXXv, U13.
- 229 'Catalogue', N. 22: X.6, fol. 227r, lines 7-9, U5 and U6; N. 1047: VIII.2, pp. 330, 331, U13; VIII.3, p. 335, U13; VIII.4, p. 340, U13.
- 230 'Catalogue', N. 1058, VIII.1, fol. CCXLIIIr, U13; N. 919, VIII, p. 328, U13.
- 231 'Catalogue', N. 1042, VIII.7, pp. 344-351, U7.
- 232 'Catalogue', N. 1058, VIII.7, fol. CCLIXr, U13.
- 233 'Catalogue', N. 24, X.5, pp. 369-372, U13.



IMPACT

The third and final chapter of this book marks a significant shift in the main topic of analysis. While the earlier chapters focused on architectural books as both the subjects and sources of research, this chapter transitions to examining their impact on architecture by turning to buildings. Accordingly, the emphasis moves from books to buildings, or, more precisely, to the knowledge and processes involved in designing and constructing buildings.

The preceding chapters, which focus on the circulation and use of architectural books, were somewhat limited in scope. In the first chapter, I delineated the circulation of architectural books based on a specific set of sources. In the second, utilisation of architectural books was deduced from scrutiny of material evidence of possession and use in book copies located in eastern Adriatic libraries. While I cannot claim to have considered all of the available evidence, as new archival documents and copies of architectural books may surface in the future, I have engaged with a substantial array of sources. However, an examination of the impact of these volumes on buildings and artworks in the early modern eastern Adriatic is a different scenario altogether.

Assessing the impact of architectural books on the building trade in the early modern eastern Adriatic offers a complex challenge, involving hundreds of buildings scattered across a vast and multifaceted region. This area stretches along the coast from Koper in Istria to Kotor in southern Dalmatia; it also extends westward to numerous islands and eastward to the inland regions of Carniola and Central Croatia. As has been previously discussed, this region was far from homogeneous, for it was fragmented into areas controlled by diverse political entities and marked by varied geographical, social, and linguistic contexts. Moreover, it was a dynamic area, undergoing continuous political, social, and cultural transformation over three centuries. These factors alone complicate the task of evaluating the impact of architectural books, though they are not the only obstacles.

The building itself is also a multifaceted object, and certain aspects of it relevant to this research create complexities that surpass those of the book. The investigation of the circu-

lation and use of architectural books has deliberately excluded an analysis of authors and the creative processes involved in production. Circulation and use belong to the 'afterlife' of the book—a phase occurring after the writing and publishing stages and typically independent of the author's intent or the book's content. However, such detachment is not feasible when we assess the impact of architectural books on buildings.

Like books, buildings undergo a series of stages involving various processes and tasks: commission, design, construction, and eventual modification or restoration, not to mention the intermediary steps. However, unlike the creation of books, where the events surrounding production typically do not influence subsequent circulation and use, the impact of architectural books can be evident at every stage of a building's life. In this sense, all phases contributing to the creation and transformation of buildings may reveal some degree of influence from architectural literature.

It is also important to note that while extensive scholarship exists on major architectural treatises, as well as their authors, various editions, and reception, the eastern Adriatic remains a relatively understudied region within international architectural historiography. Many buildings in this area bear the marks of complex construction histories, yet scholars have only partially reconstructed these histories with the extant primary sources, leaving numerous questions unanswered.

Given the above challenges, a comprehensive study that systematically evaluates the impact of architectural books on all buildings—or even a representative sample of them—in the early modern eastern Adriatic is not feasible. Such an endeavour would likely exceed the scope of a single monographic study. Instead, attainable research objectives include compiling a systematic catalogue of architectural books held in eastern Adriatic libraries and conducting a physical analysis of selected volumes to identify material evidence of their possession and use. In addition, the process of creating an exhaustive catalogue of early modern buildings in the eastern Adriatic and systematically assessing their potential connections to architectural books lies beyond the capacity of an individual researcher. Moreover,

this effort would likely yield only a modest contribution to the broader field of architectural history.

In the following chapter, I aim to undertake a specific line of research. This chapter does not aspire to provide a comprehensive analysis of the impact of architectural books on the buildings of the early modern eastern Adriatic. Instead, it seeks to propose productive research pathways and illustrate them through relevant and well-documented examples. This approach is intended to lend broader applicability to my research findings. Unlike a comprehensive study, which might primarily attract local interest in the eastern Adriatic, the more conceptual framework that I propose has the potential to engage a wider audience. I seek to address questions such as: In what aspects of the building trade did architectural books exert influence? At what stages in the life cycle of a building did architectural books have the most impact? In which tasks associated with the design and construction of buildings did architects and patrons rely on architectural books? Were certain building types more affected than others by the influence of architectural books?

My approach has a particular methodological goal: expanding the scope of investigations into the influence of architectural books. Scholars too often adopt a narrow perspective in analyses of this impact, focusing primarily on visual parallels in isolated architectural elements. A prevailing trend in the scholarship—not only for the eastern Adriatic but more broadly—is to equate the influence of architectural books with their contribution to provide versions of the five orders, particularly individual details, such as capitals, or their combinations in specific compositions like gates. This formalist approach continues to dominate studies of the influence of architectural books on buildings. While it is true that identifying visual parallels between book illustrations and built architectural forms is a relatively straightforward task, this method remains superficial and reductive.

Moreover, the orders often represented only a small portion of the knowledge conveyed by architectural books. As a result, relying solely on visual parallels in their formal elements and compositions provides an incomplete understanding of the impact of architectural books. Indeed, many of the features in a building that could stem from the reading of architectural books are not easily observable and, in some cases, are not visually discernible at all. To investigate these less evident features, we must move beyond visual analyses of buildings and incorporate evidence from other, related sources.

In this chapter, I introduce a shift in approach and perspective. Traditionally, scholars have established the connection between architectural books and buildings by starting with the buildings and tracing their features back to potential sources in architectural books. Art and architectural historians often

focus primarily on studying buildings and their architectural elements. This methodology typically involves investigation of whether certain features in buildings may have their origins in architectural treatises. However, such an approach for the eastern Adriatic is limited by a lack of data on the circulation and use of architectural books and thus leaves a significant gap in the understanding of how architectural books influenced the region.

In the first two chapters, I sought in part to fill this gap by presenting a substantial body of data on the circulation and use of architectural books. The resulting knowledge base facilitates a methodological shift towards a multidirectional approach. Rather than following a one-way path—from buildings to books—my study can now proceed in both directions. In the following chapter, I aim to explore this new, bidirectional path, beginning with both architectural books and buildings and seeking to identify points of contact between them.

This shift represents a significant methodological change in architectural history, allowing for a more dynamic and comprehensive understanding of the relationship between architectural books and buildings. Crucially, my new approach is made possible by the data collected and analysed in the previous two chapters, which provide the necessary foundation for this expanded perspective.

Design Principles and Proportions

Among the various ways in which architectural books can influence buildings, the most challenging to discern and evaluate involves the fundamental principles of architectural design. Renaissance authors, following the approach of Vitruvius, often emphasised the importance of adhering to basic concepts in the design of buildings. These principles—whether geometric, proportional, or functional—seldom leave clear, tangible traces in the completed structure. Occasionally, such principles can be inferred from a detailed architectural survey of the building. However, this methodology can only offer hypotheses about the influence of architectural books; it cannot definitively confirm the designer's intentions.

The only reliable way to establish such intentions is to complement the analysis of the building with other sources, particularly archival primary sources. Written reports, sketches and drawings, building accounts, correspondence, and, in some cases, notarial acts or administrative documents can provide definitive evidence of a designer's deliberate effort to incorporate principles derived from architectural books. These sources offer a crucial means of bridging the gap between theoretical principles and their application in architectural practice.

Unfortunately, archival evidence that would reveal the designer's intentions remains scarce. One notable exception

involves the Ragusan nobleman Stjepan Gradić (Stefano Gradi), who played a key role in the reconstruction of Dubrovnik following the devastating earthquake of 1667. As has been detailed in several studies, Gradić was based in Rome at the time, serving as a custodian in the Vatican Library.¹ From this position, he coordinated remotely the city's reconstruction efforts, focusing on securing funds, recruiting architects to send to Dubrovnik, and providing the Ragusan Senate with detailed recommendations on organising the work through a series of letters.

Unlike many of his contemporaries in the eastern Adriatic, Gradić had unparalleled access to a vast body of architectural knowledge available in written form because of his position within the Vatican Library. This privileged access uniquely positioned him to draw upon the architectural treatises and theories of his era, potentially influencing his guidance in the reconstruction of Dubrovnik.

In his correspondence with the Ragusan Senate and other noblemen, Stjepan Gradić demonstrates a remarkably broad and varied expertise in architecture.² Addressing the key steps necessary for the city's reconstruction, advocating for assembling the new cathedral with appropriate building techniques, and advising on the optimal organisation of the construction site, Gradić cited prominent figures in architectural theory, such as Vitruvius and Alberti. Moreover, his letters reveal a practical understanding of the building process, drawing on knowledge gained directly from Roman masters. As he himself wrote: 'trasmetto di qua le notizie che raccolgo dagli esempi delle fabbriche di Roma e dagli documenti degli architetti romani' (I send from here the information I gather from the examples of Roman buildings and the records of Roman architects').

Perhaps the most intriguing passage in his letters, however, is his reference to a popular saying that underscores the dominance of the patron over the architect in the building trade:

Ma dovrebbe ricordarsi del proverbio che dice, che il primo architetto deve essere il patrone, che ha per una tale intelligenza da saper dar gl'ordini accertati al vero architetto che deve essere ministro e non arbitro della fabbrica.³

(But one should remember the proverb that says the first architect must be the patron, because he has such an intelligence as to know how to give precise orders to the true architect, who must be a minister and not an arbiter of the building).

According to Gradić, the 'true architect' had the limited task of technically executing the wishes of the 'first architect', or the patron. As the subsequent events in the reconstruction of Dubrovnik revealed, Gradić shared this mindset with a large

part of the Ragusan ruling class⁴—with members of aristocratic families like the Gundulić, Gučetić, and Tudišić, which, as I have shown in the previous chapters, owned and used architectural books. However, no architectural treatise written by an architect would ever state the complete subordination of the architect to the patron, except for the *Trattato sopra gli errori degli architetti* by Teofilo Gallaccini, who was not an architect and who shared with Gradić the perspective of the nobleman and dilettante architect.⁵ While Gallaccini writes 'che non vi sia il migliore Architetto del Sig. della Casa' (that there is no better Architect than the Lord of the House), he also stigmatises this observation as 'un proverbio volgare, male inteso' (a vulgar and misunderstood proverb). Although Gallaccini's writings on architecture date to 1625 but remained unpublished until the eighteenth century, Gradić could have had access to them through the manuscript copy in the Vatican Library.⁶

The letters sent by Gradić highlight the intricate nature of the circulation of architectural knowledge. At first glance, his case might seem to fall outside the scope of this investigation, as it involves the transmission of architectural knowledge through media other than early printed books. However, once archival documents related to the building trade are examined, the multilayered and interconnected forms of architectural knowledge become evident.

Gradić's expertise extended beyond the theoretical, explicit, and systematically organised knowledge found in printed architectural treatises. He also drew upon intermediary modes of transmitting architectural knowledge, such as manuscripts, and the practical, implicit details passed orally across generations of professional builders and craftsmen. His case thus reveals that architectural books, while significant, represented only one segment of the broader spectrum of architectural knowledge, which included diverse and often overlapping sources of information and expertise.

The question of proportions is a topic for which scholars often examine building design independently of architectural books. From the early Renaissance, with Brunelleschi's architectural works and Alberti's theoretical writings, the proportioning of space according to simple ratios—both in plan and elevation—became a defining feature of designs. This approach was notably employed in key Renaissance works, such as Alberti's church façades, Giuliano da Sangallo's Medici Villa at Poggio a Caiano, Jacopo Sansovino's San Francesco della Vigna in Venice, and the interiors of Andrea Palladio's villas and palaces. The widespread application of these simple ratios has made the study of proportions popular among art and architectural historians.

However, the relative ease with which proportional systems can seemingly be identified—often via the superimposition of lines and circles on building plans and elevations—has

frequently led to a misuse of this methodology. The practice of controlling dimensions in design and construction through graphic methods based on drawing, which often results in simple ratios between parts, has roots in the empirical knowledge of the Middle Ages. In that context, the ratios primarily served practical purposes, such as ensuring structural stability, rather than adherence to theoretical ideals.

In the eastern Adriatic, several scholars have employed this methodology of analysis to study building proportions. Radovan Ivančević, for instance, applied it in his analysis of three-lobed Renaissance façades, not only that of Šibenik Cathedral but also those of later structures. He successfully identified distinct compositional approaches, distinguishing Gothic methods from Renaissance ones by uncovering different proportional systems. However, his studies did not reveal any explicit evidence of influence from architectural treatises. This lacuna is evident for both fifteenth-century and sixteenth-century buildings, despite the documented circulation of architectural books during the latter period.⁷

The design of this distinctively Adriatic type of façade composed of three lobes adhered to empirical systems of proportion that developed and circulated independently of the Renaissance architectural theories encapsulated in treatises. The proportioning of these façades was rooted in graphic methods based on geometric drawing, such as those identified by Ivančević. One example he noted was a triangle engraved on the outer wall of the baptistery in Trogir.⁸ A similar measuring system can be observed in Dubrovnik, etched on the wall of the Church of Our Lady of the Rosary (Ill. 3.1), directly opposite the Dominican friary.

It is also important to highlight the limited evidence of architectural book circulation in the sixteenth-century eastern Adriatic. As the inventories of early modern libraries reveal (see Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries', and 'Professional Libraries'), architectural books in the region were not numerous during this period. Consequently, the proportioning methods identified in three-lobed façades reflect an established tradition of building design in Dalmatia, rather than systems derived from architectural treatises.

Nada Grujić's analysis of several mid-sixteenth-century palaces in Dubrovnik has highlighted a broader engagement with Renaissance architectural treatises. Grujić examined two notable examples designed by artists from the Italian peninsula: the palace of Frano Gundulić, begun in 1546 and based on a design by Girolamo Cataneo of Ancona, and the palace of Toma Stjepović Skočibuha, constructed between 1549 and 1553 after a design by Antonio Padovano.

While there does not seem to be a deliberate application of proportional systems in the plans or room dimensions of these



Ill. 3.1. Church of Our Lady of the Rosary, Dubrovnik, engraved proportional system, east façade, begun in 1594 (Guarneri)

palaces—likely due to the need to adapt to preexisting constructions and foundations—both façades were designed to form perfect squares. Unfortunately, the façade of the Gundulić Palace has been partially demolished, and the Skočibuha Palace façade was never completed. As Grujić demonstrates, the subdivision of these façades and the placement and sizing of their openings were guided by a straightforward geometric procedure: the use of mathematical ratios such as the square root of two or the golden ratio (Ills. 3.2–3.3).⁹

In both palaces, the influence of the classical architectural language of the Italian Renaissance is most apparent in the decorative elements of the portals, window frames, and cornices. These architectural components and their mouldings demonstrate the designers' familiarity with the works of Vitruvius and Serlio, as well as a certain awareness of Italian architectural developments during the first half of the sixteenth century in Rome, Florence, and Venice. While the use of proportions on these façades aligns broadly with Renaissance architectural principles, it does not necessarily indicate reliance on specific architectural treatises. However, the details on the façades provide stronger evidence of direct engagement with such texts.



Ill. 3.2. Girolamo Cataneo, Gundulić Palace, Dubrovnik, begun in 1546
(reconstruction by Nada Grujić)

The Bona House on Marojica Kaboga Street in Dubrovnik provides further evidence of this distinction between proportions and architectural details. Its square façade, perfectly inscribed within a circle, reflects similar geometric procedures for the placement and sizing of openings. However, its architectural elements and mouldings remain firmly rooted in the traditional Dubrovnik repertoire that was characteristic of the early Renaissance. For instance, the torus moulding along the window frames does not vary from one storey to the next, as was common locally and distinct from the more structured approaches found in Renaissance treatises.¹⁰ This approach to proportions, therefore, operated independently of the use of architectural treatises. Rather, it reflected an implicit knowledge shared by master builders in the eastern Adriatic during the Renaissance. Such knowledge circulated autonomously, irrespective of the architectural language employed or the builders' familiarity with architectural treatises.

The use of proportional systems for dimensioning building façades in sixteenth-century Dubrovnik did not exclusively concern residential architecture. Petar Strunje has recently proven that in several examples of small devotional and confraternity churches, as well as private chapels, the design of the façade relied on corner pilasters and the more or less canonical application of the proportional systems of architectural orders. Analysis of the general composition and architectural details, such as capitals, bases, and entablatures, reveals a certain impact of Sebastiano Serlio's models. As Strunje has stressed, differently from the previously mentioned palaces by Italian architects, the artists involved in the design and construction of these small churches were local Ragusan masters with the contribution of stonemasons from Korčula or Kotor. Interestingly, Serlio's prescriptions emerge in the Church of St Roch in the 1540s, right after the publication of the third and fourth books in Venice, as well as in St George at Pile in the late sixteenth and early seventeenth centuries, when models were also

taken from the later seventh book, firstly published in Frankfurt in 1575 and subsequently available in the Venetian edition *Tutte l'opere d'architettura* from 1584 onwards.¹¹ Evidently, Serlio's was a long-lasting and multifaceted impact, conveyed by a multitude of different editions through artists from the Italian peninsula as well as local masters.

The question of proportions reemerges in a similar way two centuries later. Recently, Duško Čikara has attributed several residential buildings on the Island of Brač to the stonemasons Ivan and Ignacije Macanović. The decisive factor for this attribution, beyond some decorative elements in the doorframes, were the plans for the central hall, which Čikara argues were designed according to a specific proportional system. Through an intensive proportional analysis of these plans, he identifies what he terms a 'crypto-Palladianism', drawing parallels with Palladio's villa designs. Based on his interpretation, Čikara concludes that it is logical to attribute the buildings to the Macanović stonemasons because they possessed 'copies of Renaissance treatises'.¹²

However, as noted in the previous chapter, the only confirmed book in the Macanovićs' possession was a copy of Daniele Barbaro's Italian translation of Vitruvius's *De architectura* (Venice, 1567). Neither Vitruvius nor Palladio described or employed proportional systems in the manner suggested by Čikara's analysis of the Brač buildings or that evoked by Palladio's villas. While both Vitruvius and Palladio carefully addressed dimensions and ratios in architectural design—both those governing individual spaces and those controlling entire buildings—there is no evidence that they used graphic systems of proportion based on hexagrams, as Čikara's study seems to imply.

Designing the dimensions of buildings according to mathematical relationships was a common practice in the eastern Adriatic, even in the absence of architectural books. The work of the Macanović dynasty of stonemasons demonstrates this point, as their practice predates their acquisition of Vitruvius's *De architectura*. In 1698, Franciscan friars contracted Ivan II Macanović, the great-grandfather of Ignacije Macanović, to construct a friary in Sinj. As Ivan was illiterate, he appointed a proxy to sign the contract in Sinj; however, he also submitted a drawing that clearly outlined a proportional system for the church interior.

The drawing specified that the nave would measure 80 feet in length and 40 feet in width and that there would be four square side chapels, each of which would be 18 feet per side.¹³ If we take into account the 2-foot-thick walls, the design adhered to a proportional series of 2, 4, and 8. This reflects the widespread use of simple ratios based on integers in building design. Similar geometric methods were also employed to achieve ratios rooted in irrational numbers, but even stonemasons like Ivan II Macanović—who neither read nor owned architectural books—

routinely utilised simpler proportional systems grounded in empirical practices.

House and Church

Scholars have often identified the most prevalent residential building type in the eastern Adriatic—a layout featuring a central hall extending from the front to the back façade and flanked by two rows of side rooms—as a general adaptation of the typical Venetian residence of the aristocratic mercantile class, commonly referred to as *casa-fondaco*.¹⁴ Frequently simplified to five rooms—a central hall with two rooms on each side and an adjoining staircase—this plan became a common design for both urban palaces and villas.

This layout is found in several late-sixteenth- and early-seventeenth-century palaces in Koper and other Istrian towns,¹⁵ as well as in regional villas of the same period. It also appears in seventeenth-century palaces in Split, in the coastal palaces built by shipowners and captains on Pelješac near Orebić (Sabbioncello), in the palaces of Dubrovnik, and in numerous villas of the Ragusan aristocracy in the areas of Rijeka Dubrovačka and Konavle.¹⁶ Seventeenth- and eighteenth-century palaces in Boka Kotorska, including those in Kotor, Perast, and Dobrota, also have the same design.

The similarities between residential buildings along the Istrian and Dalmatian coasts and the typical Venetian palace extend beyond plan organisation to the designs of elevations. The so-called tripartite façade—with multiple openings in the central section that correspond to the central hall and that are flanked by single windows and wall surfaces—is equally prevalent. Compiling a comprehensive list of examples across coastal Istria and Dalmatia would yield a very extensive inventory.

This particular building type, the Venetian palace, did not receive systematic treatment in architectural books that would have disseminated its design beyond Venice and the *terraferma*. Palladio, in his extensive review of his own designs for aristocratic palaces and villas in Vicenza and Venice, provides some indications of the design of the Venetian palace. While he often derived his plans and elevations from the tripartite Venetian palace or the typical rural house of the Veneto countryside, he also enriched these archetypes with classical and Renaissance architectural elements. As a result, the fundamental structure of the central-hall house is sometimes obscured by the overlay of classical design elements.

In contrast, Serlio, in his fourth book on the five orders (*Regole generali*), includes examples of Venetian palaces, but only in elevation. His tripartite façade models, adorned with the classical orders, are intended for highly monumental palaces—typically three or four storeys plus mezzanines—and

could not be easily adapted to the smaller urban palaces of the eastern Adriatic.

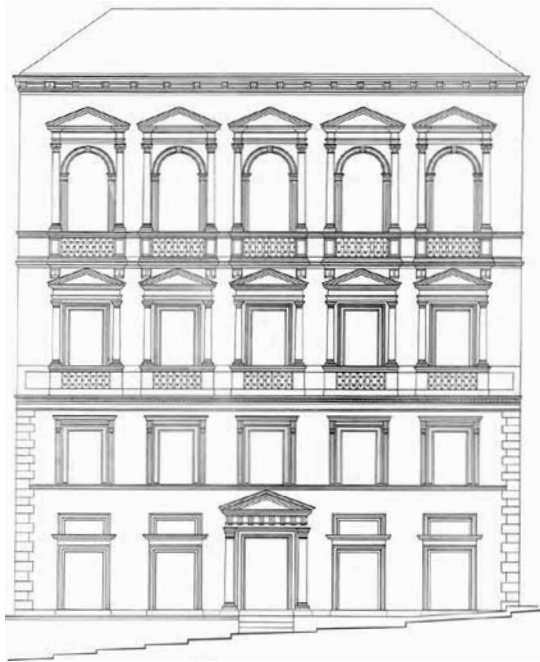
Nada Grujić's detailed investigations have shown that Renaissance villas in Dubrovnik exhibit distinctive features, both in their overall composition and in their architectural details. For instance, the L-shaped plan, already present in the fifteenth century, persisted into later periods, even becoming a hallmark of subsequent structures. While some similarities with Italian villas can be observed, the proliferation of country residences in the Dubrovnik area represents an original cultural and architectural phenomenon.¹⁷ It is one of the most intriguing reinterpretations of the classical villa in the Renaissance. However, as Grujić also noted, the second half of the sixteenth century saw some experimentation in a few villas, which might suggest the influence of foreign features.

To connect the two identical floors of Dubrovnik villas, Ragusan builders typically placed a staircase against one of the side walls of the central hall. This staircase was usually located within the hall itself; less frequently, it was positioned between the hall and the adjacent side rooms. This arrangement is a distinctive feature of Dubrovnik villas, with only one notable exception: the Villa Stjepović Skočibuha at Tri Crkve, constructed between 1574 and 1580.

Here, the staircase is arranged transversally, spanning the central hall between the two side rooms, and it has two parallel and opposing flights of stairs. The villa also incorporates other elements uncommon in the Dubrovnik area, such as its position at the centre of the garden, its perfect symmetry, and its tripartite façade, which features a central, arched loggia on two levels. While surviving documents mention only the names of the builders, scholars have speculated about the involvement of a foreign architect in the design. Potential inspirations for the villa's features are thought to come not from the Veneto but rather from central or southern Italy.¹⁸

The only similar design that can be found in an architectural treatise is the Neapolitan Villa Poggioreale, which was illustrated by Serlio in his third book. However, none of the copies of Serlio's work in my catalogue show evidence of use on the pages depicting Poggioreale. This makes it unlikely that the idea for the design was transmitted through a book.

However, since the central hall and the smaller side rooms were typically of the same height, Ragusan builders and patrons most likely paid little attention to room proportions as they were outlined, for example, by Alberti (*De re aedificatoria*, IX.6) or Palladio (*I quattro libri dell'architettura*, I.23). In three villas from the second half of the sixteenth century—Villa Gučetić on the northern shore of Rijeka Dubrovačka,¹⁹ Villa Stjepović Skočibuha at Suđurac on the Island of Šipan,²⁰ and Villa Stay Kaboga in Batahovina on the shore of Rijeka Dubrovačka²¹—mezzanines were constructed above the side rooms. In two of



Ill. 3.3. Girolamo Cataneo, Skočibuha Palace, Dubrovnik, 1549–56
(reconstruction by Nada Grujić)

these villas, wooden balconies overlooked the central hall from the mezzanines.

This arrangement, likely intended either to avoid excessively tall side rooms or to create additional usable space, resulted in significant alterations to the façades, rupturing the conventional two-storey appearance of Dubrovnik villas. For instance, Villa Stay Kaboga features exceptionally tall, arched windows that illuminate both the side rooms and the mezzanines above them. Meanwhile, Villa Gučetić includes a third row of smaller, rectangular windows above the main two-storey façade, further emphasising the building's deviation from traditional proportions.

The emergence of these features in the second half of the sixteenth century could plausibly be linked to the early circulation of architectural books. However, despite the presence of works by Alberti and Palladio in the libraries of Ragusan noble families, no material evidence of use connects these features to specific architectural treatises. For example, the 1550 edition of Alberti's *De re aedificatoria*, formerly held in the library of the Ragusan Jesuit college, contains extensive evidence of use in chapters discussing villa decorations, including a reading mark on the chapter concerning harmonic proportions.²² However, it is impossible to link this unknown reader's interest to any particular building.

Similarly, a copy of Palladio's *I quattro libri dell'architettura*, signed by Marin and Frano Gundulić, offers no clear insights

into the design of some unusual features in the Gundulić Villa in Gruž, such as its broken triangular pediment.²³ In their general layout, Dubrovnik villas diverged from Palladio's fundamental principles for villa design: for instance, the inclusion of three rooms of varying sizes—small, medium, and large—arranged on either side of the central hall to create distinct apartments.

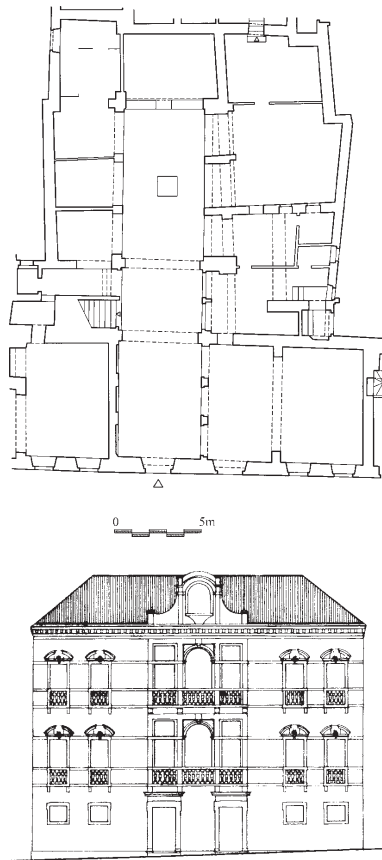
The central-hall house remained a consistent architectural feature in Zadar over three centuries and became prevalent in Split after the seventeenth century, a period of significant urban growth sparked by the establishment of the local Scala, a large warehouse for merchants.²⁴ However, extensive damage sustained by Zadar during World War II has complicated the analysis of many local palaces and houses, which are now either substantially modified or no longer extant. Using building accounts and other archival documents, Bojan Goja was able to reconstruct the articulation of the typical Venetian palace in Zadar's seventeenth- and eighteenth-century houses.²⁵

In contrast, Split's Baroque palaces are well preserved, allowing for more comprehensive analysis. These buildings often revealed their central-hall plans externally through their tripartite façades. Baroque palaces in Split reflect an expansion of residential space beyond that of earlier houses, resulting in more imposing structures in terms of both size and composition. Notable examples include the Milesi and Cindro Palaces, which epitomise this architectural transformation.²⁶

Cindro Palace, dating to the seventeenth century, is one of the most intriguing examples of Baroque architecture in Split (Ills. 3.4–3.6). Consisting of four wings around a small, rectangular courtyard—a rare feature in the densely built urban fabric of Split—the palace displays a distinctly tripartite façade. Scholars have identified influences from the Venetian palace tradition and, more significantly, from Sebastiano Serlio.

The overall composition and the central Venetian, or Serlian, window closely correspond to elevations presented by Serlio in his fourth book on the five orders.²⁷ A copy of Serlio's *Tutte l'opere d'architettura* (Venice, 1600), currently preserved in the University Library in Split, provides compelling evidence of this influence. This volume features a double-folded corner marking both the two examples of Venetian palace façades designed for the Doric order and the explanatory text between them (Ill. 3.6).²⁸ The Cindro Palace offers a simplified interpretation of Serlio's designs, omitting elements such as the rustic base, the orders, and circular mezzanine windows. However, it incorporates Baroque features, including the broken pediments above the side windows, effectively blending Serlio's Renaissance composition with contemporary stylistic elements.

Further evidence from the Split copy of Serlio's *Tutte l'opere d'architettura* suggests a connection to the plan of Cindro Palace. A folded corner and three ink lines mark a page in the seventh book on palaces and villas, highlighting an illustration of a



Ill. 3.4. Cindro Palace, Split, mid-17th century, plan and elevation
(from V. Jakaša, 'Barokna stambena arhitektura u Splitu', *Radovi Instituta za povijest umjetnosti* 26 (2002), 57–68)



Ill. 3.6. Sebastiano Serlio, *Tutte l'opere d'architettura, et prospettiva* (Venice, 1600),
IV.6, fol. 155r (SKS, R-667)



Ill. 3.5. Cindro Palace, Split, photograph from the 1920s (Ministarstvo kulture i medija,
Fototeka kulturne baštine, inv. N. 51928)

palace plan designed for an irregular plot.²⁹ The layout features a long and narrow entrance hall, or *androne*, on the central axis, with expanding spaces on either side—a configuration closely resembling the plan of Cindro Palace.

Unfortunately, this copy of Serlio's work contains no evidence of ownership that would confirm its presence or circulation in seventeenth-century Split. Nonetheless, the striking similarities between Serlio's design and the organisation of the Cindro Palace suggest that the book was consulted by either the designer or the patron of this exceptional Baroque building. It is not necessary to cite the influence of architectural books to explain the connection between palaces and villas on the eastern Adriatic and the Venetian house type. Many noble families along the coast relied on trade as a primary source of income and, more broadly, led a lifestyle similar to that of Venetian aristocrats. These families frequently travelled to Venice to manage or establish connections with their peers, who resided in such houses.

Moreover, the central-hall house type extends far beyond the Adriatic region; it was an architectural template widely used along the Mediterranean trade routes toward the east. By the eighteenth century, for example, this layout for a residential building had reached the shores of Lebanon, where it rapidly supplanted older Byzantine house types.³⁰ Thus, it may be more appropriate to view the central-hall house as part of a shared Mediterranean cultural heritage rather than as a direct result of Venetian influence or the dissemination of architectural books.

A similar approach has been used by Ennio Concina, who analysed the spread of a specific warehouse type—the *caravan-serai*, also known as the *fondaco* or *han*—across Venice and the eastern Mediterranean Sea.³¹ His work offers a potentially fruitful model for investigating the dissemination and adaptation of the central-hall house within the broader Mediterranean context.

An explicit reference to an architectural treatise emerges in the archival records concerning the reorganisation of a residential palace in Trogir, which does not, however, fit the central-hall house type. Between the end of the eighteenth and the beginning of the nineteenth century, the abovementioned bibliophile Ivan Luka Garagnin contacted the Venetian architect Giannantonio Selva to remodel the family palace. The client not only provided quite detailed requests and drew several sketches in his letters to Selva, but he also suggested a precise solution taken from Palladio's *I quattro Libri* for a new western façade: 'Il prospetto Palladiano, che nel libro che s'inoltra vedesi a pag. 133, sembra fra i più convenienti' (The Palladian elevation, which can be seen on page 133 in the book that is being forwarded, seems among the most convenient). In another letter, Garagnin further specified: '[...] Palladio +2 p. 133 prospetto applicabile al lato di ponente sopra il quartiere, aggiuntovi le inferriate per

sotterranei' ([...] Palladio +2 p. 133: elevation applicable to the west side above the living quarters, with the addition of iron grating for the basement).³² As already stated above, Garagnin owned a copy of the eighteenth-century reprint of Palladio's *editio princeps* of 1570 (Venice, 1766), which he presumably consulted to select a proper model.³³

This explicit reference to an architectural treatise—the only one known to me in the early modern eastern Adriatic—is puzzling. It seems to evidently refer to the second book of Palladio's treatise, the one devoted to residential architecture, but the page number does not fit. In Palladio's *I quattro Libri*, each book has its own title page and numbering, and the second book consists of thirty-nine sheets numbered from one to seventy-six, plus two unnumbered opening pages. It is possible that Garagnin did not look at page numbers but counted pages from the title page of the first book, ultimately reaching page 133. With the due calculations, the selected examples should come from page sixty-nine or seventy of the second book, in the seventeenth chapter, which showcases a series of palaces designed for irregular building plots: 'Di alcune invention secondo diversi siti' (On Several Inventions According to Diverse Plots). Nevertheless, their façades, featuring three storeys with architectural orders, are far from the final designs sent in 1806 by Selva from Venice, which show a rusticated basement with a simpler *piano nobile* with no use of the architectural order.³⁴ Unfortunately, the client's copy in the Garagnin-Fanfagna Library does not present any sort of material evidence of use allowing a more precise identification of the model selected by Ivan Luka.

As regards ecclesiastical architecture, Vladimir Marković has conducted extensive research into the circulation of church models in various parts of the eastern Adriatic during the seventeenth and eighteenth centuries. This scholar focused particularly on a single-nave church type with side chapels, which he argued was derived from Andrea Palladio's Redentore in Venice. According to Marković, this influence was mediated through later seventeenth-century Venetian churches and the works of Giorgio Massari in the Venetian *terraferma*, Friuli, and the eastern Adriatic. Marković referred to this phenomenon as a form of neo-Palladianism, not in the ideological or classical sense traditionally associated with the term, but rather along the lines of a practical adoption of Palladian architectural layouts for church design.³⁵

In Marković's reconstruction of the circulation of church models, architectural books play a marginal role, if they appear at all. As is well known, Palladio published *I quattro libri dell'architettura* before designing his renowned Venetian churches. Consequently, these buildings were not included in the architectural books circulating in the eastern Adriatic until the publication of Palladio's complete works by Francesco Muttoni and

Ottavio Bertotti-Scamozzi in the mid- and late eighteenth century. According to Marković, the transmission of the designs of Palladio's churches occurred primarily through the mobility of master builders, who typically travelled from Venice to the eastern Adriatic, and through their firsthand familiarity with Palladian buildings. Such transmission encompassed not only Palladio's own works but also later interpretations of Palladian features by architects such as Giorgio Massari.³⁶

The mid-eighteenth-century Church of St Servolo in Buje, Istria, once interpreted in this way, presents a more complex case. Marković attributed its layout, in which a triumphal arch supported by columns separates the nave from the chancel, to Palladian influences. He also linked this design to a series of churches by Giovanni Battista Padrini in Polesine. However, these churches were constructed at a later date, complicating the attribution of influence.³⁷ Based on correspondence between Bishop Marino Bozzatini and the designer Carlo Picco, who was a member of a stonemasonry workshop in Palmanova, Jasenka Gudelj has recently reconstructed the events surrounding the design process and reassessed the set of models underlying the church's layout. While the general influence of eighteenth-century Venetian Palladian buildings remains valid, the repertoire of the Picco workshop has emerged more distinctly, including the use of various types of printed models.

According to Gudelj, Picco drew on a graphic source to design the nave interior of the Church of St Servolo, incorporating both personal elements and occasional misinterpretations. Among the potential models cited in the scholarship is the church of Santa Maria della Consolazione, or Fava, in Venice, designed by Antonio Gasperi and Giorgio Massari and illustrated by Vincenzo Coronelli in a collection of views.

Notably, during the same period, Bartolomeo and Giuliano Picco—whose relationship with Carlo Picco remains unclear—travelled to Badija near Korčula to install a new altar designed by Massari.³⁸ As I will discuss below (see 'Impact beyond Architecture: Theatre, Painting, and Altars'), another wooden altar, modelled after a design by Serlio, stands in the Franciscan church at Badija. Despite its remote base in Palmanova, the Picco workshop clearly had access to an extensive array of contemporary sources, including up-to-date models and examples from architectural books.

In his research on the circulation of church models, Marković rarely references architectural books. This is due, on the one hand, to the limited dissemination of Palladian and other Venetian models through printed sources and, on the other hand, to the proximity of Istria and the northern Croatian coast to Venice. This geographical closeness enables Marković to base his hypotheses on the mobility of master builders and craftsmen, even in regions under Habsburg rule.

For example, the three-nave Parish Church of St Stephen in

Motovun, constructed between 1580 and 1614, corresponds in both plan and façade to Santa Maria Maggiore in Venice. Marković attributes these similarities to the movement of masters and artists rather than to the influence of architectural treatises.³⁹ Likewise, he has investigated the dissemination of distinctive local church models in the eastern Adriatic, such as the replication of the Euphrasian Basilica in Poreč, the Chapel of St John of Trogir, and Split Cathedral in their respective neighbouring areas.⁴⁰

The only exception to this pattern concerns work undertaken in Zadar between the late sixteenth and early seventeenth centuries to create new premises for the shrine of St Simon; this project suggests a different mode of transmission or a different source of inspiration.⁴¹ In 1572, the Zadar municipal council approved the construction of a new church to house the precious shrine of St Simon, a masterpiece crafted by local fourteenth-century goldsmiths, and entrusted its design to an 'architetto veneto' (Venetian architect). Work is documented as occurring around 1600, when a medal depicting the church façade was minted; however, the project was abruptly halted in 1623, when the façade was still incomplete. Subsequently, a new space for the shrine was created by reconstructing the chancel of the Church of St Stephen, which was reconsecrated as the Church of St Simon in 1632.

Based on the surviving sections of the front wall, which were completed up to the entablature, and the depiction on the medal, the façade was designed in the style of a classical temple front. It was to feature four Corinthian columns framing the central portal, two side windows, and an upper triangular pediment.

In light of the city council's reference to a Venetian architect, Marković proposed the façade of Santa Maria Formosa in Venice as a potential model. Additionally, he noted that a remarkably similar design appears in Serlio's third book, specifically in the front elevation of the Temple of the Sibyl in Tivoli.⁴² As previously discussed (see Chap. 2, 'Building Types: Churches'), an analysis of material evidence of use in copies of Serlio's works suggests that the application of the ancient temple *pronaos* to church façades was not a common practice among the owners of architectural books now preserved in the libraries of the eastern Adriatic. However, it is notable that the copy of Serlio's *Tutte l'opere d'architettura* (Venice, 1540), given by Sigismund Tudišić to the Jesuit college in Dubrovnik, has folded corners marking the pages depicting the Temple of the Sibyl and the preceding sepulchre. This volume also contains extensive evidence of drawing practice, suggesting that before being owned by the seventeenth-century Ragusan aristocrat, this volume likely belonged to an artist or professional involved in the building trade.⁴³

Nevertheless, several anomalies in the surviving remains

of the church façade complicate speculation about its architectural language. For instance, a fragment of a Doric entablature appears atop a Corinthian capital, raising questions about the coherence of its design. Additionally, the absence of detailed records regarding the fifty-year construction process renders definitive conclusions unreliable. Furthermore, Serlio's own model for the Temple of the Sibyl was itself unconventional in terms of architectural language, as it included a Corinthian base with only a single torus, in contrast to classical norms.

Nonetheless, the template of a temple *pronaos* with four columns and a triangular pediment reappears in another eastern Adriatic church—St George in Piran—which was completely remodelled at the end of the sixteenth century. Designed around 1600 by the Venetian stonemason Bonfante di Stefano Torre—whose workshop and family were based in Istria—the façade closely resembles Serlio's illustration.

However, as Jasenka Gudelj has pointed out,⁴⁴ this type of façade, inspired by a tetrastyle temple portico, could also have origins in the Temple of Augustus in Pula, a reconstruction of which was published by Palladio.⁴⁵ While the Church of St George in Piran features Composite pilasters, instead of Corinthian columns, it is worth noting (see Chap. 2, 'Antiquities and the Adriatic') that Adriatic antiquities like the Temple of Augustus in Pula captured the interest of even distant readers. Evidence of this is found in the *editio princeps* of Palladio's works owned by the Gundulić family in Dubrovnik, for instance.⁴⁶

The Church of St Vitus in Rijeka, originally built for the local Jesuit college and now the cathedral of the city, serves as a well-documented example of the influence of architectural books on actual buildings. According to various sources, the Jesuit architect Giacomo Briano from Modena designed the church in 1632, although construction did not commence until 1638, leading some scholars to suggest that the project was conceived as late as 1637. A surviving drawing by Briano depicts a centrally planned church rendered in half-elevation and half-section.

While some scholars describe an oval plan, the drawing clearly portrays an octagonal structure with a spacious, domed central area surrounded by rectangular chapels of considerable depth—approximately one-third the diameter of the central space. The church was consecrated in 1659; however, nearly a century later, between 1725 and 1744, Bernardino and Giovanni Martinuzzi significantly altered Briano's original design. They added a second level with a gallery, while preserving the octagonal layout and the arrangement of side chapels.⁴⁷

Although much of the scholarship has linked the decision to construct a centrally planned church to the contemporary church of Santa Maria della Salute in Venice by Baldassare Longhena, Nina Kudiš highlighted several similarities with models presented in Serlio's fifth book. As Richard Bösel has clarified,

it was not uncommon for Jesuit architects to design centrally planned churches. Just a few years after Giacomo Briano, Serafino Fabrini also designed centrally planned churches for the Jesuit colleges in Cosenza, Antwerp, and Dubrovnik, with variations that further suggest knowledge of Serlio's models.⁴⁸

Briano's drawing does not replicate a specific model but rather synthesises elements drawn from various designs presented by Serlio. Additionally, the central portion of the church's façade incorporates motifs typical of late-sixteenth- and early-seventeenth-century Roman architecture. For example, the double pilasters framing niches and the triangular pediment above the entrance, inscribed within a larger, rounded pediment, closely resemble elements found in Giacomo della Porta's design for the façade of the Jesuit order's main church, Il Gesù in Rome.

The only copy of Serlio's fifth book with significant material evidence of use is that of Domenico Uvoda, who concentrated primarily on the first design for a circular church. However, Uvoda's area of activity was far from Rijeka. Giacomo Briano, on the other hand, was an architect of remarkable mobility, frequently travelling between northern Italy, Poland, and Ukraine to oversee the design and construction of various Jesuit colleges. He created the initial project for the church and college in Rijeka while residing in Forlì in 1632.

However, Briano was also active in Trieste, where he designed the church of Santa Maria Maggiore and directed its construction, first in 1627 and then between 1635 and 1637,⁴⁹ a period during which he may have travelled to Rijeka to inspect the ongoing work there. As evidenced by the numerous drawings he left behind, Briano was a prolific and meticulous designer. However, it is unclear whether he travelled with a personal library or relied on the collections housed in the Jesuit colleges where he resided. If Briano did consult a copy of Serlio's works, it is most likely that the book would have been located in Italy rather than in the eastern Adriatic.

The case of Briano's design for the Church of St Vitus highlights a historiographical bias in the evaluation of his sources. Much of the scholarship has persistently argued for the derivation of Briano's design from Longhena's Santa Maria della Salute, despite notable differences between the two churches. Briano's origins in the Italian peninsula—albeit not in the Venetian Republic—and Venice's hegemonic role in art and architecture across the northern Adriatic likely influenced this hypothesis. However, a closer analysis of Briano's architectural design reveals a clear reliance on Serlio's models.

As has already emerged in this chapter, scholarship often tends to ascribe Venetian architectural influence in the eastern Adriatic to the direct interactions of architects, master builders and craftsmen, and even patrons with Venice and the Venetian *terraferma*. While contacts with Venice were indeed frequent

and multifaceted, this approach has consistently underestimated the role of printed books in the transmission of architectural knowledge.

Notably, most cases in which scholarship has identified the impact of architectural books on house and church design in the early modern eastern Adriatic involve architects from the Italian peninsula. Such a scenario supports the conclusion that Italian architects actively utilised architectural books in their designs, likely carrying them while travelling for work in the eastern Adriatic and other regions. However, it remains unclear whether local artists in the eastern Adriatic made use of architectural books, as has been suggested by the material analysis of book copies in Chapter Two. Nor is it evident whether the use of architectural books by foreign architects fostered curiosity among local masters, prompting them to acquire these volumes for their own practice.

Gates and Classical Architectural Language

In 1500, the noblemen of Cres obtained permission from Venice to ‘trovar i modi per cingere di mura la città’ (find ways to surround the city with walls); that is, they were authorised to find ways to fortify the small town on the eponymous island in the Kvarner Archipelago. However, construction, as documented in the register of town council meetings and in specific building accounts, progressed slowly due to persistent shortages of funding. Following the War of Cambrai and repeated attacks by Uskok pirates, the town council decreed in 1543 that noblemen, clergymen, and commoners must contribute to the construction of the new city walls, through either labour or the supply of building materials.

The decree did not yield immediate results, and construction dragged on until 1610, when the building accounts recorded the cessation of major expenses—although minor finishing work continued into the late seventeenth century. The Cres city walls represent one of the earliest and most prominent examples of the impact of architectural books on sixteenth-century architecture in the eastern Adriatic. This topic, already well documented in extensive scholarship and numerous published *regesta* and archival documents, has been recently revisited via a meticulous source analysis by Laris Borić and Jasenka Gudelj.⁵⁰

As often occurred with fortifications constructed over an extended period or completed long after their initial design, the city walls of Cres appeared obsolete by the time they were realised. Features such as the long, straight, and thin crenellated curtain walls, tall, circular corner towers, and city gates positioned perpendicularly to the walls were already outdated by the late fifteenth and early sixteenth centuries, when the town council first envisioned the project. However, given Cres’s limited strategic importance within the Venetian Stato da Màr—



Ill. 3.7. Sidro Stosić, Lučka or Port Gate, Cres, completed in 1552



Ill. 3.8. Bragadina Gate, Cres, completed in 1581



Ill. 3.9. Frano Stosić, Marella Gate, Cres, completed in 1586–1588

positioned as it was between Habsburg and Ottoman dominions—these fortifications sufficed to provide residents with protection against pirate attacks.

While the city walls may have seemed outdated, this was not the case for the city gates, which exhibit features characteristic of late Renaissance architecture. Of the original gates, three survive today: the Lučka (Port Gate), the Bragadina (Small Gate), and the Marcella (Great Gate). Meanwhile, a large portion of the city walls, their towers, and two minor gates—St Mikula and Turion—have been dismantled over time.⁵¹ Both the compositions and the details of the remaining gates (Ills. 3.7–3.9) find close parallels in the gates provided by Sebastiano Serlio in his fourth book, *Regole generali di architettura*, which was published for the first time in Venice in 1537.

Although the three gates may appear stylistically homogeneous, they were constructed at different points. The Port Gate, integrated into the Clock Tower, was completed by 1552, as is evident from the city council's commendation of the local stonemason Sidro Stosić, who

[...] con miglior animo perficere la torre del horologio, la qual senza rispetto de spesa alcuna l'ha reduta bella et honorevole dal modo che si vede, che forse una tal no si trova in Dalmatia.⁵²

([...] With better spirit, he perfected the clock tower, which, without regard for any expense, has been rendered beautiful and honourable in the way it is seen, so that perhaps such a one is not found in Dalmatia).

Stosić found inspiration for the Port Gate in a Tuscan gate illustrated by Serlio but did not produce an exact copy (Ill. 3.10). He added an attic above the entablature for coats of arms, borrowing this element from another Tuscan gate depicted a few pages earlier (Ill. 3.11).⁵³

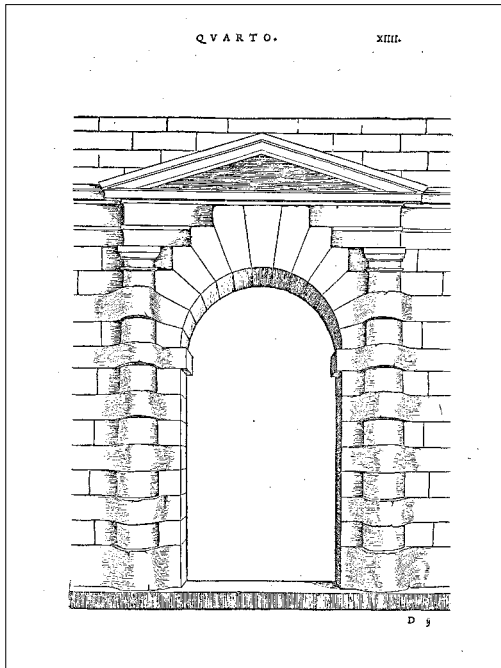
As previously noted,⁵⁴ the half-columns of the gate are shorter than those of Serlio's gate, consisting of ten stone blocks instead of twelve; consequently, the proportions deviate from the 2:1 height-to-width ratio recommended by Serlio in the accompanying text. However, the height of the Tuscan columns in Cres adheres to Serlio's guideline of eight times the diameter. Interestingly, Serlio was not rigid in his proportional recommendations for Tuscan columns; in the introduction to his chapter, he suggested six times the diameter, then recommended seven or eight times for a rustic gate with an attic, and ultimately specified eight for this particular gate.⁵⁵

It is also worth noting an error in Serlio's text: he advises that the arch should be divided into eleven stone blocks, yet the accompanying illustration shows thirteen. Stosić followed the illustration rather than the text, constructing the arch with thirteen stone blocks. This suggests that Stosić relied primarily on Serlio's visual representation and paid less attention to the textual instructions.

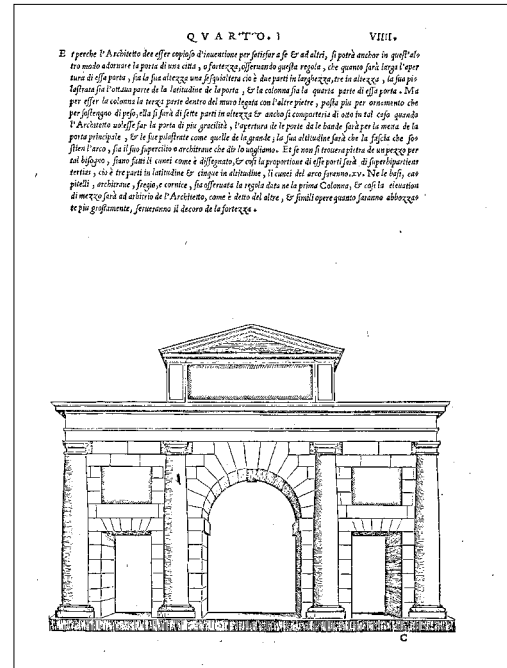
The Bragadina and Marcella Gates (Ills. 3.8–3.9) date to a generation later than the Port Gate. Archival records indicate that the Bragadina Gate was completed in 1581, though the names of the designer and master builders remain unknown.⁵⁶ This gate is a simplified version of the Port Gate, featuring flat pilasters instead of half-columns and fewer projecting stone elements.

However, the proportions of the Bragadina Gate differ from those of the Port Gate. The pilasters adhere to the basic ratio for the Tuscan order, measuring six times the diameter in height, and the overall dimensions of the gate follow Serlio's recommended ratio of 3:2 between height and width for a Tuscan gate with an attic. However, certain details reflect a lower level of craftsmanship. For example, the diagonal ashlar have awkward, concave upper edges. Instead of being neatly inserted under the architrave, like the ashlar in the Port Gate, these stones appear to be interrupted by it.

The placement on the keystone of a coat of arms that extends into the frieze recalls a similar feature in one of Serlio's Doric doorways. In the latter design, ten alternating stone blocks form half-columns, much like those in the Port and Bragadina Gates, though applied to an opening with a lintel rather than an arch.⁵⁷



Ill. 3.10. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1537), fol. XIVr



Ill. 3.11. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1537), fol. IXr

The Marcella Gate is the most recent of the three gates; it was constructed after the Bragadina Gate. Its completion is dated to 1586–1588, thus occurring during the tenure of Giovanni Marcello as the Count of Cres. His coat of arms and that of Doge Pasquale Cicogna are displayed in the attic.

In this case, archival records provide the names of the master craftsmen involved in construction: Matej from Rovinj was paid for supplying the stone, Ivan Petar Zvoranić for dressing the stone, and Marko Soldatić and Frano Stošić for other unspecified tasks. Among them, Frano Stošić, the son of Sidro Stošić—the designer of the Port Gate—was the most distinguished master. Consequently, scholarship has generally attributed the design of the Marcella Gate to him.⁵⁸

Like the previous gates, the Marcella Gate features alternating rustic bands encircling half-columns. Unique, however, is the presence of Ionic capitals, which deviate from the models presented by Serlio. In his discussion of the Tuscan gate with rustic bands, Serlio acknowledges that his rustic design could be adapted to the other four orders:

È stato parer de li antiqui Romani mescolar col rustico non pur il Dorico, ma lo Ionico, & il Corinthio anchora, il perché non sarà errore se d'una sola maniera, si farà una mescolanza.

(It was the opinion of the ancient Romans to mix with the rustic not only the Doric, but also the Ionic, and even the Corinthian. Therefore, it will not be an error if a mixture is made of a single manner).

In the text accompanying the similar Ionic gate, Serlio reiterates this point, emphasising the adaptability of rustic designs to the other orders:

Havend'io posto questo Rustico con l'opera Thoscana, non pur nel'ordine Thoscana in molti lochi, & applicato questo Rustico al Thoscana, Ma mescolato ancora con l'opera Dorica in una porta; Ho deliberato, metterlo ancora nela Ionica.⁵⁹

(Having placed this Rustic work with the Tuscan order, not only in the Tuscan order in many places, and applied this Rustic to the Tuscan, but also mixed it with the Doric order in one doorway; I have decided to also place it in the Ionic).

The designer of the Marcella Gate appears to have interpreted Serlio's call for *mescolanza*—the blending of architectural elements—quite literally, disregarding the established rules of the classical architectural language⁶⁰. While the capitals are Ionic, the rest of the design incorporates elements from other orders.

Beneath the half-columns, the designer added highly simplified pedestals modelled after Serlio's Tuscan order. Similarly, the entablature above the half-columns is Tuscan. The bases of the half-columns resemble Attic forms but feature a disproportionately large lower torus, making them inappropriate for the Ionic order. Clearly, the designer overlooked the fundamental principle that elements from different orders should not be mixed indiscriminately. Encouraged by Serlio's flexible approach to rustic designs and their adaptation across orders, the designer combined Tuscan, Doric, and Ionic elements in a way that lacked cohesion.

Nevertheless, the Marcella Gate adheres to the basic proportions prescribed by Serlio for a rustic Ionic gate. It maintains a 2:1 height-to-width ratio, and the height of each column, including base and capital, is nine times the diameter. The number of ashlar in the arch is thirteen, as Serlio suggests. Additionally, Serlio recommends making the keystone one-fourth larger than the other ashlar in the arch, while all the remaining ashlar should be equal in size. It seems the designer attempted to follow these prescriptions, though the result does not achieve Serlio's intended harmony.

Some design flaws, however, persist from the previous two gates. The defect of the diagonal ashlar cutting into the architrave, first noted in the Bragadina Gate, recurs in the Marcella Gate. Here, the Ionic half-columns fail to support a projecting section of the entablature; instead, the entablature is flat across both the columns and the arch. This shortcoming, already present in the Port Gate, is even more pronounced in the Marcella Gate. It may stem from a misinterpretation of Serlio's description of Tuscan half-columns, which he stated were 'posta più per ornamento che per sostegno di peso' (placed more for ornamentation than for bearing weight).⁶¹

However, in the case of the rustic Ionic gate, Serlio explicitly notes that strongly projecting half-columns were designed to support an upper balcony. This design was intended for private secular buildings, such as villas or the residences of scholars or merchants, rather than for fortifications or city gates, where the Tuscan order typically featured.

The numerous references to Serlio's fourth book in the three gates suggest the presence of a copy of the book in Cres during the second half of the sixteenth century. While individual designs might circulate through drawings or sketches copied from the book, such a scenario is unlikely here because of the broad range of connections identified. The links to various illustrations and textual passages indicate the availability of a complete copy of Serlio's fourth book.

To account for this broad range of references to Serlio's design, Luigi Tomaz speculated about a connection between Frane Petrić—a Neoplatonic philosopher from Cres who was educated in Venice and Padua—and Giulio Camillo Delminio,

a close associate of Serlio.⁶² Laris Borić and Jasenka Gudelj provided an alternative explanation by examining the Stošić family's role; they proposed that a copy of Serlio's book was passed down within the family workshop, from Sidro Stošić to his son Frano. They also suggested that Venetian administrators in Cres might have played a role in introducing Serlio's designs to the island, possibly bringing the book with them.⁶³

In addition to Venetian administrators, the local ruling class may have utilised architectural books. Archival sources reveal that, from the early sixteenth century, members of the town council were regularly elected to oversee the construction of the city walls.⁶⁴ A particularly intriguing example of this involvement is a volume that contains various books on mathematics, including copies of Giovanni Francesco Peverone's and Pietro Cataneo's treatises on practical mathematics. This volume bears the signatures of 'Georgi Sablich de Cherzo' and 'Petrij Georgij Sablich de Chersii' and has extensive evidence of use, particularly in Peverone's and Cataneo's chapters related to building practice. Among the topics that were clearly marked with significant interest are land and architectural surveys as well as volumetric estimations of building materials. A chapter titled 'Modo di saper quanti mattoni vadino ne le muraglie' (How to Determine How Many Bricks Are Needed for Walls) shows clear signs of consultation (Ils. 3.12-3.13).⁶⁵ A closer examination of the names of supervisors recorded over more than a century of fortification projects could help clarify whether members of the Sablić family engaged in such study for personal purposes or in connection with official appointments tied to public building projects, including the city walls.

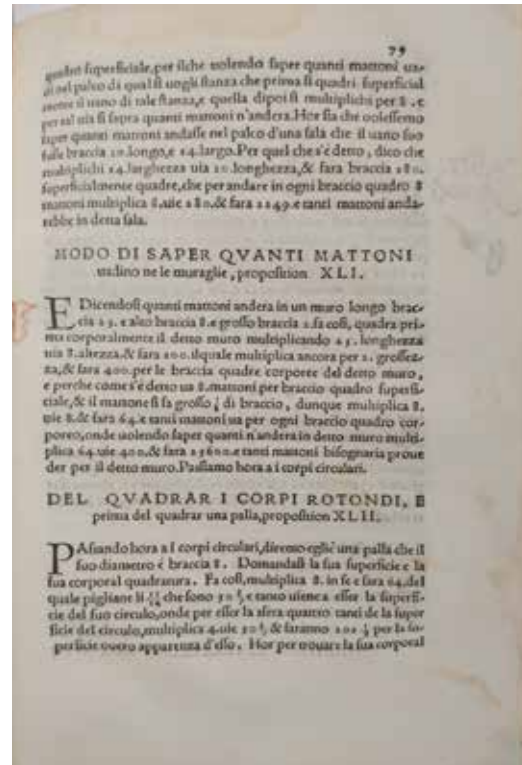
This volume devoted to mathematics is the only book associated with early modern Cres that is included in my catalogue of early modern architectural books. Notably, the copy of Serlio's fourth book that circulated in Cres during the second half of the sixteenth century has not been found in the cataloguing process. However, some suppositions can be made, in particular an initial identification of the precise edition within the complex printing history of Serlio's volumes.

Since Sidro Stošić completed the Port Gate in 1552, the copy of Serlio's fourth book circulating in Cres could plausibly have been the *editio princeps* of 1537 or one of its reprints of 1540 or 1544, all of which were published by Francesco Marcolini. Alternatively, it could have been the 1551 edition, which contained the first through fifth books and was printed by Pietro Niccolini da Sabbio for Melchiorre Sessa.

Among the catalogued single editions of the fourth book held in Ljubljana, Zagreb, and Dubrovnik, none exhibits evidence of possession or use that would suggest a connection to Cres's city gates.⁶⁶ The most promising candidate is the copy of the 1551 edition recorded in the catalogue of the University Library in Pula, which is unfortunately now missing. A second



Ill. 3.12. Pietro Cataneo, *Le pratiche delle due prime matematiche* (Venice, 1559), title page (KHAZU, R-1643 privez. 1)



Ill. 3.13. Pietro Cataneo, *Le pratiche delle due prime matematiche* (Venice, 1559), fol. 79r (KHAZU, R-1643 privez. 1)

copy of the 1551 edition, held in the library of the Dominican friary in Dubrovnik, was inaccessible.⁶⁷

The example of the Cres city gates demonstrates that a copy of Serlio's fourth book was indeed in circulation on the island during the second half of the sixteenth century. However, its precise whereabouts—or even whether it has survived to the present day—remain unknown.

As stated above (see 'Design Principles and Proportions'), Serlio was popular in sixteenth century Dubrovnik, too. In a series of small religious buildings—such as St Roch, the Chapel of St Jerome in the Gradić Palace, St George at Pile, and Our Lady of Mercy in Lapad—Serlio's designs for gates and architectural orders, Ionic capitals in particular, were widely used, copied, and ultimately disseminated. The impact of Serlio's models extended to the early sixteenth century on the façades of the Confraternity of the Rosary, the Church of St Nicholas in Prijeko, and the Church of Our Lady of Carmen. The analysis of these examples performed by Petar Strunje has demonstrated that the local masters involved in the mentioned buildings did not interpret Serlio's model as strictly prescriptive. Rather, they combined elements of different orders—a practice suggested by Serlio himself—in freely proportioned compositions.⁶⁸

Masters involved in the Churches of St Roch, St George, and Our Lady of Mercy indistinctly chose the Ionic order for both male and female saints. They combined Ionic capitals with Attic or Tuscan bases, instead of the Vitruvian base suggested by Serlio. The main and side portals of St George, probably carved by the Korčula stonemason Andrija Pomenić, are an adaptation of a Serlio's window model into a door, with the consequent modification of the lower part of the jambs and the substitution of the windowsill with the threshold. The portal of St Roch, built in 1544 by Luka Paskojević in collaboration with Vicko and Marko Mihov from Kotor, combines Serlio's Ionic order, taken from the fourth book, with the model of the arch on pilasters framed by the architectural order, presented by Serlio in the triumphal arches of the third book. The projecting architrave at three points—on the capitals and the keystone—may indicate that the stonemasons paid special attention to the Arch of the Sergii in Pula, whose significance for eastern Adriatic readers is corroborated by the extensive evidence of use found in Serlio's books, such as the third and fourth volumes once belonging to Sigismund Tudišić.

As has been previously noted in the scholarship, the architecture of the late Renaissance and Baroque periods in Dubrovnik

also reflects significant dissemination of a particular gate model designed by Giacomo Barozzi da Vignola. The portal of the Farnese Palace in Caprarola (Ill. 3.14), designed by Vignola, was appended to the plates of the five orders since the earliest editions of his treatise, alongside other illustrations of his works. This portal introduced a distinctive motif into the Ragusan architectural tradition: an arched opening framed within an architectural order of rusticated pilasters bearing an entablature.⁶⁹

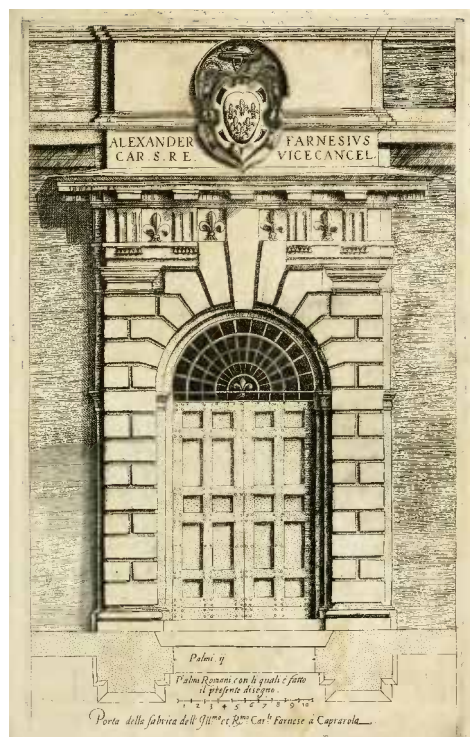
The growing popularity of this design marked a turning point in Dubrovnik's architectural vocabulary as it influenced at least four gates; further, derivative examples appeared in both urban palaces and country villas in the Dubrovnik area over an extended period of a century or more.⁷⁰ While a visual comparison of the gates inspired by Vignola's design suggests mutual influence, it is not possible to establish a definitive chronology among them.

Unfortunately, there are no reliable archival sources that provide precise dates for these gates. Their designs appear to belong to the late Renaissance or early Baroque, and many were likely restored—either faithfully or with some modifications—following the earthquake of 1667.

It is worth noting that none of the Dubrovnik gates is an exact copy of the portal of the Farnese Palace; each exhibits variations in proportions or decorative elements. Most of the gates fail to include all the components of the pilasters that Vignola designed to support the arch of his gateway. For instance, in the gate of the Altesti Villa, now relocated to the entrance of Dubrovnik Cemetery in Boninovo (Ill. 3.15), the bases of the main Doric pilasters extend along the jambs of the doorway. However, the moulding that should mark the impost of the arch is usually absent. The only exception is the portal of the Sorkočević Palace (Ill. 3.16), which replicates the mouldings of Vignola's design, albeit with significantly altered proportions; they are extended on both sides of the main Doric rustic pilasters.

The gate of the Gundulić Villa in Gruž (Ill. 3.17) is unique in lacking bases for its Doric pilasters. Along with the portals of the Sorkočević Palace and the Guardhouse in Dubrovnik (Ill. 3.18)—both of which were remodelled by Tomaso Maria Napoli and Marino GropPELLI after the earthquake of 1667—the gate of the Bunić Gradić Villa is one of the few examples to feature Vignola's prescribed base for the Doric order with its single torus (Ill. 3.19). In contrast, the gate of the Altesti Villa and a portal bearing the Rastić coat of arms in Braća Andrijić Street (Ill. 3.20) incorporate Attic bases. While this type of base is far more common in Dalmatia for the Doric order, it deviates from the specifications outlined in Vignola's *Regola*.

Voussoirs of the arch that resemble Vignola's model appear in the Rastić portal, the Sorkočević Palace, and the gate of the Altesti Villa. However, they curiously merge with the stone



Ill. 3.14. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1569), plate XXXIII



Ill. 3.15. Gate from Villa Altesti (now at the entrance of Boninovo Cemetery), Dubrovnik, second half of the sixteenth century



Ill. 3.16. Sorkočević Palace, Dubrovnik, main entrance gate, reconstructed after 1667 earthquake



Ill. 3.17. Gundulić Villa in Gruž, Dubrovnik, main entrance gate, second half of the sixteenth century



Ill. 3.18. Marino Groppelli, Guardhouse, Dubrovnik, main entrance gate, reconstructed after 1667 earthquake



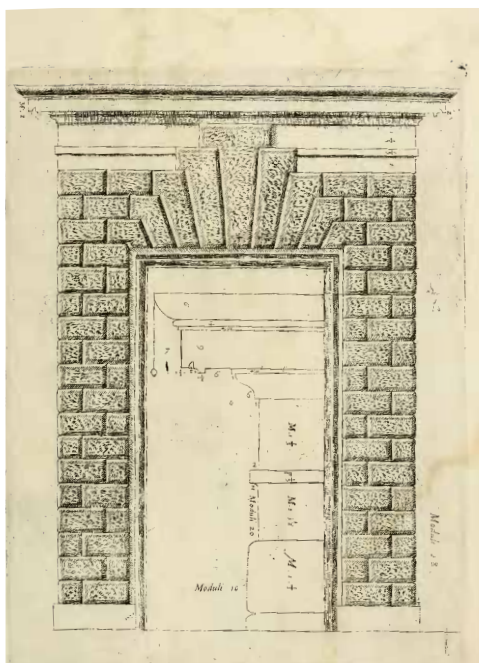
Ill. 3.19. Bunić Gradić Villa, Dubrovnik, main entrance gate, second half of the sixteenth century



Ill. 3.20. Gate with Rastić coat of arms in Braća Andrijić Street, Dubrovnik, second half of the sixteenth century



Ill. 3.21. Gate in Sigurata Street, Dubrovnik, unknown date



Ill. 3.22. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1569), plate XXXV



Ill. 3.23. St Mary in the Castle, Dubrovnik, portal

blocks of the Doric pilasters, causing the pilaster shafts to seemingly vanish into the upper section, thus creating the impression of a 'floating' capital. This anomaly likely stems from an inaccuracy in Vignola's original plate, where a similar issue is visible in the right pilaster, while the left pilaster is clearly distinct from the arch. This ambiguity in the original design seems to have misled the draughtsmen responsible for many reprints and plagiarised editions of Vignola's work, as they connected the stone blocks of the pilasters and the arch. This detail could provide valuable insight into the specific edition from which Dubrovnik's portals were derived.

While the gate of the Bunić Gradić Villa and the portal of Dubrovnik's Guardhouse accurately duplicate Vignola's Doric base, their entablatures, which are identical to each other, deviate from the Farnese Palace design. They feature a flat architrave and omit the triglyphs and metopes in the frieze that are in Vignola's portal. In contrast, the gate of the Altesti Villa and the Rastić portal follow Vignola's entablature more faithfully, displaying an architrave divided into a thinner lower band and a taller upper one. Meanwhile, the portal of the Sorkočević Palace inverts the proportions of Vignola's entablature, further departing from his design.

An additional detail underscores the rigidity with which certain designers replicated Vignola's portal: the fleur-de-lis emblem, representing the Farnese family, occupies the metopes of the frieze in the Caprarola portal. The gates of both the Altesti and Gundulić Villas also contain this motif, treating it as a standard element of the classical architectural language rather than as a heraldic insignia tied to a specific family. In contrast, the Rastić portal replaces the Farnese fleur-de-lis with armour and various vessels, a more contextually appropriate decoration.

An analysis of Dubrovnik's gates and portals, meticulously conducted by Duško Živanović and Nada Grujić,⁷¹ reveals that the influence of Vignola's treatise extended beyond the reinterpretations of the entrance portal of the Farnese Palace in Caprarola. A doorway in Sigurata Street constructed with rustic stone blocks and lacking an order (Ill. 3.21), is an almost exact copy of another design by Vignola, which appears in the plate immediately following the Caprarola portal (Ill. 3.22). Additionally, a portal in the convent of St Mary in the Castle (Ill. 3.23), demonstrates notable similarities to Vignola's design for a door in San Lorenzo in Damaso (Ill. 3.24), particularly in the moulding of its frame and the side corbels.

The gates and portals in Dubrovnik thus provide clear evidence that one or more copies of Vignola's treatise circulated in the city. However, the variations observed in the replication of the Caprarola portal across several examples suggest that only in a few cases did the designer have direct access to a copy of Vignola's work. In the majority of instances, stonemasons

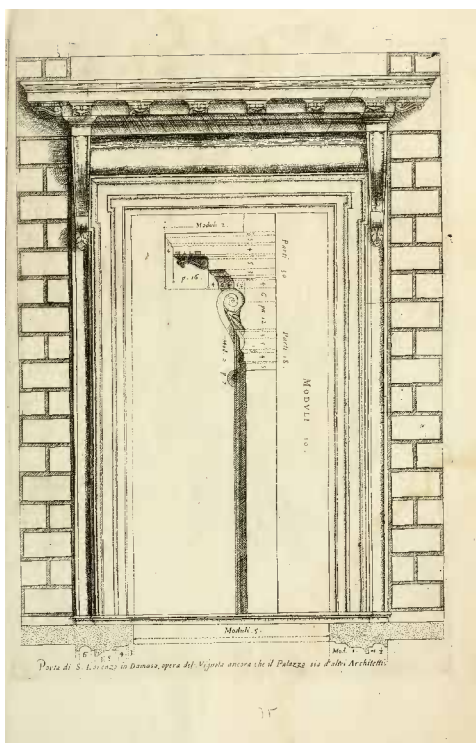
appear to have used existing prototypes, incorporating adjustments, variations, and personal modifications.

As with the unidentified copy of Serlio's treatise that was used in Cres during the second half of the sixteenth century, it has not been possible to determine which specific copy of Vignola's treatise was the source for the Dubrovnik gates and portals. It is important to recall here that most copies of Vignola's treatise in the region date to the eighteenth century. The sole known seventeenth-century edition of Vignola today in Dubrovnik is the 1626 Venice edition that was signed by the painter Dominik Divnić of Šibenik. However, this particular copy did not circulate in Dubrovnik during the time in question.⁷²

The Croatian Littoral, first under Hungarian rule and then under Habsburg control, also provides intriguing evidence of Vignola's influence during the sixteenth and seventeenth centuries. In Rijeka, the small Church of Sts Fabian and Sebastian, first documented in the late thirteenth century and completely rebuilt in 1885, retains a rather refined Doric portal that suggests familiarity with classical architectural language (Ill. 3.26). An inscription on the lintel above the doorway and just below the Doric entablature records the year 1562 and the name of Ivan Dotić as the *gastaldo* of the fraternity responsible for commissioning the portal and, likely, the remodelling of the entire church: 'Ad laudem Dei divique Sebastiani fraternitas fieri fecit tempore Johannis Dotich Castaldi 1562' (To the praise of God and Saint Sebastian, the brotherhood had [this portal] made in the time of Giovanni Dotić, Castaldo, 1562).⁷³

This date is particularly puzzling, as the first edition of Vignola's *Regola* was just published in Rome in 1562. The portal of Sts Fabian and Sebastian is similar to, but also notably different from, the doorway designed by Vignola for the Palazzo della Cancelleria in Rome. This design was appended to the copperplate illustrations of the five orders in some, but not all, copies of the first edition of Vignola's *Regola* (Ill. 3.25).⁷⁴ The general composition of the Rijeka portal echoes that of Vignola's doorway, particularly in the placement of the inscription on the lintel and the decoration of the frieze with triglyphs and metopes. The shafts of the half-columns adhere to the proportions Vignola recommended for the Doric order; the height of each equals fourteen times its radius. Additionally, even small details from Vignola's design, such as the use of a *cyma reversa* on the echinus, appear in the Rijeka portal.

Nonetheless, the portal of Sts Fabian and Sebastian differs from Vignola's model in several respects. A stocky, square pedestal supports the columns in Rijeka, whereas in the Palazzo della Cancelleria, the columns rest directly on the ground. In Rijeka, two half-columns support the entablature, replacing Vignola's more complex solution of free-standing columns partially embedded in the wall. The half-columns in Rijeka also



Ill. 3.24. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1569), plate XXXVI



Ill. 3.25. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1562), plate XXXIII



Ill. 3.26. Church of Sts Fabian and Sebastian, Rijeka, portal



Ill. 3.27. Zrinski Palace, Nova Kraljevica, external gate, completed in 1653

feature Attic bases, rather than the single torus prescribed by Vignola for the base of the Doric order.

The frieze in Rijeka likewise deviates from Vignola's design. Its triglyphs have five guttae, rather than six, and on the central axis above the doorway, a triglyph appears instead of a metope. However, Vignola allowed for both solutions: while the Palazzo della Cancelleria doorway features a metope in this position, his plates for the Doric order—including both lintelled and arched designs—place a triglyph in this spot.

Other details of the Rijeka portal, such as the entasis, the projection of the capital, the *cyma reversa* on the echinus, and the guttae, appear oversized, even though Vignola's overall proportions are generally respected. Finally, the designer of the Rijeka portal added a pediment to Vignola's design, demonstrating his ability to adapt a secular doorway to a church portal.

As noted earlier (see Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries', and 'The Coast and the Inland: Authors and Titles'), no copies of the *editio princeps* or other sixteenth-century editions of Vignola's *Regola* have been identified in libraries of the eastern Adriatic. However, the 1620 reprint currently held in Rijeka has a folded page corner on the plate depicting Vignola's doorway from the Palazzo della Cancelleria (Ill. 2.44).⁷⁵ This book copy contains clear evidence of use by a practitioner of architecture, including compass holes, pencil lines for geometric constructions, and multiple folded corners and pages. On the back endpaper, an unknown reader sketched the elevation of two Doric columns with noticeably clumsy proportions. Such evidence of use prompts a reconsideration of the date of the Rijeka portal, especially because the Doric half-columns, entablature, and pediment form a distinct structure that has clearly been applied to a doorframe dated to 1562.

It is plausible that this classical composition—whose forms clearly derive from Vignola's *Regola*—was added later, in the seventeenth century, to a preexisting doorframe. While architectural analysis indicates that the design was derived from Vignola's doorway for the Palazzo della Cancelleria, it also suggests a broader familiarity with Vignola's treatise. This makes it difficult to conclude that the portal in Rijeka was constructed in 1562, the year when the *editio princeps* of Vignola's *Regola* was published in Rome.

Another notable example of Vignola's influence can be found not far from Rijeka along the northern Adriatic coast, which was under the rule of the Croatian *bans* in the mid-seventeenth century. In the village of Kraljevica, Petar Zrinski, who succeeded his brother Nikola as *ban* in 1665, constructed a fortified seaside palace known as Nova Kraljevica. Petar lived there with his wife, Ana Katarina Frankopan, from 1653 onwards.⁷⁶ The palace is noteworthy for several reasons, particularly its regular, rectangular plan, which features four circular corner towers around a courtyard. The courtyard includes a two-level

arcade and a central water cistern. Additionally, the architectural language of the palace warrants attention, especially because Nikola and Petar Zrinski were the founders of the Zrinski Library, renowned for its extensive collection of books on architecture and military engineering.⁷⁷

As Katarina Horvat-Levaj has observed, the unknown designer of the palace appears to have aimed to demonstrate familiarity with architectural treatises, particularly in the four gates located on the exterior walls and in the courtyard.⁷⁸ While Radmila Matejčić initially suggested the influence of Serlio, a view later reiterated by other scholars,⁷⁹ the style of the portals is more closely aligned with Vignola's designs, as is the interior.

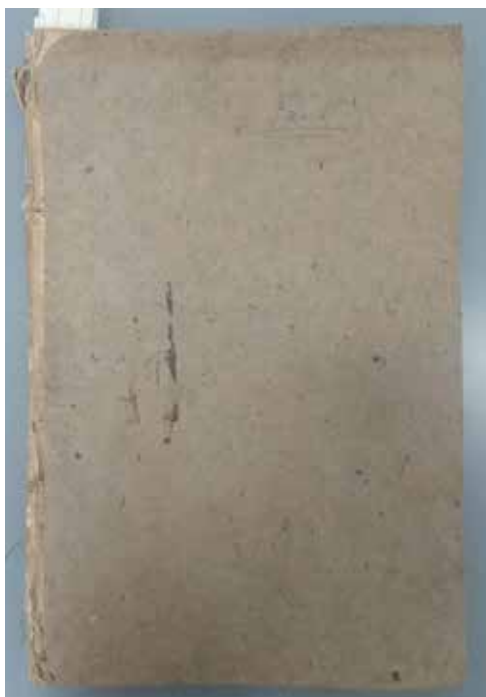
The northern gate leading into the palace replicates Vignola's rustic Doric portal at Caprarola (Ill. 3.14), albeit in a simplified form. The frieze and cornice lack triglyphs and upper mutules, and the number of stone blocks is reduced (Ill. 3.27). Nonetheless, key features—such as the base consisting of only a single torus, the pilaster shafts blending into rustication, the bent ashlar forming the arch, and the progressive breaking of the architrave and frieze—unequivocally indicate Vignola's treatise as the source of the design. Interestingly, the plain frieze applied to the Doric order, without triglyphs or mutules in the cornice, appears in several gates included in later editions of Vignola's *Regola*, for instance that of the Grimani Villa on the Quirinal Hill (Ill. 3.28).

While the other gates of the Zrinski Palace in Kraljevica demonstrate the designer's skill in deploying the orders and rustication, their simple design precludes a direct connection to any specific design in Vignola's book or in other architectural treatises. However, Vignola's influence also appears in some black stone elements within the interior, recently revealed by Petar Puhmayer.⁸⁰ One notable example is a doorframe in the north-west room on the first floor, one of five portals that remain. The components of this doorframe—though not in its proportions—closely follow a window frame design published in Vignola's treatise. The monumental fireplace with Ionic columns in the southwest tower differs entirely from the fireplace designed by Vignola for Cardinal Farnese's bedchamber, as well as from comparable models by Serlio. Nonetheless, certain details, such as the doubling of columns with back pilasters and the use of upper volutes, could easily have been inspired by the plates of Vignola's and Michelangelo's works that were added to the later editions of the *Regola*.

As was not the case in Dubrovnik, a copy of Vignola's *Regola* (Venice, 1620)⁸¹ survives in Rijeka, at the University Library, and may have been consulted by the designer or stonemason responsible for the Zrinski Palace. This copy contains numerous signs of use, including folded pages and page corners, pencil construction lines, and compass holes. The reader's (or readers') interventions are distributed across the plates of the five orders



Ill. 3.28. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1617), plate XXXXIII



Ill. 3.29. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620), front cover (SKR, 31 A 1/30)

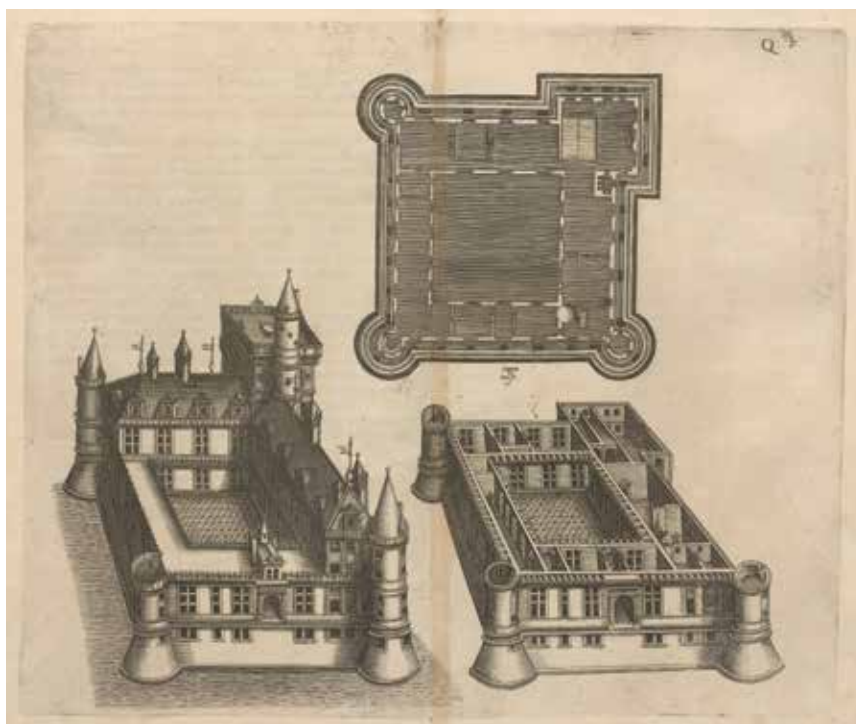
as well as the sections illustrating works by Vignola and Michelangelo. Unfortunately, the words on the front cover—likely an older note of ownership—have been obliterated; they potentially could have provided further details about the volume's provenance (Ill. 3.29). While the visible marks of use do not appear on the plates used as models for the gates, doorframes, and fireplace of the Zrinski Palace, as was also the case for the portal of the Church of Sts Fabian and Sebastian in Rijeka, this book copy clearly belonged to a practitioner of architecture.

Interestingly, for the design of his new palace, Petar Zrinski did not rely on the architectural books in the Zrinski family library. Although the library is traditionally believed to have been established in 1662, its collection had been begun earlier by Petar's brother Nikola and his predecessors. At the time, the books were housed in Čakovec Castle, so Petar did not have direct access to them in Kraljevica.

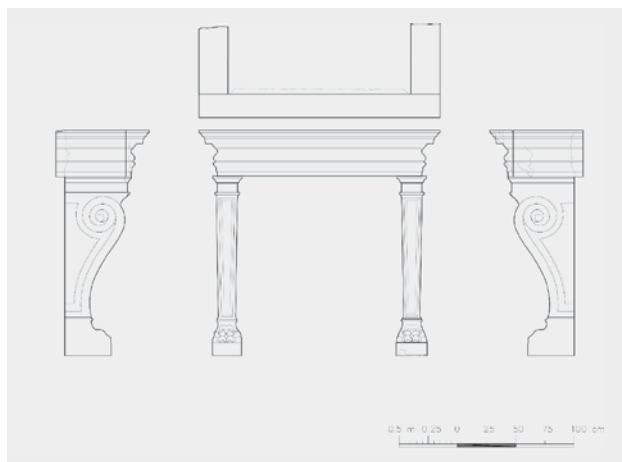
The current holdings of the Zrinski library include copies of Daniele Barbaro's translation of Vitruvius (Venice, 1629), Serlio's *Regole generali* (Venice, 1544), and Palladio's works (Venice, 1642),⁸² but no copy of Vignola's *Regola*. It is possible that Petar borrowed a copy of Vignola's treatise from the family library and never returned it to Nikola or his son Adam, who inherited the collection. Alternatively, Petar may have hired a designer or stonemason who owned a copy of Vignola's work.

Nevertheless, it is worth noting that Jacques Perret's *Architecture et perspective* (Oppenheim, 1613), currently preserved in the Zrinski Library, includes examples of French-style castles featuring square and rectangular plans, square or circular corner towers, and inner courtyards (Ill. 3.30). These designs may have served as initial sources of inspiration for Petar Zrinski, and the artists whom he commissioned may then have adapted and supplemented them with other models. The Zrinski copy of Perret's book contains numerous handwritten annotations; notably, numbers have been added to the illustrations, possibly summarising the measurements of the buildings meticulously detailed by the author in the accompanying text. Beyond their relevance for Nova Kraljevica, the architectural books in the Zrinski Library merit closer examination for potential influence on the numerous castles and residences owned by this illustrious Croatian family.

The inclusion of various chimneypieces from Serlio's book in the Korčula Sketchbook suggests that both stonemasons and patrons in the eastern Adriatic were receptive to such designs. While the majority of early modern stone chimneypieces have been moved or have been reused as building materials, some examples still survive. Recently, Vanja Kovačić examined a monumental Baroque chimneypiece from the Milesi Palace in Split. Historical sources frequently document the commissioning of chimneypieces, which were often sent to stonemasonry workshops in Korčula or Brač for production. In 1610,



Ill. 3.30. Jacques Perret, *Architectura et perspectiva* (Frankfurt, 1613), plate Q (NSKZ, BZ 13 adl. 3)



Ill. 3.31. Milesi Palace, Split, chimneypiece (from V. Kovačić, 'Prilog za tipologiju kasnorenesansnih kamina', *Klesarstvo i graditeljstvo* 15/16 (2018): 32)

for instance, Stjepan Bokanić received an order for a 32-foot-long *nappa alla francese*.⁸³ Similarly, *camino alla francese* designs are mentioned in late-eighteenth-century estimates for the Adobbati and Canova houses in Zadar.⁸⁴ Although references to French-style fireplaces should not always be interpreted literally, they clearly reflect demand among patrons for foreign-inspired chimneypieces. At the same time, these records demonstrate that local workshops possessed the skill to fulfil such requests.

The monumental chimneypiece from the Milesi Palace in Split exhibits features that are unmistakably derived from Serlio's fourth book (Ill. 3.31). Notably, the side jambs with lion paws below and volutes above echo a model that Serlio specifically recommends for the Doric order.

The copy signed by Dominik Uvoda, which likely circulated in central Dalmatia during the Baroque period, contains clear evidence of use on several illustrations of chimneypieces (Ill. 3.32).⁸⁵ However, the differences in the design of the Milesi chimneypiece's mantel make it resemble more closely late Renaissance models from the Venetian *terraferma*. The latter connection is further supported by the choice of material: red limestone from Verona. These observations led Vanja Kovačić to propose that the monumental Milesi chimneypiece was not the work of local stonemasons but rather an import from Venice.⁸⁶



Ill. 332. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV, fol. 35r (ZPZHAZU, Miočević-Rendić collection, C 135)

Materials and Techniques

The evaluation of the impact of architectural treatises on building materials and construction techniques in the early modern eastern Adriatic requires a preliminary assumption. Across the region examined here, the area stretching from Koper to Kotor, a distinct architectural paradigm prevailed throughout the early modern period, as well as before and afterwards. This paradigm differed fundamentally from that of the Renaissance Italian peninsula, where the principal architectural treatises were written. In the eastern Adriatic, there was a long-standing tradition of stone quarrying and masonry, from which buildings with walls constructed entirely out of limestone blocks were assembled.

While the practice of building structures wholly out of stone also occurred on the Italian peninsula, it was typically an exception, limited to specific constructions. In regions such as Rome, Venice, and the Po Valley—where the authors of the most prominent architectural treatises were trained and worked—brick was the dominant building material.⁸⁷ For instance, Sebastiano Serlio, a Bolognese architect educated in Rome, provided

guidance on securely integrating stone elements, such as door and window frames or bases and capitals of pilasters and columns, into walls constructed of brick. Similarly, Andrea Palladio experimented with techniques designed to minimise the use of costly stone, often substituting a less expensive brick coated in marble-like plaster. Some of this knowledge was transmitted via *I quattro libri*.

By contrast, the eastern Adriatic witnessed the development of an extensive stone trade, which supplied the architectural market with relatively affordable limestone blocks and prefabricated elements. From Istria to the Bay of Kotor, various types of white and yellowish limestone, along with other locally available stones—such as breccia from Rab and red stone from Kotor—were the main building materials of the region.⁸⁸ Not only did the stone trade adequately meet local architectural demands, but it also represented a vital source of economic activity, grounded in sustained and profitable exportation.

Simultaneously, the relative scarcity of clay in the rocky terrain of the eastern Adriatic rendered brick almost entirely unknown. During the early modern period, just a handful of kilns for the production of bricks or other terracotta products were established in the region. Across the entire geographical and chronological spans under consideration here, bricks predominated over stone in only a very limited number of structures. The largest brick buildings in the eastern Adriatic are the bastion known as Pontone (or Ponton) within Zadar's city walls, which was built between 1537 and 1543, and St Nicholas Fortress at the mouth of Šibenik Bay, which was begun in 1540.

Notably, both structures were military defences commissioned by the Venetian Republic and designed by Michele and Giangirolamo Sanmicheli. These projects adhered to strategic and architectural principles already established in Venice and the Venetian *terraferma*, and bricks were imported directly from Venice.⁸⁹ This reliance on Venetian-supplied materials undercores how foreign brick construction techniques were unknown in the eastern Adriatic region. Moreover, the subsequent decision by the Venetian government to abandon the use of brick in favour of locally sourced stone for extensive fortress and city wall projects—despite the involvement of Venetian military engineers—highlights the enduring dominance of stone for building in the area.

Despite the general scarcity of brick as a construction material, bricks and other terracotta products were not entirely unknown in the eastern Adriatic. A study by Bojan Goja on the building costs of four different Zadar palaces from the seventeenth and eighteenth centuries revealed that bricks occasionally appeared in minor sections of load-bearing stone walls. These uses of brick probably reflect subsequent modifications, such as adjustments to openings. Furthermore, an internal partition wall described in documents as a 'muro di terra

cotta' (wall of terracotta bricks) was documented in the Adobati House in 1756. In addition, specialised square or rectangular thin bricks—commonly referred to as 'quadroni' (square-shaped floor tiles) or 'tavelle' (rectangular floor tiles)—were regularly employed as paving materials instead of stone. Construction records mentioning 'tavelle veneziane' (Venetian floor tiles) and 'tavelle anconitane' (Anconian floor tiles) indicate that such products were routinely imported, not only from Venice but also, significantly, from Ancona, even in the late eighteenth century.⁹⁰

Roofing tiles were another essential terracotta product for buildings. Given the lack of significant local production in the eastern Adriatic—or the inability of small-scale production to meet demand—tiles were consistently imported from Venice. Venice, in turn, sourced tiles, bricks, and other terracotta products from the neighbouring plains surrounding the lagoon, particularly from the Padua and Treviso provinces. While the provenance of the tiles used in the Zadar palaces analysed by Bojan Goja is not explicitly documented, numerous other archival sources from various contexts in the eastern Adriatic confirm the Venetian origins of the tiles. For example, in the mid-eighteenth century, the timber and tiles used for the roof of the Parish Church of Our Lady of Mount Carmel in Nerežišće—constructed under the direction of Ignacije Macanović—were imported from Rijeka and Venice, respectively. Similarly, expenses for the construction of the Parish Church of the Immaculate Conception in Kaštel Štafilić, overseen by Macanović a few years later, indicate the same Venetian source for roofing tiles.⁹¹

Based on this evidence, it can be inferred that bricks circulated in the eastern Adriatic in limited quantities. A recent investigation has demonstrated that small kilns for terracotta products operated in the territories of the Ragusan Republic, in present-day Župa Dubrovačka (Breno), and in Venetian Istria, for instance in Koper and Piran, though they were unable to satisfy contemporary demand.⁹² Consequently, bricks and tiles were regularly imported from Venice and other regions for small projects and, to a greater extent, for use in roofing and paving. In this context, the material evidence of use regarding the topic of paving in architectural treatises takes on particular significance. Vitruvius dedicates Chapter VIII.1 of *De architectura* to paving, and in his commentary, Daniele Barbaro illustrates various patterns for brick floors.

Notably, in their 1567 edition of Barbarno's Vitruvius, Ivan and Ignacije Macanović marked the entire chapter on paving by folding a corner of the page—highlighting a detail that warranted further investigation (see below, 'A Case Study: Ignacije Macanović and his Workshop').⁹³ Leon Battista Alberti also addresses brick paving in several sections of *De re aedificatoria*. A reader of a copy of Cosimo Bartoli's translation (Florence,

1550), which was formerly housed in the library of the Ragusan Jesuit college, marked two of the passages on brick paving. In Chapter III.16, the reader folded a corner of a page where Alberti describes 'ammattinati' (brick floors) he observed in ancient buildings. These floors were made of 'mattoncini minuti' (small bricks) arranged in a 'spinapesce' (herringbone) pattern.

Drawing on Vitruvius and Pliny, Alberti details the techniques for laying the foundations of such floors so as to prevent moisture from seeping in. He recommends multiple layers: a base layer of fist-sized pebbles, a layer of broken bricks, one comprised of a special type of mortar, and finally the bricks arranged for paving.⁹⁴

The page marked by the reader of Alberti's *De re aedificatoria*, likely a Ragusan resident, highlights some of the most critical challenges of building construction in the eastern Adriatic. Issues such as managing humidity, laying stable foundations on weak or marshy soil, finding a mortar with hydraulic properties, and ensuring a reliable supply of pozzolana or similar sand were central concerns for builders operating in an archipelago and along a large coastal area like the eastern Adriatic. A collaborative investigation by Ines Ivić and myself into the reconstruction of Dubrovnik following the 1667 earthquake facilitated a comparison of extensive archival data—including building accounts—with material evidence of use in architectural treatises preserved in libraries across the region. This research centred on specific challenges that builders encountered during construction and aimed to elucidate the architectural knowledge and practices of Ragusan master builders.⁹⁵

As evidenced in architectural books (see above, Chap. 2, 'Construction Materials and Techniques'), the selection of materials and techniques for foundations was a top priority for readers in the early modern eastern Adriatic. Contemporaneous architectural treatises frequently highlighted the laying of foundations as a particularly challenging and important process. Mistakes in the design or execution of foundations could result in structural instability or, in the worst possible scenario, total collapse.⁹⁶

Readers devoted particular attention to pile foundations, a type of construction that solidified unstable soil via wooden poles driven into the ground; Vitruvius described this method in his chapter on harbours and maritime structures. Evidence that readers consulted this chapter appears in a copy of Durantino's Italian translation of Vitruvius's *De architectura* (Venice, 1535) that Giovanni Battista Fontana purchased in 1670 in Kotor. Giovanni Battista, a master builder from Ticino and the elder brother of the renowned architect Carlo Fontana, occasionally worked in Rome and travelled extensively, including to the eastern Adriatic.

Notably, Giovanni Battista Fontana designed at least two buildings in the region, both of which bear inscriptions recording his

name: the Bujović Palace in Perast, completed in 1694, and the belltower of the Franciscan friary in Cres, constructed between 1687 and 1700.⁹⁷ Although direct evidence is lacking, it is plausible that Fontana consulted Vitruvius's chapter on pile foundations when designing the Bujović Palace (Ill. 2.33), a three-storey, cubic structure featuring a rusticated portico that faces directly onto the sea.

Archival sources document the widespread use of pile foundations across the eastern Adriatic, beyond piers or buildings constructed directly over water. In Dubrovnik, for instance, while the southern, older section and the northern Prijeko extension were built on firm rock, the central area of the Stradun—with its important civic buildings—was situated on weak, marshy soil that had once been a shallow sea channel. This necessitated the use of the piling technique. Archaeological excavations have revealed wooden poles beneath the fifteenth-century columns in the courtyard of the Rector's Palace, attesting to the long-standing use of this technique. After the devastating earthquake of 1667, pile foundations were integral to reconstruction efforts. For example, the building accounts of Petilovrijenci Church record the purchase of wooden poles that were then used to reinforce and extend the existing foundations.⁹⁸ Similarly, in 1753, at the Parish Church of Kaštel Štafilić, Vicko Macanović and his team received payments both for excavating the foundations—'cavar le fondamenta' (to dig the foundations)—and for driving the poles into the ground—'ano [...] messo li pali' (they have [...] driven the piles).⁹⁹ As I will discuss in further detail below, Macanović's copy of Vitruvius shows evidence of use in the chapter on pile foundations, likely due to his work not only on the church in Kaštel Štafilić but also potentially on other projects.

In Dubrovnik, the problematic soil conditions affecting significant portions of the city heightened concern among builders and patrons regarding the proper techniques for pile foundations. The extensive material evidence of use found in architectural books addressing foundation techniques and circulating in early modern Dubrovnik (see above, Chap. 2, 'Construction Materials and Techniques') reflects this widespread concern. The sustained interest in foundations continued for a long time, stretching from early Renaissance treatises such as Alberti's *De re aedificatoria* to later eighteenth-century works.

The debate surrounding high-quality hydraulic mortar provides further insight into the influence of architectural books on construction practices in Dubrovnik. Pile foundations required the use of specialised hydraulic mortars, as was emphasised by Vitruvius and Alberti. Many architectural treatises on maritime construction discuss pozzolana, a volcanic ash praised for its ability to impart exceptional hydraulic properties to mortar. Stjepan Gradić, overseeing the reconstruction of Dubrovnik from Rome after the 1667 earthquake, strongly advocated the

use of pozzolana. In 1669, he successfully arranged for two shipments of this material, considered to be of the finest quality and procured from the shores of Pozzuoli in Cuma or Baia near Naples; this source was highly recommended by Vitruvius, his commentators, and later authors. However, the effort to introduce pozzolana into construction practices in Dubrovnik proved both costly and unsuccessful. Instead of distributing the shipments to builders, Dubrovnik's authorities sequestered the material, leaving it to dry and deteriorate, thus rendering it unusable.¹⁰⁰ To reduce costs, Stjepan Gradić advised the Ragusan Senate to consider alternative materials closer to Dubrovnik that could give hydraulic properties to mortar. Among these, he recommended the red pozzolana-like ash from Pescara and an even better material identified by Paolo Andreaotti, a Roman engineer dispatched to Dubrovnik for the post-earthquake reconstruction, on the shores of Albania.¹⁰¹

In his chapter on pozzolana, Vitruvius speculates about the rarity of this exceptional volcanic ash, explicitly noting: 'Oltra lo Apennino dove è il Mare Adriatico, niente si trova, né in Achaia, né in Asia, & in breve oltra il mare appena se ne sente il nome' (Beyond the Apennines where the Adriatic Sea is, nothing is found, neither in Achaia, nor in Asia, and in short, beyond the sea, its name is barely heard).¹⁰² This statement leaves little hope for finding volcanic ash in the Adriatic region. However, Alberti offers some intriguing clues. While discussing the best hard sands for sawing marbles and stones into slabs from locations as diverse as Ethiopia, India, and Egypt, he provides hints about the potential for similar materials in other regions:

[...] finalmente migliore de le nostre: pur' dicono che in un certo guado del Mare Adriatico ne fu trovata una, che gli Antichi se ne servirono. Noi di su liti di Pozzuolo caviamo una sorte di Rena non però disutile per si fatti lavori.¹⁰³

([...] Finally, better than ours: yet they say that in a certain ford of the Adriatic Sea one was found, which the Ancients used. We extract a kind of sand from the shores of Pozzuoli, however, not useless for such works).

Since Alberti associated the properties of Adriatic sand with those of the volcanic sand found on the shores of Pozzuoli, a reader could reasonably infer that it was a form of pozzolana. Such an interpretation likely influenced Stjepan Gradić, who explicitly stated that his primary sources were Vitruvius and Alberti, in his search for a pozzolana-like material within the Adriatic region. The above passage from Alberti also captured the attention of readers in the eastern Adriatic. Notably, copies of Italian translations of Alberti's *De re aedificatoria* by Pietro Lauro (Venice, 1546), held today in Rijeka, and by Cosimo Bartoli (Florence, 1550), preserved in Dubrovnik, both show evidence of

use in the chapter containing this discussion. Consequently, it appears that there was a broader regional engagement with Alberti's discussion of hydraulic materials, reflecting the practical concerns of local builders and scholars.¹⁰⁴

Alternatively, to produce a mortar with hydraulic properties suitable for the rebuilding of Dubrovnik, Stjepan Gradić proposed a mixture of locally available materials. He emphasised the importance of mortar quality in two of his letters, attributing the damage of buildings during the 1667 earthquake to poor binding materials. According to Gradić, the primary issue lay in the practice of Ragusan builders mixing mortar with seawater and sea sand. Drawing on Vitruvius, he argued that these materials produced a weak mortar due to the salt content, which reduced resistance to structural loads. Additionally, mortar made with seawater or sea sand dried more slowly, and consequently could be deployed effectively only by stonemasons with highly developed skills.¹⁰⁵ Gradić's reliance on Vitruvius for this information highlights a divergence within architectural theory, as treatises did not agree on the topic. Both Alberti and Palladio took an opposing stance, with Alberti explicitly stating that 'quella di mare [arena] fa tosto presa' (sea sand sets quickly).¹⁰⁶

Following his criticism of mortar based on seawater and sea sand, Stjepan Gradić proposed a fast-drying mortar with hydraulic properties that could be made from locally available materials in Dubrovnik. His recipe included: powdered *tuffo di Breno*—a stone quarried in Župa Dubrovačka, just south of the city, *creta rossa* (red clay soil), non-marine sand—potentially fossilised as suggested by Vitruvius, and fresh (sweet) water. Notably, the *tuffo di Breno* mentioned by Gradić was not a volcanic stone like traditional tuff but rather a light and porous sedimentary limestone that may have resembled certain varieties of tuff in its appearance and properties. Gradić's mortar formula appears to be an adaptation of a classical recipe derived from Vitruvius. In place of the pozzolana and fragments of pottery or bricks recommended by Vitruvius, Gradić substituted *tuffo di Breno* and *creta rossa*, tailoring the recipe to the materials available in Dubrovnik. This adaptation illustrates how Vitruvian principles were pragmatically modified to suit local contexts but still retained their theoretical foundation.¹⁰⁷

In May 1677, the building accounts of Petilovrijenci Church in Dubrovnik record payments for two cargoes of *creta rossa*, along with wooden poles intended 'per fondamento' (for the foundation). Builders used these materials to create a robust hydraulic binder to fill the spaces between the poles, thus addressing the challenges posed by underground water. However, as research conducted by Ines Ivić and myself has demonstrated, this practice does not necessarily reflect a direct response to Gradić's suggestions or the influence of architectural treatises.



Ill. 3.33. Giovanni Battista Fontana, Bujović Palace, Perast, 1695

Documentary sources indicate that a similar recipe for hydraulic mortar had already been in use earlier; this type of mortar can be seen in fifteenth-century hydraulic infrastructure, for instance the Dubrovnik aqueduct and the breakwater in the city's port. Additionally, archaeological excavations have revealed traces of charred wood ash and red clay in the pile foundation of the columns in the Rector's Palace, which was constructed in the same period. These structures echo Vitruvian precepts, illustrating the application of hydraulic techniques grounded in classical principles long before Gradić's intervention.¹⁰⁸

This analysis performed by archaeologists into the techniques of piling foundations and the composition of hydraulic mortar reveals that the practices employed during the reconstruction of Dubrovnik after the 1667 earthquake were not entirely novel. From the governing bodies of the Ragusan Republic to stonemasons and builders, those involved in the building trade primarily relied on traditional methods that local masters had utilised since the fifteenth century, that is, before the dissemination of architectural treatises. However, the analysis of material evidence of use in architectural books surviving

in the region demonstrates that both patrons and craftsmen displayed a keen interest in the writings of renowned authors on these constructional issues. In most cases, this interest did not signal a radical shift in Ragusan building practices, as some of Gradić's writings might suggest, but was rather focused on updating or refining existing techniques through the addition of the authoritative insights of Vitruvius and Renaissance authors.

As Jasenka Gudelj has observed, Gradić's efforts to introduce pozzolana into construction practices in Dubrovnik faced resistance from the conservative Ragusan ruling class. Similarly, the local masters, deeply rooted in their long-established techniques, rejected pozzolana in favour of traditional methods. However, by 1735, a significant shift in mindset had occurred. The Ragusan Senate explicitly requested bricks and pozzolana for repairs to the city's water supply system that were to be conducted under the direction of the architect Pietro Passalacqua. This request reflects the growing acceptance of pozzolana throughout Europe, where its value was increasingly championed by hydraulic engineers.¹⁰⁹

Even Ignacije Macanović, a prominent figure in the region, marked with a manicule Daniele Barbaro's commentary on pozzolana in Vitruvius's Chapter V.12, likely in connection with his work on constructing a new pier in Split. However, the Macanović family's engagement with Vitruvius's treatise and their application of architectural knowledge will be addressed in greater detail in the next section.

A Case Study: Ignacije Macanović and his Workshop

As discussed in previous chapters, I identified only a small number of artists among the owners of architectural books. Notable within this group are the architects Giovanni Battista Fontana and Carlo Martinuzzi, as well as the painters Dominik Divnić and Sebastiano Pilloni. Unfortunately, the corpus of works connected to these artists is small, and in many cases, the attribution is uncertain. Consequently, the connections between book ownership and artistic output remain tenuous, with the risk of erroneous associations because of uncertain attributions. In some instances, the involvement of a book owner in the building trade is inferred solely from the material evidence of use in a particular copy. Such is the case for Domenico Uvoda, to whom no buildings or artworks can currently be attributed, despite clear indications of his architectural activity in his annotated copy of Serlio. Ultimately, the only examples of artists possessing architectural books and being widely recognised in scholarship for a substantial body of works are the members of the Macanović family of masons and stonemasons. Their significant corpus of projects offers a valuable lens through which

to explore the intersection of book ownership and practical architectural activity.

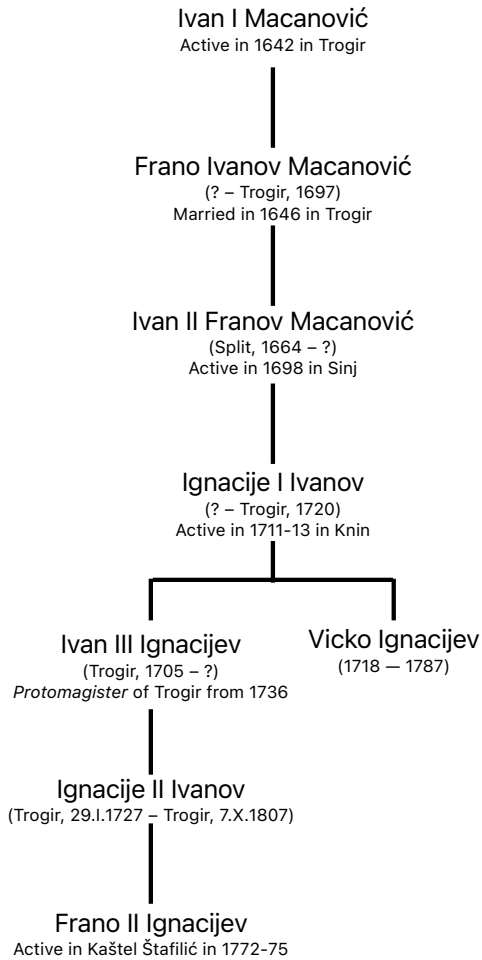
The Macanović family is a significant example of the typical stonemasonry workshops of the eastern Adriatic, which were often sustained through familial ties and passed down across multiple generations. Scholarship and archival records document at least seven generations and approximately ten members of the Macanović family as being active between the seventeenth and early nineteenth centuries.

The earliest known member is Ivan Macanović, who relocated from Dubrovnik to Trogir in the first half of the seventeenth century. He is referred to as 'magistro Zuanne raguseo' in a document from 1642. His son Frano married in Trogir in 1646 and worked as a *protomagister* (master builder) of the town, an artilleryman, and a military engineer during the First War of Candia.¹¹⁰ Successive generations—including Ivan II Franov, Ignacije I Ivanov, Ivan III and his brother Vicko Ignacijev, Ignacije II Ivanov and his brother, and finally Frano II (Ill. 3.34)—held the position of city architect for over 150 years.

In a plea submitted to the Trogir Count Giovanni Bragadin in 1764, Ignacije II wrote: 'In questo officio [municipal *protomagister*] ... conta cinque protti de muratori sempre susseguenti la divota famiglia Mazzanovich detta Raguseo, compresa la persona di me Ignazio' (In this post [municipal chief master builder] ... five chief stonemasons of the devout Macanović family, known as Raguseo, have always followed in succession, including myself, Ignacije).¹¹¹ When Girolamo Cicogna appointed Ignacije II to the role of municipal *protomagister* in 1746, he also acknowledged the long-standing tradition of the Macanović family holding this post, underscoring the family's enduring prominence in Trogir's architectural and construction history.

Distintasi sempre la famiglia Mazzanovich detta Raguseo colla produzione di persone che colle loro abilità, cognizione e sufficienza nell'arte de murtori hanno meritato di esser insigniti col titolo de protti, passato con pubbliche approvazioni gradimento di padre in figlio e mancato ultimamente di vita il protto Zuanne, ha la-sciato erede si del merito de suoi antenati, che della sua perizia il figliuolo Ignazio quale avendo sotto la disciplina del padre col studio, applicazione ed esercizio appreso l'arte medesima mostra di non degenerar punto da suoi maggiori.¹¹²

(The Macanović family, known as Raguseo, has consistently distinguished itself by producing individuals whose skill, knowledge, and competence in the art of masonry have earned them the title of chief master builder. This recognition has passed with public approval



Ill. 3.34. Macanović family tree

and favour from father to son. With the recent passing of protomaster Ivan, his son Ignacije has inherited both the merit of his ancestors and his father's expertise. Having learned the art under his father's discipline through study, application, and practice, Ignazio shows no signs of deviating from the high standards of his predecessors).

The Macanović family effectively monopolised the position of municipal *protomagister* in Trogir. Archival sources extensively document the exceptional level of skill exhibited by successive generations of the family in various construction projects, both within Trogir and beyond. Their technical expertise and dedication to their craft earned them significant recognition.

During the late seventeenth and early eighteenth centuries, Frano I, Ivan II, and Ignacije I solidified their reputations as highly skilled builders through their tireless work on fortifications in Klis, Knin, and Sinj. Cvito Fisković has published

numerous letters and reports from Venetian administrators at various levels that attest to Frano I's, Ivan II's, and Ignacije I's diligent efforts and commend their technical proficiency. These accounts provide valuable insights into the high regard in which the Macanović family was held by their contemporaries, further underscoring their dominance in construction in the eastern Adriatic.¹¹³ This period coincided with the Venetian government's implementation of a comprehensive plan to strengthen the defences of both its longstanding territories and newly acquired lands following the War of Candia. In recognition of the family's contributions to these efforts, Venetian administrators rewarded its members with elevated military and civil positions in Trogir. Locally, they thus became prominent individuals among the stonemasons, further solidifying their influence and prestige in the region.

The subsequent generations—Ivan III, Vicko, Ignacije II, and Frano II—further diversified and expanded the Macanović family's business operations. While public works remained the cornerstone of their work, the family gradually shifted their focus from fortification projects for the Venetian Republic to ecclesiastical architecture. These commissions typically involved the renovation, expansion, or reconstruction of small, aging parish churches across a region that included Trogir, villages on the Island of Brač, and the Kaštela area.

According to the archival records meticulously compiled by Cvito Fisković, the Macanović family relied on a network of collaborators whom they despatched to various construction sites. Ivan III and Ignacije II, based in Trogir,¹¹⁴ oversaw both public works and private commissions, personally inspecting projects only during critical stages or for significant events. This organisational strategy allowed the family to manage multiple building projects simultaneously. By leveraging their extensive network of stonemasons, the Macanovići established a dominant presence in the architectural market of Trogir and the broader Split region, effectively controlling a significant portion of local construction activity.

The family's shift from fortifications to ecclesiastical architecture was influenced by several factors. First, the reduction in military activity led to a decline in demand for fortification projects. Simultaneously, population growth created a need for larger churches to accommodate expanding congregations. This transition also coincided with a significant leap in the quality of stonemasonry and a transformation in the architectural knowledge and business organisation of the family. The family's evolution may, in part, have been facilitated by the copy of Vitruvius that two members of the Macanovići owned.

Decades after the publication of his first scholarly analyses of the Macanović family, Cvito Fisković, following a suggestion by Arsen Duplančić, drew attention to a copy of the Italian translation of Vitruvius housed in the library of the Archaeological



Ill. 335. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), title page (AMS, R 1294)



Ill. 336. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), front endpaper (AMS, R 1294)

Museum in Split. This book contains two distinct inscriptions of ownership that can be attributed to the Macanović family. On the title page, the signature 'Io Zuane Raguseo' appears within the central frieze of the entablature on the triumphal arch in the frontispiece (Ill. 335). Additionally, on the front endpaper, near written estimates of costs and a small sketch, the sentence 'Questo libro è di me Protto / Ignazio Mazanovich' (This book belongs to me, *proto* / Ignacije Macanović) is inscribed in a different ink and handwriting style (Ill. 336).

The identification of 'Protto Ignazio' is relatively straightforward, as the same page contains a small sketch of the façade of the parish church in Nerežišća on the Island of Brač, where Ignacije II directed construction between 1747 and 1750. The signature 'Io Zuane Raguseo' is more difficult to interpret. Fisković proposed that it referred to Ivan III, Ignacije's father, although there is no clear evidence for when the book first entered the Macanović family's possession.¹¹⁵ Fisković based his conclusion on a document from 1698 in which, two generations earlier, Ivan II Macanović had sent Bernardo Antonio Baresa to Sinj to sign a building contract for the Franciscan friary 'per non saper lui scrivere' (because he did not know how

to write).¹¹⁶ This detail suggests that Ivan III, unlike his grandfather, was literate, making him the likely author of the signature in the copy of Vitruvius.

An intriguing question then arises: how did a dynasty of skilled, yet previously illiterate, stonemasons come to possess a copy of Vitruvius's *De architectura*, a foundational text for architectural knowledge, in its most esteemed Italian translation? The answer lies with Ivan III, the individual who likely introduced this book into the Macanović family workshop, catalysing their transformation into a more sophisticated and architecturally informed operation.

Baptised in 1705, Ivan III Macanović quickly became involved in construction projects, beginning with the fortifications in Knin, where he worked alongside his father. The engineer Giovanni Battista Camozzini provided a positive evaluation of the work by the two men in 1712. As noted earlier (see Chap. 1, 'Professional Libraries'), my analysis of Camozzini's surviving papers revealed the books he owned and referenced in compiling his notes, suggesting a broader intellectual environment surrounding these projects. More than two decades later, in 1736, another engineer, Francesco Melchiori from Vicenza,

commented favourably on Ivan III's efforts to deepen his knowledge of architecture. Melchiori's endorsement underscores Ivan's dedication to enhancing his skills, which was a significant step in the professionalisation of the Macanović family within the architectural sphere.

Desideroso d'apprendere mistro Zuanne Mazzanovich detto Raguseo [...] la professione de suoi maggiori ch'hanno sostenuto per tre età successive il posto di protti de muratori in questa provincia, padre, avo et atavo del medesimo Zuanne, [...] questi (benché ancora tenero) col proprio padre et suo avo impiegato nelle pubbliche fortificazioni di Knin et indi a quelle di Zara. Pervenuto poi all'età adulta e conosciuta la necessità d'impossessarsi dei fondamenti di detta professione si applicò egli fervorosamente allo studio delle proporzioni d'architettura, per cui mezzo si va instruendo e promette sufficienti progressi. Venuto in cognizione io sottoscritto mediante gl'esami fatti allo stesso della di lui sufficienza, posso rillasciargli la presente veridica fede per valersene ovunque le occorresse.¹¹⁷

(Desirous to learn, master Ivan Macanović, known as Raguseo, [...] the profession of his ancestors who for three successive generations held the post of chief master builders in this province, father, grandfather, and great-grandfather of the same Ivan, [...] he (though still tender in age) with his own father and his grandfather was employed in the public fortifications of Knin and then in those of Zadar. Having then reached adulthood and recognised the necessity of mastering the fundamentals of said profession, he fervently applied himself to the study of the proportions of architecture, by which means he is instructing himself and promises sufficient progress. I, the undersigned, having come to know of his competence through examinations given to him, can release the present truthful attestation for him to use wherever it may be necessary).

On the same day, Daniele Dolfin, the *provveditore generale* of Dalmatia and Albania, appointed Ivan III Macanović to his late father's position as *protomagister* of Trogir. In his official statement, Dolfin noted that Ivan was qualified for the role not only because he had significant practical experience but also because he possessed 'anche per studio fatto qualche cognizione d'architettura' (some knowledge of architecture through his studies).¹¹⁸

These documents, among the very few that explicitly associate the term 'architecture' with the works of the Macanović family, clearly refer to a theoretical study of the discipline. At

this point, establishing a connection between such learning and the copy of Vitruvius signed by Ivan III Macanović appears reasonable. But what exactly did Francesco Melchiori mean by 'proporzioni d'architettura' (proportions of architecture)? According to Vitruvian theory, proportions are a fundamental aspect of design that influence both the overall aesthetic appearance of a building and the harmony of its decorative elements. In Vitruvian theory, every component of architecture is governed by proportional relationships.

Vitruvius introduces the concept of proportions in the first book of *De architectura* through the principles of *ordinatio*, *eurythmia*, and *symmetria*, and he revisits these ideas throughout his text. The copy of Vitruvius belonging to the Macanović family displays significant evidence of use in discussions of proportions. The reader folded the corners of the first two pages of Chapter I.2, 'Di quali cose è composta l'Architettura' (Of What Things Architecture Is Composed). On the second page, he marked Daniele Barbaro's summary diagram of Vitruvius's fundamental architectural concepts.

In the subsequent chapter, which elaborates on the three divisions of architecture—*aedificatio*, *gnomonica*, and *machinatio*—the reader drew a manicule next to a particularly noteworthy passage in Barbaro's commentary:

Trattando adunque della forma bisogna, che egli [the architect] sappia ordinare, disporre, misurare, distribuire, ornare, & soddisfare al diletto degli occhi con bella, & gratiosa maniera.¹¹⁹

(When treating form, it is necessary that he [the architect] knows how to order, dispose, measure, distribute, ornament, and satisfy the delight of the eyes with a beautiful and graceful manner).

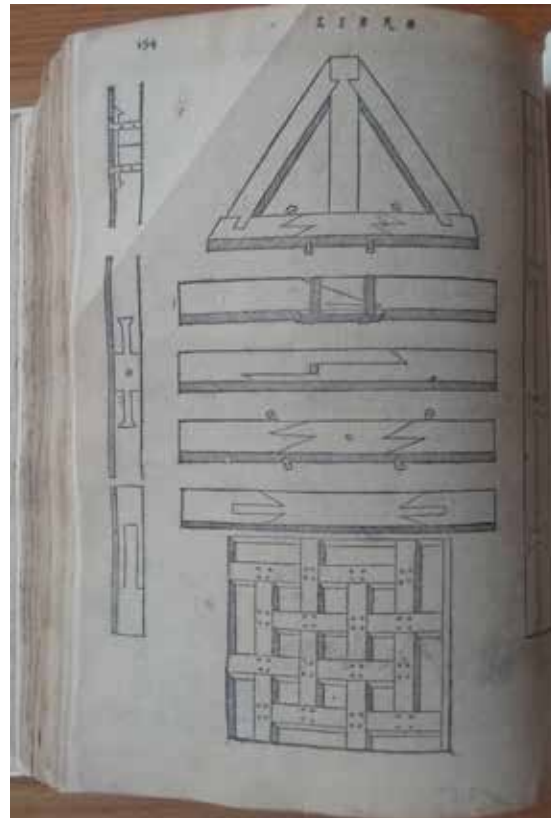
Vitruvius's architectural theory has proportions at its core, and Daniele Barbaro's commentary offers an effective paraphrase of these principles. Proportions not only underpin the overall design of architecture but also form the foundation of the five orders.

Evidence in Macanović's copy of Vitruvius suggests an interest in the orders, though the focus does not appear to have been on their proportions. Instead, the reader highlighted practical aspects, such as the illustrations and the lists of parts and their names for the Doric and Ionic orders, marking these pages with folded corners. The beginning of the discussion of the Corinthian order was similarly highlighted with a folded corner,¹²⁰ indicating a general engagement with the categorisation and terminology of the orders rather than their proportional systems.

Proportions become important again in the context of



Ill. 3.37. Ignacije Macanović (?), *Plan of the project for Garagnin Palace in Trogir*, eighteenth century (Muzej grada, Trogir)



Ill. 3.38. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), IV.7, p. 194 (AMS, R 1294)

residential architecture, particularly in Chapter VI.2, ‘Delle misure, & proporzioni de i privati edificij’ (On the Measurements and Proportions of Private Buildings). Here, the reader folded a corner and marked several subsequent pages. Notably, manicules and underlined passages focus on the dimensions of spaces in the Roman *domus*, such as the atrium and the conclave. As I will explain below, this attention to room dimensions provides further insight into the practical application of Vitruvian theory by the Macanović family.¹²¹

The reader’s attention in this instance centred on the question of proportions in architecture, but such a focus was not consistent throughout the text. In Book V, Vitruvius dedicated an entire chapter to harmony, to which Daniele Barbaro appended an extensive and scholarly commentary. In the margin of the opening page of this chapter, someone wrote ‘Dell’Armonia’ (On Harmony) in an elegant cursive script¹²² that is markedly different from the handwriting used by Ivan Macanović to inscribe his name on the title page. It appears that this section, possibly marked by Melchiori, was flagged for Ivan to study.

While folded corners appear sporadically across the chapter on harmony,¹²³ it is difficult to imagine that Ivan—likely the first

truly proficient reader in his family—could have fully grasped both Vitruvius’s text and Barbaro’s dense commentary. The latter’s discussions, laden with Greek terminology for notes, chords, and mathematical ratios describing various harmonies, would have presented significant intellectual challenges for a stonemason transitioning to architectural study.

On the whole, the evidence in Macanović’s copy of Vitruvius strongly supports the likelihood of Ivan’s focused analysis of architectural proportions—a scenario that is further evoked by Francesco Melchiori’s report. It is therefore highly plausible that Ivan acquired this copy of Vitruvius when he was studying under Melchiori. The extant documents suggest that Ivan’s theoretical grasp of architectural principles was exceptional for a local master in the eastern Adriatic. This is likewise implied by Daniele Dolfin’s letter appointing Ivan as Trogir’s *protomagister*, since Dolfin highlights Ivan’s strong knowledge of architectural theory as a key factor in his suitability for the position.

An important question now arises: why did Ivan need to undergo a period of study and an examination to secure a post that his father and ancestors had obtained through empirical learning alone? Was this due to a shift in the eligibility criteria

imposed by the Venetian government, or did it reflect Ivan's personal ambition to advance his knowledge and professional status? The answer is likely neither of these possibilities.

Archival documents reveal that Ivan's father, Ignacije I, passed away in 1720, leaving Ivan as the sole member of the Macanović family involved in the building trade, despite his young age of only fifteen.¹²⁴ During the next decade, the Macanović dynasty faced a significant possibility of extinction. From Ignacije's death in 1720 to Ivan's eventual appointment as *protomagister* of Trogir in 1736, the position—previously a source of stable and regular income for the family across generations—was either vacant or occupied by another master. This disruption marked a critical break in the traditional passing of the post from father to son, which had sustained the family for decades. Consequently, the Macanović family endured a period of economic and professional hardship, as their status and influence in the building trade were jeopardised.

Above all, unlike any other past or future member of the Macanović family, Ivan III was unable to complete a full apprenticeship within the family workshop under his father's guidance. This unfortunate circumstance compelled him to seek alternative means of training and education to sustain the family business. Lacking a mentor within the family, Ivan turned outward and eventually found a supportive Venetian engineer from Vicenza. This mentor, sympathetic to the young and determined pupil, introduced him to the foundational text of architectural theory, Vitruvius. Had his father not passed away prematurely, Ivan's education and apprenticeship would likely have followed the traditional path of the Macanović family: learning through hands-on experience in the workshop and at construction sites. In such a scenario, it is improbable that he would have acquired a copy of Vitruvius or engaged with architectural theory in the same way. Ivan's unique trajectory, shaped by necessity, distinguished him within the Macanović lineage and contributed to his theoretical grounding in architecture.

However, Ivan III did not live much longer than his father. On 2 May 1746, his son Ignacije II was appointed to the post of *protomagister* of Trogir at just nineteen years old as a result of Ivan's recent death.¹²⁵ Fortunately, Ivan's younger brother Vicko was still alive and ensured the continuity of the family workshop during this transitional period. Over the following decades, Vicko collaborated closely with Ignacije and his son Frano, elevating the workshop to an unprecedented level of productivity and craftsmanship, both in terms of quantity and quality.

Ignacije, widely regarded as the most successful member of the Macanović family, inherited the copy of Vitruvius's treatise that his father had so diligently studied. In a symbolic act of pride and legacy, he inscribed his name and title, 'Protto', on the

front endpaper of the book. This act marked the culmination of the family's journey: from a lineage of skilled and experienced stonemasons in the eastern Adriatic to one known for integrating the theoretical knowledge of ancient classical architecture into their craft.

Beyond the speculations about the transformation of the Macanović family across generations, it is crucial to investigate the tangible impact that their copy of Vitruvius's text had on their building activities. A preliminary and general survey of the corpus of works by Ivan III, Vicko, Ignacije II, and Frano II Macanović—the family members with access to the volume—reveals a conspicuous absence of classical architectural elements, as they were defined by Vitruvius. Instead, their buildings appear more closely aligned with the traditional features of Dalmatian early modern architecture, which had been developed by their predecessors.

Even Cvito Fisković, who first connected the Macanović family's copy of Vitruvius to their architectural works, remarked on the apparent disconnect between the book's content and the family's output. This divergence is perhaps best exemplified in the curvilinear design of the church façade in Nerežišća, which is markedly at odds with the classical ideals found in Vitruvius's treatise. Fisković instead emphasised the continuity of Romanesque and Gothic-Renaissance features in the Macanović family's projects, alongside their experimentation with new Baroque elements. In essence, their architectural repertoire relied on forms not drawn from Vitruvius, but rather from the visual vocabulary embedded in the Dalmatian architectural tradition.¹²⁶

More recently, scholars have examined specific details in the buildings attributed to the Macanović family, attempting to uncover potential echoes of the classical architectural language found in the copy of Vitruvius that the family owned. One notable connection is Ignacije's frequent deployment of *spolia*—elements reused from earlier structures—in his works, such as the Parish Church of Kaštel Štaflić, the Garagnin Palace, and the Kopnena Gate in Trogir.¹²⁷ This practice has been interpreted as indicative of a sensibility influenced by his exposure to Vitruvius.¹²⁸ However, while Vitruvius advocates for the reuse of ancient materials in certain contexts, the *spolia* employed by Ignacije were not classical remnants but pieces from early or late medieval structures. This suggests that his use of *spolia* may have been informed less by Vitruvian theory and more by local traditions or practical considerations that he adapted to suit the architectural vocabulary of the eastern Adriatic.

In his analysis of the façade of the monastic Church of St Peter in Trogir, which was consecrated in 1759, Ivo Babić reevaluated Cvito Fisković's interpretation of the so-called *konzola* on the portals—a pair of corbels supporting the cornice on either side of the doorframe. Fisković had traced the origin of this element, which is also present in the Parish Church of

Kaštel Štafilić by Ignacije Macanović, to late-sixteenth-century Dalmatian architecture. He argued that it subsequently became widely adopted in Renaissance and Baroque architecture across the region.¹²⁹

While acknowledging the broad diffusion of this element in Dalmatia, Babić highlights its striking resemblance to the corbel of the Ionic doorway illustrated by Palladio in Daniele Barbaro's edition of Vitruvius.¹³⁰ The book's illustrations include such corbels in several temple façades, but only in the doorway of the Ionic order are both the front and side elevations explicitly shown.¹³¹ This unique feature of the Ionic doorway strengthens the argument for a potential connection between the Dalmatian *konzola* and the architectural vocabulary disseminated through Vitruvius.

A detailed comparison between the portals of a documented work by Macanović, such as the parish church in Kaštel Štafilić, and other churches attributed to the family—St Peter in Trogir, the Parish Church of Our Lady of the Annunciation in Milna on the Island of Brač, and the Parish Church of St George in Drvenik Veli—yields mixed results. While all of these portals feature the convex, pulvinated frieze characteristic of the Ionic order, only at St Peter in Trogir do the profiles of the doorframe and the upper entablature fully adhere to the Vitruvian canon for the Ionic doorway, as it was reconstructed by Barbaro and Palladio.

In contrast, the mouldings in Kaštel Štafilić, Milna, and Drvenik Veli align more closely with the those of the Corinthian order. Additionally, the door jambs in these churches include 'ears'—a feature absent from Vitruvius's descriptions. Curiously, the portal of St Peter in Trogir departs from the Vitruvian ratio of 3:5 between the width and height of the doorway, while that ratio is followed in the other portals.¹³² Finally, the corbels across the above portals differ significantly in mouldings, proportions, and decorative details. For instance, the volutes on the corbels in Trogir are elliptical, diverging from the circular form described by Vitruvius and evident in the other doorframes. Although most of the corbels are generally flat, the spiral in Milna gradually projects outward, introducing further variation.

Ultimately, none of these portals exhibits a close resemblance to the illustrations in Barbaro's edition of Vitruvius, either in their overall composition or in the decorative details of their corbels. While there are some similarities, the Macanović family did not faithfully replicate any of the portals from the book. Moreover, the widespread use of side corbels across Dalmatia, combined with the relatively small scale of the design in the reduced quarto reprint of 1567, makes these features unreliable indicators of the book's direct influence on Macanović's buildings.

Regarding the use of the orders, examples within the Macanović corpus are notably scarce. The family largely avoided the

orders, focusing instead on vernacular and regional traditions. A closer look at their ecclesiastical buildings, however, reveals occasional classical elements. The Parish Church of Nerežišća was the first large project in which Ignacije II Macanović played a significant role, though he was not involved from the outset. In 1726, the church's procurators submitted a request for its restoration and enlargement, and construction began the following year. Archival documents record the construction of 'tre capelle laterali' (three side chapels) on the north and south sides, which would correspond to the three bays of the aisles, along with the completion of the main vault of the nave in 1735; all of this work was accomplished under the supervision of the *protomagister* Isepo Corvino. After a hiatus of ten years, the local community resolved to complete the church and, in 1746, commissioned Ignacije Macanović. Over the following years, Macanović designed and built the chancel with its apse, the main façade, the sacristy, and the belltower, incorporating the existing nave and aisles.

Inside the church, the transition between Corvino's nave and Ignacije's chancel is subtle in the mouldings of the pilasters, yet highly significant in its architectural implications. Corvino constructed the nave's vaults on robust square pilasters capped with upper mouldings resembling simplified Doric capitals. At the two pilasters supporting the arch leading into the chancel, Ignacije introduced his interpretation of the classical pilaster, which, while still somewhat unrefined, demonstrates an effort to adhere to the principles of the classical architectural language.

The proportions of the shaft are approximately correct, and it is crowned with a true Doric capital. The design of this capital closely corresponds to a page in the Macanović family's copy of Vitruvius that bears the trace of a folded corner, suggesting Ignacije's consultation of the text.¹³³ While the difference from Corvino's earlier pilasters may seem minimal, it is critical in the classical language of architecture. A proper Doric capital is defined by a precise set of annulets beneath the echinus and a simple *cyma reversa* atop the abacus; these details distinguish it from a more loosely articulated moulding system.

In the chancel, Ignacije Macanović sought to achieve harmony by using pilasters similar to those in the nave. However, he made no effort to mediate between the two distinct systems of pilasters. The series of arches on pilasters that characterises the nave abruptly ends at the sanctuary, where a separate pair of pilasters designed by Ignacije creates a pronounced discontinuity. This paratactic juxtaposition of similar but autonomous and disconnected orders recurs between the nave and the chancel of the Parish Church of Milna, also on the Island of Brač.

Ivan Macanović, Ignacije's father, visited Milna in 1733, likely for an initial consultation. However, the present form of the church dates to fifty years later. The constant presence of Ignacije in nearby Nerežišća, along with the close similarities

between the two churches in composition and details, has led scholars to attribute the Parish Church of Milna to Ignacije or his circle. Notably, the architectural language in Milna is more refined than that in Nerežišća. Fine Doric columns replace the robust, square pilasters between the nave and the aisles, and there are projecting half-columns at the beginning and end of the column row, as well as pilasters on the side walls. The pilasters and columns support arches, over which an entablature runs, resting on their keystones.

The Milna church also features studied and sophisticated architectural solutions. For example, the Doric capitals include four leaves that extend diagonally to support the echinus—a detail that, while not entirely unknown, is uncommon. In the eastern Adriatic, this motif appears more frequently on column bases rather than on capitals. Additionally, three half-columns leaning against square pilasters frame the entrance to the chancel, a design that achieves spatial unity because an entablature runs continuously and projects over the half-columns.

Although some of these features might be traced to Vitruvian principles, none of them is explicitly presented in Vitruvius's text or the main Renaissance architectural treatises. This suggests a synthesis of local traditions and inventive interpretations rather than direct adherence to classical or theoretical models.

As a method for assessing the impact of Vitruvius, analysing the architectural details in the buildings attributed to the Macanović family provides useful, but limited, data. In the church in Nerežišća, for example, the connection between Ignacije's pilasters and the Doric order described by Vitruvius is clear, even though the other elements do not fully conform to classical standards. However, in other cases, the widespread adoption of decorative features from classical architectural vocabulary and the uncertainty surrounding the authorship of buildings and their individual components complicate such analyses. The corbels on the sides of portals exemplify this interpretive challenge, since they can be considered part of both the local Dalmatian tradition and the classical language.

Furthermore, as stated at the beginning of this chapter, architectural details—particularly those of the classical orders—were only a small portion of the knowledge communicated through architectural books and applied in practice by designers and builders. For this reason, it is now appropriate to broaden the scope of our analysis.

In terms of the general composition of church buildings, Ignacije Macanović, his collaborators, and his patrons appear to have relied primarily on two models. The first is a simpler, smaller, single-nave church with a gabled façade, exemplified by the parish churches in Kaštel Štafilić and Vodice and by St Peter's Church in Trogir. The second model involves a larger,

three-nave church with a tripartite façade featuring a curved profile that could vary from one church to another; this template can be seen in the parish churches of Nerežišća and Milna, as well as the unfinished church in Drvenik Veli. The Macanović family's two models do not derive from their copy of Vitruvius, in which the reconstructions of classical temples by Barbaro and Palladio would scarcely lend themselves to church design.

The enduring influence of earlier Dalmatian architectural traditions, however, is evident in the work of Ignacije and other members of the Macanović family. Analysing the reception of the Chapel of St John of Trogir, Vladimir Marković identified parallels in the chancels designed by the Macanović family, including those in Kaštel Štafilić, Kaštel Novi, Milna, and Pučišća on the Island of Brač. According to Marković, Niccolò di Giovanni Fiorentino's renowned work during the Dalmatian Renaissance inspired these designs.

One compelling example of the long-lasting influence of established Dalmatian architectural motifs is the Chapel of St Vincenca, added in 1795 to the Parish Church of the All Saints in Blato on the Island of Korčula. The chapel, opening into the three-nave church along its transverse axis and directly opposite the side entrance, mirrors the design of the Chapel of St John in Trogir Cathedral.¹³⁴ Its side walls, articulated by a cornice below an entablature, feature two windows that illuminate the interior. These windows include jambs with 'ears' at both the bottom and top, a characteristic also of the portals of Kaštel Štafilić and other works attributed to Macanović.

This synthesis of Dalmatian architectural traditions with elements developed out of the classical repertoire of Vitruvius suggests that the book was not Ignacije's only source of inspiration. Instead, his work reflects an intersection of the theoretical principles found in Vitruvius and the enduring influence of local architectural practices.

For residential architecture, Ignacije II Macanović played a central role as the lead stonemason in the extensive transformation of the Garagnin Palace in Trogir during the eighteenth century. Antun Garagnin undertook the ambitious project after acquiring the former Cipiko (Cippico) Palace, located on the main square adjacent to the so-called Great Cipiko Palace. To expand his property, Garagnin purchased several abandoned and ruined houses nearby and then began work to create a sprawling residential complex spread over three distinct blocks that were interconnected by elevated passages.

The first phase of construction, from 1763 to 1765, involved the addition of a new wing built on the foundations of old houses situated behind the original Cipiko Palace. A second phase, focused on the restoration of the old Cipiko Palace itself, was carried out between 1771 and 1778. Surviving building accounts and architectural drawings from both phases, which

have been analysed in detail by Fani Celio Cega, frequently mention Ignacije Macanović as a key figure in the project.¹³⁵

During this extensive and multifaceted project, Ignacije collaborated with a family of learned individuals, most notably Ivan Luka Garagnin (1722–1783), who served as bishop of Rab and later archbishop of Split. Ivan Luka began assembling and organising what is now known as the Garagnin-Fanfogna Library on the second floor of the palace. This collection, further enriched by his nephews Ivan Luka and Dominik, was relocated to its current position on the first floor during the early nineteenth century.

The library remains a significant cultural asset, preserving, among other works, copies of the architectural treatises by Palladio and Vignola (see above, Chap. 1, 'Architectural Books in Early Modern Eastern Adriatic Libraries').¹³⁶ However, these titles were not yet part of the Garagnin book collection during Ignacije's period of work, suggesting that the intellectual environment surrounding the construction may not have been directly influenced by these works.

Three anonymous eighteenth-century drawings—a ground-floor plan and two sheets with elevations and cross-sections—document the layout of the entire Garagnin Palace, almost certainly attributable to Ignacije Macanović (Ill. 3.37). This commission required him to manage a highly complex project, organising spaces to serve diverse functions while ensuring the owners' comfort. Unfortunately, the plans of the upper floors have not survived, making it impossible to determine how Ignacije arranged the first floor. Nevertheless, these drawings remain the only surviving evidence of Macanović's design for a private residence, a topic extensively considered by Vitruvius in Book VI. As noted earlier, the material evidence of use in Macanović's copy of Vitruvius confirms his careful study of chapters concerning the *cavedium*, atrium, *tablinum*, and *triclinium*.

Naturally, Ignacije could not directly replicate the Roman *domus* described by Vitruvius and reconstructed by Barbaro and Palladio. However, there is evidence that he sought to adapt its spatial organisation and design principles to the needs of the Garagnin family. While the incorporation of the former Cipiko Palace limited his ability to craft the overall layout, the design of the new wing behind it granted him relative freedom.

The ground-floor plan has rooms labelled according to their functions; there are practical spaces such as shops—rented out by Garagnin to merchants and craftsmen—along with storage rooms, a stable, a cellar, and a chicken coop, all of which reflect the family's agricultural and livestock activities. These service spaces were not addressed in Vitruvius's discussion of the *domus*. Consequently, the only rooms on the ground floor for which Ignacije might have found guidance in Vitruvius were the two atria: 'Atrio dalla parte della Piazza' (Entrance hall facing the square) and 'Atrio dalla Terraferma' (Entrance hall facing

the mainland side). Significantly, Macanović's copy of Vitruvius features a manicule and underlined passages in the chapter on the atrium and *tablinum*, suggesting his engagement with these spaces:

Le altezze di tutti i conclavi, che saranno più lunghi, che larghi, deono esser compartite in questo modo, che posta insieme la lunghezza, & la larghezza, si pigli di quella somma la metà, & tanto si dia per l'altezza.¹³⁷

(The heights of all conclaves that are longer than they are wide should be proportioned in this way: that taking together the length and the width, one should take half of that sum, and that much should be given for the height).

However, Ignacije did not adhere to Vitruvius's prescribed proportions for atria, nor did he follow the guidelines for the three types of atrium outlined in *De architectura*. A comparison of the ground-floor plan with the cross-sections reveals that he also disregarded Vitruvius's recommendations for the dimensions of upper-level rooms on the first and second floors.

Despite these deviations from Vitruvius's advice, the layout of the ground floor recalls a specific passage in Daniele Barbaro's commentary:

L'atrio è quella parte prima a chi entra dentro in casa, & è luogo coperto, ha la porta principale nel mezo, a dirimpetto della quale in fronte sono le porte, che vanno ne i Peristili passando prima per alcuni altri luoghi, che Tablini si chiamano; ha dalla destra; & dalla sinistra le ale.¹³⁸

(The atrium is that first part for one who enters inside the house, and it is a covered place. It has a main door in the middle, directly opposite which, in front, are the doors that lead into the Peristyles, passing first through some other places called Tablina. It has wings (alae) on the right and on the left).

As Daniele Barbaro observes, the atrium in a Roman *domus* connects the street to the courtyard, or *peristilium*, through the *tablinum*, while the *alae*—represented in the Garagnin Palace by two shops—extend on either side. This combination of atrium and *tablinum* leads directly to the courtyard, which, in the eighteenth-century floorplan, differed significantly from the layout of the palace today.

In the original plan, the courtyard featured two semicircular, freestanding walls on its east and west sides, each with three openings. These walls created subsidiary spaces in the corners and served a clear purpose: to regularise and harmonise the trapezoidal shape of the courtyard. According to Ana Šverko, this

ingenious solution did not belong to Ignacije Macanović but to the Venetian architect Giannantonio Selva. As she explained, Luka Garagnin sent the drawing to Selva in Venice, commissioning a general rearrangement of the palace from him in the very first years of the nineteenth century. Selva pasted down on the original drawing some paper stripes to superimpose the semicircular walls onto the existing courtyard.¹³⁹ Therefore, this brilliant design did not originate in Macanović's study of the Roman *domus*, as described by Vitruvius and further discussed by Barbaro, but rather in a slightly later idea from Selva.

However, a problem arises when we analyse the rest of the ground-floor plan: the new wing lacks a staircase; Selva also had to confront this issue. The only staircase connecting the various levels of the palace was located in the old section and was accessible from the atrium facing the main square, which likely served as the primary entrance. Such an arrangement would have required the residents of the new wing to take a circuitous route to reach the floors above and below. More critically, this configuration failed to provide a direct connection between the courtyard and the upper levels of the new wing.

While Ignacije displayed considerable ingenuity in organising the ground-floor spaces and addressing the irregularity of the courtyard, his design fell short in providing efficient vertical circulation. Vitruvius offered little guidance on this topic, as the Roman *domus* typically had no staircases with its single-storey structure. This limitation underscores the challenge of adapting ancient architectural principles to the demands of an eighteenth-century, multi-storey residential design.

The ground-floor plan of the Garagnin Palace includes three wells located at various points across the property. One is labelled as a *cisterna*, indicating the presence of a water tank beneath it. Building accounts confirm that this cistern was installed by Ignacije in 1765.¹⁴⁰ All of the wells were part of a system designed for the collection and purification of rainwater, an essential feature for the palace's functionality.

Interestingly, Ignacije's copy of Vitruvius shows evidence of use in Book VIII, specifically in the chapter on the quality of rainwater,¹⁴¹ suggesting that he may have consulted this text while designing the system at the Garagnin Palace. The practical importance of water management was already familiar to Ignacije from his duties as Trogir's *protomagister*, which included the maintenance and repair of public wells and water tanks for both civil and military purposes.

Another notable detail emerges from the building accounts of the Garagnin Palace. In 1765, along with forty-three stone slabs intended to pave the courtyard, ready-made jambs and an architrave were delivered from Korčula.¹⁴² This reveals that Ignacije Macanović utilised a well-established practice in the eastern Adriatic. He sent detailed templates and measurements for the required stone elements to Korčula, where skilled

stonecutters and stonemasons quarried and carved the pieces before shipping them to the construction site.¹⁴³ This system of prefabrication significantly streamlined the building process, reducing on-site construction to the assembly of pre-cut and finished components. Such an approach not only saved time but also capitalised on the renowned quality of Korčula stone and the expertise of its craftsmen, ensuring precision and consistency in the final product.

To further assess the influence of Vitruvius on the works of the Macanović family, it is essential to revisit the 1698 building contract signed by Ivan II Franov for the construction of the Franciscan friary in Sinj. This document is particularly notable for the quantity and quality of its details, which shed light on contemporary building practices. For instance, it specifies that the friars were responsible for providing both building materials and unskilled labour. Ivan, on the other hand, was tasked with hiring the appropriate number of stonemasons, the skilled workers required to supervise and guide the unskilled workforce during construction.

Another interesting provision in the contract required Ivan to 'impiegare la manifattura e formare il suddetto coperto di legname e concatenarlo con la travamenta, che doverà esser tirata a squadra' (to manufacture and assemble the wooden roof structure, securing it with beams squared precisely).¹⁴⁴ This instruction resurfaces for later projects, such as the parish church in Nerežišća. In 1745, the document outlining the decision to complete the church specified similar woodwork requirements that were later assigned to Ignacije II Macanović. Similarly, Ignacije's summary of work for the parish church of Kaštel Štafilic from 1773 to 1775 includes carpentry work for the chancel roof and a trip to Split to procure the necessary timber.¹⁴⁵

It is clear that members of the Macanović family often engaged in carpentry as part of their architectural responsibilities. In some cases, they were even described as carpenters (*marangoni*) alongside their roles as stonemasons and builders. For example, in 1713, Ignacije I contributed to the Fortress of Knin both 'in qualità di protto de mureri e di marangone' (as a chief stonemason and carpenter).¹⁴⁶

When they decided to complete the Parish Church in Nerežišća, the procurators specified a distinctive feature for the roof: it was to be constructed 'tanto nel mezzo come nelli lati senza alcuna interruzione' (both in the centre and on the sides without any interruption).¹⁴⁷ This meant they desired a unified roof structure with two slopes, rather than separate roofs over the nave and aisles. Given the church's width, this was an ambitious request, requiring trusses capable of spanning nearly twenty meters.

As the current structure reveals, the procurators' preferred design was ultimately not realised. The decision to deviate from

the original plan may have been influenced by practical constraints, as constructing such a large-span roof would have posed significant challenges for the builders. Furthermore, Ignacije's design for the façade could have played a role in prompting the change to the final scheme, as his façade might not have aligned with the envisioned roof structure.

The pages of Macanović's copy of Vitruvius reveal a strong preoccupation with roof structures. While the section on wood in Book II remained unmarked, the readers showed interest in bricks, mortar, and stone masonry, and also focused extensively on roof trusses. In Chapter IV.2, 'De gli ornamenti delle colonne' (On the Ornaments of Columns), they annotated an illustration of a complete truss, which is explained in Barbaro's commentary,¹⁴⁸ where he stresses the role of *legature*—key joining elements that provide rigidity and connect the structure of the truss to the walls.

Additional folded corners appear in Chapter IV.7, 'Delle ragioni Toscane de i sacri Tempî' (On the Tuscan Ratios of Sacred Temples), where Barbaro discusses how to align beam ends with triglyphs—a theoretical concern—while Palladio's illustrations offer practical carpentry solutions. A particularly notable page, marked by a folded corner, outlines various carpentry joints (Ill. 3.38) crucial for spanning large roofs,¹⁴⁹ precisely the kind of knowledge Ignacije required for constructing the Nerežišća church roof.

Barbaro's edition of Vitruvius provides a valuable cross-section of a temple, illustrating how composite trusses could rest on side and intermediate columns and walls. While the ancient temples in Vitruvius's text were unsuitable as models for Macanović's parish church designs, their roof structures proved highly adaptable. The configuration of some temples, with an inner cella and an external colonnade, mirrored—in reverse—the layout of a three-nave church. Although reversing these elements structurally (that is, placing walls externally and columns internally) was impractical, the roof structures could be seamlessly repurposed for church architecture—a potential adaptation Macanović clearly recognised and utilised.

The Macanović family's focus on roof structures and trusses reflects their pragmatic approach to Vitruvius's text, prioritising transferable architectural techniques over foundational knowledge. For instance, they had no need for guidance on sourcing or processing timber, since this was already a well-established practice in the eastern Adriatic building market. As evidenced in the Nerežišća church accounts, timber was typically imported from Rijeka, tiles were obtained from Venice, and both were readily available via ports such as Split or Milna on the Island of Brač.¹⁵⁰ Material evidence of use from the Macanović family's copy of Vitruvius highlights the readers' desire to enhance and expand their knowledge. Their focus on passages detailing techniques for constructing stronger

roofs and assembling longer trusses demonstrates an effort to go beyond their empirical expertise. By engaging with Vitruvius's treatise, they sought to refine their existing practices and acquire new, more advanced skills.

In addition to his architectural projects, Macanović undertook numerous responsibilities as *protomagister* of the Trogir municipality; many of these duties fell within the realm of engineering rather than architecture. Unfortunately, his contributions to public building projects have been largely overlooked by art historians, likely due to the perceived lack of artistic value in such projects and their closer associations with engineering. After an initial survey by Cvito Fisković,¹⁵¹ only a handful of studies have addressed these works, and archival documentation is notably sparse, when compared to the wealth of material available on church commissions. The only public works by Ignacije II Macanović linked to documents are those mentioned in his 1763 plea for exemption from health service duties.

In this document, Ignacije listed all of his prior public works, organising them into two distinct categories. The first category comprises projects commissioned by the 'publica sovrana autorità', or the civil authority:

Non serve il ramemorare quale sia stato l'ottimo servizio del padre e de gl'altri miei autori, dirò solamente d'essere io personalmente stato impiegato dalla pubblica sovrana autorità, nell'erezione de moli di Spalato, nella fabrica della fortezza di Knin, nella struttura de quartieri di Dernis, nel salisso delle publiche strade di questa città e nella costruzione del casello di sanità, avendo prestato specialmente queste due ultime fatiche con tenue emolumento, trattandosi del decoro et abbellimento della mia patria.

(It's unnecessary to recall the excellent service of my father and my other ancestors. I will only say that I personally was employed by the public sovereign authority in the construction of the wharves of Split, in the building of the fortress of Knin, in the structure of the quarters of Drniš, in the paving of this city's public roads, and in the construction of the health station. I undertook these last two tasks particularly with little remuneration, as it concerned the decorum and embellishment of my homeland).

The second group contains those works carried out for the 'suprema carica in provincia', that is the military authority of the region:

A comandi della suprema carica in provincia, passai da Traù a Dernis et due volte in Sign a proprie spese per formare i fa bisogni prescritti come pur feci quelli del palazzo prettorio, castello, quartieri, munizioni, mure e

porte di Traù impiegato per molti giorni con aggravio mio particolare.¹⁵²

(At the command of the supreme provincial authority, I traveled from Trogir to Drniš and twice to Sinj at my own expense to form the necessary prescribed plans, just as I also did those for the praetorian palace, castle, quarters, munitions, walls, and gates of Trogir, employed for many days with particular personal burden).

The first project listed in Ignacije's plea is the construction of the wharves in Split, which were completed in 1753, as is evident from the inscription on them. Notably, over a century earlier, Ivan I and his son Frano I, along with other still unidentified members of the Macanović family from the same generations, were involved in the construction of Split's docks and warehouses. This continuity underscores the family's longstanding contribution to the city's maritime infrastructure.¹⁵³

Building a stone embankment directly abutting the sea required advanced technical expertise that was not mastered by all stonemasons. As discussed earlier (see above, Chap. 2, 'Construction Materials and Techniques'), the libraries of the eastern Adriatic reveal widespread interest in the challenges of constructing foundations, especially in wet or marshy soil. The Macanović family's copy of Vitruvius reflects this interest; the readers paid close attention to chapters on foundations, marking passages with manicules and folded corners.

For instance, Chapter VI.11, 'Della fermezza e delle fondamenta delle fabbriche' (On Firmness and Foundations of Buildings), drew substantial attention, as is evidenced by a folded corner on its opening page. The readers also highlighted with a reading mark a specific explanation in Barbaro's commentary that stressed the principle of aligning pilasters and columns directly on walls and foundations, as well as the importance of constructing load-bearing arches above doorways and windows. Barbaro encapsulated Vitruvius's principles in a succinct maxim: 'benché esser non può, che non fabbrichino senza errore, quando non fabbricheranno con ragione' (It is impossible for those who build with reason to make mistakes).¹⁵⁴

Vitruvius's discussion of foundations begins in Chapter I.5, 'Delle fondamenta delle muraglie, et delle torri' (On the Foundations of Walls and Towers), where the readers bound the first two sheets together with a multiple folded corner. A manicule further marks the most concise and critical statement in Barbaro's commentary, which emphasises the importance of rational alignment and structural integrity in foundations.

Le regole veramente per le fondamenta di ogni fabrica sono trovare il vivo, & il sodo, ne i luoghi pendenti cominciare dal basso, ne i molli, over arenosi battere le palificate spese & sode: & quelle rassodare più presto col continuo

battere, che col peso, o gran percossa, di quelli strumenti, che noi chiamamo becche, latini fistucas.¹⁵⁵

(The rules, truly, for the foundations of every building are to find live <rock> and solid <ground>. In sloping areas, one must begin from the bottom. In soft or sandy areas, one must drive in piles, wide and solid, and firm them up more quickly with continuous pounding rather than with the weight or great impact of those tools that we call 'becche', which the Latins called 'fistucas' <ramming tools>).

Chapter V.12, 'De i Porti, & del Fabricare nelle Acque' (On Harbours and Building on the Water), provided content far more pertinent to Ignacije's work on the Split wharves. The readers marked a key passage in Vitruvius's text describing how to design a harbour capable of sheltering boats from storms in locations that were not naturally suitable, such as small, enclosed gulfs or bays. Vitruvius explains that in the absence of river outlets, it is sufficient to build a wharf by gradually extending the land toward the opposite side of the mooring area.¹⁵⁶ This scenario, marked in the Macanović family's copy, closely mirrored the topographical configuration of Split's shoreline, suggesting the direct relevance of Vitruvius's recommendations for the challenges Ignacije faced during the construction of the wharves.

Secondly, a hand drawn on the margin of the same page points to a comment by Barbaro that begins with a significant observation: 'Qui l'uso della pozzolana è mirabile come ci ha detto Vitruv. nel secondo libro al sesto capo' (Here, the use of pozzolana is remarkable, as Vitruvius mentioned in Book II, Chapter VI).¹⁵⁷ Finding a reliable hydraulic mortar was a persistent challenge in the eastern Adriatic. While volcanic ash, a key component of pozzolana, was not readily available, the region's maritime society, heavily engaged in building on or near water, continually sought such materials. Archival sources from Dubrovnik, for instance, document both costly attempts to import pozzolana from Naples and local efforts to create hydraulic mortar from alternative materials (see Chap. 3.4, 'Materials and Techniques').¹⁵⁸

Although no evidence confirms explicitly that Ignacije Macanović successfully employed hydraulic mortar—whether based on pozzolana or other substances—during the construction of the Split wharves, the passage marked in his copy of Vitruvius underscores his awareness of, and likely commitment to, addressing such challenges. Unfortunately, the extant primary sources provide limited information on the building techniques used by him and his family, leaving our understanding of this aspect of his work largely speculative.

Macanović's approach to the intricate task of constructing the Split wharves, as suggested by his use of Vitruvius, was methodical and well-informed. He began by identifying a

model suitable for addressing the dual challenges of design and maritime functionality in order to ensure effective shelter for boats. Subsequently, he focused on selecting the most appropriate materials and construction techniques to achieve strong, durable results. This systematic approach is evident throughout his careful reading of Vitruvius, particularly in Chapter V.12, where he thoroughly engaged with passages on harbour design and construction materials.

In the concluding part of Vitruvius's chapter, Macanović demonstrated his attentive reading once more. Despite Barbaro's digression into an admiring tribute to Venetian maritime supremacy and its renowned Arsenale—textual content that had limited technical relevance—Macanović read diligently to the end, even correcting incomplete print impressions. This thoroughness suggests his deep engagement not only with technical knowledge but also with the broader cultural and historical context of maritime construction.

Beyond his architectural and engineering endeavours, Macanović also engaged in military engineering projects, continuing a family tradition evident from his plea and from earlier sources about his father, Ivan III. In 1736, Francesco Melchiori and Daniele Dolfin noted Ivan's work on the fortresses in Knin and Zadar,¹⁵⁹ although details of his duties remain unclear. It is likely that the young Ignacije began assisting his father in Knin during these years. However, by 1764, Ignacije's own recollections in the plea referenced only his travels to Sinj and Drniš, along with his maintenance work on the defensive system in Trogir, and thus illustrate his evolving responsibilities in Dalmatian fortifications.¹⁶⁰

Unfortunately, precise details about the work performed by Ivan and Ignacije on fortifications are lacking, making it difficult to evaluate the influence of Vitruvius or to explore the possibility that their reading of his treatise altered their professional approach so that it differed from the method of their predecessors. It is notable that the 1567 quarto reprint of Barbaro's edition of Vitruvius—owned by Macanović—offered limited coverage of military architecture. While Barbaro's commentary updates Vitruvius's content with references to contemporary advancements in fortifications, such as city walls, bastions, and gates, Barbaro did not provide a comprehensive guide for this topic. Barbaro also mentioned the unpublished treatise of Gian Giacomo Leonardi and introduced an innovative system in the first folio edition of depicting bastions with a flap leaf showing both upper and lower levels so that critical construction details could be included. However, this feature was omitted from the more affordable quarto reprint, reducing the visual clarity of the text.

A review of the Macanović family's long-standing involvement in work on fortifications before Ivan III Ignacijev's projects provides some insight into their tasks. Reports from Venetian authorities often praised the technical skill of Ivan

II Franov and his son Ignacije I, while offering specific details. For example, in Knin, Camozzini wrote in 1712 that Ivan II 'fu assistente alla più parte delle fondamenta di queste fortificazioni' (assisted in most of the foundation work for these fortifications). That same year, the superintendent of the Knin Fortress provided additional commentary on Ignacije's contributions:

Ha dimostrato una perfetta cognizione et ottima attività nel presiedere, instruire, sollicitare e travagliare personalmente tanto nel massiccio delle mura maestre, quanto ancor ne quartieri e posti più importanti e gelosi. Ha pure proficuamente assistito alle operazioni nella fortezza di Sign.¹⁶¹

(He has demonstrated perfect knowledge and excellent activity in presiding over, instructing, urging on, and personally working both on the massive main walls and also in the most important and sensitive quarters and positions. He has also profitably assisted in the operations at the fortress of Sinj).

In 1716, Count Antonio Querini of Trogir succinctly wrote that Ignacije worked '[...] nelle importanti pubbliche fabbriche di Sign [Sinj] e di Knin [...], tanto nelle fondamenta, quanto nel massiggio e siti di maggiore premura di quelle fortification' ([...] in the important public works of Sinj and Knin [...], both in the foundations, as well as in the massive structures and sites of greater concern of those fortifications).¹⁶²

The extant sources clearly indicate that Ivan II and Ignacije I oversaw stonemasonry projects for fortifications. They led groups of workers responsible for laying foundations and raising walls according to the designs provided by Venetian military engineers. There is no evidence suggesting they were involved in the design of fortifications or of their components, as would have been typical for locally hired, even highly skilled, stonemasons like the Macanović family. It is unlikely that Ivan III and Ignacije II managed to significantly alter their subordinate roles on Dalmatian fortification sites. Because they were part of the local workforce and because Vitruvius's *De architectura* offered limited guidance on fortification design, both men likely remained executors rather than designers.

However, Ivan III and Ignacije II actively sought to expand their knowledge, as is evident from their engagement with their copy of Vitruvius. They appear to have been less focused on city walls or bastions than on city gates. This is particularly clear in a passage of Barbaro's commentary on gates, where a folded corner, reading marks, and underlined words all indicate deliberate and attentive study:

[...] & perché le porte sono necessarie all'uso della città, bisogna assicurarle, ma non in modo, che prese da alcuno di dentro assicurino il traditore, & offendino i Cittadini.¹⁶³

([...] And because the gates are necessary for the use of the city, it is necessary to secure them, but not in such a way that, if seized by someone from within, they secure the traitor and harm the Citizens).

Ivan and Ignacije might have considered this fundamental strategic principle during their respective work on the restoration of the main gate of the Topana Fortress in Imotski and the Kopnena Gate in Trogir.

Ivan's intervention in Imotski on the main gate, the upper section of which was later modified, lacks notable interest from either an architectural or strategic standpoint. His contribution likely involved a straightforward restoration of an earlier gate that had been damaged during the Venetian assault of 1717, with no significant alterations to the design or function.¹⁶⁴

In contrast, Ignacije's work on the Kopnena Gate in Trogir in 1763 encompassed not only the gate itself but also the adjacent urban environment. Near the newly constructed wing of the Garagnin Palace, which he also designed, Ignacije created a rectangular square featuring a small guardhouse on one side. Drawing on Vitruvian principles regarding gateways, he conceived a space that could be fully enclosed from the rest of the city. Notably, he integrated three distinct barriers—likely iron bars—at one main gate and two side doors.¹⁶⁵ This arrangement facilitated the controlled confinement of adversaries within the square, leaving them vulnerable to attacks from defenders stationed in the guardhouse, on the rampart above the gate, and along the surrounding streets.

In addition to the abovementioned courtyard of the Garagnin Palace, recent archaeological investigations in the streets of Trogir have uncovered segments of the original paving laid by Ignacije Macanović, a project explicitly mentioned in his 1764 plea.¹⁶⁶ Ignacije Macanović paved the streets with varied patterns, likely tailored to the social status of each area and its inhabitants. However, it remains unclear whether he adhered to the recommendations outlined in Vitruvius's seventh book, specifically the chapter on paving, which—like the subsequent chapters—is distinguished by a multiple folded corner. In this chapter, Vitruvius provides detailed instructions on the three layers of foundation necessary beneath paving, including specifications on the thickness of each layer, the materials to be used, the composition of the layers, and the execution process. While Barbaro supplemented this text with examples of paving patterns, the Vitruvian designs differ from those implemented by Ignacije in the streets of Trogir.¹⁶⁷

Among the public works undertaken by Ignacije Macanović,

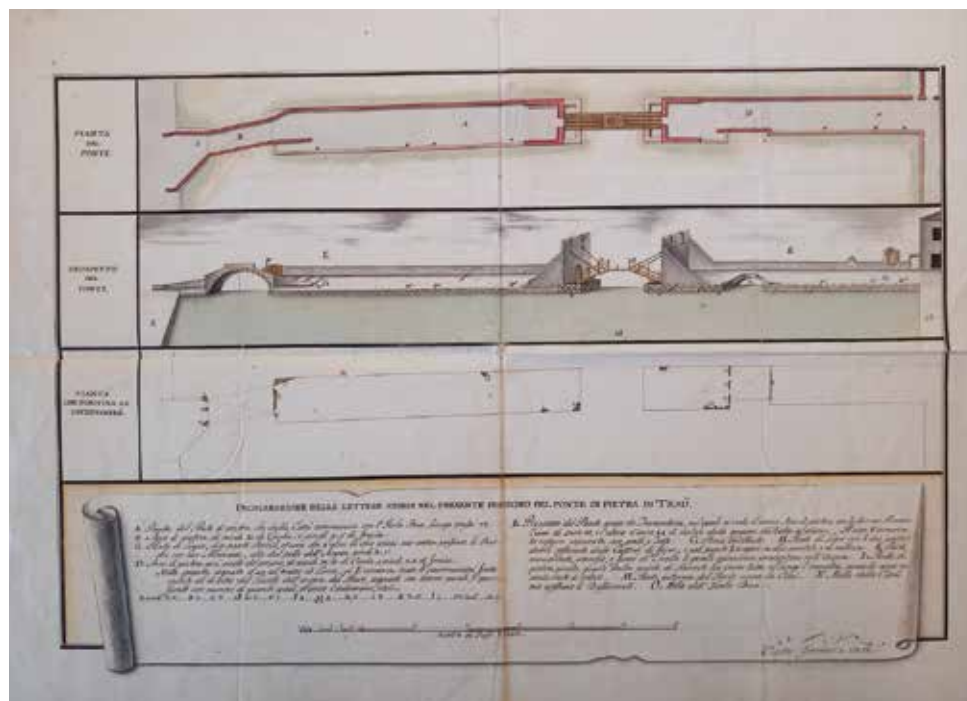
one of the most technically demanding was the construction of a moveable bridge connecting Trogir to the Island of Čiovo. This structure replaced an earlier drawbridge (Ill. 3.39), which had been designed to ensure the uninterrupted passage of ships and vessels through the channel between the city and the island. In 1786, Trogir's count, Zilio Minio, praised Ignacije's efforts with the following words:

Esso protto Mazzanovich, [...] nella recente fabrica del ponte levatore dell'isola Bua ci diede li più convincenti saggi dell'utilità del di lui servizio, mentre l'opera del ponte stesso fu da esso protto eseguita in ogni sua parte a norma di altro disegno proddotoci dall'abilità ed esperienza sua, con le quali assiduamente vegliò alla sollecitudine, alla solidità, ed alla sussistenza del lavoro del ponte suddetto.¹⁶⁸

(Proto Macanović, [...] in the recent construction of the drawbridge to the Island of Čiovo, gave us the most convincing proofs of the utility of his service, while the work on the bridge itself was executed by this *proto* in every part according to another design produced by his skill and experience, with which he assiduously watched over the promptness, the solidity, and the subsistence of the work on the aforementioned bridge).

In the Macanović family's copy of Vitruvius, there is also evidence of interest in mechanics, particularly in the tenth book. After the introductory chapter, titled 'Che cosa è machina' (What Is a Machine), the text focuses on a pulling machine and the straight and circular movements used to lift weights. Such devices were commonly employed to operate cranes and other machinery on construction sites, but they could also be used to operate the moveable bridge to Čiovo. Like other wooden, moveable bridges of its time, Macanović's structure was highly perishable and was eventually replaced by a new bridge in the following century. A drawing preserved in the library of the Correr Museum in Venice illustrates the poor condition of a bridge at an unspecified point in the eighteenth century (Ill. 3.39). While this drawing likely depicts the predecessor to Macanović's bridge, it provides some insight into the general design of such structures.

In the abovementioned praise by the Count of Trogir, Ignacije's skill in draughting and surveying was also highlighted. The count specifically referenced four architectural surveys of monasteries within the city. Members of the Macanović family, including Ignacije, were highly skilled stonemasons, capable not only of carving but also of designing architectural elements and even entire buildings. The latter task required at least an empirical understanding of drawing techniques, representational standards, and architectural surveying. For instance,



Ill. 339. Pietro Gironci, Moveable bridge between the islands of Trogir and Čiovo, before 1786 (Venice, Biblioteca del Museo Correr, Cl. XLIVb, 621)

Ivan II Macanović, though unable to write—as he informed the Franciscan friars in Sinj—nevertheless presented a design plan for their friary, complete with a survey of the surrounding land. The associated building contract stipulated that the church and friary were to be constructed ‘come nel disegno’ (as per the design).¹⁶⁹ However, archival sources contain no evidence of other drawings by members of the Macanović family prior to Ignacije II. During their multigenerational involvement in Venetian fortifications, the Macanović family typically executed tasks based on designs prepared by others. Furthermore, the maintenance and repair duties they performed in the role of municipal *protomagister* did not always require original designs or drawings.

This dynamic shifted significantly with Ignacije II, whose proficiency in drawing and architectural surveying is well documented in archival records. In 1752, he was compensated for creating the ‘disegno di tutta la chiesa’ (design of the entire church) in Nerežišća, as well as for the ‘disegno del altar maggiore’ (design of the main altar) and the ‘disegno del pulpito e sagome del detto’ (design of the pulpit and its profiles).¹⁷⁰ Ignacije II also produced the design for the Parish Church of St Jerome of Stridon in Pučišća on the Island of Brač. His drawing, described in archival documents as ‘piano e sia il disegno della pianta dell’interno’ (the plan and the design of the interior layout), guided stonemasons even after his death.¹⁷¹ In 1769,

Ignacije’s design for the choir balcony in Trogir Cathedral was submitted to Venice for approval.

It is noteworthy that Ignacije carried out various projects in Trogir Cathedral and the Chapel of St John of Trogir during the episcopacy of Ivan Antun Miočević,¹⁷² a significant figure who initiated the Miočević-Rendić book collection, renowned for its extensive volumes on architecture and the arts. In 1784, Ignacije was compensated ‘per disegno fatto [...] di un candelier’ (for a design [...] of a candelabrum) for the cathedral.¹⁷³

Ignacije Macanović’s remarkable versatility in design and drawing extended from large-scale civil engineering projects, for instance the moveable bridge to Čiovo, to smaller-scale objects like candlesticks. No other member of the Macanović family exhibited such a broad range of skills or made such extensive use of drawing as part of their work.

As is widely known, the first formal attempt to define architectural representational standards was made by Raphael in his letter to Pope Leo X. This effort was later codified by Barbaro and Palladio, who provided a definitive interpretation of a challenging passage in Vitruvius’s *De architectura* (Chap. I.2)¹⁷⁴. In the Italian translation, the passage reads: ‘Le idee della dispositione sono queste la pianta, lo in pié, il profile’ (The ideas of design are these: the plan, the elevation, the profile). Barbaro’s commentary elaborates on this concept across three pages, offering clear and authoritative graphic examples of the three

primary modes of architectural representation: plan, elevation, and section.¹⁷⁵ There is evidence of folded corners in the earlier sections of Vitruvius's text, where he outlines the fundamental principles of architecture. However, it is likely that Ignacije also studied this foundational precept of architectural drawing, focusing on the visual representation of architectural ideas. By doing so, he could have systematically internalised the theoretical framework of architecture—an approach that would have complemented and enhanced the empirical knowledge passed down by his father and grandfathers from their practical experience.

Ignacije's approach to drawing clearly underscores a significant gap between the earlier members of the Macanović family and him—a gap decisively shaped by his engagement with Vitruvius's text, along with Barbaro's commentary and Palladio's illustrations. This observation leads to a broader assessment of the influence of Vitruvius's *De architectura* on the activities of the Macanović family workshop.

Viewed in its entirety, Barbaro's edition of Vitruvius clearly and profoundly impacted the multigenerational narrative of the Macanović family. Acquired by Ivan III—likely not as a matter of personal choice but rather out of professional necessity—the text sparked a transformation in the trajectory of the family's career. From a lineage of master stonemasons primarily tasked with constructing fortresses designed by others and maintaining or repairing existing civil structures and infrastructure, the Macanovićs evolved into designers of their own buildings. Ignacije II exemplifies this transition, marking a pivotal moment when practical craftsmanship gave way to a more sophisticated integration of theoretical knowledge and architectural innovation.

However, this transformation in the Macanović family's approach to architecture encompassed particular aspects of architectural knowledge that diverge from what are traditionally considered hallmarks of 'good architecture'. Both the material evidence of use found in Ignacije's copy of Vitruvius and the characteristics of his building projects indicate a marginal interest in architectural language and the classical orders. For instance, the pilasters in the church in Nerežišća reveal how subtle the distinction is between Ignacije's Doric capital—directly modelled on Vitruvius—and the earlier mouldings by Corvino.

As architectural analyses of Ignacije's work have shown, his buildings often combined disparate elements, a phenomenon noted by Fisković as early as seventy years ago. In these structures, components of the classical language of architecture coexist with Baroque concepts and the traditional forms of the Dalmatian Renaissance. Despite having access to Vitruvius, Ignacije did not fully adopt the classical architectural idiom, but instead retained a more eclectic style that merged historical and regional influences.

In his work on the Parish Church of Pučišća, Ignacije encountered another learned and exacting patron, Bishop Ivan Dominik Stratiko (1712–1799). A Dominican, theologian, philologist, and former professor at the Universities of Siena and Pisa, Stratiko was also the brother of Šimun (Simone) Stratico,¹⁷⁶ the renowned scientist and professor at the University of Padua. While Stratiko approved Ignacije's design for the chancel, he called for a comprehensive plan for the church that adhered strictly to classical principles of architecture:

Convieni dunque che la prima parte di questa fabbrica, cioè il presbiterio sia notabilmente ampliata e dilatata anche fuori dell'attuale proporzione, perché poi sia meno sproporzionato al prolungamento della chiesa, che una volta o l'altra deve farsi. Ne importa, anzi sarebbe affettazione, cercare vigore di architettura in questo rappezzamento di fabbrica non vedendosene mai vestigio in niuna fabbrica pubblica o privata di quest'isola ben che erette di pianta.

(It is therefore fitting that the first part of this building, that is, the presbytery, be significantly enlarged and extended, even beyond its current proportion, so that it may be less disproportionate to the future lengthening of the church, which must happen at some point. Nor does it matter—indeed, it would be an affectation—to seek architectural rigor in this patch-up job, given that no trace of it is ever seen in any public or private building on this island, even those built from scratch).

It remains uncertain whether the drawing left by Ignacije met Stratiko's call for 'vigore di architettura' (architectural vigour). This seems unlikely, as the phrase likely referred to the building's overall proportions and the incorporation of classical architectural language, both of which are absent in the final church design. The current façade, with its simple yet austere design, appears to be an attempt to emulate a Palladian façade. However, it was constructed after the deaths of both Stratiko and Ignacije. As previously noted, the façade was likely based on an earlier design, possibly influenced by Stratiko's input and his desire for greater reliance on the classical ideals of architecture.¹⁷⁷

Ignacije did not study Vitruvius's treatise to become a classical architect. Nevertheless, the material evidence of use within the book's pages demonstrates how significantly the volume expanded his architectural knowledge. From the principles of building materials and construction techniques for foundations—especially in wetlands—to the carpentry joints required for the large trusses needed to span wide church spaces, Ignacije expanded his mastery of architectural design. He also gained insights into the distribution and proportioning

of rooms in residential architecture, the design of harbours and theatres, and mechanical systems for cranes and the moveable bridge to Čiovo.

This diverse range of skills, honed through his engagement with his copy of Vitruvius, underscores the substantial professional evolution that distinguished Ignacije from his predecessors. It was such skills and knowledge that created the marked gap between him and his grandfathers, transforming his role from that of a stonemason tied to empirical tradition into that of a multifaceted architect and engineer.

Like many other stonemasons in the eastern Adriatic, Ignacije Macanović had already mastered various aspects of the building trade. The practical and empirical knowledge cultivated within the family workshop and on construction sites had prepared him to be a competent and successful builder, as the previous generations of the Macanović family had been. Given the architectural demands of his time, which did not call for a shift in style, Ignacije showed no inclination to use his copy of Vitruvius to alter his established building methods. Instead, the text was a resource for acquiring knowledge in areas outside his initial expertise—fields that were, in every sense—‘unfamiliar’.

While there was certainly potential for Ignacije Macanović to refine his architectural language and enhance his practical skills through theoretical study, the most profound influence of Vitruvius on him lay in the remarkable expansion of his professional capabilities. The book enabled him to tackle a broad spectrum of architectural tasks, from designing small objects such as candlesticks, to undertaking complex engineering projects like the moveable bridge to Čiovo.

Resistance and ‘Lost in Translation’

The impact of architectural books is neither the sole nor the most significant phenomenon evident in the buildings of the early modern eastern Adriatic. Indeed, resistance to or outright rejection of models and forms promoted in architectural books is a pervasive trend across both temporal and geographical contexts. While studies often focus on the impact of architectural books, it is equally important to recognise the extensive presence of this opposite response.

For example, villas in the Dubrovnik region, as previously noted, display a marked resistance to the adoption of the Italian models that were disseminated widely through architectural treatises. Although some Italian elements appear in a small number of late-sixteenth-century villas, the traditional plans and characteristics of Dubrovnik’s villas endured well into the following centuries. This persistence cannot be attributed to a lack of access to architectural books. On the contrary, evidence suggests that Dubrovnik was a key hub for the circulation of such works in the early modern eastern Adriatic. However, the

attachment to local traditions proved stronger than the allure of new, fashionable forms imported from abroad. The case of Dubrovnik villas is particularly noteworthy because it does not reflect ignorance, as might be the case in more remote regions where architectural books were absent. Instead, it represents a conscious rejection of foreign models. Ragusan noblemen owned and studied architectural books, employing their insights selectively for certain tasks, but they deliberately ignored the villa designs presented within these volumes.

However, some motifs derived from architectural treatises did find acceptance in the eastern Adriatic, particularly in urban contexts. The city gate template of alternating rustic bands on half-columns or pilasters gained a degree of popularity. Following the construction of the Porta di Terraferma in Zadar, where the half-columns feature stone blocks of varying heights but consistent widths, the motif of ‘wrapped columns’ from Serlio’s treatise spread to other locations. A notable example is the Port Gate in Cres, which influenced subsequent iterations of this design, including the San Fiore Gate in Labin (Albona), Istria, and the Porta Marina in Trogir. These gates, dating to the late sixteenth century (probably 1587 in Labin and 1593 in Trogir), replicate the alternating rustic bands but employ a lintelled gateway instead of an arched one.

Although the date 1587 is inscribed on San Fiore Gate, its construction occurred in 1646 and its composition is strikingly similar to the gate of the Town Hall in Rovinj suggesting, as Jasenka Gudelj pointed out, the authorship to the same Western Istrian workshop.¹⁷⁸ This gate model also appears to be a later derivation of the Port Gate in Cres.

It features an attic above the gateway for coats of arms and St Mark’s lion, is framed by simple pilasters, and is crowned with a triangular pediment (Ill. 3.40). The pilasters, made of prominently projecting stone blocks, lack bases and are topped with rudimentary capitals consisting of an echinus and an exceptionally thin abacus. Additionally, each pilaster is flanked on its outer edge by a half-pilaster, where the capital is replaced by a single stone block. Curiously, the moulding of this block reappears in the tripartite entablature of the upper section of the architrave. However, neither the proportions of the pilasters nor the dimensions of the gateway conform to the guidelines outlined in architectural treatises, illustrating a creative deviation from prescribed classical norms.

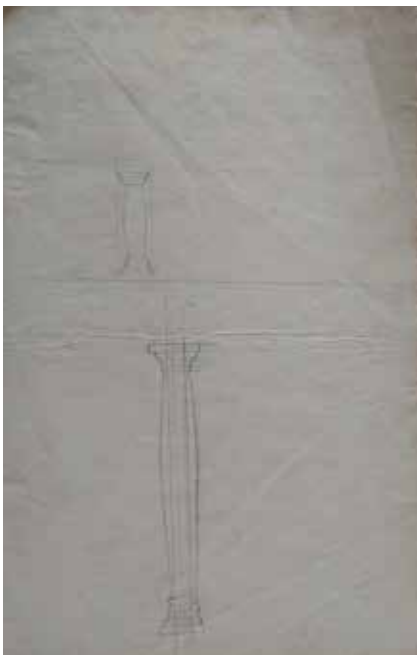
The Porta Marina in Trogir, attributed to the Bokanić family of stonemasons, features wrapped Doric half-columns supporting an entablature and a smaller attic, flanked by side corbels (Ill. 3.41). At the centre of the entablature stands the coat of arms of the Venetian Count Delfino Dolfin, accompanied by a dedicatory inscription. Likely in order to accommodate this inscription, the entablature includes only a lower band and an upper cornice adorned with dentils. The ratio of



Ill. 3.40. San Fiore Gate, Labin, 1587



Ill. 3.41. Dragutin (Carlo), Stühler, *Porta Marina*, Trogir, photograph, circa 1930
(Ministarstvo kulture i medija, Konzervatorski odjel u Splitu, br. 1163/b)



Ill. 3.42. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620),
back endpaper (SKR, 31 A 1/30)



Ill. 3.43. Zrinski Palace, Nova Kraljevica, courtyard, completed in 1653

the gateway's height to its width is precisely 3:2, adhering to classical proportions. However, the half-columns are strikingly elongated, with their height exceeding ten times their diameter.¹⁷⁹ A closer examination of the columns' bases and capitals reveals noticeable deformations. The designer proportionally stretched these elements to match the extended shafts but, in doing so, created capitals and bases with exaggerated verticality, resulting in disproportionate and visually incongruous features. As Laris Borić has shown, a similar approach to the proportioning of columns and their parts is visible in the double Tuscan columns framing the arches of the Zadar Town Loggia.

Rijeka represents a fascinating case of a hybrid cultural and architectural environment, for it was situated at the crossroads of coastal and inland influences. As part of the Habsburg Empire, the city maintained artistic connections with Graz, Gorizia, and other Alpine regions. Simultaneously, its role as a major port tied it to the Adriatic trade routes and maritime influences. Despite the destruction of many Renaissance and Baroque monuments, evidence remains of both the reception of and resistance to architectural models derived from treatises¹⁸⁰.

An illustrative example of resistance can be found in a previously mentioned copy of Vignola's *Regola* (Rome, 1620), in which the original owner's name on the front cover has been obliterated. On the back endpaper of this volume, a reader sketched two columns—one of standard size and one smaller column—that are either Tuscan or Doric (Ill. 3.42). However, the proportions, entasis, and mouldings of these columns diverge significantly from the canonical orders illustrated in the book's earlier pages.

For the larger column, the reader carefully used a ruler to draw the vertical axis and additional vertical guidelines, but the entasis is overly pronounced and misplaced, appearing close to the middle of the shaft rather than at the usual point of one-third from the bottom. The capital and base also exhibit disproportionate elements despite the visible horizontal lines, which were likely intended to establish the heights of the mouldings. While the base has a somewhat standard Attic design, the capital features an unconventional sequence of mouldings: the astragal resembles a torus; a *cyma recta* substitutes the necking; and the series continues with a *scotia*, an *echinus*, and finally an *abacus*.

This peculiar arrangement, combined with the misplacement of the entasis and the inversion of the drawing relative to the book's plates, renders the distinction between the top and bottom of the column ambiguous. It is even conceivable that the capital and base were unintentionally reversed during the drawing process. The result is a hybrid and unorthodox interpretation of the order, illustrating a clear departure from Vignola's canonical designs and reflecting a localised reinterpretation—or perhaps misinterpretation—of classical principles.

pretation—or perhaps misinterpretation—of classical principles.

Columns with non-canonical designs and unconventional combinations of elements are far from rare in Istria and neighbouring territories under the Habsburg Empire, as well as across the broader eastern Adriatic. In addition to the previously mentioned portal of the Church of Sts Fabian and Sebastian in Rijeka, similar Tuscan columns with pronounced entasis near the midpoint of the shaft can be observed in the upper portico of the Bishop's Palace in Poreč. The replacement of the echinus with a *cyma recta* in Tuscan capitals is a recurring feature in the pilasters of monastic cloisters, such as those in Sveti Petar u Šumi in central Istria and the Franciscan friary in Pula. A comparable solution is also found on the door jambs of St Stephen's Cathedral in Pazin.

Furthermore, similar full-size and small columns are frequently seen in the arcaded courtyards of seventeenth-century aristocratic palaces across the Habsburg territories. Examples include the first storey of Nova Kraljevica Castle (Ill. 3.43), the Auersperg Palace in Ljubljana (Ill. 3.44), and the Werdenberg Palace (later the Jesuit Seminary) in Gorizia (Ill. 3.45). Additionally, compositions combining *cyma recta* profiles with other mouldings are commonly employed in the cornices marking the impost of arches in portals, niches, and other architectural openings.

These patterns suggest that the reader of Vignola's *Regola* may have lacked a precise understanding of the distinctions between a Tuscan or Doric capital and the cornice at an arch impost. Such a misinterpretation seems to align with the broader regional tendency toward hybrid forms and localised reinterpretations of classical architectural elements that resulted in a blend of theoretical references and practical adaptations.

Although no identical, executed example has been identified, the sketched column reflects traditional practices of stonemasonry in the eastern Adriatic, particularly in Venetian and Habsburg Istria and Carniola. While the shapes and forms of this column are not extraordinary, its significance lies in the fact that the author of the sketch was evidently aware of the canonical forms of the orders. The plates in Vignola's *Regola* show clear signs of use—not only folded corners on the sections about the Tuscan and Doric orders but also compass holes and pencil lines marking geometric constructions of various elements. The reader actively engaged with the book, studied its plates, and attempted to redraw Vignola's orders. Despite this engagement, however, he disregarded the canonical classical forms in favour of traditional, local ones when sketching the column on the back endpaper.

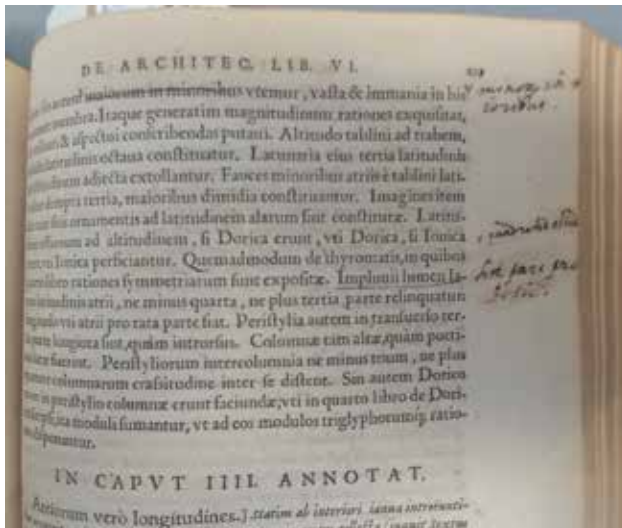
This use of traditional forms is not remarkable in itself; what makes it significant is that it represents a deliberate choice. The reader was familiar with Vignola's canonical orders but consciously rejected them, preferring local forms. Such resistance



Ill. 3.44. Auersperg (Turjaška) Palace, Ljubljana, column of the first-floor arcade, 1654–1658



Ill. 3.47. Benzoni Palace, Rijeka, doorway, second half of the eighteenth century



Ill. 3.46. Marcus Vitruvius Pollio, *De architectura*, ed. by Guillaume Philandrier (Lyon, 1552), VI.4, p. 229 (SKR, 12.C.50)

to the models presented in architectural books is particularly striking given that it comes directly from the pages of one of the most standardising treatises in architectural history: Vignola's *Regola*.

Dating the sketch is challenging, but given the use of pencil and the printing date of 1620, the sketch is likely from the seventeenth century. However, evidence of difficulties in adopting the classical orders persisted in Rijeka into the eighteenth century. A particularly illustrative example of such 'lost in translation' moments is found in the Benzoni Palace, located on the town's main square near St Vitus Church. The palace was originally designed by the military engineer Antonio de Vignola (1693–1774) during the first half of the eighteenth century for Giovanni Antonio Benzoni (1693–1745), the bishop of Senj and Modruš. In its initial state, the building featured a simple façade. Later, in the second half of the century, the bishop's nephew, Julije Benzoni (1732–1798), a prominent member of the Rijeka city council, commissioned further work on the palace. These projects included a stone portal with columns supporting an upper balcony (Ill. 3.47); its magnificent design



Ill. 3.45. Wendenberg Palace, Gorizia, courtyard, 1634–1649



Ill. 3.48. Benzoni Palace, Rijeka, capital on the doorway, second half of the eighteenth century



Ill. 3.49. Wohinz Palace, Rijeka, capital on the doorway, circa 1783

reflected the evolving architectural ambitions of the period. Furthermore, Julije added alternating triangular and curved pediments to the windows of the first floor, giving the palace a markedly classical appearance.¹⁸¹

Julije Benzoni has already been mentioned in this book for his significant contribution to the cultural heritage of Rijeka: in 1779, he donated the family library to the city.¹⁸² Among the approximately 900 volumes left by Benzoni, two sixteenth-century architectural treatises stand out: a copy of Pietro Lauro's Italian translation of Alberti's *De re aedificatoria* (Venice, 1546) and a copy of Guillaume Philandrier's edition of Vitruvius's *De architectura* (Lyon, 1552). Both of these are foundational in the history of classical architecture and thus attest to a sophisticated interest in the art of building within the Benzoni family. Unfortunately, it is unclear when these books entered the family library—that is, whether they reflect Julije Benzoni's personal intellectual pursuits or those of earlier members of his family. Nevertheless, their presence underscores the family's engagement with architectural theory and the classical tradition.

Given this evidence of architectural knowledge, one might expect Julije Benzoni to have utilised these architectural treatises to lend a more classical character to the palace. Indeed, Alberti's *De re aedificatoria* has a folded corner in Chapter VI.13 on columns, specifically on the page discussing the design of the shaft with entasis.¹⁸³ However, this edition of Alberti's work lacked illustrations and therefore had limited utility as a visual source.

Similarly, the copy of Vitruvius with Philandrier's commentary reveals an interest in the classical orders. The reader appears to have focused on a passage in Chapter VI.4 of Philandrier's commentary, which discusses the different types of atria and the appropriate columns for each (Ill. 3.46).¹⁸⁴ The Tuscan columns of the palace portal (Ill. 3.47) are closely aligned with the illustration presented by Philandrier in his essay appended to Chapter III.3 of Vitruvius's text. The designs of the base and capital, as well as the gradual reduction in the shaft's diameter from bottom to top, echo Philandrier's Tuscan order. However, the entablature diverges from Philandrier's illustration, featuring a double-banded architrave and a strongly projecting cornice. This modification was likely included in order to provide additional space for the overhanging balcony, blending practical considerations with classical influences.

In conclusion, there is substantial evidence from both the portal of the Benzoni Palace and Julije Benzoni's architectural books to suggest that the latter were indeed consulted in the design of the former. However, a closer examination of the capital on the palace portal reveals an apparent error in translating the two-dimensional illustrations in Philandrier's volume into three-dimensional stone elements. It appears that the stonemason, working from the elevation of the capital (Ill. 3.48), mis-

interpreted the square and round parts of the design, treating the echinus as a square element akin to the abacus.

In fairness to the stonemason, Philandrier's illustration is itself imprecise. The shading intended to convey the roundness of the shaft and other curved components extends mistakenly onto the flat surface of the abacus, creating confusion. Such errors were common when stonemasons unfamiliar with the canonical classical language of architecture were asked to carve stone elements based on two-dimensional drawings or prints.

Julije Benzoni's additions to the family palace—including the portal with its columns supporting the upper balcony and the alternating pediments above the windows—follow a broader trend in the residential architecture of eighteenth-century Rijeka that is apparent from similar examples along Korzo.¹⁸⁵ Notably, the Wohinz Palace, constructed around 1783 adjacent to the Clock Tower,¹⁸⁶ features Tuscan columns with the same error in the capitals (Ill. 3.49). This repetition of mistakes highlights the challenges local stonemasons faced in interpreting classical architectural forms from printed sources.

Impact beyond Architecture: Theatre, Painting, and Altars

As previously noted, physical analysis of certain architectural books has uncovered highly significant evidence of interest in various aspects of theatres. Traces of use in copies of Vitruvius's, Alberti's, and Serlio's treatises indicate that early modern readers in the eastern Adriatic paid particular attention to chapters and passages related to theatres. This observation raises the possibility of a connection between the material evidence in architectural books and the vibrant theatrical activity of the early modern eastern Adriatic. It is, therefore, timely to investigate whether the circulation and use of architectural books, as reconstructed in the previous chapter, had an influence not only on theatre design but also on scenography and literary forms associated with the theatre.

While it is unnecessary to provide a detailed history of the theatre in the early modern eastern Adriatic here, it is important to note that, beginning in the sixteenth century, the region saw a prolific production of theatrical texts in Latin, Croatian, and Italian, as well as frequent performances of works by classical authors. From the outset, the knowledge contained in architectural books appears to have played a crucial role in shaping theatrical practice in the region. Paradoxically, this influence seems to have been felt in theatre earlier than in architecture itself.

Scholars have particularly highlighted the scenographic knowledge of the Ragusan playwright Marin Držić (Marino Darsa, 1508–1567), which clearly included concepts from Sebas-

tiano Serlio's second book, first published in Paris in 1547. According to Wendell Cole, Držić's adoption of Serlio's principles was instrumental in his implementation of perspectival scenography. Although no direct evidence of the original staging of Držić's plays survives, textual analysis strongly suggests that he departed from the early Renaissance scenography typical of academic theatre, which often relied on a simple portico with four or five entrances covered by curtains. Instead, Držić embraced innovative perspectival stage scenery consistent with the models disseminated through Serlio's publications.¹⁸⁷ Between 1551 and 1556, he located his plays in various settings in Dubrovnik, including open public spaces and the halls of private palaces. In his seminal history of Croatian theatre, Nikola Batušić described Držić as 'in terms of staging, a follower of Serlio'.¹⁸⁸

It has been suggested that Marin Držić became acquainted with the most advanced scenographic experiments while studying canon law in Siena between 1541 and 1543. Significantly, in his *Vite*, Giorgio Vasari credited the Sienese architect Baldassare Peruzzi (1481–1536)—the mentor of Sebastiano Serlio—with the invention of three-dimensional perspectival scenery. Some scholars have proposed that Držić, during his time in Siena, may have encountered Vitruvian concepts of scenography and possibly even seen sketches by Peruzzi. However, it is more likely that Držić's knowledge of Vitruvius's and Serlio's recommendations was indirect, acquired as a spectator of Italian theatre productions and through illustrations found in printed editions of Plautus's comedies.¹⁸⁹ Additionally, Držić's writings suggest familiarity with Alberti's theories.¹⁹⁰

In the prologue of his comedy *Dundo Maroje*, Držić apologises for the inadequacy of the stage sets in comparison to earlier productions, attributing their simplicity to the absence of architects:

I ako ne uzbude šena liepa kako i prva, tužimo se na brieme, koje nam je arkitete odvelo, i ago komedija, od šta se ne varamo, ne uzbude vam toliko draga, ali vam će Dundo Maroje, Pomet, Grubiša i ostali draži bit, i ne scente, da se je vele truda, ulja, knjige i ingvasta oko ove komedije stratilo: šes pometnika u šes dana vi su zdjeli i sklopili.¹⁹¹

(And should the scene be not fair we shall blame this upon the time which removed our architect; and if you do not like the play you will surely like Uncle Maroje, Pomet, Grubiša, and the rest. And think not that much labour, oil, books and ink were expended upon this comedy. Six of our Pomet Company have within six days put it together).

Complaining that time had taken the scenographers away—did they die?—Držić, it is interesting to note, used the word 'arkitet', which he had probably brought from Italy, as it was uncommon in the early modern eastern Adriatic; one of the few instances when it appears is the inscription on the Great Fountain of Dubrovnik, where Onofrio della Cava is praised as 'architectus municipes'.¹⁹² Gudelj and Ruso have connected this term with Serlio's stage sets in the second book and suggested that it could refer to the practice of peripatetic architects, who used to spend short working stays in the Republic of Ragusa and, once they had accomplished their tasks, quickly leave the town.¹⁹³ Nonetheless, Držić stresses that his comedy required much effort, oil (possibly for lighting), books, and investment. The reference to books in this sentence could mean not only that Držić used many sheets to write the comedy—in fact, *Dundo Maroje* is Držić's longest work—but also that he relied on books in writing and producing it.

The only architectural book from Držić's era that contains material evidence of use in relation to the topic of theatre is a copy of Cosimo Bartoli's Italian translation of Alberti's *De re aedificatoria* (Florence, 1550). A handwritten note of possession indicates that this book was part of the library of the Ragusan Jesuit college. However, there is no evidence to clarify whether the book had circulated in Dubrovnik previously or how it arrived in the eastern Adriatic.

In Chapter VIII.7, 'Dello adornare gli spettacoli, i teatri, i luoghi da correre, & quanta sia la utilità loro' (On the Adornment of Spectacles, Theatres, Racetracks, and their Utility), the reader did not annotate Alberti's text but instead redrew the full-page theatre plan included by Bartoli. Notably, a hole made by a pair of compasses is visible at the centre of the orchestra,¹⁹⁴ suggesting the reader's attempt to engage with Alberti's geometric representation of a theatre. It is most likely that this copy of Alberti's treatise was primarily used within the Jesuit college in Dubrovnik. As at many similar institutions, students here staged a variety of plays.¹⁹⁵ This practice was aligned with the broader Jesuit pedagogical tradition, which often turned to theatrical performance as a means of education and moral instruction.

While Alberti's *De re aedificatoria* thus appears to have circulated within an educational or scholarly environment, other books with extensive evidence of use related to theatre come from a distinctly different context. Notably, some of the richest and most intriguing examples are copies of Serlio's and Vitruvius's treatises that once belonged to artists and stonemasons such as Dominik Uvoda and Ivan and Ignacije Macanović.¹⁹⁶ In a way, these master builders and craftsmen were the very architects whose absence Držić had lamented more than a century earlier. The broad and intense interest in theatre evident from the annotations and markings in their books suggests that these individuals were involved not only in the construction and restoration of theatre buildings but also in tasks related to

theatrical productions. The latter likely included designing scenery and other elements necessary for staging performances. These book copies are particularly concentrated in the region encompassing Split, Trogir, and the central Dalmatian islands, areas where these masters were active. Their engagement with theatre-related material highlights the intersection of architectural craftsmanship and theatrical production in the early modern Adriatic, pointing to a vibrant tradition of multidisciplinary expertise in this context.

Indeed, after Dubrovnik, central Dalmatia was the most significant region for the development of theatre in the early modern eastern Adriatic. In Hvar, during the seventeenth century, a theatre began operating within the Arsenal building. By 1676, records mention a 'Teatro destinato per la recita delle commedie' (Theatre designated for the performance of comedies) that required repairs. The original seventeenth-century theatre was later rebuilt in its current form in the early nineteenth century, and little evidence of its initial layout survives. Despite the absence of documentary proof, it is plausible that there was a theatrical space in Hvar in 1611–1612, the years in which the Venetian Rector Pietro Semitecolo accomplished some building projects in the Arsenal.¹⁹⁷

The only known description of the original Hvar theatre comes from a Latin *Carmen* composed in 1712 by Antun Matijašević Karamaneo. Written to commemorate the Carnival celebration in Hvar for the Venetian navy and its captain, Marino Cappello, the poem briefly mentions the theatre. In a few lines, the author describes the Hvar Arsenal, noting its western-facing section that looks towards the sunset and serves the ships, as well as the theatre on the eastern side. He notes the presence of a 'caveam' (seating area) with 'gradini' (steps) and a 'scenamque decentem' (appropriate stage), providing a rare glimpse into the structure of the seventeenth-century theatre.¹⁹⁸ Jasenka Gudelj has recently posited that Lodovico Alcardi, a Vicentine theatre writer travelling through Hvar and the eastern Adriatic from 1609, could have had a role in the design of a theatre hall resembling an ancient *cavea* with steps. As a member of the Accademia Olimpica, he certainly knew Andrea Palladio's Teatro Olimpico in Vicenza, and possibly even the similar theatre designed by Vincenzo Scamozzi in Sabbioneta.¹⁹⁹

However, in a copy of Serlio's *Trattato sopra le scene* (Venice, 1559) that belonged to Dominik Uvoda, underlined words and reading marks appear on the pages accompanying the illustrations of the three Vitruvian scenes. The reader particularly focused on the introductory section of this treatise, which was included by Serlio in the second book on perspective. Of special interest is the reader's interest in a passage describing the temporary theatre Serlio designed in Vicenza. Specifically, the reading mark here highlights the fact that the entire struc-

ture measured 80 feet in length but could be scaled to fit the available space. The passage is accompanied by a cross-section illustration of the theatre, detailing its intricate, wooden substructure (Ill. 3.50). This connection might evoke parallels with the repairs required for the Hvar theatre in 1676; the surviving documents notably mention the need for nails—perhaps for a similarly complex wooden framework.

On the subsequent page, the reader underlined a sentence explaining the suitable slope for a stage floor, further demonstrating an engagement with technical aspects of theatre design as outlined by Serlio:

Primieramente per il comune uso si fa un suolo levato da terra quanto l'occhio nostro, cioè dalla parte davanti & di dietro si fa più alto la nona parte, partendo in nove parti tutto il piano.

(Firstly, for common use, a floor is elevated from the ground to the level of our eye, that is the front and back parts are made higher by one-ninth, dividing the entire floor into nine parts).

The reader further highlighted the second paragraph of Serlio's introductory text by marking the entire section with a vertical red pencil line in the margin.²⁰⁰ In this passage, Serlio elaborates on the general design principles of the theatre and complements his text with a plan on the verso of the page. He introduces the concept of the three Vitruvian types of stage scenery—tragic, comic, and satiric emphasising their application in theatrical productions.

It is not possible to determine for which theatre the reader of this copy of Serlio marked the recommendations on the design of a theatre and its stage sets. Because the handwriting style can be attributed to Uvoda, the reader likely lived during the seventeenth century. Therefore, the theatre in question could have been that in Hvar or the Orsan Theatre in Dubrovnik, which was constructed inside the Arsenal, just like the one in Hvar, and first documented in 1681.²⁰¹

During the eighteenth century, new theatres were established in Trogir and Split, and the Macanović family may have contributed to their construction, as is suggested by evidence of use in the theatre-related chapters of their copy of Vitruvius. In Trogir, the first theatre to be established featured a single gallery and was located on the first floor of the Town Hall. By 1793, a group of local families, led by the Garagnin and Cipiko families, submitted a proposal for its renovation, including the addition of a second gallery. The proposal was accompanied by a drawing prepared by the engineer Nikola Nakić.²⁰² Although scholars have generally identified Nakić as the theatre's designer,²⁰³ Ignacije Macanović likely acted as supervisor



Ill. 3.50. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559-1562), II, fol. 24v (ZPZHAZU, Miočević-Rendić collection, C 135)

in his role of *protomagister* of Trogir, since the project involved municipal property. Additionally, Ivan Luka Garagnin, nephew of the archbishop of Split, for whom Ignacije had previously extended and remodelled the family palace, pursued a more ambitious plan to construct an entirely new theatre.

It is plausible that Ignacije Macanović studied Vitruvius's chapters on theatre design to supervise the rebuilding of the Trogir theatre in the Town Hall or to design a new theatre commissioned by Ivan Luka Garagnin. Notably, folded corners are visible in almost all seven chapters that Vitruvius dedicated to theatre design, acoustics, and harmony. In several cases, the reader folded the corner of the opening page of a particular chapter, suggesting that the entire chapter was of interest. This is evident in Chapters V.3 'Del Teatro' (On Theatre), V.4 'Dell'Armonia' (On Harmony), V.6 'Della conformatione del Teatro' (On the Design of Theatre), and V.9 'De i portici drieto la Scena, & delle ambulationi' (On Porticoes behind the Stage, and on Ambulatories).²⁰⁴ As explained earlier (see Chap. 2, 'Theatres and Baths'),

folded corners are particularly concentrated in the chapter on harmony, likely not solely because of its relevance to theatre design. Additionally, the reader marked the page featuring the illustration of the resonant vases.²⁰⁵ Moreover, a reading mark highlights the beginning of Barbaro's commentary on Vitruvius's graphic method for designing a theatre plan, which was based on two opposing and overlapping equilateral triangles inscribed within the same circle.²⁰⁶ Further evidence suggests that the reader paid close attention to this passage and even attempted to put it into practice. On the right margin of the double-page illustration of the theatre plan, which also depicts this geometric construction, the engraved lines of a triangle inscribed within a circle remain visible.²⁰⁷

In addition, Macanović may have been involved in the construction, restoration, or production of stage scenery for the theatre in Split. By 1742, a theatre with a parterre and galleries was operating in the council room in the Town Hall, although few records about it survive. In 1750, the Split city government allocated 310 lire for theatre lighting, and in 1770, the theatre was 'vagamente rifatto' (rebuilt in a more beautiful state).²⁰⁸ The expenses for lighting recall a crucial aspect of indoor theatrical performances, which Serlio had addressed for the first time more than two centuries earlier. On the final page of his second book, following the theatre plan and the three types of stage scenery, Serlio included a brief 'Trattato de Lumi artificiali delle Scene' (Treatise on Artificial Lights for Scenery). This text discusses various devices for illuminating the stage and its scenery, offering techniques for creating different colours, light refractions, and 'special effects', such as shadow projections or simulations of weather phenomena.

A reader of Uvoda's copy of Serlio marked the beginning of this chapter with a manicule and extensively underlined specific words throughout the text. Similarly, a reader of a later copy of Serlio, now preserved in the University Library in Split, annotated the margins with notes of interest, including: 'NB / fuoco / tuono / lampo / fulmine' (fire, thunder, lightning, thunderbolt).²⁰⁹

In conclusion, it is not possible to establish definitive connections between the extant copies of architectural books and theatres in the early modern eastern Adriatic. However, it is highly probable that Ignacije Macanović, in his role as *protomagister*, was involved in some capacity in the restoration of the Trogir theatre at the end of the eighteenth century. The material evidence of use in the fifth book of Macanović's copy of Vitruvius likely relates to this project, which he at least supervised, even if he did not serve as the principal designer.

Moreover, the enduring theatrical tradition in southern and central Dalmatia, alongside the extensive material evidence of engagement with theatre-related content in copies of architectural books, suggests that masters, stage designers, and even



Ill. 3.51. Dominik Divnić, *St Anthony of Padua and St Vincenzo Ferrari*, Church of the Holy Spirit, Vis, mid-seventeenth century

writers like Marin Držić frequently utilised such volumes in the production of plays.

As previously discussed, from the identified owners of architectural books, it is clear that architects, stonemasons, and builders were not the only individuals who had architectural books; other artists, such as painters and woodcarvers, also owned them. Consequently, the circulation and use of architectural books may have influenced painting, woodwork, and furniture design—particularly altars.

For painting, only two painters appear among the book owners who worked in the eastern Adriatic: Dominik Divnić and Sebastiano Pilloni. However, both executed a very small number of projects and remain largely unknown. The Bolognese painter Marcantonio Chiarini, whose copy of Serlio is held in the University Library in Ljubljana, is an example that is beyond the scope of this book.

Dominik Divnić belonged to one of the most prominent and learned noble families of Šibenik. However, only a small

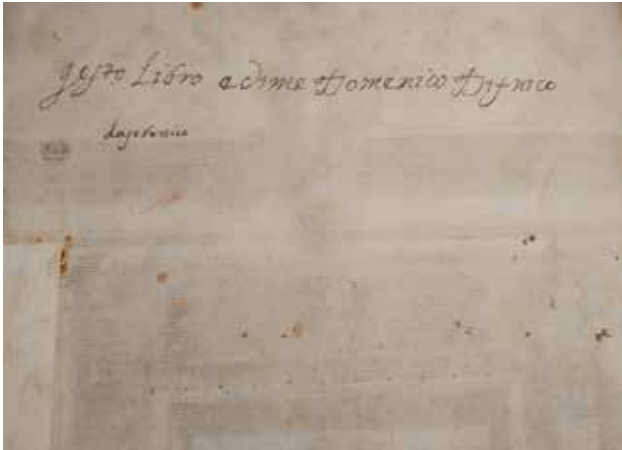
amount of information about his life and work is available; primarily, it has been made accessible by Ivan Kukuljević-Sakcinski, who inspected some family papers and identified Divnić's only known artwork to date (Ill. 3.51).

Divnić was born around 1620 in Šibenik to a father of the same name and Marina Mantelić. According to Kukuljević-Sakcinski, he had a brother (Antun), a sister (Antonia), and a son (Nikola).²¹⁰ Divnić is said to have travelled to Italy, where, according to Kukuljević-Sakcinski, he taught painting to Antonio Bellucci (1654–1726), a renowned Baroque painter from Pieve di Soligo in the province of Treviso. This claim has been repeated by other Croatian scholars.²¹¹

However, Vincenzo da Canal's biography of the painter Gregorio Lazzarini, who was also active along the eastern Adriatic coast, presents a contrasting scenario. According to da Canal, whose observations have been corroborated by Nicola Ivanoff and, more recently, Radoslav Tomić,²¹² Bellucci moved to Dalmatia as a soldier when he was twenty and received his first drawing lessons from Divnić.²¹³ This information dates Divnić's teaching of Bellucci to 1674 and is also the last known evidence of Divnić's activity. Consequently, some historians, relying on Pietro Zani's encyclopaedia, have inferred that Divnić died sometime after 1674.²¹⁴

Two architectural books in my catalogue bear Divnić's signature—written, as was customary, using the Italian variant of his name, 'Domenico Difnico'—on the verso of the title page (Ill. 3.52). These books are Vignola's *Regola delli cinque ordini* (Venice, 1626) and Bartolomeo Crescenzi's *Proteo militare* (Naples, 1595); the latter is bound together with a copy of Camillo Agrippa's *Nove inventioni [...] sopra il modo di navigare* (Rome, 1595).²¹⁵ Crescenzi's book is a fascinating example of a multi-functional mathematical handbook. It introduces an instrument of the author's invention that could be applied to navigation, land surveying, and even designing the classical orders with appropriate proportions. Divnić's copy contains extensive material evidence of use, including reading marks, underlined words, extracted keywords, corrections, completions, and traces of drawing practice. In addition to Divnić's signature, the book shows evidence of possession by several other individuals. Contrastingly, Vignola's volume is nearly devoid of signs of use, bearing only Divnić's signature as evidence of ownership.

The Divnić family boasted a distinguished genealogy that stretched back to the fifteenth century. Juraj and Jakov Divnić served as bishops of Nin (or Nona), while Petar, Ivan, and Franjo Divnić were recognised as poets and scholars, writing in Croatian, Latin, and Italian. The literary works and historical essays produced by these figures suggest that the Divnić family amassed a significant library in the sixteenth century and maintained a well-preserved family archive. However, the relationship of Dominik Divnić to these notable figures remains



Ill. 3.52. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1626), verso of title page (ZPZHAZU, Miočević-Rendić collection, C 137)

unclear, making it impossible to confirm whether Dominik had access to their resources.

The only known artwork by Dominik Divnić is an altarpiece depicting St Anthony of Padua and St Vincenzo Ferreri in the Church of the Holy Spirit on the Island of Vis. As noted by Kukuljević-Sakcinski, the painting is signed and dated: 'DOMIN DIPHNICUS SIB. PINXIT 1663.' In 1968, Cvito Fisković criticised a poor restoration carried out in 1869 by A. de Jozzi, describing it as a complete repainting that rendered any reliable assessment of the work's quality impossible. Nevertheless, Kruno Prijatelj characterised Divnić as a 'mediocre painter' based on this repainted piece. Later, Radoslav Tomić described the altarpiece as 'l'opera di un dilettante, artisticamente molto modesta e più volte ritoccata' (the work of an amateur, artistically very modest and repeatedly retouched).²¹⁶

These evaluations should be reconsidered in light of the conservation work conducted in 2020 and 2021 by the Croatian Institute of Restoration (Hrvatski restauratorski zavod) under the direction of Branka Carev.²¹⁷ The overpainting was removed, and the original layer of Divnić's work was restored. Beyond its artistic merit, the restoration revealed a striking detail in the background on the left side of the painting: a monumental Corinthian column that has a pronounced classical character. Divnić's interest in the Corinthian capital was already evident in his copy of Vignola's *Regola*, where he sketched a Corinthian capital on the title page, copying one of those that framed the author's portrait in the tabernacle design. However, there is no evidence in the book that Divnić studied the plates dedicated to the Corinthian order, which feature larger and more detailed engravings of the capital. The Corinthian capital in the painting does not appear to be an exact replica of a design by Vignola. Furthermore, Divnić overlooked the classical convention that

the Corinthian order was traditionally considered unsuitable for representations of male saints.

While one artwork can be attributed to Dominik Divnić, none by Sebastiano Pilloni (or Bastian Piloni) are known to survive. His name appears only on the title page of a copy of Ottavio Fabri's *L'uso della squadra mobile* (Padua, 1673), a handbook on drawing and land surveying.²¹⁸ Pilloni likely moved to Split at the beginning of the eighteenth century and died there in 1716, at the age of sixty. Historical sources attest that he painted an altarpiece for the small Church of St Helen and a portrait of Split's Archbishop Stefano Cosmi. Unfortunately, neither of these works has survived. However, as Arsen Duplančić observed, the choice of Pilloni to portray the city's highest-ranking clergyman indicates that he held a notable reputation within Split's artistic community.²¹⁹

In 1708, the *provveditore* Vincenzo Vendramin commissioned the engineer Giovanni Battista Camozzini to construct a church dedicated to St Helen, the patron saint of sailors and travellers. The church was built on the Riva, among the rows of shops leaning against the southern wall of Diocletian's Palace. It served as a site for Mass during public ceremonies marking the arrival and departure of archbishops and Venetian governors, as well as for masses held for those in quarantine at the nearby lazaretto.

According to Archbishop Stefano Cupilli's diary, on 18 August 1710, Pilloni's painting of Sts Helen and Nicholas—funded by Vendramin, like the church itself—was installed on the main altar. While Arsen Duplančić was able to reconstruct the basic architectural features of the church, which were likely designed by Camozzini, from historical city maps and views, no details about Pilloni's painting have survived.²²⁰

Pilloni's ownership of Fabri's book suggests that painting was not his sole activity and that he also worked as a surveyor in Split and central Dalmatia. Although the book displays little evidence of use, one mark stands out as potentially significant. In a section where Fabri lists the units of measurement used in various Italian towns, primarily in northern Italy, the reader folded the corner of the page for Bergamo. This detail reasonably implies that, like Camozzini, Pilloni may have originated from Bergamo and likely collaborated with the engineer on a range of tasks, including land and architectural surveying as well as painting.

The production of altars in the seventeenth- and eighteenth-century eastern Adriatic was remarkable in terms of both quantity and quality. As some studies have shown, these altars reflect the influence of architectural books. The large number of high-quality altars was part of a broader European phenomenon characterised by a decrease in large-scale church construction and an increase in smaller commissions for liturgical furniture, particularly altars. This shift led to the emergence of a specialised craftsman: the altar designer.

It is worth noting that many eastern Adriatic sources refer to wood or stone carvers who specialised in altar design as *altarium architectus*,²²¹ while building designers responsible for directing construction sites were typically called *proto*. As discussed earlier (see Chap. 2, 'Owners: Social Status and Profession'), this distinction likely stems from the fact that altar designers focused on what was considered the most iconic part of architecture—the classical orders. Consequently, altar designers were probably among the most avid consumers of architectural books, perhaps even more so than architects or engineers.

Until today, scholars have primarily focused on the architectural treatises offering the most flexible and adaptable models, particularly the works of Sebastiano Serlio. They have identified several altars, both single-fornix and triple-fornix designs, in Istria and Dalmatia as potential examples of the influence of Serlio's illustrations in his third and fourth books, as well as in the *Extraordinario Libro*.²²²

The main altar in the church of the Franciscan friary near Orebić (Sabbioncello) serves as an excellent example of the complexity and multiple layers involved in analysing Serlio's influence. Commissioned in 1599 by a local captain, Nikola Cvitković, the altar's origin—where and to whom the commission was given—remains unknown.

This monumental, three-fornix altar features fluted Corinthian columns on pedestals and an attic above the entablature (Ill. 3.53). According to Daniel Premerl, its design closely follows a Corinthian triumphal arch in Serlio's third book (Ill. 3.54). The altar replicates Serlio's design with remarkable fidelity, even in its details. Furthermore, the variation implemented in the attic aligns with a specific statement in Serlio's text: 'Li ornamenti sopra la cornice si faranno a beneplacito dello Architetto' (The ornaments above the cornice should be made at the architect's discretion). This demonstrates that the altar's designer not only referred to Serlio's illustration but also engaged closely with the accompanying text.

Serlio also notes that 'questo presente Arco è in parte simile a quel d'Ancona' (this present Arch is in part similar to that of Ancona), and he included the elevation of the arch at Ancona in his fourth book on antiquities. Thus, the designer of the Orebić altar selected a model that was based on an Adriatic antiquity located directly across the sea from Orebić. The strong interest in Adriatic antiquities is a recurring theme in many buildings of the region, as has been highlighted in numerous studies, including those by Jasenka Gudelj. This interest is also evident in the architectural books preserved in the eastern Adriatic, as was discussed above (see Chap. 2, 'Antiquities and the Adriatic'). In the case of the Orebić altar, the relevance of an Adriatic antiquity played a prominent role in the selection of a model, underscoring the deep connection between regional heritage and design choices.



Ill. 3.53. Franciscan friary, Church of Our Lady of the Angel, Orebić, main altar, 1599

Premerl has also identified a copy of the Orebić altar on the nearby Island of Lastovo, in the Parish Church of Sts Cosmas and Damian in the main town. A local master must have completed it a few decades later, as records show that by 1631 it was finished, prompting the Lastovo town council to seek paintings for the altar; these were subsequently commissioned from Giovanni Lanfranco in Rome.²²³ In this case, fidelity to Serlio's illustration is less pronounced. The designer introduced variations and incorporated local features, such as the strongly convex frieze, making it plausible that the Lastovo altar was based on the Orebić altar rather than directly on Serlio's design. This process of replication highlights a pattern likely common in the eastern Adriatic: an artwork derived from an architectural book could itself become a model for subsequent projects. As seen in the case of Dubrovnik portals inspired by Vignola's portal for Caprarola, derivative designs could serve as intermediaries, and later creators could potentially be unaware of the original source.

The adaptation of classical architectural compositions, such as the Roman triumphal arch, to various building types and artworks was a distinctive and inherent feature of Serlio's treatise. As Serlio emphasises on multiple occasions, the architect was free to modify the template of the triumphal arch for ephemeral decorations in urban spaces, such as those used for public ceremonies or royal entries, or to apply that of the tabernacle to windows, gates, or retables:

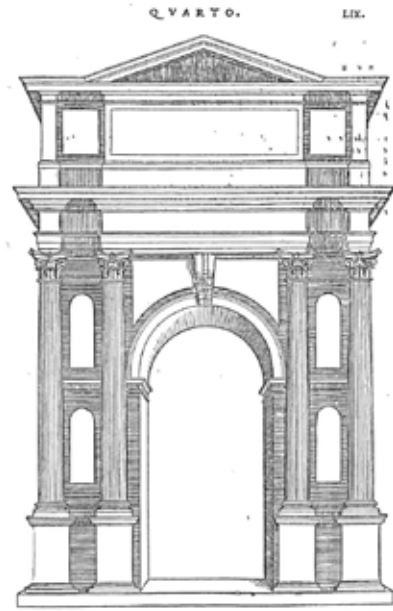
Di questa seguente figura il giuicioso Architetto si potrà accomodare a diverse cose, & trasmutarla secondo gli accidenti che gli occurreranno, & massimamente per ornare una pittura sopra uno altare [...], per un arco triomphale potria anchor servire, [...] similmente si potria ornare una porta [...] una finestra tal volta, o di un Nicchio, o Tabernacolo, & cose simili.²²⁴

(From this following figure, the judicious Architect will be able to adapt to diverse things, and transform it according to the circumstances that arise, and especially to ornament a painting above an altar [...], it could also serve for a triumphal arch, [...] similarly a door could be ornamented [...] sometimes a window, or a Niche, or a Tabernacle, and similar things).

Premierl surprisingly identified an example of this precise design introduced by Serlio in a wooden retable at the Franciscan Church of the Badija Friary near Korčula.²²⁵ Once again, the designer introduced variations to Serlio's design, such as employing the Corinthian order instead of the Doric and thus altering to the entablature as well as providing a richer decorative scheme.

However, if Serlio's illustration was indeed the source, the designer appears to have misunderstood its three-dimensional structure. Specifically, the central section of the retable, which should project forward in relation to the side wings, was misinterpreted—a detail that the reader of Serlio's treatise could have verified by examining the accompanying plan on the following page.

While the examples of Dalmatian altars provided by Premierl are precise and leave no doubt about the impact of Serlio's designs, the cases presented in an earlier study on Istrian altars by Nina Kudiš reveal a more complex situation. Kudiš examines a larger number of altars in churches that, during the early modern period, belonged to different political entities, such as the Republic of Venice and the Habsburg Empire. The similarities to Serlio's illustrations in his fourth book and the *Extraordinario Libro* vary significantly in terms of fidelity to the original designs and the quality of the adaptations. The scenario reconstructed by Kudiš suggests, on the



Ill. 3.54. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1537), IV/8, fol. LIXr

one hand, a broader circulation of Serlio's models in Istria and, on the other hand, an equally widespread use of second-hand models—altars inspired by other altars that were derived from Serlio's treatise.²²⁶

The extensive material evidence of use in the eastern Adriatic copies of Serlio that I analysed complicates the identification of the specific copy used by these unknown altar designers. Many of the plates identified by scholars as potential models for the abovementioned altars were marked in various ways across almost all of the copies of Serlio in my catalogue, even those in distant inland collections, such as the Zrinski Library.²²⁷ If we focus on the copies that were geographically closest, it is noteworthy that the reader of Dominik Uvoda's copy of Serlio marked the Doric retable that was transformed into a Corinthian design in the Badija altar. Similarly, in the copy of the volume containing all of Serlio's works (now housed in the Split University Library), the pages featuring the Corinthian triumphal arch that inspired the Orebić altar bear evidence of multiple folded corners.²²⁸

Unlike buildings, furnishings such as altars and artworks were moveable objects. Historical sources and scholarly studies provide numerous examples of altars, retables, and altarpieces commissioned directly from Venice, Rome, or other centres on the Italian peninsula, where architectural books and other depictions of possible models—whether in print or drawing—were widely available in the workshops of stone and wood carvers. Thus, it is important to note that the similarities between the altars described above and Serlio's treatise may not necessarily

result from the circulation of architectural books in the early modern eastern Adriatic but rather from the trans-Adriatic, international art market and the circulation of artworks and furnishings.

In this context, the influence of treatises on both buildings and their moveable elements—such as artworks and furnishings—could occur even without a local circulation of architectural books. This phenomenon was intensified by a market

where major artistic centres imposed their models and standards on peripheral areas via the exportation of both artists and artworks.²²⁷ Such cultural dominance facilitated the dissemination of building and artwork designs that adhered to the principles and illustrations of well-known architectural treatises, even in regions where these books were absent or at times when they primarily circulated in key artistic centres.

Notes

- 1 Gudelj, 'Architettura e diplomazia tra Roma e Dubrovnik'; Guarneri and Ivić, 'Books, Buildings, and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 2 The letters are published in Krno Prijatelj, 'Dokumenti za historiju dubrovačke barokne arhitekture', in *Tkalčićev zbornik: zbornik radova posvećenih sedamdesetogodišnjici Vladimira Tkalčića*, ed. by Ivan Bach (Zagreb: Muzej za umjetnost i obrt, 1958), 2:125–142.
- 3 Prijatelj, 'Dokumenti za historiju dubrovačke barokne arhitekture', 143.
- 4 Gudelj, 'Architettura e diplomazia tra Roma e Dubrovnik'; Guarneri and Ivić, 'Books, Buildings, and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 5 Alina Alexandra Payne, *The Telescope and the Compass: Teofilo Gallaccini and the Dialogue between Architecture and Science in the Age of Galileo* (Florence: Olschki, 2012); Teofilo Gallaccini, *Selected Writings and Library*, ed. by Alina Alexandra Payne and Giovanni Maria Fara (Florence: Olschki, 2012); Payne, *The Architectural Treatise in the Italian Renaissance*, pp. 237–239.
- 6 Biblioteca Apostolica Vaticana, Ms. Chigi G.1.12, Teofilo Gallaccini, 'Degli errori degli architetti' (1625), fol. 177r–v.
- 7 Radovan Ivančević, 'Proporcije trolisnih renesansnih pročelja u Hrvatskoj', *Peristil* 41 (1998), 59–68.
- 8 Radovan Ivančević, 'Mjerni trokut na trogirskoj krstionici', *Prilozi povijesti umjetnosti u Dalmaciji* 34 (1994), 111–120.
- 9 Nada Grujić, *Kuća u Gradu: studije o dubrovačkoj stambenoj arhitekturi 15. i 16. stoljeća* (Dubrovnik: Matica hrvatska, Ogranak Dubrovnik, 2013), pp. 233–259; Grujić, 'Klasični rječnik'.
- 10 Grujić, *Kuća u Gradu*, pp. 263–268.
- 11 Petar Strunje, 'Crkve svetoga Đurđa i Gospe od Milosrđa: asimilacija klasičnoga jezika u Dubrovniku', *Peristil*, 66 (2023), pp. 39–50.
- 12 Duško Čikara, 'Dvije klasicističke palače bračke „Maritimne oligarhije“', *Adrias: Zbornik radova Zavoda za znanstveni i umjetnički rad Hrvatske akademije znanosti i umjetnosti u Splitu*, no. 21 (2015), 85–123; Duško Čikara, 'Kasnobarokni ljetnikovci splitskog novog plemstva u Sutivanu', *Peristil: zbornik radova za povijest umjetnosti* 63 (2020), 69–89.
- 13 Fisković, 'Ignacije Macanović i njegov krug', 210–211.
- 14 Gudelj, 'Stato da Mar'.
- 15 Jasenka Gudelj, 'Gli ambienti della cultura nobiliare in Istria: Gli edifici della famiglia Scampicchio', *Atti di Centro di ricerche storiche Rovigno* 36 (2006), 55–116.
- 16 Grujić, *Kuća u Gradu*.
- 17 Nada Grujić, 'Les villas de Dubrovnik aux XVe et XVIe siècles', *Revue de l'art* 115 (1997), 42–51; Nada Grujić, *Ladanjska arhitektura dubrovačkog područja* (Zagreb: Institut za povijest umjetnosti Sveučilišta u Zagrebu, Matica hrvatska, 1991). See also Joško Belamarić, 'Renaissance Villas on the Dalmatian Coast', in *Quattrocento Adriatico: Fifteenth-Century Art of the Adriatic Rim: Papers from a Colloquium at the Villa Spelman, Florence, 1995*, ed. by Charles Dempsey (Bologna: Nuova Alfa Editoriale, 1996), pp. 103–123.
- 18 Nada Grujić, 'Ljetnikovac Vice Stjepovića-Skočibuhe kod Tri crkve u Dubrovniku. Ishodište arhitektonskog tipa', *Radovi Instituta za povijest umjetnosti* 12–13 (1988), 215–227.
- 19 Nada Grujić, 'Ljetnikovac Klementa Gučetića u Rijeci Dubrovačkoj (Podloga, zamisao, izvedba)', *Radovi Instituta za povijest umjetnosti*, no. 11 (1 December 1987), 115–141.
- 20 Frano Kesterčanek, 'Renesansni dvorci obitelji Stjepovića-Skočibuhe na Šipanu', *Analiza Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*, nos. 8–9 (21 June 1962), 139–153.
- 21 Nada Grujić, 'Ljetnikovac Stay-Kaboga u Rijeci dubrovačkoj – rezultati istražnih radova provedenih 1993. godine', *Radovi Instituta za povijest umjetnosti*, no. 20 (2 December 1996), 83–103.
- 22 'Catalogue', N. 2024, IX.1–6, pp. 328–344, U3; IX.2, p. 329, lines 33–37; p. 330, lines 9–13, 20–22, U5; IX.4, p. 334, lines 24–33; p. 335, lines 26–29, U5; IX.5, p. 336, U6; IX.6, p. 341, lines 42–45, U5.
- 23 Grujić, 'Les villas de Dubrovnik aux XVe et XVIe siècles', p. 49; Frano Kesterčanek, 'Ljetnikovac Gundulić', *Analiza Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*, 36 (1998), pp. 121–192.
- 24 For more on Split's Scala, see Petar Strunje, *Splitski lazaret i trgovačka skala* (Zagreb: FF Press, 2022).
- 25 Bojan Goja, 'Zadarska stambena kuća u arhivskim izvorima 17. i 18. stoljeća', *Radovi Instituta za povijest umjetnosti*, no. 41 (2017), 157–169; Bojan Goja, 'Kuća Cattinelli 1772. godine: prilog poznavanju stambene arhitekture u Zadru u 18. stoljeću', *Radovi Instituta za povijest umjetnosti*, no. 43 (2019), 221–230.
- 26 Petar Strunje, *Splitski lazaret i trgovačka skala* (Zagreb: FF Press, 2022), pp. 76–78; Viki Jakaša, 'Barokna stambena arhitektura u Splitu', *Radovi Instituta za povijest umjetnosti* 26 (2002), 57–68.
- 27 Jakaša, 'Barokna stambena arhitektura', 65; Giuseppe Maria Pilo, 'Per trecentosettantasette anni. La gloria di Venezia nelle testimonianze artistiche della Dalmazia', *Arte Documento Quaderni* 6 (Mariano del Friuli: Edizioni della Laguna, 2000), 176.
- 28 'Catalogue', N. 890, IV.6, fols. 155–156, U13.
- 29 'Catalogue', N. 890, VII.71, p. 181, U5 and U13.
- 30 Friedrich Ragette, *Architecture in Lebanon: The Lebanese House During the 18th and 19th Centuries* (Beirut: American University of Beirut, 1974); Haroutune Y. Kalayan and Jacques Ligier-Belair, *L'habitation au Liban*, 2 vols. (Beirut: Association pour la protection des sites et anciennes demeures, 1966).
- 31 Ennio Concina, *Fondaci: Architettura, arte e mercatura tra Levante, Venezia e Alemagna* (Venice: Marsilio, 1997).
- 32 Ana Šverko, 'Prilozi trogirskoj klasicističkoj arhitekturi', *Prilozi povijesti umjetnosti u Dalmaciji*, 41 (2008), pp. 394–395.
- 33 'Catalogue', N. 711.
- 34 Published in Šverko, 'Prilozi trogirskoj klasicističkoj arhitekturi', p. 403.
- 35 Marković, *Crkve 17. i 18. stoljeća u Istri*; Marković, 'Crkve 17. i 18. stoljeća'; Marković, 'Jednoblodne crkve'; Marković, 'Neopaladijevske jednoblodne crkve'.
- 36 For more on Massari's religious buildings in the eastern Adriatic, see Helena Seražin, *Arhitekt Giorgio Massari (1687–1766): sakralna arhitektura na Goriškem, v Furlaniji, Istri in Dalmaciji* (Ljubljana: Založba ZRC, 2007).

- 37 Vladimir Marković, 'Crkva sv. Servola u Bujama – izgradnja i arhitektura', *Peristil* 34 (1991), 69–80.
- 38 Jasenka Gudelj, 'Il cerimoniale e la storia: Le committenze del vescovo Marino Bozzatini (1742–1754) a Cittanova e Buie', in *Mens acris in corpore commodo: Festschrift in Honour of the 70th Birthday of Ivan Matejčić*, ed. by Marijan Bradanović and Miljenko Jurković (Zagreb–Motovun: University of Zagreb International Research Centre for Late Antiquity and the Middle Ages & Faculty of Humanities and Social Sciences, 2021), pp. 430–436.
- 39 Marković, 'Jedan tip trobrodskih'.
- 40 Vladimir Marković, 'Kapela blaženog Ivana Trogirskog Nikole Firentinca i sakralna arhitektura u Dalmaciji 300 godina poslije', *Radovi Instituta za povijest umjetnosti* 31 (2007), 121–130; Vladimir Marković, 'Katedrale i trobrodne župne crkve 17. i 18. stoljeća u Dalmaciji', in *Umjetnički dodiri dviju jadranskih obala u 17. i 18. stoljeću: zbornik radova sa znanstvenog skupa održanog 21. i 22. studenog 2003. godine u Splitu u povodu 5. obljetnice smrti Krune Prijatelja*, ed. by Vladimir Marković and Ivana Prijatelj Pavičić (Split: Književni krug, 2007), pp. 17–30; Marković, 'Jedan tip trobrodskih'.
- 41 Laris Borić, *Stones of Zadar: The Capital of Venetian Dalmatia, In Between and on the Edge* (Turnhout: Brepols, 2025), pp. 33–36.
- 42 Vladimir Marković, 'Skrinja sv. Šimuna i arhitektura u Zadru oko 1600', *Peristil* 48 (2005), 95–108; Sebastiano Serlio, *Il terzo libro [...] nel quale si figurano e descrivono le antichità di Roma, e le altre che sono in Italia*, e fuori da Italia (Venice: impresso per Francesco Marcolini, 1544), pp. XXXV–XXXVI.
- 43 'Catalogue', N. 882, pp. XXXIII–XXXVI, U13.
- 44 Gudelj, 'Stato da Mar', p. 266.
- 45 Andrea Palladio, *I quattro libri dell'architettura* (Venezia, 1570), IV,27, pp. 107–110.
- 46 'Catalogue', N. 706, IV,27–28, pp. 107–112, U13; N. 620, IV 27, p. 109, U13.
- 47 Katarina Horvat-Levaj, *Barokna arhitektura* (Zagreb: Naklada Ljevak, 2015), pp. 89–100; Marković, 'Crkve 17. i 18. stoljeća', 97–98; Nina Kudiš, 'Projekt Giacoma Briana za isusovačku crkvu sv. Vida u Rijeci', *Prilozi povijesti umjetnosti u Dalmaciji* 34 (1994), 269–283; Radmila Matejčić, *Crkva Svetog Vida* (Rijeka: Izdavački centar Rijeka, 1994); John Bury, *Forty-Three Sheets of Architectural Drawings by Giacomo Briano Da Modena S.J. (1589–1649): The Society's Architect in Poland and in Northern Italy; A Hitherto Unknown Work of Major Importance for the History of the European Architectural Treatise* (Milan: Radaeli, 1984).
- 48 Richard Bösel, 'Interregionalità nella cultura architettonica dei Gesuiti – Gorizia, Trieste, Rijeka e Dubrovnik' (seminar presented at the ERC AdriArchCult Seminars, Ca' Foscari, University of Venice, 14 April 2022). On this topic, Bösel, Jasenka Gudelj, Mario Pintarić, and Damir Tulić are currently preparing a book for the Archipelagus series, *Jesuits and the Arts in the Eastern Adriatic*, forthcoming. See also Richard Bösel, 'Tipologia e tradizioni architettoniche nell'edilizia della Compagnia di Gesù, in *L'architettura della Compagnia di Gesù in Italia XVI–XVIII secolo*, ed. by Luciano Patetta and Stefano Della Torre (Genoa: Marietti, 1992), pp. 13–19; Richard Bösel, 'L'architettura dei nuovi ordini religiosi', in *Storia dell'architettura italiana: Il Seicento*, ed. by Aurora Scotti Tosini, 2 vols. (Milan: Electa, 2003), 1:48–69.
- 49 Jerzy Paszenda, 'Briano, Giacomo', in *Dizionario biografico degli italiani* (Rome: Treccani, 1972), accessed 27 May 2025, online: [https://www.treccani.it/enciclopedia/giacomo-briano_\(Dizionario-Biografico\)](https://www.treccani.it/enciclopedia/giacomo-briano_(Dizionario-Biografico)).
- 50 Borić and Gudelj, *Uveliko i u malo*, pp. 131–154; Gudelj, 'Radionice i klasični jezik u ranome novome vijeku'; Borić, 'Fortificiranje grada Cresa u 16. stoljeću'.
- 51 Borić and Gudelj, *Uveliko i u malo*, p. 150; Borić, 'Fortificiranje grada Cresa u 16. stoljeću', 136.
- 52 Quoted in Borić, 'Fortificiranje grada Cresa u 16. stoljeću', 135, 144, n. 20.
- 53 Sebastiano Serlio, *Regole generali di architettura sopra le cinque maniere de gli edifici* (Venice: Per Francesco Marcolini, 1537), IV,5, fols. IXr, XIVr.
- 54 Borić and Gudelj, *Uveliko i u malo*, p. 152.
- 55 Serlio, *Regole generali di architettura sopra le cinque maniere de gli edifici*, IV,4, fols. VIIIr, IXr, XIVr.
- 56 Borić and Gudelj, *Uveliko i u malo*, pp. 149–150.
- 57 Serlio, *Regole generali di architettura sopra le cinque maniere de gli edifici*, IV,6, fol. XXVIIIr.
- 58 Borić and Gudelj, *Uveliko i u malo*, p. 150.
- 59 Serlio, *Regole generali di architettura sopra le cinque maniere de gli edifici*, IV,5, fol. XIVr; IV,7, fol. XLIIIr.
- 60 On Serlio's *mescolanza* and the association of rustic elements with the architectural orders, see Payne, *The Architectural Treatise in the Italian Renaissance*, 128–133.
- 61 Serlio, *Regole generali di architettura sopra le cinque maniere de gli edifici*, IV,5, fol. IXr.
- 62 Luigi Tomaz, *Mura, torri, porte della magnifica comunità di Cherso* (Conselve: Edizioni Think ADV, 2002), p. 88.
- 63 Borić and Gudelj, *Uveliko i u malo*, p. 154; Gudelj, 'Stato da Mar', p. 264; Gudelj, 'Radionice i klasični jezik u ranome novome vijeku', 102.
- 64 Borić, 'Fortificiranje grada Cresa u 16. stoljeću', p. 137.
- 65 'Catalogue', N. 231, fol. 73r, line 29, U3; fol. 76v, lines 5, 15, U3 and U13; fol. 77r, line 21, U3; fol. 77v, line 10, U5, line 21, U3 and U13; fol. 78r, line 14, I3; fol. 79r, line 13, U5.
- 66 'Catalogue', NN. 885–887.
- 67 'Catalogue', NN. 876, 880.
- 68 Petar Strunje, 'Crkve svetoga Đurđa i Gospe od Milosrda: asimilacija klasičnoga jezika u Dubrovniku'.
- 69 Živanović, 'Vrata i monumentalni portali dubrovačkih kuća i palata', 163.
- 70 Gudelj, 'Radionice i klasični jezik u ranome novome vijeku', pp. 102–103; Gudelj and Ruso, 'Tiskani renesansni traktati', 105–106; Živanović, 'Vrata i monumentalni portali dubrovačkih kuća i palata', 163–166.
- 71 Grujić, 'Klasični rječnik'; Živanović, 'Vrata i monumentalni portali dubrovačkih kuća i palata'.
- 72 'Catalogue', N. 1025.
- 73 Radmila Matejčić, *Kako čitati grad: Rijeka jučer, danas* (Rijeka, 2007).
- 74 Christoph Thoenes, 'Per la storia editoriale della "Regola delli Cinque Ordini"', in *La vita e le opere di Jacopo Barozzi da Vignola, 1507–1573, nel quarto centenario della morte* (Bologna: Cassa di Risparmio di Vignola, 1974), pp. 179–189; Christoph Thoenes, 'La Regola delli cinque ordini del Vignola', in *Les traités d'architecture de la Renaissance: Conference Proceedings (Tours, 1–11 July 1981)*, ed. by Jean Guillaume (Paris: Picard, 1988), pp. 269–279. For an up-to-date bibliography, see Christoph Thoenes, 'Vignola, Regola delli cinque ordini d'architettura, [Rome], s.n., [1562]', in *Architectura*, online; https://architectura.cesr.univ-tours.fr/traite/Notice/ENSBA_LES64.asp?param=en, accessed 21 May 2024.
- 75 'Catalogue', N. 1024, pl. XXXIII, U13.
- 76 Petar Puhmajer, 'Dvorac Nova Kraljevica: prilozi za povijest gradnje i uređenja', *Ars Adriatica*, no. 8 (2018), 129–152, online: <https://doi.org/10.15291/ars.2758>; Horvat-Levaj, *Barokna arhitektura*, pp. 449–453.
- 77 Gudelj and Botica, *Arte et marie*.
- 78 Horvat-Levaj, *Barokna arhitektura*, p. 450.
- 79 Radmila Matejčić, 'Barok u Istri i Hrvatskom primorju', in *Barok u Hrvatskoj*, Ed. by Anđela Horvat, Radmila Matejčić, Krsto Prijatelj (Zagreb: Sveučilišna naklada Liber, Odjel za povijest umjetnosti Centra za povijesne znanosti, Društvo povjesničara umjetnosti Hrvatske, Grafički zavod Hrvatske, 1982), p. 418; Horvat-Levaj, *Barokna arhitektura*, p. 450; Puhmajer, 'Dvorac Nova Kraljevica', 152, n. 36.
- 80 Puhmajer, 'Dvorac Nova Kraljevica', 140–141.
- 81 'Catalogue', N. 1024.
- 82 'Catalogue', NN. 1048, 887, 709.
- 83 Vanja Kovačić, 'Prilog za tipologiju kasnorenesansnih kamina', *Klesarstvo i graditeljstvo* 28/1–2 (28 June 2018), 30.
- 84 Goja, 'Zadarska stambena kuća u arhivskim izvorima 17. i 18. stoljeća', 158, 160–161.
- 85 'Catalogue', N. 884: IV,6, fols. 35r, 36r, U13; fols. 44v, 45r, U5; fols. 63r, 64r, U13.
- 86 Kovačić, 'Prilog za tipologiju kasnorenesansnih kamina', 34–38.
- 87 Gudelj and Guarneri, 'Materiali e costruzione nell'Adriatico'.
- 88 Belamarić, *Stone of the Eastern Adriatic*.
- 89 Gudelj, 'Stato da Mar', p. 262.
- 90 Goja, 'Zadarska stambena kuća u arhivskim izvorima 17. i 18. stoljeća', 160.

- 91 Fisković, 'Ignacije Macanović i njegov krug', 234, 246.
- 92 Gudelj and Guarneri, 'Materiali e costruzione nell'Adriatico'.
- 93 'Catalogue', N. 1047, VII.1-3, pp. 309-316, U13.
- 94 'Catalogue', N. 24: III.16, p. 95, U13; VI.11, p. 186, U13.
- 95 Guarneri and Ivić, 'Books, Buildings, and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 96 Vitruvius Pollio, *De architectura*, ed. by Pierre Gros, Antonio Corso, and Elisa Romano, 2 vols. (Turin: Einaudi, 1997), III.3, VI.11; Palladio, *I quattro libri dell'architettura*, I.7; Vincenzo Scamozzi, *L'idea della architettura uniuersale* (Venice: Giorgio Valentini, 1615), VIII.3-4.
- 97 Borić and Gudelj, *Uveliko i u malo*, pp. 70-71.
- 98 Guarneri and Ivić, 'Books, Buildings and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 99 Fisković, 'Ignacije Macanović i njegov krug', 243-244, n. 88.
- 100 Gudelj, 'The Circulation of Building Materials', 63-64.
- 101 Gudelj, 'The Circulation of Building Materials', 65; Guarneri and Ivić, 'Books, Buildings, and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 102 Vitruvius Pollio, *I dieci libri dell'architettura di M. Vitruvio. Tradotti & commentati da mons. Daniel Barbaro eletto Patriarca d'Aquileia, da lui riueduti & ampliati; & hora in piu commoda forma ridotti*, III.6, p. 81.
- 103 Leon Battista Alberti, *L'architettura [...]* tradotta in lingua fiorentina da Cosimo Bartoli (In Firenze: Appresso Lorenzo Torrentino, 1546), VI 10, p. 186.
- 104 'Catalogue', N. 22, VI.10, fol. 132r line 13, U5; N. 24, VI.10, p. 186, U13.
- 105 Gudelj, 'Architettura e diplomazia tra Roma e Dubrovnik', 230.
- 106 Vitruvius Pollio, *De architectura*, II.4; Palladio, *I quattro libri dell'architettura*, I.4.
- 107 Vitruvius Pollio, *De architectura*, II.5; Alberti, *De re aedificatoria*, III.4.
- 108 Guarneri and Ivić, 'Books, Buildings, and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 109 Gudelj, 'The Circulation of Building Materials', 68-69.
- 110 Fisković, 'Ignacije Macanović i njegov krug', 205, n. 16.
- 111 Fisković, 'Ignacije Macanović i njegov krug', 253, n. 103.
- 112 Fisković, 'Ignacije Macanović i njegov krug', 227, n. 47.
- 113 Fisković, 'Ignacije Macanović i njegov krug', 207, 214, 216-219, 221, nn. 17, 26-29, 31, 32.
- 114 On the headquarters of the family, see Ivana Prijatelj Pavičić and Lovorka Čoralić, 'Arhivska istraživanja kao prilog poznavanju kuća obitelji Macanović u Trogiru', *Radovi Instituta za povijest umjetnosti* 25 (2001), 173-188.
- 115 Fisković, 'Od Macanovićeve skice do izradbe pročelja crkve u Nerežišćima na Braču', 182.
- 116 Fisković, 'Ignacije Macanović i njegov krug', 211-213, n. 24.
- 117 Fisković, 'Ignacije Macanović i njegov krug', 222-223, n. 40.
- 118 Fisković, 'Ignacije Macanović i njegov krug', 223, n. 41 (29 May 1736).
- 119 'Catalogue', N. 1047, I.2, pp. 26, 27, U13; I.3, p. 37, line 29, U5; p. 38, U13.
- 120 'Catalogue', N. 1047, III.3, pp. 144, 147, 152, U13; p. 153, U5; IV.1, p. 164, U13; IV.2, pp. 168, 170, U13.
- 121 'Catalogue', N. 1047, VI.2, p. 279, U13; VI.2-3, pp. 281-290, U13; VI.3, pp. 282, 284, U13; VI.4, p. 290, lines 4-11, U5 and U6; VI.5, p. 292, lines 26-29, U5 and U6.
- 122 'Catalogue', N. 1047, V.4, p. 227, U3.
- 123 'Catalogue', N. 1047, V.4, pp. 229-232, 235, 237, 240, U13.
- 124 Fisković, 'Ignacije Macanović i njegov krug', 265, n. 151.
- 125 Fisković, 'Ignacije Macanović i njegov krug', 227, n. 47.
- 126 Fisković, 'Ignacije Macanović i njegov krug', esp. 238, 242, 250; Fisković, 'Od Macanovićeve skice do izradbe pročelja crkve u Nerežišćima na Braču'.
- 127 For more on these buildings, see Fisković, 'Ignacije Macanović i njegov krug', 252; Fani Celio Cega, 'Manji graditeljski zahvati i preinake na kućama obitelji Garagnin u Trogiru tijekom XVIII. stoljeća', *Prilozi povijesti umjetnosti u Dalmaciji* 38 (1999), 339-363; Ivo Babić, 'Jedna prostorna intervencija Ignacija Macanovića u Trogiru', *Prilozi povijesti umjetnosti u Dalmaciji* 38 (1999), 305-338.
- 128 Marina Ljubić, 'Macanović, Ignacije', in *Hrvatski biografski leksikon*, 2018-2021, accessed 23 May 2025, online: <https://hbl.lzmk.hr/clanak.aspx?id=12089>.
- 129 Fisković, 'Ignacije Macanović i njegov krug', 250.
- 130 Ivo Babić, 'Barokna preinaka samostanske crkve sv. Petra u Trogiru i graditeljski iz roda Macanović-Raguseo', *Radovi Instituta za povijest umjetnosti* 40 (2016), 133-134.
- 131 'Catalogue', N. 1047, III.1, p. 117; III.2, pp. 124, 127; III.3, p. 138; IV.6, p. 189.
- 132 'Catalogue', N. 1047, IV.6, p. 186.
- 133 'Catalogue', N. 1047, III.3, p. 147, U13.
- 134 Marković, 'Kapela blaženog Ivana Trogirskog'. For the contract with Ignacije Macanović, see Vinicije B. Lupis, 'O sakralnoj baštini Blata XIX. i XX. stoljeća', *Prilozi povijesti umjetnosti u Dalmaciji* 41 (2008), 449-452.
- 135 Celio Cega, 'Manji graditeljski zahvati'. For a comprehensive account of the projects and building works for the palace throughout the eighteenth and the nineteenth centuries, see Ana Šverko, 'Prilozi trogirskoj klasicističkoj arhitekturi', *Prilozi povijesti umjetnosti u Dalmaciji* 41 (2008), 383-423.
- 136 Celio Cega, 'Povijest knjižnice obitelji Garagnin Fanfonja u Trogiru'; Cega, 'Knjižnica Garagnin Fanfogna u Muzeju grada Trogira'.
- 137 'Catalogue', N. 1047, VI.5, p. 292, U5 and U6.
- 138 'Catalogue', N. 1047, VI 4, p. 288.
- 139 Šverko, 'Prilozi trogirskoj klasicističkoj, more likely arhitekturi', 393-394.
- 140 Celio Cega, 'Manji graditeljski zahvati', 347.
- 141 'Catalogue', N. 1047, VIII.1, p. 328, U13; VIII.2, pp. 330, 331, U13; VIII.3, p. 335, U13; VIII.4, p. 340, U13.
- 142 Celio Cega, 'Manji graditeljski zahvati', 348.
- 143 Ivančević, 'Trogirska krstionica'.
- 144 Fisković, 'Ignacije Macanović i njegov krug', 211, 213, n. 24.
- 145 Fisković, 'Ignacije Macanović i njegov krug', 248, n. 100.
- 146 Fisković, 'Ignacije Macanović i njegov krug', 214, n. 27.
- 147 Fisković, 'Ignacije Macanović i njegov krug', 232, n. 60.
- 148 'Catalogue', N. 1047, VI.2, p. 168, U13.
- 149 'Catalogue', N. 1047, IV.7, pp. 192, 193, 194, U13.
- 150 Fisković, 'Ignacije Macanović i njegov krug', 234.
- 151 Fisković, 'Ignacije Macanović i njegov krug', 252-268.
- 152 Fisković, 'Ignacije Macanović i njegov krug', 253, n. 103.
- 153 Petar Strunje, 'Blagajnički spisi mletačke Općine Split kao izvor za građevinsku povijest', *Vjesnik dalmatinskih arhiva: izvori i prilozi za povijest Dalmacije* 2/1 (2021), 259, 262.
- 154 'Catalogue', N. 1047, VI.11, p. 304, U13; p. 304, line 35, U5.
- 155 'Catalogue', N. 1047, I.5, pp. 43-46, U13; p. 46, line 10, U5.
- 156 'Catalogue', N. 1047, V.12, p. 268, lines 7, 15, U5.
- 157 'Catalogue', N. 1047, V.12, p. 268, line 35, U5.
- 158 Gudelj, 'The Circulation of Building Materials'; Guarneri and Ivić, 'Books, Buildings, and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'.
- 159 Fisković, 'Ignacije Macanović i njegov krug', 222-223, nn. 40-41.
- 160 Fisković, 'Ignacije Macanović i njegov krug', 253, n. 103.
- 161 Fisković, 'Ignacije Macanović i njegov krug', 216-217, n. 29.
- 162 Fisković, 'Ignacije Macanović i njegov krug', 219, 221, n. 32.
- 163 'Catalogue', N. 1047, I.5, p. 47, U13; p. 47, line 10, U6, line 11, U5.
- 164 Fisković, 'Ignacije Macanović i njegov krug', 222.
- 165 Babić, 'Jedna prostorna intervencija'.
- 166 Jasna Dasović, 'Povijesna popločenja Trogira i okolice', *Klesarstvo i graditeljstvo* 23/1-4 (20 December 2012), 54-58; Fisković, 'Ignacije Macanović i njegov krug', 260.
- 167 'Catalogue', N. 1047, VII.1-3, pp. 309-316, U13.

- 168 Fisković, 'Ignacije Macanović i njegov krug', 260, n. 126.
- 169 Fisković, 'Ignacije Macanović i njegov krug', 211, 213, n. 24.
- 170 Fisković, 'Ignacije Macanović i njegov krug', 235, n. 77.
- 171 Fisković, 'Ignacije Macanović i njegov krug', 263.
- 172 Fisković, 'Ignacije Macanović i njegov krug', 255-259.
- 173 Fisković, 'Ignacije Macanović i njegov krug', 259, n. 124.
- 174 For the most recent contributions on this vexed topic, see Francesco Di Teodoro, Lettera a Leone 10. di Raffaello e Baldassarre Castiglione (Florence: Olschki, 2020); Monteleone, La Prospettiva di Daniele Barbaro, 133-139; Laura Moretti, 'Ancora sulla "Scenographia": i manoscritti preparatori per la parte quarta de "La pratica della prospettiva" di Daniele Barbaro (1568), in Daniele Barbaro 1514-1570: Vénitien, Patricien, Humaniste, Ed. by Frédérique et al. (Turnhout: Brepols, 2017), 221-251; Werner Oechslin, "Sciographia", die vierte Darstellungsform ("species dispositionis"): Daniele Barbaro, Andrea Palladio un die kodifizierung der Architekturzeichnung, in Daniele Barbaro 1514-1570: Vénitien, Patricien, Humaniste, Ed. by Frédérique et al. (Turnhout: Brepols, 2017), 199-220.
- 175 'Catalogue', N. 1047, I.2, pp. 29-32.
- 176 Stjepan Krasić, *Ivan Dominik Stratiko (1732-1799). Život i djelo* (Split: Književni krug, 1991).
- 177 Fisković, 'Ignacije Macanović i njegov krug', 262-264.
- 178 Jasenka Gudelj, 'Arhitektura ranonovovjekovnog Labina: modeli, naručitelji, radionice', in: *1. Labinski povijesni susreti. Zbornik radova sa znanstveno-stručnog skupa*, ed. by Slaven Bertoša, Labin: Grad Labin, 2017, pp. 154-155.
- 179 Doroti Brajinov Botic and Duško Viočić, 'Porta Marina – južna (morska) gradska vrata s drvenim vratnicama u Trogiru, Prostor: znanstveni časopis za arhitekturu i urbanizam 24/2(52) (2016), 228-237.
- 180 Borić, Stones of Zadar, 138-140.
- 181 Petar Puhmajer and Krasanka Majer Jurišić, 'Palača Benzoni – primjer stambene arhitekture 18. stoljeća u riječkom Starom gradu', *Ars Adriatica*, no. 6 (2016), 185-198.
- 182 Tatjana Blažeković, 'Naučna biblioteka u Rijeci', *Vjesnik bibliotekara Hrvatske* 3/1 (1954), 3-5. The full references to the archival documents concerning the donation are in Puhmajer and Majer Jurišić, 'Palača Benzoni – primjer stambene arhitekture 18. stoljeća u riječkom Starom gradu', 196, n. 19.
- 183 'Catalogue', N. 22, VI.13, fol. 136r, U13.
- 184 'Catalogue', N. 1042, VI.4, p. 229, lines 1, 8, 10, U1.
- 185 Petar Puhmajer, 'Stambene palače kasnog 18. stoljeća u Rijeci: prostorna i tipološka obilježja', *Ars Adriatica*, no. 11 (2021), 285-310.
- 186 Puhmajer, 'Stambene palače kasnog 18. stoljeća u Rijeci', 290.
- 187 Wendell Cole, 'Scenografija u doba Marina Držića', *Forum* 9-10 (1967), 582-691.
- 188 Nikola Batušić, *Povijest hrvatskoga kazališta* (Zagreb: Školska knjiga, 1978). See also Višnja Rogošić, 'Serlio, Sebastiano', in *Leksikon Marina Držića* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009), accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/serlio-sebastiano/>.
- 189 Višnja Rogošić, 'Kazališni prostori', in *Leksikon Marina Držića* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009), accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/kazalisni-prostori/>; Višnja Rogošić, 'Vitruvije (Marcus Vitruvius Pollio)', in *Leksikon Marina Držića* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009), accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/vitruvije-marcus-vitruvius-pollio/>; Slobodan P. Novak, 'Scenografija', in *Leksikon Marina Držića* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009), accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/scenografija/>.
- 190 Feldman Čale, 'Alberti, Leon Battista', in *Leksikon Marina Držića* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009), accessed 23 October 2024, online: <https://leksikon.muzej-marindrzic.eu/alberti-leon-battista/>.
- 191 Marin Držić, 'Dundo Maroje', in *Djela Marina Držića*, Ed. By Franjo Petračić (Zagreb: Jugoslavenska akademija znanosti i umjetnosti, 1875), p. 243.
- 192 Jasenka Gudelj, 'Introduzione: Il Rinascimento e l'Adriatico orientale', in *Norme e Modelli: Il Rinascimento e l'Adriatico orientale*, ed. by Jasenka Gudelj (Rome: Aracne, 2023), p. 16.
- 193 Gudelj and Ruso, 'Tiskani renesansni traktati', 105-106.
- 194 'Catalogue', N. 24, title page, P1; VIII.7, p. 303, U16.
- 195 Ada Pavlič-Cottiero, 'Arhitektura baroknog kazališta u Hrvatskoj', *Prostor: znanstveni časopis za arhitekturu i urbanizam* 3/1 (1995), 142.
- 196 'Catalogue', NN. 884, 890, 1058, 1057.
- 197 Jasenka Gudelj, "Unir Pallade e Marte": Il teatro di Lesina (Hvar), situato nell'Arsenale', in *Architecture et scénographie dans les théâtres mineurs 1750-1850*, ed. by Raphaël Bortolotti, Giulia Brunello, and Annette Kappeler (Baden-Baden: Ergon Verlag, 2025), pp. 65-84; Jasenka Gudelj, 'Ekosustav hvarskog povijesnog kazališta', in *Zbirka hvarskog povijesnog kazališta*, ed. by Katija Borak and Joško Bracanović (Hvar: Muzej hvarske baštine, 2024) 11-38; Pavlič-Cottiero, 'Arhitektura baroknog kazališta u Hrvatskoj', 144-147; Grga Novak, 'Petar Semitecolo, posrednik u izmirivanju plemića i pučana i graditelj Arsenala, Belvedera i Teatra u Hvaru', *Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti Hrvatske akademije znanosti i umjetnosti* 4 (1961), 93-171.
- 198 Karamaneo's Latin *Carmen* is fully published in Novak, 'Petar Semitecolo', 147-170, quotation at p. 152, lines 88-93.
- 199 Gudelj, "Unir Pallade e Marte": il teatro di Lesina (Hvar), situato nell'Arsenale', p. 74.
- 200 'Catalogue', N. 884, II, fol. 24v, line 45, U5; fol. 25r, lines 17-18, U6; fol. 25r, lines 32-60, U5.
- 201 Pavlič-Cottiero, 'Arhitektura baroknog kazališta u Hrvatskoj', 147-150.
- 202 Fani Celio Cega, 'Kazalište u Trogiru tijekom proteklih razdoblja do 1890. godine', in Aleksandra Bilić Petrinović, Fani Celio Cega, Radovan Slade-Šilović, *Povijest kazališta u Trogiru do 1960. godine* (Trogir: Muzej grada Trogira, 2017), PP. 5-14; Vjeko Omašić, 'Obnova trogorskog kazališta koncem XVIII stoljeća', *Dani hvarskoga kazališta: grada i rasprave o hrvatskoj književnosti i kazalištu* 1 (1975), 111-114.
- 203 Pavlič-Cottiero, 'Arhitektura baroknog kazališta u Hrvatskoj', 151.
- 204 'Catalogue', N. 1047, V.3, p. 223, U13; V.4, p. 227, U3; V.6, p. 248, U13; V.9, p. 260, U13.
- 205 'Catalogue', N. 1047, V.4, pp. 229-332, 235, 237, 240, U13; V.5, p. 246, U13.
- 206 'Catalogue', N. 1047, V.6, p. 247, line 29, U5.
- 207 'Catalogue', N. 1047, plate between pp. 202 and 203, U14 and U16.
- 208 Cvito Fisković, 'Splitsko kazalište do sredine 19. stoljeća', *Dani hvarskoga kazališta: grada i rasprave o hrvatskoj književnosti i kazalištu* 6/1 (1979), 346-348; Pavlič-Cottiero, 'Arhitektura baroknog kazališta u Hrvatskoj', 151-152.
- 209 'Catalogue', N. 884, II, fol. 27v, line 2, U5; passim, U6; N. 890, II, fol. 52r, right margin, U7.
- 210 Ivan Kukuljević Sakcinski, *Slovník umjetnikah jugoslavenskih* (Zagreb: tiskom Narodne tiskarne Dra. Ljudevita Gaja, 1858), p. 68.
- 211 Cvito Fisković, 'Spomenici otoka Visa od IX do XIX stoljeća', *Prilozi povijesti umjetnosti u Dalmaciji* 17 (1968), 143; Kruno Prijatelj, 'Divnić, Dominik (Difnico, Dominicus Diphnicus)', in *Hrvatski biografski leksikon* (Zagreb: Leksikografski zavod 'Miroslav Krleža', 1993), accessed 15 April 2024, online: <https://hbl.lzmk.hr/clanak.aspx?id=4867>.
- 212 Nicola Ivanoff, 'Bellucci, Antonio', in *Dizionario biografico degli italiani* (Rome: Treccani, 1966), online: [https://www.treccani.it/enciclopedia/antonio-bellucci_\(Dizionario-Biografico\)](https://www.treccani.it/enciclopedia/antonio-bellucci_(Dizionario-Biografico)); , accessed 16 June 2025; Tomić, 'La pittura in Dalmazia e in Istria intorno al 1700', 309-310.
- 213 Vincenzo da Canal, *Vita di Gregorio Lazzarini* (Venice: Stamperia Palese, 1809), pp. LXIII-LXIV.
- 214 Pietro Zani, *Enciclopedia metodica critico-ragionata delle belle arti: Parte prima* (Tipografia ducale, 1821), 7:328.
- 215 'Catalogue', NN. 1025, 283.
- 216 Prijatelj, 'Divnić, Dominik (Difnico, Dominicus Diphnicus)'; Tomić, 'La pittura in Dalmazia e in Istria intorno al 1700', 310.
- 217 Branka Carev, 'Slika "Sv. Antun i sv. Visko" Dinka Divnića iz crkve Sv. Duha u Visu

- (o. Vis)', *Hrvatski restauratorski zavod*, online: <https://www.hrz.hr/index.php/aktualno/novosti-i-obavijesti/4414-slika-sv-antun-i-sv-vicko-dinka-divnica-iz-crkve-sv-duha-u-visu-o-vis>, accessed 2 March 2023.
- 218 'Catalogue', N. 342, title page, P1: 'dime Sebastiano Pilloni'.
- 219 Arsen Duplančić, 'Crkva Sv. Jelene na splitskoj Rivi', in *Pomorski Split do početka XX. stoljeća: zbornik radova s međunarodnog znanstvenog skupa održanog u Splitu 26. i 27. rujna 2016*, ed. by Nenad Cambi and Arsen Duplančić (Split: Književni krug, 2020), pp. 444-445.
- 220 Duplančić, 'Crkva Sv. Jelene na splitskoj Rivi', pp. 441-448.
- 221 See, for instance, Fisković, 'Ignacije Macanović i njegov krug', 255-266, n. 110.
- 222 Daniel Premerl, 'Sebastiano Serlio i tri oltara u Dalmaciji', *Prilozi povijesti umjetnosti u Dalmaciji* 42/1 (2011), 275-285; Nina Kudiš, 'Tutte le opere d'architettura et prospettiva di Sebastiano Serlio (1619) i praksa izrade drevnih oltara u Istri', *Annales, Series Historia et Sociologia* 4 (1994), 93-102.
- 223 Premerl, 'Sebastiano Serlio i tri oltara u Dalmaciji', 282-283.
- 224 Serlio, *Regole generali di architettura sopra le cinque maniere de gli edifici*, fol. XXIXv.
- 225 Premerl, 'Sebastiano Serlio i tri oltara u Dalmaciji', 280-282.
- 226 Kudiš, 'Tutte le opere d'architettura et prospettiva di Sebastiano Serlio (1619) i praksa izrade drevnih oltara u Istri'.
- 227 'Catalogue', N. 887, IV.6, fol. XXIXv, U13; IV.7, fol. LXIv, U13; IV.8, fol. LIXr, U10. 780, IV.7, fol. XLIV, U13.
- 228 'Catalogue', N. 884, IV.6, fol. 28r, U13; N. 784, IV.8, fols. 178-180, U13.
- 229 Enrico Castelnuovo and Carlo Ginzburg, *Centro e periferia nella storia dell'arte italiana* (Milan: Officina Libraria, 2019); Ljubo Karaman, *O djelovanju domaće sredine u umjetnosti hrvatskih krajeva* (Zagreb: Društvo historičara umjetnosti NRH, 1963). See also the English translation of the text: ...



CONCLUSION

In line with its objective, this book has presented the findings of an investigation into the consumption of architectural books in the early modern eastern Adriatic, reconstructing the phenomenon across its main phases: circulation, use, and impact. Unlike other studies in architectural history, which often focus on the history of a building or an architect, this research has concentrated on architectural knowledge itself. As a result, the present book does not follow a narrative progression of events and, consequently, lacks a traditional epilogue. Instead, the following final remarks aim to underscore the principal achievements of my investigation, evaluate the significance of its results, expand the context of my data through comparative analysis, and outline potential applications of the research methodology developed and tested here.

Both the methodology and research results that have been presented can be understood as serving a dual purpose. Firstly, the investigation into the circulation, use, and impact of architectural books in the eastern Adriatic offers new insights into local events in art and architectural history, contributing directly to sector-specific scholarship. Secondly, on a broader level, this research introduces and validates an original, evidence-based methodology for studying the consumption of architectural books in the early modern period. From this perspective, the methodology is relevant not only for art and architectural history, but also for related fields such as book history and the history of knowledge. Consequently, the final remarks here will address both of these aspects.

My investigation began with the question of when and where architectural books circulated in the early modern eastern Adriatic. The analysis of primary sources—such as records of book trade, inventories, and catalogues of both dispersed and extant early modern libraries—has not uncovered substantial evidence of book circulation in the sixteenth century. This absence of evidence, however, does not imply that architectural books were entirely absent during this period. On the contrary, architectural analysis of sixteenth-century buildings in

the region demonstrates that architectural books, particularly Italian Renaissance treatises, did have an impact on several structures. Nonetheless, this influence was modest, limited to isolated examples that appear to have been exceptions rather than the norm.

If we consider the publication dates of the key Renaissance architectural treatises by Serlio, Palladio, and Vignola, as well as of the Italian translations of Vitruvius and Alberti, it is clear these works were relatively new for the individuals involved in the building trade at the time. While these volumes attracted some attention in the sixteenth-century eastern Adriatic, their reception remained limited.

By the seventeenth century, however, architectural books began circulating in the eastern Adriatic on a much larger scale. They entered the libraries of prominent aristocratic families across the region, including the Gundulić and Gučetić families in Dubrovnik, Janez Valvasor and the Auersperg counts in Carniola, and the Zrinski family in Central Croatia. Simultaneously, these works enriched existing ecclesiastical libraries, particularly those of Franciscan and Dominican friaries, which existed throughout the region.

Both direct and indirect evidence from the seventeenth century indicates the presence of specialised libraries owned by professionals in the building trade. Military engineers in the service of the Venetian Republic in the eastern Adriatic, such as Giovanni Battista Camozzini and Zorzi Calergi, typically had small collections of books that they used in their daily work. Other documented owners include Giovanni Battista Fontana and Francesco Martinuzzi, foreign, peripatetic masters, and local stonemasons such as Dominik Uvoda and Ignacije Macanović.

The analysis of the Korčula Sketchbook, the only extant graphic collection of architectural drawings from the eastern Adriatic, further confirms that architectural treatises, such as Serlio's works, circulated within stonemasonry workshops through drawings and copies. The material evidence of ownership in architectural books provides detailed information on their owners, including their social status and professions. While noblemen and clergymen were the most common

owners, individuals directly involved in the building trade also had these books in hand. As was typical in the eastern Adriatic, such professionals did not identify themselves as ‘architect’ or ‘engineer’ in their notes of ownership. Instead, they used titles such as *proto* or simpler descriptors like *muratore* (stonemason) or *marangone* (carpenter). The elite-sounding title of ‘Architectus municipes’, given by Ciriaco d’Ancona to Onofrio della Cava in the inscription on the Great Fountain of Dubrovnik, remained an exception and was restricted to a few foreign professionals. In contrast, the equally proud signature of Juraj Dalmatinac (Giorgio da Sebenico) on Šibenik Cathedral simply describes him as ‘magister’.¹ Notably, in addition to stonemasons and master builders, carpenters and painters are recorded as owners of architectural books in the eastern Adriatic.

According to data collected from the architectural books in my catalogue, Venetian printing presses dominated the market. Venice, one of the largest printing centres in Europe, also served as the primary hub for the Adriatic book trade, distributing books printed in other cities, such as Padua, Verona, and Brescia, where a significant printing industry thrived. Rome emerges as the second most frequent place of publication, followed by French and German printing centres. Italian and Latin predominate as the languages of extant architectural books, with architectural treatises by Italian Renaissance authors, including editions and translations of Vitruvius, being the most common genre communicating architectural knowledge in the early modern eastern Adriatic.

The distribution of eastern Adriatic architectural books reveals significant regional variations shaped by trade routes and cultural influences, rather than by political borders. Along the coast, Venetian and Roman books dominate, while German publications are rare. In inland collections, by contrast, books printed in German towns—especially Nuremberg, Frankfurt, and Augsburg—are as common as, or even more prevalent than, those from the Italian peninsula.

For instance, the Valvasor Library, with its primary focus on the German-speaking world, follows the inland pattern. However, in other Habsburg-controlled inland territories, German architectural books are usually equal in number to Italian Renaissance treatises. Rijeka, a coastal town once under Habsburg rule, represents an intermediate case: its collections display a stronger presence of German books compared to those of other coastal towns, but they still house more Italian books than do typical inland libraries. This nuanced distribution highlights how geographical features, more than political affiliations, shaped the circulation of architectural books across the eastern Adriatic region.

Among my categories of architectural books, four dominate with nearly equal amounts; each represents approximately 20% of the total number of book copies in my catalogue. These

categories are: treatises on military architecture, descriptions of ancient and modern towns and regions, architectural treatises, and mathematical manuals on drawing, perspective, and land surveying. The remaining categories—naval architecture and mechanics, town design and ideal cities, visual arts, and miscellanea—account for significantly fewer entries and together constitute less than one-fifth of the total sample.

Among the authors of architectural treatises, Vignola is represented by the largest number of copies in libraries of the eastern Adriatic, followed by Vitruvius, Serlio, and Palladio, while the treatises of Alberti and Scamozzi appear in markedly lesser numbers. As was revealed throughout my investigation, these prominent authors of Italian Renaissance architectural treatises continued to be used by practitioners in the building trade, and thus to influence construction in the eastern Adriatic, well into the late eighteenth century. There is little evidence, however, that readers in the region sought to update their architectural knowledge with seventeenth- and eighteenth-century Italian or European architectural publications. Copies of these later works remain rare in extant libraries of the eastern Adriatic.

The detection and analysis of material evidence of possession and use in nearly 250 book copies provided valuable insights into the reading interests and practices of their owners. The investigation demonstrated that various categories of owners used architectural books in distinct ways. Patrons and practitioners engaged with architectural books differently, as is evidenced by the degrees of cleanliness or dirtiness of pages, as well as by marginal annotations or drawings. The material evidence in book copies highlighted a wide spectrum of uses, from careful study to more practical applications.

Reading practices also varied according to the disciplines studied within each book, encompassing both theoretical principles and practical exercises. For example, reading the foundational principles of architecture often prompted readers to note keywords in the margins, particularly in Vitruvius’s introductory chapters. Conversely, the acquisition of basic geometry and perspective—introduced in works like those of Serlio—required a more hands-on approach. Readers frequently executed sketches in the margins or on endpapers, or traced illustrations onto loose sheets.

The numerous signs of engraved lines and compass holes found in several book copies further indicate that readers actively traced illustrations, particularly for complex tasks like drawing the volute of the Ionic capital. Compass holes are especially common on pages dealing with this vexing challenge for architects, underscoring the practical ways in which these books were used.

Material evidence of use in the illustrations of architectural books suggests that readers engaged with woodcuts and

copperplate images as interactive tools rather than static representations. Additions and corrections with dotted lines are common, as are coloured enhancements to cast shadows, or the insertion of human figures to populate the abstract spaces of perspective illustrations. In practical working environments, such as stonemasonry workshops, handwritten notes were often added to tag illustrations for clarity. Terms such as 'basa' (base) or 'capitelo dorico' (Doric capital) next to the representations of these elements may seem tautological, but they rendered the illustrations more accessible for quick reference, allowing users to consult a book visually without needing to read the accompanying text.

The choice of medium for annotations and drawings also reveals much about the professional tools employed by readers. Beyond generic writing tools like ink pens and pencils, material evidence includes signs of specialised instruments such as red pencils, watercolours, pairs of compasses, and ivory or metal styluses.

Moreover, detailed analysis of the material evidence contained in architectural books has allowed for the identification of the most common interests of readers in the eastern Adriatic. Readers tended to focus less on general principles of architecture and theoretical discussions, which were often presented in the opening chapters of treatises, and more on the practical aspects of building. While the classical orders attracted significant attention, readers were often more interested in their decorative elements than in their proportional systems, syntactical relationships, or symbolic meanings.

Patrons typically sought models for entire buildings—primarily palaces or villas, and less frequently churches—while stonemasons and other practitioners looked for solutions to specific construction challenges. Among the most successful and immediately adopted elements were the numerous designs for gates and door and window frames provided by Serlio and Vignola.

A strong interest in antiquities, particularly those of the Adriatic region, also emerged from my investigation. Monuments in Pula, as well as in Rimini and Ancona on the opposite side of the sea, attracted widespread attention. This interest extended from Ragusan nobility to figures like the Slovenian polymath Valvasor, all of whom demonstrated a fascination with the antiquities of Pula.

Practical geometry and land surveying also stood out as prevalent interests among readers in the eastern Adriatic. These skills appealed to a wide range of individuals, not only professionals who worked as surveyors but also noblemen and clergymen who relied on estate management for their wealth.

Within my extensive catalogue, some book copies stand out for the richness and quality of their material evidence. Among books owned by patrons, notable examples include the archi-

tectural treatises belonging to the Zrinski family, the Valvasor Library, the Ragusan aristocrats Gundulić and Tudišić, and Julije Benzoni in Rijeka.

Significant copies associated with artists are the Italian translations of Vitruvius owned by Giovanni Battista Fontana and Ignacije Macanović, as well as the copies of Serlio's books signed by Dominik Uvoda and Carlo Martinuzzi. These copies merit special attention not only for the wealth of material evidence they contain, which provides insights into the activities of individual owners, but also for their potential to illuminate the influence of architectural books on specific buildings.

From this perspective, the close and parallel analysis of built works and the material evidence of use in book copies associated with specific individuals is proving to be a highly promising research methodology. On the one hand, it allows for a deeper understanding of the buildings in question, the individuals involved, and the design principles deployed. On the other hand, it offers broader insights into the process of translating architectural knowledge from printed books into built structures.

The systematic investigation into the use and impact of architectural books on buildings in the early modern eastern Adriatic represents a significant shift in perspective, expanding the scope of our understanding of how architectural knowledge communicated through printed texts could be applied. My research has addressed aspects of buildings that have often been overlooked by scholars. It reveals that readers of architectural books were not solely focused on basic principles of architecture or on the orders, but also on building materials and construction techniques.

In the context of a centuries-old stonemasonry tradition, readers and owners of architectural books in the eastern Adriatic displayed a pronounced interest in Roman building techniques as outlined in Vitruvius and echoed in early modern treatises. Notably, they studied and implemented piling techniques for establishing firm foundations in water or marshy soil, hydraulic binding mixtures incorporating pozzolana or alternative materials, various masonry systems for constructing walls, and methods for assembling trusses to span large spaces.

Furthermore, the findings presented here demonstrate that architectural books influenced disciplines beyond architecture. These books provided practical knowledge of drawing, perspective, land surveying, and techniques for estimating building costs, as well as critical information on antiquarianism, painting, altar design, and aspects of theatre design and scenography. While material evidence of use confirms that readers in the early modern eastern Adriatic paid considerable attention to these subjects, it has not always been possible to directly trace their impact on buildings, artworks, or other fields.

Nevertheless, the most evident strand of the consumption

of architectural books in the early modern eastern Adriatic is the impact of the classical language of architecture as communicated through a few Renaissance architectural treatises. The treatises of Serlio, Vignola, and, of course, Vitruvius (in its various editions, including both Italian and, to a lesser extent, German translations) emerged as the most influential architectural books in the region. A smaller or negligible influence was exerted by other prominent Renaissance authors, such as Alberti and Palladio, on built architecture. While Alberti's and Palladio's works appear to have circulated within the learned milieus of aristocratic families and monasteries, they did not have a significant impact on the architecture of the early modern eastern Adriatic.

Vitruvius offered a comprehensive exposition of architectural knowledge that even extended well beyond architecture itself. Meanwhile, Serlio and Vignola were particularly valued for their accessible presentation of the classical architectural language; they relied heavily on extensive illustrations rather than discursive texts. As I have shown, readers primarily sought guidance on the composition of classical elements for specific sculptural features of buildings, such as gates, portals, cornices, and chimneypieces. Despite the political fragmentation and diverse architectural traditions of the region, the use of Serlio's and Vignola's designs for gates and portals is remarkably pervasive across Habsburg territories, Venetian dominions, and the Republic of Ragusa.

By contrast, applying treatise illustrations to entire buildings appears to have been far less common. The Cindro Palace in Split and the Church of St Vitus in Rijeka stand out as rare examples where treatise designs—from Serlio in both cases—were applied to the design of an entire structure.

The ways in which local building professionals engaged with classical architecture warrant detailed attention. As is evident from material traces in book copies and from the analysis of buildings, these individuals were not primarily concerned with achieving a canonical or strictly proportioned use of the orders or classical architectural language in general. While knowledge of classical design principles is clear in the early modern architecture of the eastern Adriatic, precise and well-proportioned execution of particular elements does not appear to have been the primary objective.

Instead, varying degrees of imprecision in the design or execution of classical motifs frequently emerge. Cases of misinterpretation, where architectural knowledge from books was 'lost in translation', as well as instances of resistance to or outright rejection of classical designs in favour of traditional ones, have been examined in detail in this study.

Reconstructing the process by which architectural knowledge was translated from books to buildings, though a central goal of this research, has not always been possible. This limita-

tion stems in part from the fact that many architectural books that once circulated in the eastern Adriatic are no longer available, having either disappeared or been relocated.

For instance, the copy of Serlio's treatise that influenced the Stošić workshop in sixteenth-century Cres—as is still evident in the city's gates—has not been located, even though hints of its existence emerged during my research. Conversely, although Dominik Uvoda's copy of Serlio's treatise is heavily marked, underlined, measured, redrawn, and even coloured, no data is available on Uvoda's life or works, making it impossible to connect this copy to specific buildings.

Future investigations could expand and refine the findings presented here in several ways. Firstly, efforts should be made to trace architectural books that once circulated in the eastern Adriatic but that are now preserved in libraries across Europe and the United States. Secondly, new archival research focused on the specific owners of architectural books identified in this study could provide greater insight into their activities and the buildings in which they were involved.

Comparative analysis of my research results within the broader framework of European and global architectural history is neither immediate nor straightforward. The principal challenge lies in the lack of analogous, evidence-based investigations whose methodological similarity would ensure data homogeneity, and thus comparability. Scholarship on the consumption of architectural books in various geographical and temporal contexts still predominantly adheres to the 'from buildings to books' paradigm. Based on the architectural features of buildings and the cultural backgrounds of their designers, architectural historians have recently extended their consideration of the impact of architectural books from a European and Western context to a global scope.

Through the colonial expansion of European kingdoms and the missions of religious orders, architectural treatises influenced regions as distant as Latin America, India, and China during the sixteenth and seventeenth centuries. As has been outlined in recent studies, scholars have primarily interpreted this phenomenon as the dissemination of classicism—particularly of the orders—through the works of Vitruvius and a select group of Renaissance authors, including Alberti, Serlio, Vignola, Palladio, and Scamozzi.

I noted in my historiographical survey at the beginning of this book that a few studies have applied the 'from books to buildings' approach to the consumption of architectural books during the early modern period. These investigations are exceptions in the broader field but provide a small and reliable basis for establishing a comparative analysis.

Such studies often focus on single book copies with particularly rich material evidence of use—for instance, annotations and drawings—or on prominent figures in architectural

history, including Antonio da Sangallo the Younger, Daniele Barbaro, and Vincenzo Scamozzi, whose libraries have been partially preserved. Each of these individuals stands out due to his exceptional architectural expertise and substantial corpus of drawings, writings, and buildings. They thus represent unique cases that are not representative of the majority of professionals involved in the early modern building trade. Consequently, as owners and readers of architectural books, they are not easily compared to the individuals identified during my research into the early modern eastern Adriatic.

Despite these limitations, an attempt to present the research results via a comparative approach remains valuable. This analysis will follow two key lines of enquiry that have recently emerged in scholarship: a) a comparison with previous investigations of single book copies belonging to architects or other individuals involved in architectural practice that focuses on material evidence of use such as annotations and drawings, and b) an examination of the dissemination of classicism through the books of Vitruvius and renowned Renaissance authors that explores their influence on the broader architectural landscape of the early modern period.

In terms of circulation, use, and actual impact on built architecture in the eastern Adriatic, my research has demonstrated that architectural knowledge was primarily communicated through architectural treatises. While numerous books on military architecture and mathematics survive in eastern Adriatic libraries, architectural treatises contain the greatest amount of material evidence of use and had the most significant influence on buildings. Determining whether these two trends reflect a widespread trend or a localised phenomenon, however, remains a challenge.

In books of a philosophical, economic, or political nature, as well as in agricultural treatises published in Venice during the late fifteenth and sixteenth centuries, Manuela Morresi found certain 'hidden' texts on architecture that influenced the direction of Venetian architecture. However, she reached the general conclusion that these texts likely 'influenced Venetian construction and urban planning' indirectly—through the knowledge of aristocrats managing public and private projects—rather than directly impacting architects or other professionals.²

While several inventories of architects' libraries list a wide variety of books in terms of genres and topics (see above, Introduction, 'Architectural Knowledge'), they do not clarify how these books were used by their owners. In particular, such inventories cannot determine whether, in their daily tasks among the various roles and aspects of the building trade, owners of architectural books consulted or studied architectural treatises more extensively than books from related disciplines.

For the early modern period, the only thorough investigation in this field addresses the books of Vincenzo Scamozzi. Katherine Isard has reconstructed a portion of Scamozzi's library and physically analysed the surviving copies of his books. These volumes include architectural treatises by Pietro Cataneo, Sebastiano Serlio, Philibert de l'Orme, Hans Vredeman de Vries, and editions of Vitruvius by Philandrier, Messerschmidt, Ryff, and Barbaro. Additionally, Scamozzi collected mathematical works by Archimedes, Apollonius of Perga, and Sacrobosco, as well as volumes on geography by Strabo and antiquarian texts by Lucio Fauno and Johannes Rosinus.

Isard observed that Scamozzi read these various texts extensively, adapting his reading practices to each genre. Nevertheless, he devoted the most attention to architectural treatises. In particular, Isard has focused her research on Scamozzi's engagement with the works of Cataneo and Serlio, as well as on two notebooks in which Scamozzi summarised and collated information from a range of sources.³

The case of Scamozzi's library reveals that, while architects engaged with books from a variety of genres that communicated architectural knowledge at different levels, the architectural treatise remained their central focus. This finding aligns with my research results for the early modern eastern Adriatic. However, Scamozzi's encyclopaedic thirst for knowledge can scarcely be compared with the approach to architectural books taken by the stonemasons and master builders of the eastern Adriatic, nor is it representative of other individuals involved in the building trade, such as patrons or clients. Furthermore, the paucity of data from other temporal and geographical contexts makes it difficult to generalise the similarities between Scamozzi and the eastern Adriatic actors into patterns across a broader European context.

If the reading interests of those involved in architecture revolved primarily around architectural treatises, Vitruvius's *De architectura* was the main focal point. As has been extensively discussed in scholarly literature, Vitruvianism was a vast and comprehensive phenomenon in the early modern period, transcending the disciplinary boundaries of architecture. Within the eastern Adriatic, the use of *De architectura* is aligned to some extent with the multifaceted reception of Vitruvius across early modern Europe.

Material evidence of use in copies of *De architectura* in the eastern Adriatic reveals a much broader reception of Vitruvius's treatise, extending beyond its primary association with classical architectural language and the study of ancient ruins—long the principal focus of architectural historians. Readers in this region consulted Vitruvius for a diverse range of tasks related to both architectural matters and other fields. These included: the design of city walls and urban infrastructure, such as streets and water supply systems; the sourcing and use of building

materials; construction techniques; the organisation of building sites; and the design of specific building types.

Furthermore, evidence from the pages of Vitruvius's copies highlights consultation of them for knowledge of areas beyond architecture, for instance theatre design and scenography, musical harmony and acoustics, hydraulics and fountains, astronomy and gnomonics, and mechanics for both civil and military endeavours. Recently, scholars have highlighted abundant evidence that such multidisciplinary interests were widespread among early modern readers and users of Vitruvius.⁴

However, more detailed studies on an important scholar and a leading architect of the Italian Renaissance have yielded contrasting findings. The multidisciplinary approach to architecture is well exemplified by Daniele Barbaro, whose research on perspective and gnomonics, connected to his seminal edition of Vitruvius, led to further projects and publications.⁵ Annotations in his personal copy of Fra' Giocondo's edition of *De architectura* frequently fill every available blank space in the upper, lower, and side margins of pages, especially in the final three books on hydraulics, astronomy, and mechanics.⁶

In contrast, a similar analysis of the four extant copies of Vitruvius owned by Antonio da Sangallo the Younger reveals a markedly different approach. While Sangallo demonstrated a strong interest in ancient theatre and its application in contemporary buildings,⁷ his extensive marginalia, which densely cover many pages, diminish noticeably after Book VI, at which point they become sporadic.⁸

My investigation into material evidence of possession in copies of Vitruvius has identified a range of owners, including practitioners, craftsmen, noblemen, and clergymen. While the impact of Vitruvius and the role of artisanal knowledge in the so-called Scientific Revolution have been extensively scrutinised via the experimental works and theoretical writings of major figures,⁹ the practical use and application of Vitruvian texts by practitioners and craftsmen remain understudied.

Although the reception of Vitruvius within the organisational framework of large, government-run shipyards in the Adriatic—particularly the Venetian Arsenal—has been explored, cases like that of Master Nicolò, a chief carpenter who owned a 1535 Italian translation of *De architectura*,¹⁰ are too rare to support definitive conclusions about the broader practical application of Vitruvius by such individuals.

Similarly, it is well known that copies of Vitruvius circulated widely among European princely and aristocratic families—a phenomenon corroborated by this study of the eastern Adriatic. From the noble families of Dubrovnik in the south to the landlords of Habsburg territories in the north, readers commonly owned editions of Vitruvius. In the broader, more pluralistic scholarly perspective on the Renaissance, this pattern aligns with an interest in ancient Roman writers that was often

instrumental to the imperial ambitions of European rulers.¹¹

Scholars have also established Vitruvius's role within the educational and reform programmes of aristocratic academies and learned societies across Europe, such as the Virtuosi al Pantheon in Rome or the Accademia della Fama in Venice.¹² However, consideration of the practical application of Vitruvian principles in the commissions of noble families has been dispersed across an extensive body of monographic studies on individual buildings and projects. In the absence of comprehensive, synthetic studies, analysing such applications comparatively exceeds the scope of the investigation here.

For the extent of its impact and the variety of its applications in the early modern eastern Adriatic, Sebastiano Serlio's treatise ranks second only to that of Vitruvius. Across the area under investigation here—from the small, island town of Cres to the major urban centre of Split, and from southern Dalmatia to Carniola in the north—the models provided by Serlio, particularly his designs for gates, as well as those for entire palaces and church buildings, clearly circulated and influenced local architecture.

At the same time, material evidence of use found in extant copies of Serlio's works reveals a broader interest in the subjects he addressed, including geometry and perspective drawing, stage design and theatre lighting, antiquities (especially those of the Adriatic), wooden ceilings, and garden design.

Serlio's works served as the primary conduit through which classical architecture, as revived during the seminal period of the early sixteenth century in Rome, was disseminated across Europe and beyond. Analysis of extant book copies and early modern buildings in the eastern Adriatic demonstrates a frequently elastic and non-canonical approach to Serlio's principles and designs, both of which were adapted, mixed with local architectural traditions, and occasionally misunderstood.

This pattern of adaptation and reinterpretation echoes Serlio's impact in other European contexts, including Provence and southern France, Andalusia, and even Spanish territories in Latin America.¹³ It is important to note that these observed parallels primarily concern the use of classical architectural language in the application of the orders or entire building models, as such aspects have been the focus of most scholarly investigations.

With a more multifaceted approach, future research could clarify whether the varied interests revealed by the analysis of copies of Serlio's works in the eastern Adriatic as encompassing theatre, geometry, and garden design were unique to this region or were representative of a broader phenomenon that extended to other geographical areas during the early modern period.

Furthermore, the architectural features of many buildings and the significant number of copies of *Regola delli cinque*

ordini indicate that Vignola was also an influential figure in the architecture of the early modern eastern Adriatic. However, it is noteworthy that the extant copies of Vignola's seminal treatise are almost entirely from the eighteenth century. Nevertheless, the buildings analysed above suggest that the dissemination of Vignola's architectural principles in the eastern Adriatic began in the late sixteenth century.

It is plausible to assume that earlier copies of Vignola's treatise initially conveyed his ideas to the region and are no longer traceable because they were either dispersed to other locations or were used until they literally fell apart. The latter scenario aligns with the practical use that many local stonemasonry workshops would have made of a heavily visual 'picture book' like Vignola's. The varying degrees of precision with which Vignola's designs were applied raises the possibility that intermediate sources, such as collections of drawings like the Korčula Sketchbook, may have played a role in disseminating his ideas. However, the fragmentary nature of the sources has hindered the full reconstruction of the process involved in the translation of books to buildings. Consequently, the hypothetical connections assumed in this process complicate the establishment of a comparative perspective.

Though similar to Serlio's works in terms of the number of extant book copies, Palladio's treatise appears to have had less impact on the architecture of the eastern Adriatic. Material evidence of use in the pages of *I quattro libri dell'architettura* is limited, primarily attributed to patrons, and rarely connected to specific buildings or projects. It is reasonable to speculate that artists and patrons in the eastern Adriatic were able to experience Palladio's works directly in Venice and on the Venetian mainland.

Indeed, older and more recent studies of Palladianism along the eastern Adriatic coast typically point to a firsthand knowledge of Palladio's buildings, rather than a dissemination of his designs mediated through printed books. Curiously, this phenomenon is in stark contrast to the widely studied Palladian revivals in Britain, Northern Europe, Russia, and the United States, where individuals relied extensively on woodcuts in *I quattro libri*. Even more curiously, these latter revivals—based on books—produced a far more precise interpretation of Palladian architecture than that of the eastern Adriatic, which relied on direct knowledge of the buildings themselves. In this case, books proved to be a more effective medium for transmitting Palladianism than the built architecture.

The remaining architectural treatises recorded in my catalogue of architectural books, along with the copies that I analysed physically, did not provide sufficient evidence for ascertaining their impact on the early modern eastern Adriatic. Among the authors in this group, Alberti and Scamozzi stand out as notable contributors, given their encyclopaedic and

scholarly contributions to the genre of the architectural treatise.

It is possible that Alberti's texts circulated and had some degree of influence in the early modern eastern Adriatic. On the one hand, some scholars have posited knowledge of Alberti's ideas in fifteenth-century Trogir. On the other hand, a few extant Italian translations of *De re aedificatoria* display material evidence of use. In contrast, the near-total absence of surviving copies of Scamozzi's treatise precludes speculation about its impact. Compared to its relatively widespread dissemination in German-speaking regions, the Netherlands, and Britain, *L'idea della architettura universale* appears to have been almost entirely unknown in the early modern eastern Adriatic.

My investigation of the consumption of architectural books has frequently revealed a loose reception of their principles by patrons and practitioners of architecture in the eastern Adriatic. Rather than replicating the designs and principles presented in architectural treatises with precision, local individuals often interpreted them with a significant degree of adaptation and freedom. Local masters remained rooted in long-standing traditions, attempting to integrate new motifs from architectural books into established building practices and decorative forms.

In other contexts of similarly flexible reception, such as southern France or Andalusia, scholars have assessed—or hypothesised—the existence of sources that mediated between Italian Renaissance architectural treatises and local buildings. These include regional French or Spanish architectural treatises, sketchbooks, or collections of prints and drawings, all of which could mould the transfer of architectural knowledge.¹⁴ While no local architectural treatise has been identified in the eastern Adriatic region, extant sources such as the Korčula Sketchbook¹⁵ or the album of architectural prints once owned by Wolf Engelbert Auersperg¹⁶ demonstrate that intermediate media also played a role in disseminating architectural knowledge in the early modern eastern Adriatic.

Foreign designers who worked in the eastern Adriatic and owned copies of architectural books, for instance Giovanni Battista Fontana and Carlo Martinuzzi, approached their tasks in much the same way. Fontana, a master builder from Ticino, purchased a copy of Vitruvius in 1670 in Kotor, before settling in Korčula and working along the Dalmatian coast. A few years later, Martinuzzi, originally from Cividale in Friuli, settled in Ljubljana and worked across the Venetian-Austrian border in Carniola and Istria, carrying his own copy of Serlio's treatise.¹⁷

Both architects demonstrated a tendency to blend the classical language of architecture with local decorative forms. Despite their ownership of at least one architectural treatise, they did not rely on intermediate sources; instead, they intentionally adopted a more flexible approach in translating the normative principles of architectural treatises into actual buildings. Whether this choice reflected their personal style,

collaborations with local masters, or responses to the demands of local patrons and audiences remains unclear.

In conclusion, the innovative, evidence-based methodology employed here has significantly contributed to reconstructing the reading interests and practices of early modern readers of architectural books in the eastern Adriatic. While this methodology—focused on detecting and analysing material evidence of possession and use in book copies—is well established among historians of early printed books, it remains underused in the fields of art and architectural history.

Spanning three centuries and encompassing diverse types of readers, my research has yielded original findings in terms of knowledge, data, and, most importantly—a comparative perspective. It has illuminated differences and transformations in reading interests and practices across the early modern period and among owners of varied professions and social status.

Moreover, this volume represents a significant shift in perspective by adopting a ‘from books to buildings’ approach for the consumption of architectural books. It seeks to address a persistent shortcoming in traditional architectural history, which often begins with buildings and traces influences back to books. Reversing this argumentation offers two key advantages. Firstly, it is now possible to reconstruct the process of translating architectural knowledge from books into built architecture in the proper chronological sequence: the circulation of architectural books, their use in various contexts and for different purposes, and their impact on building design and construction. The systematic analysis of these three stages, addressed in separate chapters, reinforces the methodological shift espoused here. Secondly, we can pursue an evidence-based assessment of the impact of architectural books on buildings. By prioritising the collection of data concerning the circulation and use of architectural books—questions often absent in traditional architectural history—this research moves beyond vague notions of ‘influence’ to offer a detailed and circumstantial appraisal. As Chapter Three demonstrates, in some cases, it was even possible to identify specific book copies where material evidence of use revealed direct connections to particular buildings.

This methodology holds significant potential for sparking new advances in architectural history. As a tool complementary to traditional approaches, it offers a new lens for studying the consumption of architectural books. The catalogue of architectural books currently preserved in the libraries of the eastern Adriatic, appended to this study, serves as a working tool for art and architectural historians. It provides a comprehensive list of book copies and detailed information on material evidence of possession and use, facilitating further research in this geographical and temporal context.

Architectural history would benefit greatly from the compilation of similar catalogues for other regions and time

periods. Additionally, targeted investigations into the material evidence of possession and use in copies of a single author or work—such as Vitruvius's *De architectura* or Palladio's *I quattro libri*—could significantly enhance our understanding of the reception of these volumes in early modern contexts.

Recent studies on annotated copies of Vitruvius owned by Daniele Barbaro, Antonio da Sangallo the Younger, and Vincenzo Scamozzi have begun to shed light on the intellectual engagement of a few prominent Renaissance scholars and architects. However, the methodical collection, ordering, and systematisation of material evidence from a broader range of architectural book copies could expand such findings both quantitatively and qualitatively.

This approach would provide insights into the consumption of architectural books by a far larger and more diverse audience, including lesser-known architects, stonemasons, practitioners, surveyors, draughtsmen, painters, patrons of varying ranks, and clergymen. It would also deepen our understanding of their reading interests and practices.

Ultimately, the methodology presented here would offer a more comprehensive and reliable portrait of the multiple ways and intermediary steps through which readers translated the knowledge contained in early printed architectural books into building practices and constructed architecture.

CONCLUSION

Notes

- 1 Gudelj, 'Introduzione: Il Rinascimento e l'Adriatico orientale', pp. 15-16.
- 2 Morresi, 'Treatises and the Architecture of Venice in the Fifteenth and Sixteenth Centuries', pp. 270-272.
- 3 Isard, 'Vincenzo Scamozzi in the World of Books: I. The Materials of Architectural Knowledge; II. A New Latin Notebook and the Role of Eruditio in Vincenzo Scamozzi's Architectural Theory and Practice'; Isard, 'Architectural Criticism in Late-Sixteenth Century Italy: Vincenzo Scamozzi's Annotations to Pietro Cataneo's L'architettura (1567)'.
- 4 Pamela O. Long, 'Architecture and the Sciences', in *Renaissance and Baroque Architecture*, ed. by Alina Payne. (Oxford: John Wiley & Sons, 2017), 1:191-219; Giovanni Di Pasquale, 'Vitruvius' Science of Machines: Tradition or Innovation?', in *Brill's Companion to the Reception of Vitruvius*, ed. by Ingrid D. Rowland and Sinclair W. Bell (Leiden: Brill, 2024), pp. 612-626; David Karmon, 'Vitruvius and the Early Modern Worksite', in *Brill's Companion to the Reception of Vitruvius*, ed. by Ingrid D. Rowland and Sinclair W. Bell (Leiden: Brill, 2024), pp. 456-475; Alice Jarrard, 'Theatre and Architecture: Toward a Material History of Renaissance Theatre', in *Renaissance and Baroque Architecture*, ed. by Alina Payne, 4 vols. (Oxford: John Wiley & Sons, 2017), pp. 160-190.
- 5 Cosimo Monteleone, *La prospettiva di Daniele Barbaro: Note critiche e trascrizione del manoscritto It. IV, 39=5446: Con la prefazione di Kim Williams a un contributo di Cristiano Guarneri* (Rome: Aracne, 2020); Cristiano Guarneri, 'Il manoscritto sugli orologi solari Lat. VIII, 42=3097', in *La Prospettiva di Daniele Barbaro: Note critiche e trascrizione del Manoscritto It. IV, 39=5446* (Canterano: Aracne editrice, 2020), pp. 163-179; Filippo Camerota, 'Daniele Barbaro and Mathematical Instruments', in *Daniele Barbaro and the University of Padova: Architecture, Art and Science on the Occasion of the 450th Anniversary of His Death*, ed. by Cosimo Monteleone and Kim Williams (Cham: Springer Basel AG, 2023), pp. 39-64.
- 6 Igoshina, Aniky'ev, and Markova, 'Marginal Notes by Daniele Barbaro in the 1511 Edition of Vitruvius from the Pushkin State Museum of Fine Arts Collection: Attribution Process and Dating Method'; Ekaterina Igoshina, Il'ja Anik'ev, and Anna Markova, 'Kommentarii Daniele Barbaro na poljakh izdanija Vitruvija 1511 goda iz GMI im. A.S. Pushkina: Put' atribucii i opyt datirovki', *Iskusstvoznanie*, no. 1 (2021), 264-297.
- 7 Benelli, 'Dicie Vitruvio: Antonio da Sangallo il Giovane e il De Architectura', pp. 277-302.
- 8 Benelli, 'Dicie Vitruvio: Antonio da Sangallo il Giovane e il De Architectura', pp. 332-335.
- 9 Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press, 2004); Long, 'Architecture and the Sciences'.
- 10 Guarneri, 'On the Trail of a Peripatetic Vitruvian Reader: New Insights on Giovanni Battista Fontana in the Late Seventeenth-Century Eastern Adriatic', 211-212.
- 11 Indra Kagis McEwen, *All the King's Horses: Vitruvius in an Age of Princes* (Cambridge, MA: MIT Press, 2023); Werner Oechslin, Tobias Büchi, and Martin Pozgai, *Architekturt-heorie im deutschsprachigen Kulturraum 1486-1648* (Basel: Colmena-Bibliothek Werner Oechslin, 2018). For a broader and more pluralistic portrait of the Renaissance, see Bernard Aikema, *I rinascimenti in Europa 1480-1620: Arte, geografia e potere* (Milan: Libri Scheiwiller, 2021).
- 12 Michela Corso, 'In virtù dell'antico: La Compagnia di Virtuosi del Pantheon nel Cinquecento', in *Intrecci virtuosi: Letterati artisti e accademie nell'Italia Centrale tra Cinque e Seicento*, ed. by Carla Chiummo, Antonio Geremicca, and Patrizia Tosini (Rome: De Luca, 2017), pp. 111-123; Lina Bolzoni, 'Rendere visibile il sapere: L'Accademia Veneziana fra modernità e utopia', in *Italian Academies of the Sixteenth Century*, ed. by David Sanderson Chambers and François Quiviger (London: The Warburg Institute-University of London, 1995), pp. 62-75; Manfredo Tafuri, *Venezia e il Rinascimento: Religione, scienza, architettura* (Macerata: Quodlibet, 2024), pp. 226-243.
- 13 Sylvie Deswarte-Rosa and Daniel Régnier-Roux, eds., *Le traité d'architecture de Sebastiano Serlio: Une grande entreprise éditoriale au XVIe siècle* (Lyon: Chomarat, 2004); Gloton, 'Le traité de Serlio et son influence en France'; Paul Roudié, 'L'utilisation fantasiste des ordres dans le Sud-Ouest de la France', in *L'emploi des ordres dans l'architecture de la Renaissance: Actes du colloque tenu à Tours du 9 au 14 juin 1986*, ed. by Jean Guillaume (Paris: Picard, 1992), pp. 237-246; Thomas Cummins, 'The Architecture of the Early Modern Period: "Because Vitruvius Did Not Recommend Square Columns": Europe, Latin America, and the Globalization of the Renaissance', in *Renaissance and Baroque Architecture*, ed. by Alina Payne, 4 vols. (Oxford: John Wiley & Sons, 2017), 1:678-714; Nuno Senos, 'The Classical Ideal in Portugal and the Portuguese World: From Lisbon to China', in *Renaissance and Baroque Architecture*, ed. Alina Payne, 4 vols. (Oxford: John Wiley & Sons, 2017), 1: 624-652; Fernando Marias and Augustín Bustamante, 'Trattatistica teorica e Vitruvianesimo nella architettura spagnola del Cinquecento', in *Les traités d'architecture de la Renaissance: Conference proceedings* (Tours, 1-11 July 1981), ed. by Jean Guillaume (Paris: Picard, 1988), pp. 307-315.
- 14 Gloton, 'Le traité de Serlio et son influence en France'; Marias and Bustamante, 'Trattatistica teorica e Vitruvianesimo nella architettura spagnola del Cinquecento'.
- 15 Fisković, 'Crteži graditelja i kipara'; Gudelj, 'The "Korčula Sketchbook" and the Architectural Culture of the Early Modern Dalmatia'.
- 16 Guarneri, 'Circulation, Use, Impact: An Evidence-Based Enquiry into the Consumption of Architectural Books in Baroque Slovenia'.
- 17 Guarneri, 'On the Trail of a Peripatetic Vitruvian Reader: New Insights on Giovanni Battista Fontana in the Late Seventeenth-Century Eastern Adriatic'; Guarneri, 'Circulation, Use, Impact: An Evidence-Based Enquiry into the Consumption of Architectural Books in Baroque Slovenia'.

ABBREVIATIONS



ARCHIVES, LIBRARIES, AND MUSEUMS

- AMS. Arheološki muzej u Splitu, Knjižnica
(Archaeological Museum in Split, Library)
- AMZD. Arheološki muzej u Zadru, Knjižnica
(Archaeological Museum in Zadar, Library)
- AMZG. Arheološki muzej u Zagrebu, Knjižnica
(Archaeological Museum in Zagreb, Library)
- BMSNS. Biblioteka Matice srpske, Novi Sad
(Library of Matica srpska, Novi Sad)
- CANU. Crnogorska akademija nauka i umjetnosti, Podgorica
(Montenegrin Academy of Sciences and Arts, Podgorica)
- CNBCT. Nacionalna biblioteka Crne Gore, Cetinje
(National Library of Montenegro, Cetinje)
- CRSR. Centro di ricerche storiche, Rovinj (Centre for
Historical Research, Rovinj)
- DSD. Knjižnica Dominikanskog samostana u Dubrovniku
(Library of the Dominican Monastery in Dubrovnik)
- DSK. Knjižnica Dominikanskog samostana sv. Nikole u
Korčuli (Library of the Dominican Monastery of Saint
Nicholas in Korčula)
- DSS. Knjižnica Dominikanskog samostana sv. Petra u Starom
gradu na otoku Hvaru (Library of the Dominican Monas-
tery of Saint Peter in Stari Grad on the Island of Hvar)
- DSZ. Knjižnica "Hijacint Bošković" Dominikanskog samostana
u Zagrebu ('Hijacint Bošković' Library of the Dominican
Monastery in Zagreb)
- FSD. Knjižnica Franjevačkog samostana u Dubrovniku
(Library of the Franciscan Monastery in Dubrovnik)
- FSE. Knjižnica Franjevačkog samostana u Fojnici (Bosnia and
Herzegovina) (Library of the Franciscan Monastery in
Fojnica (Bosnia and Herzegovina))
- FSH. Knjižnica Franjevačkog samostana Humac, Ljubuški
(Library of the Franciscan Monastery Humac, Ljubuški)
- FSLJ. Franjevački samostan, Ljubljana (Franciscan Monastery,
Ljubljana)
- FSP. Knjižnica Franjevačkog samostana u Pazinu
(Library of the Franciscan Monastery in Pazin)
- FSSB. Knjižnica Franjevačkog samostana Presvetog Trojstva u
Slavonskom Brodu (Library of the Franciscan Monastery
of the Holy Trinity in Slavonski Brod)
- FSŠ. Knjižnica Franjevačkog samostana u Šibeniku
(Library of the Franciscan Monastery in Šibenik)
- FST. Knjižnica Franjevačkog samostana na Trsatu
(Library of the Franciscan Monastery on Trsat)
- GKZ. Gradska knjižnica, Zagreb (City Library, Zagreb)
- HFPCM. Hrvatska franjevačka provincija sv. Ćirila i Metoda
(Croatian Franciscan Province of Saints Cyril and
Methodius)
- KFG. Knjižnica Garagnin-Fanfogna, Muzej grada Trogira
(Garagnin-Fanfogna Library, City Museum of Trogir)
- KHAZU. Knjižnica Hrvatske akademije znanosti i umjetnosti,
Zagreb (Library of the Croatian Academy of Sciences
and Arts, Zagreb)
- KSSKL. Kapucinski samostan, Škofja Loka
(Capuchin Monastery, Škofja Loka)
- LHL. Ljetnikovac Hanibala Lucića, Hvar
(Summer residence of Hanibal Lucić, Hvar)
- MGP. Muzej grada, Perast (City Museum, Perast)
- MGR. Muzej grada, Rovinj (City Museum, Rovinj)
- MGS. Muzej grada, Split (City Museum, Split)
- NKZD. Nadbiskupska knjižnica, Zadar
(Archdiocesan Library, Zadar)
- NKZG. Nadbiskupska knjižnica Metropolitana, Zagreb
(Archdiocesan Library 'Metropolitana', Zagreb)
- NMS. Narodni muzej Slovenije, Ljubljana
(National Museum of Slovenia, Ljubljana)
- NSKZ. Nacionalna i sveučilišna knjižnica, Zagreb
(National and University Library, Zagreb)
- NUK. Narodna in univerzitetna knjižnica, Ljubljana
(National and University Library, Ljubljana)
- OKK. Osrednja knjižnica Koper (Central Library, Koper)
- OHK. Osrednja humanistička knjižnica Univerze v Ljubljani
(Central Humanities Library of the University of Ljubljana)
- PMK. Pomorski muzej, Kotor (Maritime Museum, Kotor)
- PMO. Pomorski muzej, Orebić (Maritime Museum, Orebić)

ABBREVIATIONS

PMP. Pomorski muzej, Piran (Maritime Museum, Piran)
 SAZU. Slovenska akademija znanosti in umetnosti, Ljubljana
 (Slovenian Academy of Sciences and Arts, Ljubljana)
 SIKNM. Knjižnica Mirana Jarca, Novo Mesto (Miran Jarc
 Public Library, Novo Mesto)
 SKD. Knjižnica Klasične gimnazije (Seminarije), Dubrovnik
 (Library of the Classical Gymnasium (Seminary),
 Dubrovnik)
 SKLJ. Semeniška knjižnica v Ljubljani
 (Seminary Library in Ljubljana)
 SKP. Sveučilišna knjižnica u Puli (University Library in Pula)
 SKR. Sveučilišna knjižnica u Rijeci
 (University Library in Rijeka)
 SKS. Sveučilišna knjižnica u Splitu (University Library in Split)
 ZKD. Znanstvena knjižnica u Dubrovniku (Dubrovnik
 Research Library)
 ZKZ. Znanstvena knjižnica u Zadru
 (Research Library of Zadar)
 ZPZHAZU. Zavod za povijesne znanosti HAZU u Dubrovniku,
 Knjižnica (Institute for Historical Sciences of the Croatian
 Academy of Sciences and Arts in Dubrovnik, Library)

MATERIAL EVIDENCE OF USE

U1. Correction
 U2. Completion or supplement
 U3. Extraction of keywords
 U4. Comment
 U5. Reading mark
 U6. Underlined words
 U7. Reading note
 U8. Personal note
 U9. Drawn copy
 U10. Geometric construction
 U11. Free drawing
 U12. Folded page
 U13. Folded corner
 U14. Engraved sign
 U15. Illustration abrasion
 U16. Compass or pin holes
 U17. Painted or coloured parts

MATERIAL EVIDENCE OF POSSESSION

P1. Inscription or signature
 P2. Ex libris
 P3. Motto
 P4. Emblem
 P5. Stamp
 P6. Shelfmark
 P7. Accession mark
 P8. De-accession mark
 P9. Seller note
 P10. Purchase note
 P11. Donation note
 B12. Bequest note
 B13. Borrowing note

BIBLIOGRAPHY



- '15cBOOKTRADE: Evidence-Based Assessment and Visualization of the Distribution, Sale, and Reception of 15th-Century Printed Books (Incunabula) in the Renaissance'. <https://15cbooktrade.ox.ac.uk/>. Accessed 13 December 2022.
- James S. Ackerman. *The Villa: Form and Ideology of Country Houses*. Princeton: Princeton University Press, 1990.
- Nicholas Adams. 'L'architettura militare in Italia nella prima metà del Cinquecento'. in: *Storia dell'architettura italiana: Il primo Cinquecento*. Edited by Arnaldo Bruschi. Storia dell'architettura italiana. Milan: Electa, 2002, 546-561.
- Bernard Aikema. *I rinascimenti in Europa 1480-1620: Arte, geografia e potere*. Milan: Libri Scheiwiller, 2021.
- Bruce Allsopp and Pamela Rowell, eds. *Inigo Jones on Palladio: Being the Notes by Inigo Jones in the Copy of 'I Quattro Libri dell'Architettura' di Andrea Palladio, 1601, in the Library of Worcester College, Oxford*. 2 vols. Newcastle upon Tyne: Oriel Press, 1970.
- Annarita Angelini. *Sapienza, prudenza, eroica virtù: Il mediomondo di Daniele Barbaro*. Florence: L.S. Olschki, 1999.
- Aloisio Antinori, ed. *Studio d'architettura civile: Gli atlanti di architettura moderna e la diffusione dei modelli romani nell'Europa del Settecento*. Rome: Quasar, 2013.
- Ivo Babić. 'Jedna prostorna intervencija Ignacija Macanovića u Trogiru'. *Prilozi povijesti umjetnosti u Dalmaciji* 38 (1999): 305-338.
- . 'Barokna preinaka samostanske crkve sv. Petra u Trogiru i graditelji iz roda Macanović-Raguseo'. *Radovi Instituta za povijest umjetnosti* 40 (2016): 129-139.
- Florio Banfi. 'L'istituzione della Biblioteca Pastrizia di Spalato'. *Archivio storico per la Dalmazia* 28 (1939-40): 225-238, 259-264, 287-292, 373-383.
- Damir Barbarić. 'Bolonjski Ugrasko-Ilirski zavod u kulturnoj povijesti Hrvatske'. *Prilozi za istraživanje hrvatske filozofske baštine* 14 (1988): 55-76.
- Nikola Batušić. *Povijest hrvatskoga kazališta*. Zagreb: Školska knjiga, 1978.
- Anna Bedon. 'Il "Vitruvio" di Giovan Antonio Rusconi'. *Ricerche di storia dell'arte* no. 19 (1983): 84-90.
- . 'Giovan Antonio Rusconi: Illustratore di Vitruvio, artista, ingegnere, architetto'. in: *Della architettura*. By Giovanni Antonio Rusconi, Facsimile. Verona-Vicenza: Colpo di fulmine-Centro internazionale di studi Andrea Palladio, 1996, IX-XXI.
- Fila Bekavac Lokmer and Juraj Lokmer. 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Klanjcu'. *Croatia Christiana periodica* 38/74 (19 December 2014): 51-66.
- . 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Petra Apostola u Cerniku'. *Croatia Christiana periodica* 39/75 (30 June 2015): 49-71.
- . 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Virovitici'. *Croatia Christiana periodica* 39/76 (18 December 2015): 49-67.
- Joško Belamarić. 'Renaissance Villas on the Dalmatian Coast'. in: *Quattrocento Adriatico: Fifteenth-Century Art of the Adriatic Rim: Papers from a Colloquium at the Villa Spelman, Florence, 1995*. Edited by Charles Dempsey. Bologna: Nuova Alfa Editoriale, 1996, 103-123.
- . 'Albertijevo djelo De Pictura i Skulptura Nikole Firentinca'. *Prilozi povijesti umjetnosti u Dalmaciji* 42 (2011): 137-159.
- . 'Alberti's Pathos Formula in the Chapel of the Blessed Giovanni Orsini of Trogir'. in: *Renaissance Studies in Honor of Joseph Connors*. Edited by Israëls Machtet and Louis A. Waldman. Florence: Villa I Tatti, The Harvard University Center for Italian Renaissance Studies, 2013, 1:228-236.
- . *Stone of the Eastern Adriatic*. Split: Public Institution ReraSD, 2016.
- Guido Beltramini. 'Quattro volti, un corpo senza testa e un teschio: per una storia dell'immagine dell'architetto nel Rinascimento'. in *Good N.E.W.S.: Temi e Percorsi dell'Architettura*. Ed. by Fulvio Irace and Italo Rota (Milan: Electa, 2006), 260-269.
- Francesco Benelli. 'Dicie Vitruvio: Antonio da Sangallo il Giovane e il De Architectura'. Rome: Officina Libraria, 2024.
- Biblioteca di fra Innocenzo Ciulich nella libreria de' RR. PP. francescani di Ragusa. Zadar: Tipografia governiale, 1860.
- Darka Bilić. *Inženjeri u službi Mletačke Republike: inženjeri i civilna arhitektura u 18. stoljeću u mletačkoj Dalmaciji i Albaniji*. Split: Književni krug, 2013.
- Vannoccio Biringuccio. *De la pirotechnia: Libri 10 dove ampiamente si tratta non solo di ogni sorte di diversità di miniere, ma anchora quanto si ricerca intorno a la pratica di quelle cose di quei che si appartiene a l'arte de la fusione over gitto de metalli come d'ogni altra cosa simile a questa*. Venice: Curtio Navò, et fratelli, 1540.
- Tatjana Blažeković. 'Naučna biblioteka na Rijeci'. *Vjesnik bibliotekara Hrvatske* 3/1 (1954): 3-5.
- Giuseppe Boerio. *Dizionario del dialetto veneziano*. Venice: coi tipi di Andrea Santini e figlio, 1829.
- Lina Bolzoni. 'Rendere visibile il sapere: L'Accademia Veneziana fra modernità e utopia'. in: *Italian academies of the sixteenth century*. Edited by David Sanderson Chambers and François Quiviger. London: The Warburg Institute-University of London, 1995, 62-75.
- Pietro Borghi. *Libro de abacho*. Venice: Bernardino de Bindoni, 1540.
- Laris Borić. 'Fortificiranje grada Cresa u 16. stoljeću'. *Ars Adriatica* 1 (2011): 133-148.
- Laris Borić and Jasenka Gudelj. *Uveliko i u malo: lik i likovnost renesansnog Cresa*. Zadar: Sveučilište u Zadru, 2019.
- Richard Bösel. 'Tipologia e tradizioni architettoniche nell'edilizia della Compagnia di Gesù'. in: *L'architettura della Compagnia di Gesù in Italia XVI-XVIII secolo*. Edited by Luciano Patetta and Stefano Della Torre. Genoa: Marietti, 1992, 13-19.
- . 'L'architettura dei nuovi ordini religiosi'. in: *Storia dell'architettura italiana: Il Seicento*. Edited by Aurora Scotti Tosini. Milan: Electa, 2003, 1:48-69.

- — —. 'Interregionalità nella cultura architettonica dei Gesuiti – Gorizia, Trieste, Rijeka e Dubrovnik'. Seminar presented at the ERC AdriArchCult Seminars, Ca' Foscari, University of Venice, 14 April 2022.
- Renata Bošnjaković. 'Izložba "Knjige 16. i 17. stoljeća iz knjižnice Franjevačkog samostana Našice"'. *Informatica museologica* 40/3-4 (2009): 115-117.
- Dubravka Botica. 'Odnos forme i funkcije u arhitekturi baroknog razdoblja'. *Poznanske studije Slawistyczne* 13/3 (2017): 303-315.
- Doroti Brajnov Botić and Duško Violčić. 'Porta Marina – južna (morska) gradska vrata s drvenim vratnicama u Trogiru'. *Prostor: znanstveni časopis za arhitekturu i urbanizam* 24/2(52) (2016): 228-237.
- Gian Paolo Brizzi, Damir Barbarić, and Péter Sárközy. *Annali del Collegio ungaro-illirico di Bologna, 1553-1764*. Bologna: Clueb, 1988.
- Howard Burns. 'I disegni'. in: *Mostra del Palladio, Vicenza, Basilica Palladiana*. Edited by Renato Cevese. Milan: Electa, 1973, 131-154.
- — —. 'Pirro Ligorio's Reconstruction of Ancient Rome: The "Antequae Urbis Imago" of 1561'. in: *Pirro Ligorio, Artist and Antiquarian*. Edited by Robert W. Gaston. Villa I Tatti 10. Cinisello Balsamo: Silvana Editoriale, 1988, 19-92.
- — —. 'Leon Battista Alberti'. in: *Storia dell'architettura italiana: Il Quattrocento*. Edited by Francesco Paolo Fiore. Milan: Electa, 1998, 114-165.
- John Bury. *Forty-Three Sheets of Architectural Drawings by Giacomo Briano Da Modena S.J. (1589-1649): The Society's Architect in Poland and in Northern Italy; A Hitherto Unknown Work of Major Importance for the History of the European Architectural Treatise*. Milan: Radaeli, 1984.
- Radoslav Bužančić. *Niccolò Di Giovanni Fiorentino and Trogir's Renovatio Urbis*. Split: Književni krug, 2015.
- Feldman Čale. 'Alberti, Leon Battista'. in: *Leksikon Marina Držića*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009. Accessed 23 October 2024, online: <https://leksikon.muzej-marindrzic.eu/alberti-leon-battista/>.
- Filippo Camerota. *La prospettiva del Rinascimento: Arte, architettura, scienza*. Milan: Electa, 2006.
- — —. 'Daniele Barbaro and Mathematical Instruments'. in: *Daniele Barbaro and the University of Padova: Architecture, Art and Science on the Occasion of the 450th Anniversary of His Death*. Edited by Cosimo Monteleone and Kim Williams. Cham: Springer Basel AG, 2023, 39-64.
- Vincenzo da Canal. *Vita di Gregorio Lazzarini*. Venice: Stamperia Palese, 1809.
- Branka Carev. 'Slika "Sv. Antun i sv. Visko" Dinka Divnića iz crkve Sv. Duha u Visu (o. Vis)'. *Hrvatski restauratorski zavod*. online: <https://www.hrzc.hr/index.php/aktualno/novosti-i-obavijesti/4414-slika-sv-antun-i-sv-visko-dinka-divnica-iz-crkve-sv-duha-u-visu-o-vis>. Accessed 2 March 2023.
- Mario Carpo. *L'architettura dell'età della stampa: Oralità, scrittura, libro stampato e riproduzione meccanica dell'immagine nella storia delle teorie architettoniche*. Milan: Jaka Book, 1998.
- Enrico Castelnuovo and Carlo Ginzburg. *Centro e periferia nella storia dell'arte italiana*. Milan: Officina Libraria, 2019.
- Baldassare Castiglione. *Il libro del cortegiano*. Venice: Curtio Navò, et fratelli, 1538.
- Fani Cega. 'Knjižnica Garagnin-Fanfogna u Muzeju grada Trogira'. *Informatica museologica* 29/1-2 (1998): 52-59.
- Fani Celio Cega. 'Povijest knjižnice obitelji Garagnin Fanfona u Trogiru'. *Radovi Zavoda za hrvatsku povijest Filozofskoga fakulteta Sveučilišta u Zagrebu* 29 (1996): 129-137.
- — —. 'Manji graditeljski zahvati i preinake na kućama obitelji Garagnin u Trogiru tijekom XVIII. stoljeća'. *Prilozi povijesti umjetnosti u Dalmaciji* 38 (1999): 339-363.
- — —. 'Kazalište u Trogiru tijekom proteklih razdoblja do 1890. godine'. in: Aleksandra Bilić Petrinović, Fani Celio Cega, Radovan Slade-Šilović, *Povijest kazališta u Trogiru do 1960. godine*. Trogir: Muzej grada Trogira, 2017, 5-14.
- Centre d'études supérieures de la Renaissance, Université de Tours, Frédérique Lemerle, and Yves Pauwels. 'Architectura'. online: <http://architectura.cesr.univ-tours.fr/>. Accessed 12 December 2022.
- Annarosa Cerutti Fusco. 'Le note di Inigo Jones in margine a "I quattro libri dell'architettura": Spunti critici e stimoli creativi'. *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio* 22/2 (1980): 15-40.
- Lucia Ciapponi. 'Fra Giocondo Da Verona and His Edition of Vitruvius'. *Journal of the Warburg and Courtauld Institutes* 47 (1984): 72-90.
- Duško Čikara. 'Dvije klasicističke palače bračke „Maritimne oligarhije"'. *Adrias: Zbornik radova Zavoda za znanstveni i umjetnički rad Hrvatske akademije znanosti i umjetnosti u Splitu*, no. 21 (26 October 2015): 85-123.
- — —. 'Kasnobarokni ljetnikovci splitskog novog plemstva u Sutivanu'. *Peristil: zbornik radova za povijest umjetnosti* 63 (2020): 69-89.
- Alfredo Cioni. 'Bonini (Boninis), Bonino'. in: *Dizionario biografico degli italiani*. Vol. 12. Rome: Treccani, 1971. Accessed 13 April 2025, online: https://www.treccani.it/enciclopedia/bonino-bonini_%28Dizionario-Biografico%29/.
- Classics Department at Harvard University, Max Planck Institute for the History of Science, English Department at the University of Missouri, and Perseus Project at Tufts University. 'The Archimedes Project'. Accessed 23 May 2025, online: https://archimedes2.mpiwg-berlin.mpg.de/archimedes_templates/popup.htm.
- Wendell Cole. 'Scenografija u doba Marina Držića'. *Forum* 9-10 (1967): 582-691.
- Ennio Concina. *L'Arsenale della Repubblica di Venezia: Tecniche e istituzioni dal Medioevo all'età moderna*. Milan: Electa, 1984.
- — —. *Pietre parole storia: Glossario della costruzione nelle fonti veneziane (sec. XV-XVIII)*. Venice: Marsilio, 1988.
- — —. *Navis: l'umanesimo sul mare: 1470-1740*. Turin: Einaudi, 1990.
- — —. *Fondaci: Architettura, arte e mercatura tra Levante, Venezia e Alemagna*. Venice: Marsilio, 1997.
- Michela Corso. 'In virtù dell'antico: La Compagnia di Virtuosi del Pantheon nel Cinquecento'. in: *Intrecci virtuosi: Letterati artisti e accademie nell'Italia Centrale tra Cinque e Seicento*. Edited by Carla Chiummo, Antonio Geremicca, and Patrizia Tosini. Rome: De Luca, 2017, 111-23.
- Pietro Crescenzi. *D'agricoltura: Dove si contiene il modo di coltivare la terra, seminari, & inserir gli arbori: con la proprietà delle herbe, & di tutti i frutti, et la natura di tutti gli animali*. Venice: Bernardino Bindoni, 1542.
- Vesna Čučić. 'Prvi tiskari u Dubrovniku s popisom tiskane grade'. *Vjesnik bibliotekara Hrvatske* 48/3-4 (2005): 108-158.
- Thomas Cummins. 'The Architecture of the Early Modern Period: "Because Vitruvius Did Not Recommend Square Columns": Europe, Latin America, and the Globalization of the Renaissance'. in: *Renaissance and Baroque Architecture*. Edited by Alina Payne. Oxford: John Wiley & Sons, 2017, 1:678-714.
- Giovanna Curcio, Marco Rosario Nobile, and Aurora Scotti, eds. *I libri e l'ingegno: Studi sulla biblioteca dell'architetto, XV-XX secolo*. Palermo: Caracol, 2010.
- Sanja Cvetnić. 'Divnić, Dominik'. in: *Allgemeines Künstlerlexikon*, 2021. Accessed 15 January 2025, online: https://www.degruyter.com/database/AKL/entry/_10190470/html.
- Jasna Dasović. 'Povijesna popločenja Trogira i okolice'. *Klesarstvo i graditeljstvo* 23/1-4 (20 December 2012): 48-63.
- Robert C. Davis. *Shipbuilders of the Venetian Arsenal: Workers and Workplace in the Preindustrial City*. Baltimore: Johns Hopkins University Press, 1991.
- Philibert de l'Orme. *Le premier tome de l'architecture*. Paris: Frédéric Morel, 1568.
- Pierre de Nolhac. 'Les correspondants d'Alde Manuce: Matériaux nouveaux d'histoire littéraire (1483-1514)'. *Studi e documenti di storia e diritto* 8 (1887): 247-299.
- Sylvie Deswarte-Rosa and Daniel Régnier-Roux, eds. *Le traité d'architecture de Sebastiano Serlio: Une grande entreprise éditoriale au XVIe siècle*. Lyon: Chomarat, 2004.
- Maria Sofia Di Fede and Fulvia Scaduto, eds. *La biblioteca dell'architetto: Libri e incisioni (XVI - XVIII secolo) custoditi nella Biblioteca Centrale della Regione Siciliana*. Palermo: Caracol, 2007.

- see Francesco Di Teodoro, *Lettera a Leone 10. di Raffaello e Baldassarre Castiglione* (Florence: Olschki, 2020).
- Bruno Dobrić. 'Knjižnica Franjevačkog samostana u Pazinu'. *Pazinski memorijal* 26/27 (2009): 205-214.
- , ed. *Knjižnice Istarske županije: vodič*. Pula: Društvo biblioteka Istre, 2010. Accessed 30 May 2025, online: <https://www.bib.irb.hr/538057>.
- , ed. *Mornarička knjižnica: knjižnica austrougarske mornarice* = K.u.K. Marine-Bibliothek (Pula: Sveučilišna knjižnica u Puli, 1997).
- , ed. *Mornarička knjižnica (K.u.K. Marinebibliothek) i austrougarska mornarica u Puli: zbornik radova* (Pula: Sveučilišna knjižnica u Puli, 2005).
- Marin Držić. 'Dundo Maroje'. in: *Djela Marina Držića*, Ed. By Franjo Petračić. Zagreb: Jugoslavenska akademija znanosti i umjetnosti, 1875, 239-361.
- Dubravka Dujmović. 'Nekadašnji vlasnici knjiga XVI. stoljeća iz fonda splitske Sveučilišne knjižnice'. *Kulturna baština*, nos. 28-29 (31 December 1997): 147-162.
- Anja Dular. 'The Ljubljana Bookbinders of the Sixteenth and Seventeenth Centuries'. in: *Bookbindings: Theoretical Approaches and Practical Solutions*. Edited by N. Golob and J. Vodopivec Tomažič. Turnhout: Brepols, 2017, 51-66.
- Arsen Duplančić. 'O Mihovilu Luposignoliju, vojnim inženjerima i mjernicima u Dalmaciji u 18. stoljeću'. *Prilozi povijesti umjetnosti u Dalmaciji* 29 (1990): 261-268.
- , ed. *Knjižnica splitske obitelji Martinis-Marchi: Katalog izložbe*. Split: Arheološki muzej, 2001.
- , 'Sudbina knjižnice splitske obitelji Martinis-Marchi'. in: *Knjižnica splitske obitelji Martinis-Marchi. Katalog izložbe*, Ed. by Arsen Duplančić. Split: Arheološki muzej, 2001, 5-31.
- , 'Crkva Sv. Jelene na splitskoj Rivi'. in: *Pomorski Split do početka XX. stoljeća: zbornik radova s međunarodnog znanstvenog skupa održanog u Splitu 26. i 27. rujna 2016*. Edited by Nenad Cambi and Arsen Duplančić. Split: Književni krug, 2020, 435-472.
- , 'Prilog povijesti početaka arheologije u Saloni'. *Tusculum: Časopis za solinske teme* 13/1 (1 December 2020): 91-116.
- EMoBookTrade. 'Early Modern Book Prices'. Database, 2022. Accessed 13 December 2022, online: <https://emobooktrade.unimi.it/db/public/prices>.
- , 'EMoBOOKTRADE: An Evidence-Based Reconstruction of the Economic and Juridical Framework of the European Book Market'. Accessed 13 December 2022, online: <https://emobooktrade.unimi.it/>.
- Henri Estienne. *The Frankfurt Book Fair*. Edited by James Westfall Thompson. Amsterdam: Gérard Th. van Heudsen, 1969.
- Sabine Florence Fabijanec. 'Od sajma do sajma: pomorski obalni promet u ritmu svetaca zaštitnika na Jadranu krajem srednjega vijeka'. *Croatica Christiana periodica* 38/74 (2014): 23-40.
- Francesco Feliciano. *Libro di arithmetica & geometria speculativa & praticale [...] intitolato Scala grimaldelli*. Venice: Alessandro Bindoni & Mapheo Pasini, 1545.
- Martino Ferrari Bravo and Stefano Tosato, eds. *Gli arsenali oltremarini della Serenissima: Approvvigionamenti e strutture cantieristiche per la flotta veneziana (secoli XVI-XVII)*. Milan: Biblion, 2010.
- Francesco Paolo Fiore. 'Architettura e arte militare: I trattati alla metà del Cinquecento'. in: Francesco Paolo Fiore, *Architettura e arte militare: Mura e bastioni nella cultura del Rinascimento*. Rome: Campisano, 2017, 205-213.
- , ed. *Trattati rinascimentali di architettura*, Turin: Einaudi, 2024.
- Cvito Fisković. 'Ignacije Macanović i njegov krug'. *Prilozi povijesti umjetnosti u Dalmaciji* 9 (1955): 198-268.
- , 'Spomenici otoka Visa od IX. do XIX. stoljeća'. *Prilozi povijesti umjetnosti u Dalmaciji* 17 (1968): 61-264.
- , 'Splitsko kazalište do sredine 19. stoljeća'. *Dani hvarskoga kazališta: grada i rasprave o hrvatskoj književnosti i kazalištu* 6/1 (1979): 346-379.
- , 'Crteži graditelja i kipara u Korčulanskoj bilježnici'. *Prilozi povijesti umjetnosti u Dalmaciji* 31 (1991): 237-268.
- , 'Od Macanovićeve skice do izradbe pročelja crkve u Nerežišćima na Braču'. *Peristil: zbornik radova za povijest umjetnosti* 35-36/1 (1993): 181-186.
- Renzo Fontana, Pietro Gnan, and Stefano Tosato, eds. *La biblioteca dell'architetto del Rinascimento: Antichi libri di architettura della Biblioteca Universitaria di Padova*. Padua: Biblioteca Universitaria, 2008.
- Vincenzo Fontana. 'L'ordine dorico nel Vitruvio di Fra Giocondo'. In *Vitruvio nella cultura architettonica antica, medievale e moderna: Atti del convegno internazionale di Genova 5-8 novembre 2001; scritti in onore di Claudio Tiberi*. Edited by Gianluigi Ciotta, Marco Folini, Marco Spesso, and Claudio Tiberi. Genoa: De Ferrari, 2003, 2:500-504.
- Martina Frank. 'Proti, periti, mediatori, giudici al servizio di fratelli litigiosi: saggezza strategica e competenza professionale nella Venezia tardobarocca'. *Acta Histriae*, 22 (2014), pp. 95-106.
- Vatroslav Frkin. 'Knjižnica Franjevačkog samostana u Požegi'. *Radovi Zavoda za znanstveni i umjetnički rad u Požegi*, no. 1 (15 November 2012): 33-38.
- Martin Gaier. *Architettura 'venetiana': I protti veneziani e la politica edilizia nel Cinquecento*. Verona: Cierre, 2019.
- Conrad Gessner. *Bibliotheca instituta et collecta, primum ad Conrado Gesnero: deinde in epitomen redacta et novum librorum accessione locupletata* (Zurich: Christophorus Froschoverus, 1583).
- Michele Pietro Ghezzi. *I dalmati all'Università di Padova dagli atti dei gradi accademici 1601-1800*. Venice: Società Dalmata di Storia Patria, Scuola dalmata dei SS. Giorgio e Trifone, 1992.
- Irene Giustina, ed. *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo*. Palermo: Caracol, 2015.
- Lavoslav Glesinger. 'Dva Dubrovčanina tiskara u Urbino u 16. stoljeću'. *Analiza Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 8-9 (1962): 155-164.
- Jean-Jacques Gloton. 'Le traité de Serlio et son influence en France'. in: *Les traités d'architecture de la Renaissance: Actes du Colloque (Tours, 1-11 July 1981)*. Edited by Jean Guillaume. Paris: Picard, 1988, 407-423.
- Bojan Goja. 'Zadarska stambena kuća u arhivskim izvorima 17. i 18. stoljeća'. *Radovi Instituta za povijest umjetnosti*, no. 41 (2017): 157-169.
- , 'Kuća Cattinelli 1772. godine: prilog poznavanju stambene arhitekture u Zadru u 18. stoljeću'. *Radovi Instituta za povijest umjetnosti*, no. 43 (2019): 221-230.
- Sante Gracioti, ed. *Il libro nel bacino adriatico (secc. XV-XVIII): Conference Proceedings (Venice, Fondazione Giorgio Cini, 7-10 November 1989)*. Florence: L.S. Olschki, 1992.
- Nada Grujić. 'Ljetnikovac Klementa Gučetića u Rijeci Dubrovačkoj (Podloga, zamisao, izvedba)'. *Radovi Instituta za povijest umjetnosti*, no. 11 (1 December 1987): 115-141.
- , 'Ljetnikovac Vice Stjepovića-Skočibuhe kod Tri crkve u Dubrovniku. Ishodište arhitektonskog tipa'. *Radovi Instituta za povijest umjetnosti* 12-13 (1988): 215-227.
- , *Ladanjska arhitektura dubrovačkog područja*. Zagreb: Institut za povijest umjetnosti Sveučilišta u Zagrebu, Matica hrvatska, 1991.
- , 'Klasični rječnik stambene renesansne arhitekture Dubrovnika'. *Peristil* 35-36 (1993): 121-142.
- , 'Ljetnikovac Stay-Kaboga u Rijeci dubrovačkoj – rezultati istražnih radova provedenih 1993. godine'. *Radovi Instituta za povijest umjetnosti*, no. 20 (2 December 1996): 83-103.
- , 'Les villas de Dubrovnik aux XVe et XVIe siècles'. *Revue de l'art* 115 (1997): 42-51.
- , 'Zidni umivaonici XV. i XVI. stoljeća u stambenoj arhitekturi dubrovačkog područja'. *Radovi Instituta za povijest umjetnosti*, no. 23 (1 December 1999): 63-82.
- , *Kuća u Gradu: studije o dubrovačkoj stambenoj arhitekturi 15. i 16. stoljeća*. Dubrovnik: Matica hrvatska, Ogranak Dubrovnik, 2013.
- Cristiano Guarneri. 'Editoria e cultura militare a Brescia in epoca moderna: Un primo censimento delle edizioni (1473-1797)'. in: *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo*. Edited by Irene Giustina. Palermo: Caracol, 2015, 7-31.
- , 'Trattati e trattatisti di architettura militare a Brescia nel

- Cinquecento'. in: *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo*. Edited by Irene Giustina. Palermo: Caracol, 2015, 31–40.
- . 'Il manoscritto sugli orologi solari Lat. VIII, 42=3097'. in: Cosimo Monteleone, *La prospettiva di Daniele Barbaro: Note critiche e trascrizione del Manoscritto It. IV, 39=5446*. Canterano (RM): Aracne editrice, 2020, 163–179.
- . 'On the Trail of a Peripatetic Vitruvian Reader: New Insights on Giovanni Battista Fontana in the Late Seventeenth-Century Eastern Adriatic'. *Ars Adriatica* 14 (2024): 209–240. Online: <https://doi.org/10.15291/ars.4639>.
- . 'Circulation, Use, Impact: An Evidence-Based Enquiry into the Consumption of Architectural Books in Baroque Slovenia'. in: *Periferija ali regionalni centri? Tri stoletja umetnosti med Srednjo Evropo in Jadranom (1400–1700)*. Edited by Janez Hoefler and Matej Klemenčič. Ljubljana: SAZU, 2026 (forthcoming).
- Cristiano Guarneri and Ines Ivić. 'Books, Buildings, and Construction Techniques: Materiality of Architectural Knowledge in the Republic of Ragusa during the Early Modern Period'. *RIHA Journal*, 322 (2025).
- Jasenska Gudelj. 'Gli ambienti della cultura nobiliare in Istria: Gli edifici della famiglia Scampicchio'. *Atti di Centro di ricerche storiche Rovigno* 36 (2006): 55–116.
- . 'Serlio, Palladio, Vitruvio Ferrarese: renesansna viđenja velikog rimskog teatra u Puli'. *Prilozi povijesti umjetnosti u Dalmaciji* 42 (2011): 251–273.
- . 'Architettura e diplomazia tra Roma e Dubrovnik: San Girolamo dei Croati e la cattedrale di Dubrovnik nel secondo Seicento'. *Römisches Jahrbuch der Bibliotheca Hertziana* 40 (2011–2012): 185–239.
- . *Europska renesansa antičke Pule*. Zagreb: Školska knjiga, 2014.
- . 'Radionice i klasični jezik u ranome novome vijeku: traktati i crteži na istočnoj obali Jadrana'. in: *Majstorske radionice u umjetničkoj baštini Hrvatske: Zbornik radova znanstvenog skupa 'Dani Cvita Fiskovića' održanog 2012. godine*. Edited by Dino Milinović, Ana Marinković, and Ana Munk. Zagreb: FF Press, 2014, 101–121.
- . 'Architectural Treatises and the East Adriatic Coast: Cultural Transfers and the Circulation of Knowledge in the Renaissance'. in: *Artistic Practices and Cultural Transfer in Early Modern Italy: Essays in Honour of Deborah Howard*. Edited by Nebahat Avcioglu and Allison Sherman. Farnham: Ashgate, 2015, 107–127.
- . 'The Circulation of Building Materials: Pozzolana in the Baroque Dubrovnik'. *Construction History: International Journal of the Construction History Society* 31/1 (2016): 61–74.
- . 'The Hospital and Church of the Schiavoni/Illyrian Confraternity in Early Modern Rome'. *Confraternitas* 27/ 1–2 (2016): 5–29.
- . 'Stato da Mar: L'architettura: Il Cinquecento in Istria e in Dalmazia'. In: *Storia dell'architettura nel Veneto: Il Cinquecento*. Edited by Donata Battilotti, Guido Beltrami, Edoardo Demo, and Walter Panciera. Venice: Marsilio, 2016, 262–267.
- Jasenska Gudelj. 'Arhitektura ranonovovjekovnog Labina: modeli, naručitelji, radionice'. in: 1. *Labinski povijesni susreti, Zbornik radova sa znanstveno-stručnog skupa*. Edited by Slaven Bertoša, Labin: Grad Labin, 2017, pp. 144–182.
- . 'Pula and Split: The Early Modern Tale(s) of Two Ancient Cities'. in: *A Handbook to Classical Reception in Eastern and Central Europe*. Edited by Zara Martirosova Torlone, Dana LaCourse Munteanu, and Dorota Dutsch. Chichester: Wiley Blackwell, 2017, 21–34. online: <https://www.bib.irb.hr/867563>.
- . 'Il cerimoniale e la storia: Le committenze del vescovo Marino Bozzatini (1742–1754) a Cittanova e Buie'. in: *Mens acris in corpore commodo: Festschrift in Honour of the 70th Birthday of Ivan Matejčić*. Edited by Marijan Bradanović and Miljenko Jurković. Zagreb–Motovun: University of Zagreb International Research Centre for Late Antiquity and the Middle Ages & Faculty of Humanities and Social Sciences, 2021, 423–437.
- . 'The "Korčula Sketchbook" and the Architectural Culture of the Early Modern Dalmatia'. Paper presented at the 68th Annual Meeting of the Renaissance Society of America, Dublin, 30 March 2022.
- . 'Introduzione: Il Rinascimento e l'Adriatico orientale'. In *Norme e modelli: Il Rinascimento e l'Adriatico orientale*. Edited by Jasenska Gudelj. Rome: Aracne, 2023, 13–19.
- . 'Ekosustav hvarskog povijesnog kazališta'. in: *Zbirka hvarskog povijesnog kazališta*. Edited by Katija Borak and Joško Bracanović. Hvar: Muzej hvarske baštine, 2024, 11–38.
- . '"Unir Pallade e Marte": Il teatro di Lesina (Hvar), situato nell'Arsenale'. in: *Architecture et scénographie dans les théâtres mineurs 1750–1850*. Edited by Raphaël Bortolotti, Giulia Brunello, and Annette Kappeler. Baden-Baden: Ergon Verlag, 2025, 65–84.
- Jasenska Gudelj and Dubravka Botica. *Arte et marte: knjige o arhitekturi u Zrinjani*. Zagreb: Nacionalna i sveučilišna knjižnica, 2012.
- Jasenska Gudelj, Francesca Coltrinari, and Giuseppe Capriotti, eds. *Visualizing Past in a Foreign Country: Schiavoni/Illyrian Confraternities and Colleges in Early Modern Italy in Comparative Perspective*. Macerata: Edizioni Università di Macerata, 2018. online: <https://www.bib.irb.hr/976376>.
- Jasenska Gudelj and Cristiano Guarneri. 'Između teorije i prakse: redovnici arhitekti i tiskane knjige o arhitekturi u kontekstu samostanske kulture ranomodernoga istočnog Jadrana'. in: *Dominikanci na hrvatskim prostorima, 1221–2021*. Edited by Ana Biončić and Slavko Šlišković. Zagreb: Dominikanska naklada Istina-HDP, 2024, 171–191.
- . 'Materiali e costruzione nell'Adriatico'. in: *Geografia e storia dell'architettura: Il Rinascimento*. Edited by Francesca Mattei. Rome: Carocci, 2025 (forthcoming).
- Jasenska Gudelj and Anita Ruso. 'Tiskani renesansni traktati o arhitekturi u Dubrovniku'. *Peristil* 56 (2013): 101–112.
- Jasenska Gudelj and Petar Strunje. 'Palladio i Dioklecijanova palača: renesansni arhitektonski crteži splitskog sklopa'. *Ars Adriatica* 5 (2015): 127–140.
- . 'Andrea Palladio e i disegni del Palazzo di Diocleziano a Spalato'. in: *Norme e modelli: Il Rinascimento e l'Adriatico orientale*. Edited by Jasenska Gudelj. Rome: Aracne, 2023, 95–115.
- Jean Guillaume, ed. *Les traités d'architecture de La Renaissance: Actes du Colloque (Tours, 1–11 July 1981)*. Paris: Picard, 1988.
- . *L'emploi des ordres dans l'architecture de la Renaissance: Actes du colloque (Tours du 9 au 14 Juin 1986)*. Paris: Picard, 1992.
- John Rigby Hale. 'Industria del libro e cultura militare a Venezia nel Rinascimento'. in: *Storia della cultura veneta*. Edited by Giovanni Arnaldi and Manlio Pastore Stocchi. Vicenza: Neri Pozza Editore, 1980, 3.2: 245–288.
- Laurence Hall Fowler and Elizabeth Baer, eds. *The Fowler Architectural Collection of the John Hopkins University: Catalogue* (Woodbridge: Research Publications, 1982).
- Slavko Harni. 'Venecija u hrvatskoj tiskarskoj topografiji Divkovića doba'. in: *Znanstveni skup: Matija Divković i kultura pisane riječi*. Edited by Marko Karamatić. Sarajevo: Franjevačka teologija Sarajevo, 2014, 309–355.
- Vaughan Hart and Peter Hicks, eds. *Paper Palaces: The Rise of the Renaissance Architectural Treatise*. New Haven: Yale University Press, 1998.
- Carl Alexander von Heideloff. *Der kleine Altdutsche (Gothe) oder Grundzüge des altdutschen Baustyles: Zum Handgebrauch für Architekten und Steinmetzen, besonders für technische Lehranstalten* 1. 1. 3 vols. Nürnberg: Riegel und Wiefner, 1849.
- Katarina Horvat-Levaj. *Barokna arhitektura*. Zagreb: Naklada Ljevak, 2015.
- Ekaterina Igoshina, Il'ja Anik'ev, and Anna Markova. 'Kommentarii Daniele Barbaro na poljakh izdanija Vitruvija 1511 goda iz GMII im. A.S. Pushkina: Put' atribucii i opyt datirovki'. *Iskusstvoznanie*, no. 1 (2021): 264–297.
- . 'Marginal Notes by Daniele Barbaro in the 1511 Edition of Vitruvius from the Pushkin State Museum of Fine Arts Collection: Attribution Process and Dating Method'. in: *Daniele Barbaro and the University of Padova: Architecture, Art and Science on the Occasion of the 450th Anniversary of His Death*. Edited by Cosimo Monteleone and Kim

- Williams. Cham: Springer Basel AG, 2023, 163–190.
- Mario Infelise. *I Remondini di Bassano: Stampa e industria nel Veneto del Settecento*. Bassano: Ghedina e Tassotti, 1980.
- Katherine Isard. 'Architectural Criticism in Late-Sixteenth Century Italy: Vincenzo Scamozzi's Annotations to Pietro Cataneo's L'architettura (1567)'. *Annali di architettura* 26 (2013): 134–154.
- . 'Vincenzo Scamozzi in the World of Books: I. The Materials of Architectural Knowledge; II. A New Latin Notebook and the Role of Eruditio in Vincenzo Scamozzi's Architectural Theory and Practice'. *Annali di architettura* 27 (2015): 31–46.
- Radovan Ivančević. 'Trogirska krstionica (1467) i montažne konstrukcije dalmatinske graditeljske škole'. *Prilozi povijesti umjetnosti u Dalmaciji* 30 (1990): 145–185.
- . 'Mjerni trokut na trogirskoj krstionici'. *Prilozi povijesti umjetnosti u Dalmaciji* 34 (1994): 111–120.
- . 'Proporcije trolisnih renesansnih pročelja u Hrvatskoj'. *Peristil* 41 (1998): 59–68.
- Milan Ivanišević. 'Namjera gradnje grčke pravoslavne crkve u Splitu'. *Kulturna baština*, no. 36 (27 December 2010): 31–40.
- Nicola Ivanoff. 'Bellucci, Antonio'. In *Dizionario biografico degli italiani*. Vol. 8. Rome: Treccani, 1966. Accessed 30 November 2023, online: [https://www.treccani.it/enciclopedia/antonio-bellucci_\(Dizionario-Biografico\)](https://www.treccani.it/enciclopedia/antonio-bellucci_(Dizionario-Biografico)).
- Egidio Ivetić. *Adriatico orientale: Atlante storico di un litorale mediterraneo*. Collana degli atti 37. Rovinj: Centro di Ricerche Storiche, 2014.
- . *Storia dell'Adriatico: Un mare e la sua civiltà*. Bologna: Il Mulino, 2019.
- Viki Jakaša. 'Barokna stambena arhitektura u Splitu'. *Radovi Instituta za povijest umjetnosti* 26 (2002): 57–68.
- Alice Jarrard. 'Theatre and Architecture: Toward a Material History of Renaissance Theatre'. in: *Renaissance and Baroque Architecture*, edited by Alina Payne. Oxford: John Wiley & Sons, 2017, 1:160–190.
- Constantin Jireček. 'Beiträge zur Ragusanischen Literaturgeschichte: Beilagen. 4. Inventar einer Buchersendung aus Venedig'. *Archiv für Slavische Philologie* 21 (1899): 399–515.
- Neven Jovanović. 'Pismo Danielea Clarija dubrovačkom nadbiskupu o Epidauru, 1505'. *Colloquia Maruliana* 32 (2023): 81–106.
- Šime Jurić. 'Prilozi biografiji Ivana Gazulića'. *Analiz Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 8–9 (1962): 447–479.
- . 'Dobričević, Dobrič'. in: *Hrvatski biografski leksikon*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2024. Accessed 13 April 2025, online: <https://hbl.lzmk.hr/clanak/dobricevic-dobric-tiskar>.
- Stanislav Južnić. 'O arhitekturi u Turjaški Knjižnici'. *Knjižnica: Revija za područje Bibliotekarstva i Informacijske Znanosti* 52/2–3 (2008): 7–27. online: <https://doi.org/10.55741/knj.52.2-3.14229>
- Haroutune Y. Kalayan and Jacques Ligier-Belair. *L'habitation au Liban*. 2 vols. Beirut: Association pour la protection des sites et anciennes demeurs, 1966.
- Ambroz Kapor. 'Renesansna biblioteka Žilković u Korčuli'. *Bibliotekar* 18/1–3 (1966): 97–119.
- Ljubo Karaman. *O djelovanju domaće sredine u umjetnosti hrvatskih krajeva*. Zagreb: Društvo historičara umjetnosti NRH, 1963.
- David Karmon. 'Vitruvius and the Early Modern Worksite'. in: *Brill's Companion to the Reception of Vitruvius*. Edited by Ingrid D. Rowland and Sinclair W. Bell. Leiden: Brill, 2024, 456–475. online: https://doi.org/10.1163/9789004688704_026.
- Duško Kečkemet. 'Crteži i grafike Dioklecijanove palače Fischera von Erlacha'. *Peristil* 30 (1987): 127–138.
- Frano Kesterčanek. 'Renesansni dvorci obitelji Stjepovića-Skočibuhe na Šipanu'. *Analiz Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*, nos. 8–9 (21 June 1962): 139–153.
- . 'Ljetnikovac Gundulić', *Analiz Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*, 36 (1998), pp. 121–192.
- Josip Kolanović. 'Knjižnice dvaju šibenskih svećenika iz sredine XV. stoljeća'. *Croatia Christiana periodica* 3 (1979): 124–130.
- Mijo Korade. 'Gučetić, Ivan Ml.' in: *Hrvatski biografski leksikon*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002. Accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic-ivan-ml>.
- Ivan Kosić, ed. *Bibliotheca Zriniana: katalog izložbe u povodu 350. obljetnice smrti Nikole VII. Zrinskoga*. Zagreb: Nacionalna i sveučilišna knjižnica, 2014.
- Joško Kovačić. 'Mjernik i graditelj Giovanni Battista Camozzini'. *Kulturna baština* 24–25 (1994): 85–102.
- Vanja Kovačić. 'Prilog za tipologiju kasnorenesansnih kamina'. *Klesarstvo i graditeljstvo* 28/1–2 (28 June 2018): 28–41.
- Stjepan Krasić. 'Trogiranin Fantin de Valle i njegova knjižnica'. *Radovi Instituta JAZU u Zadru* 20 (1973): 367.
- . *Ivan Dominik Stratiko (1732–1799). Život i djelo*. Split: Književni krug, 1991.
- Hanno-Walter Kruft. *Storia delle teorie architettoniche da Vitruvio al Settecento*. Bari: Laterza, 1988.
- Nina Kudiš. 'Projekt Giacomina Briana za isusovačku crkvu sv. Vida u Rijeci'. *Prilozi povijesti umjetnosti u Dalmaciji* 34 (1994): 269–283.
- . 'Tutte le opere d'architettura et prospettiva di Sebastiano Serlio (1619) i praksa izrade drevnih oltara u Istri'. *Annales, Series Historia et Sociologia* 4 (1994): 93–102.
- Božena Kukulja and Vladimir Magić, eds. *Bibliotheca Valvasoriana: katalog knjižnice Janeza Vajkarda Valvasorija v biblioteki Metropolitani v Zagrebu*. Ljubljana-Zagreb: Valvasorjev odbor pri Slovenski akademiji znanosti in umetnosti-Nacionalna i sveučilišna knjižnica Zagreb, 1995.
- Ivan Kukuljević Sakcinski. 'Tiskari jugoslavenski XV. i XVI. veka'. *Archiv za povestnicu jugoslavensku* 1 (1851): 121–154.
- . *Slovník umjetnikah jugoslavenskih*. Zagreb: tiskom Narodne tiskarne Dra. Ljudevita Gaja, 1858.
- Zvonimir Kulundžić. 'Glagoljaška štamparija XV-XVI stoljeća: Kosinjsenjski zbornik: prilozi za geografiju, etnologiju, gospodarstvo, povijest i kulturu 2 (1966): 167–308.
- Miroslav A. Lazić. *Božidar Vuković: između istorije i imaginacije*. Belgrade: Narodna biblioteka Srbije, 2022.
- Paula Lee. 'François Cointeraux and the School of "Agritecture" in Eighteenth-Century France'. *Journal of Architectural Education* 60/4 (2007): 39–46.
- Marina Ljubić. 'Macanović, Ignacije'. In *Hrvatski biografski leksikon*, 2018–2021. Accessed 23 May 2025, online: <https://hbl.lzmk.hr/clanak.aspx?id=12089>.
- Juraj Lokmer and Fila Bekavac-Lokmer. 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Katarine u Krapini'. *Croatia Christiana periodica* 41/80 (21 December 2017): 143–206.
- . 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Samoboru'. *Croatia Christiana periodica* 40/78 (22 December 2016): 235–288.
- . 'Zbirke stranih rijetkih knjiga XVI. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Čakovcu'. *Croatia Christiana periodica* 41/79 (20 May 2017): 175–208.
- . 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan u Slavonskome Brodu'. *Croatia Christiana periodica* 42/81 (20 June 2018): 143–189.
- . 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Ivana Krstitelja u Kloštar Ivaniću'. *Croatia Christiana periodica* 43/83 (27 June 2019): 219–268.
- . 'Zbirke stranih rijetkih knjiga 16. stoljeća u knjižnicama Hrvatske franjevačke provincije sv. Ćirila i Metoda: Franjevački samostan sv. Križa u Osijeku'. *Croatia Christiana periodica* 43/84 (18 December 2019): 123–183.
- Pamela O. Long. 'Architecture and the Sciences'. in: *Renaissance and Baroque Architecture*. Edited by Alina Payne. Oxford: John Wiley & Sons, 2017, 1:191–219.
- Bratislav Lučin. 'Studia humanitatis u Marulićevoj knjižnici'. *Colloquia Maruliana* 6 (1997): 170–201.
- . 'Pogled u knjižnicu Marka Antuna de Dominisa'. in: *Marko Antun*

- de Dominis, *splitski nadbiskup, teolog i fizičar*. Edited by Vesna Tujdina. Split: Književni krug, 2006, 231-270.
- . 'Marko Marulić i Padova'. *Kulturna baština* 39 (2013): 39-58.
- Ivan Lupić. 'Marulić u Dubrovniku'. *Colloquia Maruliana* 30 (2021): 5-51.
- Vinicije B. Lupis. 'O sakralnoj baštini Blata XIX. i XX. stoljeća'. *Prilozi povijesti umjetnosti u Dalmaciji* 41 (2008): 449-471.
- Carlo Mambriani, ed. *Il torchio e l'architetto: Opere a stampa e biblioteche di architettura nei ducati di Parma e Piacenza in età farnesiana (1545-1731)*. Rome: Quasar, 2013.
- Corrado Marciani. 'Troiano Navò di Brescia e suo figlio Curzio: Librai-editori del secolo XVI'. *La bibliofilia* 73 (1971): 49-60.
- Susy Marcon and Laura Moretti, eds. *Daniele Barbaro, 1514-70: Letteratura, scienza e arti nella Venezia del Rinascimento*. Crocetta del Montello: Antiga edizioni, 2015. online: http://bvbr.bib-bvb.de:8991/F?func=service&doc_library=BVB01&local_base=BVB01&doc_number=028745689&sequence=000002&line_number=0001&func_code=DB_RECORDS&service.type=MEDIA |3 Inhaltsverzeichnis.
- Lujko Margetić. 'Oporuka Marka Marulića'. *Colloquia Maruliana* 14 (2005): 25-71.
- Stefano Margutti. 'L'insegnamento dell'architettura a Brescia alla metà del XVIII secolo: Federico Sanvitale e il suo trattato "Elementi di architettura civile"'. in: *Libri d'architettura a Brescia: Editoria, circolazione e impiego di fonti e modelli a stampa per il progetto tra XV e XIX secolo*. Edited by Irene Giustina. Palermo: Edizioni Caracol, 2015, 105-154.
- Fernando Marías and Augustín Bustamante. 'Trattatistica teorica e Vitruvianesimo nella architettura spagnola del Cinquecento'. in: *Les traités d'architecture de la Renaissance: Conference Proceedings (Tours, 1-11 July 1981)*. Edited by Jean Guillaume. Paris: Picard, 1988, 307-315.
- Paola Marini. 'Le postille di Inigo Jones a "I quattro libri dell'architettura" di Andrea Palladio'. In *Trattati scientifici nel Veneto fra il XV e XVI secolo*, Ed. by Ezio Riondato. Vicenza: Neri Pozza Editore, 1985, 73-102.
- Vladimir Marković. 'Crkva sv. Servola u Bujama – izgradnja i arhitektura'. *Peristil* 34 (1991): 69-80.
- . 'Neopaladijevske jednobrodne crkve 18. stoljeća u sjevernojadranskoj Hrvatskoj'. *Prilozi povijesti umjetnosti u Dalmaciji* 33 (1992): 425-458.
- . 'Jednobrodne crkve s parom kapela iz 17. i 18. stoljeća u Istri'. *Peristil* 35-36 (1993): 169-180.
- . 'Jedan tip trobrodних istarskih crkava 17. i 18. stoljeća'. *Radovi Instituta za povijest umjetnosti* 21 (1997): 86-95.
- . 'Crkve 17. i 18. stoljeća u sjevernojadranskoj Hrvatskoj'. *Peristil* 42-43 (1999): 97-114.
- . 'Crkve 17. i 18. stoljeća u Istri – tipologija i stil'. Zagreb: Institut za povijest umjetnosti, 2004.
- . 'Škrinja sv. Šimuna i arhitektura u Zadru oko 1600.'. *Peristil* 48 (2005): 95-108.
- . 'Kapela blaženog Ivana Trogirskog Nikole Firentinca i sakralna arhitektura u Dalmaciji 300 godina poslije'. *Radovi Instituta za povijest umjetnosti* 31 (2007): 121-130.
- . 'Katedrale i trobrodne župne crkve 17. i 18. stoljeća u Dalmaciji'. in: *Umjetnički dodiri dviju jadranskih obala u 17. i 18. stoljeću: zbornik radova sa znanstvenog skupa održanog 21. i 22. studenog 2003. godine u Splitu u povodu 5. obljetnice smrti Krune Prijatelja*. Edited by Vladimir Marković and Ivana Prijatelj Pavičić. Split: Književni krug, 2007, 17-30.
- . 'Dalmatinske crkve 17. i 18. stoljeća sa šiljastim bačvastim svodom i pojasnicama – ishodišta i putovi usvajanja'. *Radovi Instituta za povijest umjetnosti* 32 (2008): 115-138.
- Radmila Matejčić. 'Barok u Istri i Hrvatskom primorju'. in: Anđela Horvat, Radmila Matejčić, and Kruno Prijatelj, *Barok u Hrvatskoj*. Zagreb: Sveučilišna naklada Liber, Odjel za povijest umjetnosti Centra za povijesne znanosti, Društvo povjesničara umjetnosti Hrvatske, Grafički zavod Hrvatske, 1982, 385-650.
- . *Crkva Svetog Vida*. Rijeka: Izdavački centar Rijeka, 1994.
- . *Kako čitati grad: Rijeka jučer, danas*. Rijeka, 2007.
- Francesca Mattei and Francesca Salatin. 'Un Vitruvio postillato alla Biblioteca Comunale Teresiana di Mantova'. *Arte lombarda* 173-174/1-2 (2015): 52-76.
- Giuliana Mazzi and Stefano Zaggia. 'Architetto sia l'ingegnere che discorre: Ingegneri, architetti e protti nell'età della Repubblica'. Venice: Marsilio, 2004.
- Indra Kagis McEwen. *All the King's Horses: Vitruvius in an Age of Princes*. Cambridge, MA: MIT Press, 2023.
- Miloš Milošević. 'Sedam nepoznatih pisama Marka Marulića'. *Colloquia Maruliana* 1 (1992): 5-31.
- Cosimo Monteleone. *La prospettiva di Daniele Barbaro: Note critiche e trascrizione del manoscritto It. IV, 39=5446: Con la prefazione di Kim Williams a un contributo di Cristiano Guarneri*. Rome: Aracne, 2020.
- Marco Moroni. 'Trgovci iz gradova pokrajine Marche aktivni u Dubrovniku u 16. stoljeću'. *Analiza Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 55 (2017): 171-188. online: <https://doi.org/10.21857/m16wjcp5v9>.
- Laura Moretti, 'Ancora sulla "Scenographia": i manoscritti preparatori per la parte quarta de "La pratica della prospettiva" di Daniele Barbaro (1568)' in *Daniele Barbaro 1514-1570: Vénitien, Patricien, Humaniste*, Ed. by Frédérique Lemerle et al. (Turnhout: Brepols, 2017), 221-251.
- Manuela Morresi. 'Treatises and the Architecture of Venice in the Fifteenth and Sixteenth Centuries'. in: *Paper Palaces: The Rise of the Renaissance Architectural Treatise*. Edited by Vaughan Hart and Peter Hicks. New Haven: Yale University Press, 1998, 263-280.
- Museo Galileo, Florence. 'Bibliotheca Perspectivae', Accessed 23 May 2025, online: <https://bibdigtematiche.museogalileo.it/Prospettiva/>.
- Nacionalna i sveučilišna knjižnica u Zagrebu, Project Zrinski, Accessed 21 May 2025, online, <http://virtualna.nsk.hr/zrinski/>
- Maria Consiglia Napoli. *L'impresa del libro nell'Italia del Seicento: La bottega di Marco Ginammi*. Naples: Guida, 1990.
- Anica Nazor. 'O glagoljskoj tiskari u Senju i njezinim izdanjima (1494-1508)'. *Senjski zbornik: prilozi za geografiju, etnologiju, gospodarstvo, povijest i kulturu* 41 (2014): 211-243.
- Valérie Nègre, 'Les figures de l'architecte "savant" (XVe-XVIII siècles)', in *L'Europe des Sciences et des Techniques: Un Dialogue des Savoirs, XVe-XVIII siècle*, ed. by Liliane Hilaire-Pérez, Fabien Simon, and Marie Thébaud-Sorger (Rennes: Presses Universitaires de Rennes, 2016), 133-139.
- Francesca Nepori. 'Padre Carlo Giuseppe Ghigliotti e le biblioteche religiose a Genova durante la Repubblica Democratica Ligure (1797-1805)'. in: *Itinerari del libro nella storia: Per Anna Giulia Cavagna a trent'anni dalla prima lezione*. Edited by Francesca Nepori, Fiammetta Sabba, and Paolo Tinti. Bologna: Pàtron, 2017, 259-268.
- John Newman. 'Inigo Jones e la sua copia de "I quattro libri" di Palladio'. *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio* 22/2 (1980): 41-62.
- Goran Nikšić. *Marko Andrijić i njegov doprinos dalmatinskom renesansnom graditeljstvu*. doctoral thesis, Filozofski fakultet Sveučilišta u Zagrebu, 2012.
- . 'Graditeljski polet i procvat klesarstva u Korčuli 15. i 16. stoljeća'. in: *Scripta in honorem Igor Fisković. Zbornik povodom sedamdesetog rođendana. Festschrift on the Occasion of His 70th Birthday*. Edited by Miljenko Jurković and Predrag Marković. Zagreb-Motovun: FF Open Press - izdanja Filozofskog fakulteta u Zagrebu u otvorenom pristupu, 2013, 247-259. <https://doi.org/10.17234/9789531755887>.
- . 'Korčulani u Mantovi – organizacija klesarske radionice za veliku narudžbu'. *Peristil* 56 (2013): 81-86.
- Grga Novak. 'Petar Semitecolo, posrednik u izmirivanju plemića i pučana i graditelj Arsenala, Belvedera i Teatra u Hvaru'. *Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti Hrvatske akademije znanosti i umjetnosti* 4 (1961): 93-171.
- Slobodan P. Novak. 'Scenografija'. in: *Leksikon Marina Držića*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009. Accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/scenografija/>.
- Angela Nuovo. *The Book Trade in the Italian Renaissance*. Leiden: Brill, 2013.
- . 'The Prices of Books in Italy (XV-XVI Centuries)'. in: *I prezzi delle cose*

- nell'età preindustriale. *Selezione di ricerche/The Prices of Things in Pre-Industrial Times: Selection of Essays*. Edited by Istituto internazionale di storia economica F. Datini. Florence: Firenze University Press, 2017, 107–127.
- Stijepo Obad. 'Studenti dalmati all'Università di Padova'. *Atti di Centro di ricerche storiche Rovigno* 31/1 (2001): 469–478.
- Werner Oechslin, Tobias Büchi, and Martin Pozgai. *Architekturtheorie im deutschsprachigen Kulturraum 1486–1648*. Basel: Colmena-Bibliothek Werner Oechslin, 2018.
- Werner Oechslin, "Sciographia", die vierte Darstellungsform ("species dispositionis"): Daniele Barbaro, Andrea Palladio un die kodifizierung der Architekturzeichnung, in *Daniele Barbaro 1514–1570: Vénitien, Patricien, Humaniste*, Ed. by Frédérique Lemerle et al. (Turnhout: Brepols, 2017), 199–220.
- Vjeko Omašić. 'Obnova trogirskog kazališta koncem XVIII stoljeća'. *Dani hvarskega kazališta: grada i rasprave o hrvatskoj književnosti i kazalištu* 1 (1975): 111–122.
- John Onians. *Bearers of Meanings: The Classical Orders in Antiquity, the Middle Ages, and the Renaissance*. Princeton: Princeton University Press, 1988.
- Johan Östling, David Heidenblad Larsson, Erling Sandmo, Anna Nilsson Hammar, and Kari Nordberg, eds. *Circulation of Knowledge: Explorations in the History of Knowledge*. Lund: Nordic Academic Press, 2018.
- Pier Nicola Pagliara. 'Vitruvio da testo a canone'. in: *Memoria dell'antico nell'arte italiana*. Edited by Salvatore Settis. Turin: Einaudi, 1986, 35–85.
- Andrea Palladio. *I quattro libri dell'architettura*. Venezia, 1570.
- Giovanni Di Pasquale. 'Vitruvius' Science of Machines: Tradition or Innovation? in: *Brill's Companion to the Reception of Vitruvius*. Edited by Ingrid D. Rowland and Sinclair W. Bell. Leiden: Brill, 2024, 612–626. online: https://doi.org/10.1163/9789004688704_026.
- Jerzy Paszenda. 'Briano, Giacomo'. in: *Dizionario biografico degli italiani*. Vol. 14. Rome: Treccani, 1972. Accessed 27 May 2025, online: <https://www.treccani.it/enciclopedia/giacomo-briano>. (Dizionario-Biografico).
- Ada Pavlič-Cortiero. 'Arhitektura baroknog kazališta u Hrvatskoj'. *Prostor: znanstveni časopis za arhitekturu i urbanizam* 3/1 (1995): 141–162.
- Alina Alexandra Payne, *The Architectural Treatise in the Italian Renaissance: Architectural Invention, Ornament, and Literary Culture*. Cambridge: Cambridge University Press, 2010.
- . *The Telescope and the Compass: Teofilo Gallaccini and the Dialogue between Architecture and Science in the Age of Galileo*. Florence: Olschki, 2012.
- . *Renaissance and Baroque Architecture*. Vol. 1. Oxford: John Wiley & Sons, 2017.
- Alina Alexandra Payne and Giovanni Maria Fara, eds. *Teofilo Gallaccini. Teofilo Gallaccini: Selected Writings and Library*. Edited by Alina Alexandra Payne and Giovanni Maria Fara. Florence: Olschki, 2012.
- Milan Pelc. *Natale Bonifacio*. Zagreb, Šibenik: Institut za povijest umjetnosti, Gradska knjižnica 'Juraj Šižgorić', 1997.
- Simon Pepper and Nicholas Adams. *Firearms & Fortifications: Military Architecture and Siege Warfare in Sixteenth-Century Siena*. Chicago: University of Chicago Press, 1986.
- Olga Perić. 'Gučetić, Ivan'. in: *Hrvatski biografski leksikon*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002. Accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic-ivan>.
- Perislav Petrić. 'Topografske bilješke splitskog polja'. *Kulturna baština*, no. 17 (31 December 1987): 135–142.
- Andrew Pettegree. *The Book in the Renaissance*. New Haven: Yale University Press, 2010.
- Andrew Pettegree, Arthur der Weduwen, and University of St Andrews. 'Universal Short Title Catalogue'. online: <https://www.ustc.ac.uk/search>. Accessed 5 November 2024.
- Stefano Piazza, ed. *La circolazione dei modelli a stampa nell'architettura di età moderna*. Palermo: Caracol, 2013.
- Franco Pignatti. 'Torresano, Andrea'. in: *Dizionario biografico degli italiani*. Vol. 96. Rome: Treccani, 2019. Accessed 27 May 2025, online: https://www.treccani.it/enciclopedia/andrea-torresano_%28Dizionario-Biografico%29/.
- Giuseppe Maria Pilo. 'Per trecentosettantasette anni: La gloria di Venezia nelle testimonianze artistiche della Dalmazia'. Mariano del Friuli: Edizioni della Laguna, 2000.
- Plutarch. *La prima [-seconda] parte delle vite [...] di greco in latino & di latino in volgare tradotte*. 2 vols. Venice: Bernardino Bindoni, 1537.
- Irene Polverini Fosi. 'Crescenzi, Bartolomeo'. in: *Dizionario biografico degli italiani*. Vol. 30. Rome: Treccani, 1984. Accessed 26 May 2025, online: https://www.treccani.it/enciclopedia/bartolomeo-crescenzi_%28Dizionario-Biografico%29/.
- Polybius. *Polibio storico greco tradotto per M. Lodovico Domenichi et nuovamente da lui riveduto & corretto*. Venice: Gabriel Giolito de Ferrari, 1545.
- Antonio Possevino, *Bibliotheca selecta qua agitur de ratione studiorum* (Rome: Typographia Apostolica Vaticana, 1593).
- Giuseppe Praga. 'Lo "Scriptorium" dell'abbazia benedettina di San Crisogono in Zara'. *Archivio storico per la Dalmazia* 7–8/39, 40, 43, 45–47 (1929–30): 127–146, 177–189, 314–325, 438–457, 481–494, 542–562, 590–611.
- . 'Rascia'. in: *Enciclopedia italiana*. Rome: Treccani, 1935. Accessed 27 May 2025, online: [https://www.treccani.it/enciclopedia/rascia_\(Enciclopedia-Italiana\)/](https://www.treccani.it/enciclopedia/rascia_(Enciclopedia-Italiana)/).
- Daniel Premerl. 'Sebastiano Serlio i tri oltara u Dalmaciji'. *Prilozi povijesti umjetnosti u Dalmaciji* 42/1 (15 August 2011): 275–285.
- Kruno Prijatelj. 'Divinić, Dominik (Difnico, Dominicus Diphnicus)'. in: *Hrvatski biografski leksikon*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 1993. Accessed 15 April 2024, online: <https://hbl.lzmk.hr/clanak.aspx?id=4867>.
- . 'Dokumenti za historiju dubrovačke barokne arhitekture'. in: *Tkalčićev zbornik: zbornik radova posvećenih sedamdesetogodišnjici Vladimira Tkalčića*. Edited by Ivan Bach. Zagreb: Muzej za umjetnost i obrt, 1958, 2:117–156.
- Ivana Prijatelj Pavičić and Lovorka Čoralčić. 'Arhivska istraživanja kao prilog poznavanju kuća obitelji Macanović u Trogiru'. *Radovi Instituta za povijest umjetnosti* 25 (2001): 173–188.
- Ivica Prelender. 'Gučetić'. in: *Hrvatski biografski leksikon*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002. Accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic>.
- Petar Puhmajer. 'Dvorac Nova Kraljevica: prilozi za povijest gradnje i uređenja'. *Ars Adriatica*, no. 8 (2018): 129–152. online: <https://doi.org/10.15291/ars.2758>.
- . 'Stambene palače kasnog 18. stoljeća u Rijeci: prostorna i tipološka obilježja'. *Ars Adriatica*, no. 11 (2021): 285–310.
- Petar Puhmajer and Krasanka Majer Jurišić. 'Palača Benzoni – primjer stambene arhitekture 18. stoljeća u riječkom Starom gradu'. *Ars Adriatica*, no. 6 (2016): 185–198.
- Friedrich Ragette. *Architecture in Lebanon: The Lebanese House During the 18th and 19th Centuries*. Beirut: American University of Beirut, 1974.
- Branko Reisp. 'O nekdanji knjižnici knezov Auerspergov (Turjaških) v Ljubljani'. *Zgodovinski časopis* 43 (1989): 37–47.
- Eugenio Rizzoli. 'Chiarini, Marc'Antonio'. in: *Dizionario biografico degli italiani*. Vol. 24. Roma: Treccani, 1980. Accessed 15 January 2025, online: https://www.treccani.it/enciclopedia/marc-antonio-chiarini_%28Dizionario-Biografico%29/.
- Višnja Rogošić. 'Kazališni prostori'. in: *Leksikon Marina Držića*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009. Accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/kazalisni-prostori/>.
- . 'Serlio, Sebastiano'. in: *Leksikon Marina Držića*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009. Accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/serlio-sebastiano/>.
- . 'Vitruvije (Marcus Vitruvius Pollio)'. in: *Leksikon Marina Držića*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2009. Accessed 18 May 2025, online: <https://leksikon.muzej-marindrzic.eu/vitruvije-marcus-vitruvius-pollio/>.
- Paul Roudié. 'L'utilisation fantasiste des ordres dans le sud-ouest de la France'. in: *L'emploi des ordres dans l'architecture de la Renaissance: Actes du colloque tenu à Tours du 9 au 14 juin 1986*. Edited by Jean Guillaume.

- De architectura 5. Paris: Picard, 1992, 237–246.
- Ingrid D. Rowland. 'Vitruvius in Print and in Vernacular Translation: Fra Giocondo, Bramante, Raphael and Cesare Cesariano'. in: *Paper Palaces: The Rise of the Renaissance Architectural Treatise*. Edited by Vaughan Hart and Peter Hicks. New Haven: Yale University Press, 1998, 105–121.
- Ingrid D. Rowland and Sinclair W. Bell, eds. *Brill's Companion to the Reception of Vitruvius*. Leiden: Brill, 2024.
- Luka Ručigaj. 'Ljubljana Based Bookbinders and the Book-Trade between the Printing Centres and Ljubljana: A Case Study of the Fuerstlich Auerspergsche Fideicommissbibliothek Zu Laybach'. in: *Patrons, Intermediaries, Venetian Artists in Vienna & Imperial Domains (1650–1750)*. Edited by Enrico Lucchese and Matej Klemenčič. Florence: Edizioni Polistampa, 2022, 331–342.
- Luka Ručigaj, Monika Trojar, Anja Dular, and Sonja Svoljšak. 'Katalogi in inventarji Auerspergovih knjižnic kot pomniki njenega kulturnozgodovinskega pomena in razvoja skozi čas'. *Ars & Humanitas* 13 (2019): 123–150. online: <https://doi.org/10.4312/ars.13.1.123-150>.
- Petar Runje. 'Jerolim Mirković: Prodavač Marulićeve tiskane Judite u Zadru 1522'. *Mogućnosti* 45/4–6 (1998): 231–234.
- Giovanni Antonio Rusconi. *Della architettura [...], secondo i precetti di Vitruvio, e con chiarezza, e breuità dichiarate*. Venice: Giolito de Ferrari, Giovanni & Giolito de Ferrari, Giovanni Paolo, 1590.
- Bono Zvonimir Šagi. 'Die Kapuzinerbibliothek in Varaždin'. *Radovi Zavoda za znanstveni rad Varaždin*, nos. 8–9 (5 December 1996): 103–109.
- Paolo Sanvito. *Daniele Barbaro alla riscoperta dell'antico inedito: La fondazione dell'architettura scientifica moderna tra Cinquecento e Seicento*. Canterano: Aracne, 2016.
- Igor Sapač. 'Baroque Architects in Slovenia/Baročni arhitekti na Slovenskem'. in: *18th Century Architecture in Slovenia: Mature Baroque/Arhitektura 18. stoletja na Slovenskem: obdobje zrelega baroka*. Edited by Asja Krečič and Igor Sapač. Ljubljana: Arhitekturni muzej Ljubljana, 2007, 230–270.
- Marica Šapro-Ficović. 'Knjižnica isusovaca u Dubrovniku: Od Collegiuma Ragusinuma do današnje Rezidencije Družbe Isusove'. *Vjesnik bibliotekara Hrvatske* 50/3 (2007): 16–30.
- Marica Šapro-Ficović and Željko Vegh. 'The History of Jesuit Libraries in Croatia'. *Journal of Jesuit Studies* 2/2 (2015): 283–301.
- Nicolas Savage et al., eds. *Early printed books 1478–1840: Catalogue of the British Architectural Library early imprints collection*, 5 vols., London: Bowker-Saur, 1994–2003.
- Vincenzo Scamozzi. *L'idea della architettura universale*. 2 vols. Venice: Giorgio Valentini, 1615.
- Ljerka Schiffler-Premec. 'Gučetić, Nikola Vitov'. in: *Hrvatski biografski leksikon*. Zagreb: Leksikografski zavod 'Miroslav Krleža', 2002. Accessed 18 March 2024, online: <https://hbl.lzmk.hr/clanak/gucetic-nikola-vitov>.
- Hermann Schlimme, ed. *Practice and Science in Early Modern Italian Building: Towards an Epistemic History of Architecture*. Milan: Electa, 2006.
- Julius von Schlosser. *Die Kunstliteratur: Ein Handbuch zur Quellenkunde der neueren Kunstgeschichte*. Vienna: A. Schroll & Co., 1924.
- Aurora Scotti, ed. *Dal trattato al manuale: La circolazione dei modelli a stampa nell'architettura tra età moderna e contemporanea*. Palermo: Caracol, 2013.
- Albert Seelig. *Katalog der K.u.K. Marine-Bibliothek*, 2 vols. (Pula-Ljubljana: K.u.K. Marinetechnischen Komitee-Ig. V. Kleinmayr & Fed. Bamberg, 1905)
- Relja Seferović. 'Dubrovački knjižari 16. stoljeća u državnoj službi'. *Arhivski vjesnik* 51 (2008): 371–393.
- . 'Foundation of the Library of the Institute for Historical Sciences CASA in Dubrovnik: Preliminary Insight'. *Dubrovnik Annals*, no. 23 (9 September 2019): 111–132. online: <https://doi.org/10.21857/y7v64t5g5y>.
- Inge Šegvić-Belamarić. *Stare i rijetke knjige iz knjižnice Klasične gimnazije u Splitu: bibliofilski prilog povijesti humanizma u Dalmaciji*. Split: Glavno povjerenstvo državne uprave za zaštitu kulturne i prirodne baštine, 1995.
- Nuno Senos. 'The Classical Ideal in Portugal and the Portuguese World: From Lisbon to China'. in: *Renaissance and Baroque Architecture*. Edited by Alina Payne. Oxford: John Wiley & Sons, 2017, 1:624–652.
- Helena Seražin. *Arhitekt Giorgio Massari (1687–1766): sakralna arhitektura na Goriškem, v Furlaniji, Istri in Dalmaciji*. Ljubljana: Založba ZRC, 2007.
- Sebastiano Serlio. *Regole generali di architettura sopra le cinque maniere de gli edifici*. Venice: Per Francesco Marcolini, 1537.
- . *Il terzo libro [...] nel quale si figurano e descrivono le antichità di Roma, e le altre che sono in Italia, e fuori da Italia*. Venice: impresso per Francesco Marcolini, 1544.
- William H. Sherman. *Used Books: Marking Readers in Renaissance England*. Philadelphia: University of Pennsylvania Press, 2008.
- Vladimir Simić. 'Early Cyrillic Printed Books and the Migration of Decorative Forms between the Adriatic and the Danube around 1500'. *Zograf* 44 (2020): 189–204.
- . 'Between Venice and the Danube: Hieromonk Makarije and His Cyrillic Incunabula at the Turn of the Sixteenth Century'. in: *The Land between Two Seas: Art on the Move in the Mediterranean and the Black Sea 1300–1700*, Ed. by Alina A. Payne. Leiden: Brill, 2022, 252–270. online: https://doi.org/10.1163/9789004515468_014.
- Pamela H. Smith. *The Body of the Artisan: Art and Experience in the Scientific Revolution*. Chicago: University of Chicago Press, 2004.
- Štamparska i književna djelatnost Božidara Vukovića Podgoricanina: radovi sa naučnog skupa. Titograd: Crnogorska akademija nauka i umjetnosti, 1986.
- Ljilja Stanić. 'Istorijat Franjevačkog samostana i knjižnice u Fojnici'. *Informatica museologica* 20/3–4 (1989): 64–66.
- Gorana Stepanić. 'Knjižna ostavšina obitelji Gundulić: od Frana Franova (1539–1589) do Frana Marinova (1666–1687)'. *Colloquia Maruliana* 33 (2024): 177–193.
- Aleksandar Stipčević. 'Struktura bibliotečnih fondova u Hrvatskoj u 15. i 16. stoljeću'. *Slovo: časopis Staroslavenskoga instituta u Zagrebu* 34 (1984): 269–282.
- . 'Circolazione dei libri tra le Marche e la Dalmazia nel '500 e '600'. in: *Marche e Dalmazia tra Umanesimo e Barocco: Conference Proceedings (Ancona, 13–14 May; Osimo, 15 May 1988)*. Edited by Sante Graciotti, Marina Massa, and Giovanna Pirani. Reggio Emilia: Diabasis, 1993, 197–203.
- . 'Le biblioteche nella sponda orientale dell'Adriatico'. in: *La Biblioteca Ambrosiana tra Roma, Milano e l'Europa: Conference Proceedings, Milan, 25–27 November 2004*. Edited by Franco Buzzi and Ferro Roberta. Milan: Biblioteca Ambrosiana-Bulzoni, 2005, 191–200.
- . *Socijalna povijest knjige u Hrvata*. Vol. 2. *Od glagoljskog prvotiska (1483) do hrvatskoga narodnog preporoda (1835)*. 3 vols. Zagreb: Školska knjiga, 2005.
- . 'Inventari knjižnica kao izvori za povijest knjige s posebnim osvrtom na inventar Nikole Pavlova Gundulića iz 1469. godine'. *Libellarium: časopis za istraživanja u području informacijskih i srodnih znanosti* 1/1 (2008): 1–8.
- . 'Hrvatski autori i "nevaljali" tiskari'. in: *Knjige poštujući, knjigama poštovan: zbornik o 70. rođendanu Josipa Bratulića*. Edited by Davor Dukić and Mateo Žagar. Zagreb: Matica hrvatska, 2010, 317–328.
- Slavica Stojan. *U salonu Marije Giorgi Bone*. Dubrovnik: Zavod za povijesne znanosti Hrvatske akademije znanosti i umjetnosti, 1996.
- Petar Strunje. 'Blagajnički spisi mletačke Općine Split kao izvor za građevinsku povijest'. *Vjesnik dalmatinskih arhiva: izvori i prilozi za povijest Dalmacije* 2/1 (2021): 251–269.
- . *Splitski lazaret i trgovačka skala*. Zagreb: FF Press, 2022.
- . 'Crkve svetoga Đurđa i Gospe od Milosrđa: asimilacija klasičnog jezika u Dubrovniku'. *Peristil*, 66 (2023), pp. 39–50.
- Nace Sumi. *Arhitektura sedemnajstega stoletja na slovenskem*. Ljubljana: Slovenska matica, 1969.
- . *Arhitektura 17. stoletja na Slovenskem. obdobje med posno renesanso in zrelim barokom = 17th Century Architecture in Slovenia: Between Late Renaissance and Mature Baroque*. Ljubljana: Arhitekturni muzej, 2000.
- Ana Šverko. 'Prilozi trogirskoj klasicističkoj arhitekturi'. *Prilozi povijesti umjetnosti u Dalmaciji* 41 (2008): 375–436.
- . 'Ferme ornée Garagninovich u Divuljama kod Trogira'. *Radovi Instituta za povijest umjetnosti* 33 (2009): 217–226.

BIBLIOGRAPHY

- — —. 'Selvin Casinetto u agrarnom parku Luke Garagnina'. *Prilozi povijesti umjetnosti u Dalmaciji* 42 (2011): 337-386.
- — —. 'Arhitektonski projekti Antonija Noalea za obitelj Garagnin u Trogiru: kuća za siromaha kao projektne zadatke'. *Adrias* 18 (2012): 119-139.
- — —. 'Prostorna fantazija: dalmatinska poljodjelska škola u viziji Ivana Luke Garagnina'. *Adrias* 21 (2015): 65-83.
- Ana Šverko and Karin Šerman. 'Projekti Giannatonija Selve za imanje obitelji Garagnin u Divuljama pokraj Trogira: od kolonske kuće do vile'. *Prostor: znanstveni časopis za arhitekturu i urbanizam* 19/2 (2011): 336-349.
- Manfredo Tafuri. *Venezia e il Rinascimento: Religione, scienza, architettura*. Turin: Einaudi, 1985.
- — —. *Venezia e il Rinascimento: Religione, scienza, architettura*. Macerata: Quodlibet, 2024.
- Niccolò Tartaglia. *Quesiti, et inventioni diverse*. Venice: Venturino Ruffinelli, 1546.
- Daryl Green and Laura Moretti, Thinking 3D (University of St Andrews; Magdalen College, Oxford; Bodleian Libraries, Oxford, 2019-2020). Accessed 16 June 2025, online: <https://www.thinking3d.ac.uk>.
- Christoph Thoenes. 'Per la storia editoriale della "Regola delli Cinque Ordini"'. in: *La vita e le opere di Jacopo Barozzi da Vignola, 1507-1573, nel quarto centenario della morte*. Bologna: Cassa di Risparmio di Vignola, 1974, 179-189.
- — —. 'La Regola delli cinque ordini del Vignola'. in: *Les traités d'architecture de la Renaissance: Conference Proceedings (Tours, 1-11 July 1981)*. Edited by Jean Guillaume. Paris: Picard, 1988, 269-279.
- — —. 'Vignola, Regola delli cinque ordini d'architettura, [Rome], s.n., [1562]'. in: 'Architectura'. online: https://architectura.cesr.univ-tours.fr/traite/Notice/ENSBA_LES64.asp?param=en. Accessed 21 May 2024.
- Luigi Tomaz. *Mura, torri, porte della magnifica comunità di Cherso*. Conselve: Edizioni Think ADV, 2002.
- Radoslav Tomić. 'Djelatnost altarista Pija i Vicka Dall'Acqua u Dalmaciji'. *Radovi Instituta za povijest umjetnosti*, 2/17 (1993), pp. 67-79.
- — —. 'La pittura in Dalmazia e in Istria intorno al 1700: I protagonisti e le loro opere'. *Saggi e Memorie di storia dell'arte* 30 (2006): 305-315.
- Borna Treska. 'Čitatelji po zadatku: starija hrvatska književnost i mletački tisak'. *Fluminensia: časopis za filološka istraživanja* 34/2 (2022): 597-620.
- Agostino Valier. *Constitutiones et decreta in conuentu reuerendissimorum dd. Spalatensis. Et Iadrensis prouinciarum archiepiscoporum episcoporumque, ac eorum assensu, a reuerendissimo d. Augustino Valerio Veronae episcopo, visitatore Dalmatiae [...] promulgatae*. Verona: Sebastiano dalle Donne and Giovanni dalle Donne, 1579.
- Nikša Varezić. *Dosta je reči u Rimu da bi se reklo čitavom svijetu: Dubrovačka Republika i Sveta Stolica tijekom 16. i 17. stoljeća*. Zagreb-Dubrovnik: Hrvatska akademija znanosti i umjetnosti, Zavod za povijesne znanosti u Dubrovniku, 2018.
- Nenad Vekarić. 'The Population of the Dubrovnik Republic in the Fifteenth, Sixteenth and Seventeenth Centuries'. *Dubrovnik Annals* 2 (1998): 7-28.
- Pasquale Ventrice. 'L'Arsenale di Venezia e i cantieri navali della marina'. in: *Il contributo italiano alla storia del pensiero: Tecnica*. Rome: Treccani, 2013. Accessed 28 May 2025, online: [https://www.treccani.it/enciclopedia/l-arsenale-di-veneziana-e-i-cantieri-navali-della-marina_\(Il-Contributo-italiano-alla-storia-del-Pensiero-Tecnica\)](https://www.treccani.it/enciclopedia/l-arsenale-di-veneziana-e-i-cantieri-navali-della-marina_(Il-Contributo-italiano-alla-storia-del-Pensiero-Tecnica)).
- Juan Bautista Villalpando and Jeronimo de Pardo. *In Ezechielem explanationes, et apparatus urbis, ac templi Hierosolymitani, commentariis et imaginibus illustratus*. 3 vols. Rome: Aloisio Zanetti, 1596.
- Vitruvius Pollio. *I dieci libri dell'architettura di M. Vitruuio tradutti et commentati da monsignor Barbaro eletto patriarca d'Aquilegia. Con due tauole, l'una di tutto quello si contiene per i capi dell'opera, l'altra per dichiarazione di tutte le cose d'importanza*. Edited by Daniele Barbaro. Venice: per Francesco Marcolini, 1556.
- — —. *I dieci libri dell'architettura di M. Vitruuio. Tradotti & commentati da mons. Daniel Barbaro eletto Patriarca d'Aquileia, da lui riueduti & ampliati, & hora in piu commoda forma ridotti*. Edited by Daniele Barbaro. Venice: appresso Francesco de' Franceschi senese & Giouanni Chrieger alemano compagni, 1567.
- — —. *De architectura*. Edited by Pierre Gros, Antonio Corso, and Elisa Romano. 2 vols. Turin: Einaudi, 1997.
- Vocabolario degli accademici della Crusca quarta impressione*. Vol. 3. Florence: appresso Domenico Maria Manni, 1733.
- Rudolf Wittkower. *Architectural Principles in the Age of Humanism*. Studies of the Warburg Institute. London: Warburg Institute, University of London, 1949.
- Pietro Zani. *Enciclopedia metodica critico-ragionata delle belle arti: Parte prima*. Vol. 7. Tipografia ducale: Parma, 1821.
- Andrea Zannini. *Venezia città aperta: Gli stranieri e la Serenissima, 14.-18. sec*. Venice: Marcianum Press, 2009.
- Duško Živanović. 'Vrata i monumentalni portali dubrovačkih kuća i palata'. *Analiz Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku* 26 (1988): 135-173.
- Andrej Žmegač. *Bastioni jadranske Hrvatske*. Zagreb: Institut za povijest umjetnosti, Školska knjiga, 2009.
- — —. 'Fortezze venete in Dalmazia'. in: *L'architettura militare di Venezia in Terraferma e in Adriatico fra XVI e XVII secolo: Atti del convegno internazionale di studi (Palmanova, 8-10 Novembre 2013)*. Edited by Francesco Paolo Fiore. Florence: Leo S. Olschki Editore, 2014, 283-303.
- Marino Zorzi. 'Dal manoscritto al libro'. in: *Storia di Venezia dalle origini alla caduta della Serenissima*. Edited by Alberto Tenenti and Ugo Tucci, Rome: Treccani, 1996, 4, 817-958.

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- III. 2.17. Walther Hermann Ryff, *Der furnembsten, notwendigen, der ganzen Architectur angehorigen, mathematischen, und mechanischen Kunst, eygetheiler Bericht, und vast klare, vertandt der lehr Vitruvij, in drey furneme Bucher abgetheiler* (Nuremberg, 1547), front paste-down (NKZG, M 6469–4*)
- III. 2.18. Walther Hermann Ryff, *Der furnembsten, notwendigen, der ganzen Architectur angehorigen, mathematischen, und mechanischen Kunst, eygetheiler Bericht, und vast klare, vertandt der lehr Vitruvij, in drey furneme Bucher abgetheiler* (Nuremberg, 1547), II.2, fol. XIIIv (NKZG, M 6469–4*)
- III. 2.19. Walther Hermann Ryff, *Der furnembsten, notwendigen, der ganzen Architectur angehorigen, mathematischen, und mechanischen Kunst, eygetheiler Bericht, und vast klare, vertandt der lehr Vitruvij, in drey furneme Bucher abgetheiler* (Nuremberg, 1547), II.2, XXXVv (NKZG, M 6469–4*)
- III. 2.20. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1766), II.14, p. 17 (ZKD, A II 12)
- III. 2.21. Cosimo Bartoli, *Del modo di misurare le distantie* (Venice, 1564), II.23, fol. 65v (ZPZHAZU, Miočević-Rendić collection, B 24)
- III. 2.22. Sebastiano Serlio, *Tutte l'opere d'architettura, et prospetiva* (Venice, 1600), II, fol. 44v (SKS, R-667)
- III. 2.23. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV.7, fol. 36v (ZPZHAZU, Miočević-Rendić collection, C 135)
- III. 2.24. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV.7, fol. 38r (ZPZHAZU, Miočević-Rendić collection, C 135)
- III. 2.25. Carlo Theti, *Discorsi di fortificationi* (Rome, 1569), fol. 19r. (NKZG, M 6139 privez. 1)
- III. 2.26. Buonaiuti Lorini, *Fünff Bücher von Vesting Bawen* (Frankfurt, 1616), plate 4 (NKZG, M 11308–4*)
- III. 2.27. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1626), title page (ZPZHAZU, Miočević-Rendić collection, C 137)
- III. 2.28. Marcus Vitruvius Pollio, *Architettura*, transl. by Francesco Luci Durantino (Venice, 1535), IV.3, fol. XXXVIIr (ZKZ, R-234)
- III. 2.29. Gian Paolo Lomazzo, *Trattato dell'arte della pittura, scoltura et architettura* (Milan, 1585), front endpaper (NSKZ, 62.539)
- III. 2.30. Gian Paolo Lomazzo, *Trattato dell'arte della pittura, scoltura et architettura* (Milan, 1585), IV.6, pp. 218–219 (NSKZ, 62.539)
- III. 2.31. Marcus Vitruvius Pollio, *M. Vitruvius per locundum solito castigatior factus cum figuris et tabula ut iam legi et intelligi possit*, ed. by Fra' Giovanni Giocondo (Venice, 1511), IX.3, fol. 85r (ZKD, A III 91)
- III. 2.32. Pietro Cataneo, *Le pratiche delle due prime matematiche* (Venice, 1559), back endpaper (KHAZU, R-1643 privez. 1)
- III. 2.33. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620), plate XXV (SKR, 31 A 1/30)
- III. 2.34. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1540), fol. XXXVIIIr (ZKD, A-II-46/4)
- III. 2.35. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV.7, fol. 36r (ZPZHAZU, Miočević-Rendić collection, C 135)
- III. 2.36. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1544), IV.6, fol. XXVr (NSKZ, BZ 364)
- III. 2.37. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1544), VI.5, fol. VIIr (NSKZ, BZ 364)
- III. 2.38. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), III.4, p. 106 (ZPZHAZU, Miočević-Rendić collection, C 135)
- III. 2.39. Sebastiano Serlio, *Il terzo libro* (Venice, 1540), p. LXXVII (ZKD, A-II-46/3)
- III. 2.40. Sebastiano Serlio, *Il terzo libro* (Venice, 1540), p. CXXVII (ZKD, A-II-46/3)
- III. 2.41. Sebastiano Serlio, *Von der Architektur fünff Bücher* (Basel, 1606), fol. XVIv (NKZG, M 24823–2*)
- III. 2.42. Sebastiano Serlio, *Il terzo libro* (Venice, 1540), p. CXLVII (ZKD, A-II-46/3)
- III. 2.43. Daniele Barbaro, *La pratica della prospettiva* (Venice, 1569), IV.5, p. 139 (SKR, 8.B.36)
- III. 2.44. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620), plate XXXIII (SKR, 31 A 1/30)
- III. 2.45. Leon Battista Alberti, *L'architettura*, transl. by Cosimo Bartoli (Florence, 1550), III.10, p. 79 (ZKD, A-III-45)
- III. 2.46. Marcus Vitruvius Pollio, *Architettura*, transl. by Francesco Luci Durantino (Venice, 1535), II.8, fol. XVIIr (ZKZ, R-234)
- III. 2.47. Leon Battista Alberti, *I dieci libri dell'architettura*, transl. by Pietro Lauro (Venice, 1546), III.3, fol. 50v (FSD, 1-II-14)
- III. 2.48. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), V.12, p. 268 (AMS, R 1294)
- III. 2.49. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570), II.3, p. 10 (ZKD, A-II-50)
- III. 2.50. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570), II.6, p. 32 (ZKD, A-II-50)
- III. 2.51. Marcus Vitruvius Pollio, *M. Vitruvius per locundum solito castigatior factus cum figuris et tabula ut iam legi et intelligi possit*, ed. by Fra' Giovanni Giocondo (Venice, 1511), III.1, fol. 22r (ZKD, A III 91)
- III. 2.52. Marcus Vitruvius Pollio, *Vitruvius teutsch*, transl. by Walther Hermann Ryff (Nuremberg, 1548), V.4, fols. CXLVIIIv–CXLIXr (KHAZU, R-913)
- III. 2.53. Marcus Vitruvius Pollio, *Vitruvius teutsch*, transl. by Walther Hermann Ryff (Nuremberg, 1548), III.2, fol. CXVv (KHAZU, R-913)
- III. 2.54. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), V, fol. 2v (ZPZHAZU, Miočević-Rendić collection, C 135)
- III. 2.55. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), V.12, p. 268 (AMS, R 1294)
- III. 2.56. Sebastiano Serlio, *Tutte l'opere d'architettura, et prospetiva* (Venice, 1600), III, fol. 96r (SKS, R-667)
- III. 2.57. Leon Battista Alberti, *L'architettura*, transl. by Cosimo Bartoli (Florence, 1550), VIII.10, p. 322 (ZKD, A-III-45)
- III. 2.58. Leon Battista Alberti, *I dieci libri de l'architettura*, transl. by Pietro Lauro (Venice, 1546), VIII.6, fol. 180r (SKR, 3.G.34)
- III. 2.59. Andrea Palladio, *I quattro libri dell'architettura* (Venice, 1570), III.4–21, pp. 11–47 (ZKD, A-II-50)
- III. 2.60. Marcus Vitruvius Pollio, *Architettura*, transl. by Francesco Luci Durantino (Venice, 1535), V.12, fol. LVIr (ZKZ, R-234)

Tab. 2.1. Identified Owners of Architectural Books

Tab. 2.2. Books per Owner

Tab. 2.3. Owners per Profession or Social Status

IMPACT

- Ill. 3.1. Church of Our Lady of the Rosary, Dubrovnik, engraved proportional system, east façade, begun in 1594 (Guarneri)
- Ill. 3.2. Girolamo Cataneo, Gundulić Palace, Dubrovnik, begun in 1546 (reconstruction by Nada Grujić)
- Ill. 3.3. Girolamo Cataneo, Skočibuha Palace, Dubrovnik, 1549–56 (reconstruction by Nada Grujić)
- Ill. 3.4. Cindro Palace, Split, mid-17th century, plan and elevation (from V. Jakaša, 'Barokna stambena arhitektura u Splitu', *Radovi Instituta za povijest umjetnosti* 26 (2002: 57–68);
- Ill. 3.5. Cindro Palace, Split, photograph from the 1920s (Ministarstvo kulture i medija, Fototeka kulturne baštine, inv. N. 51928)
- Ill. 3.6. Sebastiano Serlio, *Tutte l'opere d'architettura, et prospettiva* (Venice, 1600), IV.6, fol. 155r (SKS, R-667)
- Ill. 3.7. Sidro Stosić, Lučka (or Port Gate), Cres, completed in 1552
- Ill. 3.8. Bragadina Gate, Cres, completed in 1581
- Ill. 3.9. Frano Stosić, Marella Gate, Cres, completed in 1586–1588;
- Ill. 3.10. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1537), fol. XIVr
- Ill. 3.11. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1537), fol. IXr
- Ill. 3.12. Pietro Cataneo, *Le pratiche delle due prime matematiche* (Venice, 1559), title page (KHAZU, R-1643 privez. 1)
- Ill. 3.13. Pietro Cataneo, *Le pratiche delle due prime matematiche* (Venice, 1559), fol. 79r (KHAZU, R-1643 privez. 1)
- Ill. 3.14. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1562), plate XXXIII
- Ill. 3.15. Gate from Villa Altesti (now at the entrance of Boninovo Cemetery), Dubrovnik, second half of the sixteenth century
- Ill. 3.16. Sorkočević Palace, Dubrovnik, main entrance gate, reconstructed after 1667 earthquake
- Ill. 3.17. Gundulić Villa in Gruž, Dubrovnik, main entrance gate, second half of the sixteenth century
- Ill. 3.18. Marino GropPELLI, Guardhouse, Dubrovnik, main entrance gate, reconstructed after 1667 earthquake
- Ill. 3.19. Bunić Gradić Villa, Dubrovnik, main entrance gate, second half of the sixteenth century
- Ill. 3.20. Gate with Rastić coat of arms in Braća Andrijić Street, Dubrovnik, second half of the sixteenth century
- Ill. 3.21. Gate in Sigurata Street, Dubrovnik, unknown date
- Ill. 3.22. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1562), plate XXXV
- Ill. 3.23. St Mary in the Castle, Dubrovnik, portal
- Ill. 3.24. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1562), plate XXXVI
- Ill. 3.25. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1562), plate XXXIII
- Ill. 3.26. Church of Sts Fabian and Sebastian, Rijeka, portal
- Ill. 3.27. Zrinski Palace, Nova Kraljevica, external gate, completed in 1653
- Ill. 3.28. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1617), plate XXXVIII
- Ill. 3.29. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620), front cover (SKR, 31 A 1/30)
- Ill. 3.30. Jacques Perret, *Architettura et perspectiva* (Frankfurt, 1613), plate Q (NSKZ, BZ 13 adl. 3)
- Ill. 3.31. Milesi Palace, Split, chimneypiece (from V. Kovačić, 'Prilog za tipologiju kasnorenesansnih kamina', *Klesarstvo i graditeljstvo* 15/16 (2018): 32);
- Ill. 3.32. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), IV, fol. 35r (ZPZHAZU, Miočević-Rendić collection, C 135)
- Ill. 3.33. Giovanni Battista Fontana, Bujović Palace, Perast, 1695
- Ill. 3.34. Macanović family tree
- Ill. 3.35. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), title page (AMS, R 1294)
- Ill. 3.36. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), front endpaper (AMS, R 1294)
- Ill. 3.37. Ignacije Macanović (?), *Plan of the project for Garagnin Palace in Trogir*, eighteenth century (Muzej grada, Trogir)
- Ill. 3.38. Marcus Vitruvius Pollio, *I dieci libri dell'architettura*, transl. and ed. by Daniele Barbaro (Venice, 1567), IV.7, p. 194 (AMS, R 1294)
- Ill. 3.39. Pietro Gironci, *Moveable bridge between the islands of Trogir and Čiovo*, before 1786 (Venice, Biblioteca del Museo Correr, Cl. XLIVb, 621)
- Ill. 3.40. San Fiore Gate, Labin, 1587
- Ill. 3.41. Dragutin (Carlo), Stühler, Porta Marina, Trogir, photograph, circa 1930 (Ministarstvo kulture i medija, Konzervatorski odjel u Splitu, br. 1163/b)
- Ill. 3.42. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Rome, 1620), back endpaper (SKR, 31 A 1/30)
- Ill. 3.43. Zrinski Palace, Nova Kraljevica, courtyard, completed in 1653
- Ill. 3.44. Auersperg (Turjaška) Palace, Ljubljana, column of the first-floor arcade, 1654–1658
- Ill. 3.45. Wendenberg Palace, Gorizia, courtyard, 1634–1649
- Ill. 3.46. Marcus Vitruvius Pollio, *De architectura*, ed. by Guillaume Philandrier (Lyon, 1552), VI.4, p. 229 (SKR, 12.C.50)
- Ill. 3.47. Benzoni Palace, Rijeka, doorway, second half of the eighteenth century
- Ill. 3.48. Benzoni Palace, Rijeka, capital on the doorway, second half of the eighteenth century
- Ill. 3.49. Wohinz Palace, Rijeka, capital on the doorway, circa 1783
- Ill. 3.50. Sebastiano Serlio, *Il primo [-quinto] libro d'architettura* (Venice, 1559–1562), II, fol. 24v (ZPZHAZU, Miočević-Rendić collection, C 135)
- Ill. 3.51. Dominik Divnić, *St Anthony of Padua and St Vincenzo Ferrari*, Church of the Holy Spirit, Vis, mid-seventeenth century
- Ill. 3.52. Giacomo Barozzi da Vignola, *Regola delli cinque ordini d'architettura* (Venice, 1626), verso of title page (ZPZHAZU, Miočević-Rendić collection, C 137)
- Ill. 3.53. Franciscan friary, Church of Our Lady of the Angel, Orebić, main altar, 1599
- Ill. 3.54. Sebastiano Serlio, *Regole generali di architettura* (Venice, 1537), IV.8, fol. LIXr

CATALOGUE OF ARCHITECTURAL BOOKS



1. ABELINUS, JOHANN PHILIPP. *Theatrum Europaeum*. Frankfurt: Merian, Matthäus, 1617. Vols. 11, 4°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 9322-4°. Volumes published by different publishers and in different years. Kukolja-Magić 1995, N. 2326.
2. ADAM, ROBERT. *Rovine del palagio dell'imperatore Diocleziano nella città di Spalatro in Dalmazia*. s.l.: s.n., 1764. Vol. 1, Fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. AMS, R 1207.
3. ADAM, ROBERT. *Rovine del palagio dell'imperatore Diocleziano nella città di Spalatro in Dalmazia*. s.l.: s.n., 1764. Vol. 1, Fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. KFG, XII h 22.
4. ADAM, ROBERT. *Ruins of the Palace of the Emperor Diocletian at Spalatro in Dalmatia*. London: Adam, Robert, 1764. Vol. 1, Fol, edition 1, language English. 7. Descriptions of ancient and modern towns and regions. AMS, R 1823. P2, John Reade and M. Abramić.
5. ADAM, ROBERT. *Ruins of the Palace of the Emperor Diocletian at Spalatro in Dalmatia*. London: Adam, Robert, 1764. Vol. 1, Fol, edition 1, language English. 7. Descriptions of ancient and modern towns and regions. FST, R IV-2°-8.
6. ADAM, ROBERT. *Ruins of the Palace of the Emperor Diocletian at Spalatro in Dalmatia*. London: Adam, Robert, 1764. Vol. 1, fol, edition 1, language English. 7. Descriptions of ancient and modern towns and regions. KFG, IV g 2.
7. ADAM, ROBERT. *Ruins of the Palace of the Emperor Diocletian at Spalatro in Dalmatia*. London: Adam, Robert, 1764. Vol. 1, Fol, edition 1, language English. 7. Descriptions of ancient and modern towns and regions. MGS, 8812. P4 (front cover), 'Lord Battersae'. Zglav-Martinac 2009, 1.
8. AELIANUS, TACITUS. *De instruendis aciebus*. Ed. by Sulpizio, Giovanni. Rome: Silber, Eucharior, 1487. Vol. 1, 4°, edition 1, language Latin. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11621-8° privez. 3. Kukolja-Magić 1995, N. 24.
9. AELIANUS, TACITUS. *De militaribus ordinibus instituendis more graecorum*. Ed. by Robortello, Francesco. Venice: Spinelli, Andrea & Giacomo, 1552. Vol. 1, 8°, edition 1, language Latin. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 6139. P1 (title page) 'Georgij Chrazenpacheij'; P2 (front endpaper) 'Bibliotheca Valvasoriana'. Not included in Kukolja-Magić 1995.
10. ALBERGETTI, SIGISMONDO [ALBERGETUS]. *Nova artilleria veneta*. s.l.: s.e., 1703. Vol. 1, 8°, edition 1, language Italian-Latin. 2. Military architecture. SKP, Mornarična knjižnica, 2073. Missing. Seelig 1905, I. 6.
11. ALBERTI, GIUSEPPE ANTONIO. *Istruzioni pratiche per l'ingegnere civile, o sia perito agrimensore, e perito d'acque*. Venice: Recurti, Giovanni Battista, 1761. Vol. 1, 4°, edition 2, language Italian. 4. Drawing, perspective and land survey. ZPZHAZU, Miočević-Rendić Collection, B 25.
12. ALBERTI, LEANDRO. *Descrittione di tutta Italia*. Venice: Bonelli, Giovanni Maria, 1553. Vol. 1, 8°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Biblioteca civica, 13.E.37.
13. ALBERTI, LEANDRO. *Descrittione di tutta Italia*. Venice: Bonelli, Giovanni Maria, 1553. Vol. 1, 8°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Biblioteca civica, 48.E.12.
14. ALBERTI, LEANDRO. *Descrittione di tutta Italia*. Venice: Silicato, Altobello, 1588. Vol. 1, 8°, edition 9, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Mornarična knjižnica, 1115. Missing. Seelig 1905, I. 6.
15. ALBERTI, LEANDRO. *Descrittione di tutta l'Italia e isole pertinenti ad essa*. Venice: Porta, Giovanni Battista, 1581. Vol. 1, 8°, edition 8, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Biblioteca provinciale dell'Istria, 7918.
16. ALBERTI, LEANDRO. *Descrizione di tutta l'Italia*. Bologna: Ciaccarelli, Anselmo, 1550. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Antiqua, A-II-145.
17. ALBERTI, LEANDRO. *Descrizione di tutta l'Italia*. Venice: Leni, Giovanni Maria, 1577. Vol. 1, 8°, edition 7, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Antiqua, A-2393.
18. ALBERTI, LEON BATTISTA. *Della architettura della pittura e della statua*. Trans. by Bartoli, Cosimo. Bologna: Della Volpe, Petronio; Istituto delle scienze, 1782. Vol. 1, 2°, edition 6, language Italian. 1. Architectural treatises. NUK, GS III 700154.
19. ALBERTI, LEON BATTISTA. *Della architettura, della pittura e della statua*. Trans. by Bartoli, Cosimo. Bologna: Istituto delle scienze, 1782. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. SAZU, Centralna biblioteka, II 101220.
20. ALBERTI, LEON BATTISTA. *Della architettura della pittura e della statua*. Trans. by Bartoli, Cosimo. Bologna: Istituto delle scienze, 1782. Vol. 1, fol, edition 6, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 134. Handwritten text at pp. 195 and 197 in place of missing sheets.

21. ALBERTI, LEON BATTISTA. *I dieci libri dell'architettura [...] novamente de la latina ne la volgar lingua con molta diligenza tradotti*. Trans. by Lauro, Pietro. Venice: Valgrisi, Vincenzo, 1546. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. FSD, 1-II-14. P1 (front endpaper), 'do / M M e B'; P1 (sheet *2r), 'Biblioteca S. Franc.o Ragusij'; U3 (sheets 50v, 214r); U5 (50v, 180r, 182r-v); U6 (50r). Gudelj-Ruso 2013, 103.
22. ALBERTI, LEON BATTISTA. *I dieci libri dell'architettura [...] novamente de la latina ne la volgar lingua con molta diligenza tradotti*. Trans. by Lauro, Pietro. Venice: Valgrisi, Vincenzo, 1546. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. SKR, Biblioteca civica, 3.G.34. P1 (title page) 'Di Iacomo di Sardona di Modona. 1546. in Roma' (erased), and 'A Julio de Benzonijis S.R.I.E., et Regio Asse. Bore. Guberniali dono datus Magnifico Publico Fluminensi anno 1799'; U4 (122v); U5 (36v, 86v, 117v, 118v, 132r, 161v, 180r-v, 227r, 229r, 239r, 245r); U6 (122v, 180r, 227r); U13 (*3r, *4r, 9r, 12v, 13v, 18r-v, 44r, 59r, 77r, 80v, 136r, 214r).
23. ALBERTI, LEON BATTISTA. *I dieci libri di architettura*. Trans. by Bartoli, Cosimo. Rome: Zempel, Giovanni, 1784. Vol. 1, fol, edition 8, language Italian. 1. Architectural treatises. FSŠ, H.X.10.
24. ALBERTI, LEON BATTISTA. *L'architettura*. Trans. by Bartoli, Cosimo. Florence: Torrentino, Lorenzo, 1550. Vol. 1, 2°, edition 2, language Italian. 1. Architectural treatises. ZKD, Antiqua, A-III-45. P1 (title page) 'Resid. Ragusin.s Soc. Jesu'; P5 (title page) 'Kr. realna gymnazija u Dubrovniku / 2982'; (title page verso) 'Narodna republika Hrvatska / Dubrovnik / Naučna biblioteka / 20567 / f.o. 45'; P6 (front endpaper) 'v/72', 'X/1'; P6 (title page) 'I.II.10', 'G.67'; U2 (304); U5 (87, 100, 102, 147, 161, 187, 212, 329, 330, 334, 335, 341, 348); U6 (102, 336, 348); U7 (79); U13 (5, 7, 13, 21, 71, 87, 90, 95, 105, 128, 131-134, 132, 186, 201, 240, 272, 287, 328-344, 369-372, 397); U14 (322); U15 (232); U16 (224, 303, 322). Gudelj-Ruso 2013, 103-4.
25. ALBERTI, LEON BATTISTA. *Trattato della pittura [...] Si sono aggiunti i tre libri della pittura, ed il trattato della Statua di Leon Battista Alberti*. Bologna: Istituto delle scienze, 1786. Vol. 1, 2°, edition 7, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, C 136.
26. ALBERTI, LEON BATTISTA. *Trattato delle pittura [...] Si sono aggiunti i tre libri della pittura, ed il Trattato della statua*. Bologna: Istituto delle scienze, 1786. Vol. 1, 2°, edition 7, language Italian. 1. Architectural treatises. AMZD, 4175 A.
27. ALBRECHT, ANDREAS. *Eygendliche Beschreibung und Abriss eines sonderbaren nützlich und nohtwendigen Mechanischen Instruments*. Nuremberg: Fürsten, Paul, 1673. Vol. 1, 8°, edition 2, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 9492-8°. Stolen. Kukolja-Magić 1995, N. 45.
28. ALBRECHT, ANDREAS. *Eygendliche Beschreibung und Abriss eines sonderbaren nützlich und nohtwendigen Mechanischen Instruments*. Nuremberg: Halbmayer, Simon, 1625. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 5031-8°. Kukolja-Magić 1995, N. 24.
29. ALBRECHT, ANDREAS. *Instrument zur Architectur damit die fünf Seulen*. Nuremberg: Lochner, Ludwig, 1622. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7307-8°. Kukolja-Magić 1995, N. 46.
30. ALBRECHT, ANDREAS. *Instrument zur Architectur damit die fünf Seulen*. Nuremberg: Fürsten, Paul, 1673. Vol. 1, 8°, edition 2, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 9492-8° privez. 1. Stolen. Kukolja-Magić 1995, N. 47.
31. ALBRECHT, ANDREAS. *Zwei Bücher, das erste von der ohne und durch die Arithmetica gefundenen Perspectiva*. Nuremberg: Halbmayer, Simon, 1623. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10436-4°. Kukolja-Magić 1995, N. 48.
32. ALDROVANDI, ULISSE; BARTOLI, PIETRO SANTI; FICORONI, FRANCESCO; VACCA, FLAMINIO. *Roma antica distinta per regioni*. Rome: Bernabo & Lazzarini, 1741. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. KSSKL, *8 A-Z8. P2 'Ex libris Caroli Barbo'.
33. ALEXANDER, ANDREAS; FREITAG, ADAM. *Logometron architecturae militaris Freitagianae*. Arnheim: Haagen, Johann Fridrich, 1665. Vol. 1, 16°, edition 1, language German. 2. Military architecture.
- NKZG, Bibliotheca valvasoriana, M 9896-16°. Kukolja-Magić 1995, N. 49.
34. ALGAROTTI, FRANCESCO. *Opere*. Livorno: Coltellini, Marco, 1764. Vols. 8, 8°, edition 2, language Italian. 6. The arts. ZKD, Collegium Ragusinum, CR-21472. Only 3 vols. of 8.
35. ALGAROTTI, FRANCESCO. *Saggio sopra la pittura*. Venice: Graziosi, Antonio, 1784. Vol. 1, 12°, edition 5, language Italian. 6. The arts. DSD, 5-II-19.
36. ALQUIÉ, FRANÇOIS-SAVINIEN D'. *Lustbarkeiten des Königreichs Frankreich*. Frankfurt: Serlin, Wilhelm, 1671. Vol. 1, 8°, edition 2, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 4579-8°. Kukolja-Magić 1995, N. 61.
37. ANDROUET DU CERCEAU, JACQUES. *Le premier [second] volume des plus excellents bastimens de France*. Paris: Androuet du Cerceau, Jacques, 1607. Vols. 2, fol, edition 2, language French. 7. Descriptions of ancient and modern towns and regions. NUK, GS IV 10627. P1 'H. Schramm', 'IvS'; U7 (various pages).
38. ANDROUET DU CERCEAU, JACQUES. *Livre des edifices antiques romains*. Paris: Duval, Denis, 1584. Vol. 1, 2°, edition 1, language French. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 9203-2° Privez. Stolen. Kukolja-Magić 1995, N.81.
39. APFALTEN, LEOPOLD FREIHERR VON. *Abhandlung von dem Drucke der Gewölber auf ihre Seitenmauern*. Vienna: Trattner, Johann Thomas, 1782. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NUK, GS 8003.
40. ARDÜSER, JOHANN. *Architectura von Vestungen*. Zurich: Hamberger, Johann Heinrich, 1651. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 8618-8°. Kukolja-Magić 1995, N. 99.
41. ARDÜSER, JOHANN. *Geometriae theoricæ et practicæ*. Zurich: Bodmer, Johann Jacob, 1646. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9384-8°. Kukolja-Magić 1995, N. 101.

42. ARINGHI, PAUL. *Unterirdisches Rom*. Arnheim: Haagen, Johann Fridrich, 1668. Vol. 1, 16°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 4249-16°. Kukolja-Magić 1995, N. 102.
43. S.A. *Armamentarium principale, oder Kriegsmunitio und Artillerey-Buch*. Frankfurt: Ammon, Johann, 1625. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7594-4° privez. 2. Kukolja-Magić 1995, N. 106
44. ASTORI, GIAMMARIA. *Della pittura colla cera all'encausto*. Venice: Locatelli, Antonio, 1786. Vol. 1, 8°, edition 1, language Italian. 6. The arts. ZPZHazu, Miočević-Rendić Collection, D 392.
45. AVILER, CHARLES AUGUSTIN D'; VIGNOLA, GIACOMO BAROZZI DA. *Ausführliche Anleitung zu der ganzen Civil-Bau-Kunst*. Sturm, Leonhard Christoph. Augsburg: Hertel, Johann Georg, 1747. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NSKZ, Zbirka rijetkosti, RV1-80-199. P2 Basilijević, or Basseglj (front endpaper); U2 (plates); U10 (fol. 43, tab. 25); U13 (pp. 65, 124, 128, 138; tabb. 34, 68-69, 83; figg. 1-2).
46. BACON, FRANCIS. *Nova Atlantis*. Utrecht: Waesberge, Johann, 1643. Vol. 1, 12°, edition 3, language Latin. 5. Town design and ideal cities. SKS, Martinis-Marchi, R-598. Duplančić-Kovačić 2001, 139
47. BAGLIONE, GIOVANNI. *Le vite de' pittori scultori et architetti*. Rome: Manelfi, Manelfo; Succetti, Giovanni, 1649. Vol. 1, 4°, edition 2, language Italian. 6. The arts. NSKZ, -. Handwritten text at pp. 395-414 in place of missing sheets
48. BALDI, BERNARDINO. *In mechanica Aristotelis problemata exercitationes*. Aristotelis. Meinz: Albin, Johann Witwe, 1621. Vol. 1, 4°, edition 1, language Latin. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 6586-8°. Kukolja-Magić 1995, N. 117
49. BALDI, BERNARDINO; BIANCHINI, FRANCESCO. *Memorie concernenti la città di Urbino*. Rome: Salvioni, Giovanni Maria, 1724. Vol. 1, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, 4019 B. Donated by Pier Alessandro Paravia. P2 'Libri di Cesare Saluzzo'
50. BALDINUCCI, FILIPPO. *Notizie de' professori del disegno*. Florence: Franchi, Santi, 1681. Vol. 6, 4°, edition 1, language Italian. 6. The arts. KHAZU, II-2.707-R. P5 'Knjižnica / Jugoslavenske / Akademije' (title page); U5 (II, 124, 174, 270; III, 275); U6 (II, 81-83, 91). Vol. I (1681), II (1686), III (1728), IV (1688), V (1702), VI (1728).
51. BALLARD, CHRISTOPHE. *Trattato di miniatura*. Venice: Garbo, Francesco, 1766. Vol. 1, 12°, edition 2, language Italian. 6. The arts. KFG, XXI b 16. P1 'Di Pietro Andrich' (title page); B13 'Va e torna / stato e restituito' (front endpaper); U8 'Nuovo plico d'ogni sorta di tintura. In Ven. app. ant. dat. fabbro' (title page v).
52. BALLINO, GIULIO. *De' disegni delle più illustri città e fortezze del mondo*. Venice: Zaltieri, Bolognino, 1569. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 145.
53. BARBARO, DANIELE. *La pratica della prospettiva*. Venice: Borgomineri, Camillo & Rutilio, 1568. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11286-4°. Kukolja-Magić 1995, N. 149
54. BARBARO, DANIELE. *La pratica della prospettiva*. Venice: Borgomineri, 1569. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. SKR, Biblioteca civica, 8.B.36. U1 (A 2r, 58, 89); U2 (9-11, 15, 27, 44, 71); U5 (23); U7 (133, 139); U8 (title page); U9 (69); U10 (51, 60, 68, 93, 124).
55. BAROZZI, FRANCESCO. *Cosmographia in quatuor libro distributa*. Venice: Perchacino, Grazioso, 1598. Vol. 1, 16°, edition 2, language Latin. 4. Drawing, perspective and land survey. SKR, Collegium Societatis Iesus (Trieste), 1.H.5.
56. BARTOLI, COSIMO. *Del modo di misurare le distantie, le superficie, i corpi, le piante, le provincie, le prospettive, & tutte le cose terrene*. Venice: De Franceschi, Francesco, 1564. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. SKP, Mornarična knjižnica, 10560. Missing Seelig 1905, I, 23
57. BARTOLI, COSIMO. *Del modo di misurare le distantie, le superficie, i corpi, le piante, le provincie, le prospettive, & tutte le cose terrene*. Venice: De Franceschi, Francesco, 1564. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. ZPZHazu, Miočević-Rendić Collection, B 24. U2 (53r, 65v); U5 (15v, 83r); U7 (16r, 52v, 53r, 54r, 58r, 59r, 61r, 65v, 66v, 70v, 71r, 74r); U8 (A2v); U11 (15v, 53v, 66r).
58. BARTOLI, FRANCESCO. *Notizia delle pitture, sculture, ed architetture, che ornano le chiese, e gli atri luoghi pubblici di tutte le più rinomate città d'Italia*. Venice: Savioli, Antonio, 1776. Vol. 2, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. KHAZU, 6.957-Rn. Vol. I (1776), II (1777).
59. BARTOLI, PIETRO SANTI. *Gli antichi sepolcri, ovvero Mausolei romani, ed etruschi*. Rome: s.n., 1768. Vol. 1, fol, edition 4, language Italian. 7. Descriptions of ancient and modern towns and regions. AMZG, XXV 24.
60. BEHM, GOTTFRIED. *Polymetrum, hoc est: Novum instrumentum ad plerasque mathematicas*. Salzburg: Mayr, Joannis Baptistae, 1672. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9902-8°. Kukolja-Magić 1995, N. 153
61. BÉLIDOR, BERNARD-FORÉST DE. *Dictionnaire portatif de l'ingénieur et de l'artilleur*. Paris: Jombert, Charles-Antoine, 1768. Vol. 1, 16°, edition 2, language French. 2. Military architecture. SKR, Biblioteca civica, 3.F.3.
62. BELLÍ, SILVIO. *Libro del misurar con la vista*. Venice: Ziletti, Giordano, 1569. Vol. 1, 8°, edition 2, language Italian. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6139 privez 4. Not catalogued in Kukolja-Magić 1995.
63. BELLORI, GIOVANNI PIETRO. *Descrizione delle immagini dipinte da Raffaele d'Urbino nelle camere del palazzo apostolico vaticano*. Rome: Komarek, Giovanni Giacomo, 1695. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, R-VI-4°-58.
64. BELLORI, GIOVANNI PIETRO. *La colonna antonina di Roma*. Rome: s.n., 1780. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. AMZD, 2982 A. s.a. (but 1780-89)

65. BELLORI, GIOVANNI PIETRO. *La colonna antonina di Roma*. Rome: s.n., 1780. Vol. 1, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, R-VI-8°-163. s.a. (but 1780-89)
66. BELLORI, GIOVANNI PIETRO. *La colonna antonina di Roma*. Rome: s.n., 1780. Vol. 1, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZPZHAZU, Miočević-Rendić Collection, D 470. s.a. (but 1780-89)
67. BELLORI, GIOVANNI PIETRO. *Le pitture antiche delle grotte di Roma e del Sepolcro de' Nasoni*. Rome: Zenoby, Gaetano degli, 1706. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Biblioteca civica, II.B.1.
68. BELLORI, GIOVANNI PIETRO. *Le vite de' pittori scultori et architetti moderni*. Rome: Ricciardi, Francesco & Buono, Giuseppe, 1728. Vol. 1, 4°, edition 2, language Italian. 6. The arts. DSD, 24-VII-12.
69. BENETTI, SANTO. *L'accorto fattor di villa*. Venice: Zatta, Antonio, 1761. Vol. 1, 8°, edition 1, language Italian. 8. Miscellanea. ZKD, Collegium Ragusinum, CR-20435.
70. BERNARD, JEAN FRANÇOIS. *Nouvelle manière de fortifier les places*. De Marchi, Francesco; Blondel, François. Paris: Michallet, Étienne, 1689. Vol. 1, 8°, edition 1, language French. 2. Military architecture. AMZD, 8043/2017 A.
71. BERNEGGERUS, MATTHIAS. *Manuale mathematicum, darinn begriffen die tabulae sinuum, tangentium, secantium*. Strasbourg: Bertam, Antonium, 1619. Vol. 1, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 3904-8°. Kukolja-Magić 1995, N. 1528
72. BERTELLI, PIETRO. *Theatro delle città d'Italia*. Padua: Bertelli, Francesco, 1629. Vol. 1, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 11512-8°. Kukolja-Magić 1995, N. 2274
73. BERTELLI, PIETRO. *Theatro delle città d'Italia*. Padua: Bertelli, Francesco, 1629. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK.
74. BERTELLI, PIETRO. *Theatrum urbium italicarum*. Padua: Bertelli, Pietro, 1599. Vol. 1, 16°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. PMP, Archivio Civico Antico, Pirano, n. 93.
75. BERTOLI, GIANDOMENICO. *Le antichità d'Aquileia*. Venice: Albrizzi, Giambattista, 1739. Vol. 1, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. AMZG, XXV 52. P1 'Fran. Equis Pat. 1812' (front endpaper); P6 'Br. 385. Pal. d. / 445' (front endpaper); U13 (various pp.).
76. BERTOLI, GIANDOMENICO. *Le antichità d'Aquileia profane e sacre*. Venice: Albrizzi, Giambattista, 1739. Vol. 1, 2°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. PMP.
77. BERTOLI, GIANDOMENICO. *Le antichità d'Aquileia*. Venice: Albrizzi, Giambattista, 1739. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Biblioteca provinciale dell'Istria, 15394.
78. BERTOTTI SCAMOZZI, OTTAVIO. *Le fabbriche e i disegni di Andrea Palladio*. Vicenza: Rossi, Giovanni, 1786. Vol. 4, fol, edition 2, language Italian. 1. Architectural treatises. AMS, R 1838.
79. BERTOTTI SCAMOZZI, OTTAVIO. *Le fabbriche e i disegni di Andrea Palladio*. Vicenza: Rossi, Giovanni, 1796. Vol. 4, 4°, edition 3, language Italian. 1. Architectural treatises. AMS, R 247/1-4.
80. BERTOTTI SCAMOZZI, OTTAVIO. *Le terme dei Romani*. Vicenza: Rossi, Giovanni, 1797. Vol. 1, 4°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. AMS, R 248.
81. BERTOTTI SCAMOZZI, OTTAVIO. *L'origine dell'accademia olimpica di Vicenza*. Mugnoni, Antonio. Vicenza: Rossi, Giovanni, 1790. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Collegium Ragusinum, CR-21851.
82. BESSON, JACQUES. *Theatrum instrumentorum et machinarum*. Lyons: Vincentium, Bart, 1578. Vol. 1, 2°, edition 1, language Latin. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 9203-2°. Kukolja-Magić 1995, N. 190
83. BESSON, JACQUES. *Theatrum oder Schawbuch Allerley Werkzeug und Rüstungen des hoch-verstandigen Sumreichen*. Mümbelgart: Foillet, 1595. Vol. 1, Fol, edition 1, language Latin. 3. Shipbuilding and mechanics. NUK, GS III 8115. P1 'Johannes Waltherius' (front paste-down).
84. BETTINI, MARIO. *Fucaria et auctaria ad apiaria philosophiae mathematicae*. Venice: Baglioni, Paolo, 1655. Vol. 1, fol, edition 1, language Latin. 4. Drawing, perspective and land survey. SKS, R-760. Only vol. 2 of 2.
85. BETUSSI, GIUSEPPE. *Ragionamento sopra il Cathaio*. Padua: Pasquati, Lorenzo, 1573. Vol. 1, 8°, edition 1, language Italian. 8. Miscellanea. ZKD, Collegium Ragusinum, CR-21002.
86. BEYER, JOHANN HARTMANN. *Ein neue und schöne Art der Vollkommenen Visier-Kunst [...] Denen Kunstliebenden, Baumeistern, Werckleuten, Visieren [...] auß Geometrischen [...]*. Frankfurt: Rosen, Iona; Palthenium, 1603. Vol. 4°, edition 1, language German. 4. Drawing, perspective and land survey. KSSKL, T BEYER J.H. Visier-Kunst. P1 'Loca Capucinatorum Crainburgi'
87. BEYER, JOHANN HARTMANN. *Stereometriae inanium nova et facilis ratio geometricis demonstrationibus confirmata*. Frankfurt: Rosen, Iona; Palthenium, 1603. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9500-8° privez 1. Kukolja-Magić 1995, N. 241
88. BÉZOUT, ÉTIENNE. *Cours de mathématique à l'usage des gardes du pavillon et de la marine*. Paris: Pierres, Philippe-Denis, 1781. Vol. 5, 8°, edition 4, language French. 4. Drawing, perspective and land survey. FSF, 7/40-44. Vol. I (1781), II (1782), III (1781), IV (1784), V (1784)
89. BIANCONI, GIOVANNI LODOVICO. *Descrizione dei circi, particolarmente di quello di Caracalla*. Rome: Pagliarini, 1789. Vol. 1, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. AMZG, VS 45.
90. BIONDO, FLAVIO. *Blondi Flavii Forlivensis in Romam instauratam*. Verona: Bonini, Bonino, 1481. Vol. 1, 2°, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKZ, Inc-27.

91. BIONDO, FLAVIO. *Blondi Flavii Forlivenis in Romam instauratam*. Verona: Bonini, Bonino de' (da Ragusa), 1482. Vol. 1, 2°, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKD, Inkunabula, Ink-78-79.
92. BIONDO, FLAVIO. *De Roma instaurata. Italia illustrata*. Venice: De Gregori, Gregorio, 1510. Vol. 1, 2°, edition 5, language Latin. 7. Descriptions of ancient and modern towns and regions. OKK, Domosnanski oddelek Gris Omara, MP 19 BLONDUS. P1 'Ed. Orwell 1585'; P10 'Herman H. J. Lynge & Søn A/S' (Copenhagen, Danmark)
93. BIONDO, FLAVIO. *De Roma Triumphante libri decem*. Brescia: Britannico, Angelo, 1503. Vol. 1, fol, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, R VI-4°-20.
94. BIONDO, FLAVIO. *De Roma Triumphante libri decem*. Basel: Froben, Hieronymus & Herwagen, Johann, 1531. Vol. 1, Fol, edition 5, language Latin. 7. Descriptions of ancient and modern towns and regions. SKD, II-474. P2 Basilijević, Bassegli (front endpaper).
95. BIONDO, FLAVIO. *De Roma Triumphante libri decem*. Basel: Froben, Hieronymus & Herwagen, Johann, 1531. Vol. 1, 4°, edition 5, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKZ, R-240.
96. BIONDO, FLAVIO. *De Roma Triumphante libri decem*. Basel: Froben, Hieronymus & Herwagen, Johann, 1559. Vol. 2, 2°, edition 7, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKD, III-72.
97. BIONDO, FLAVIO. *Historiarum ad inclinatione Romanorum Imperii*. Venice: Scoto, Ottaviano (I), 1483. Vol. 1, fol, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. KHAZU, Ink. II-11.
98. BIONDO, FLAVIO. *Historiarum ad inclinatione Romanorum Imperii*. Venice: Blavi, Tommaso de, 1484. Vol. 1, fol, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKZ, Inc-21.
99. BIONDO, FLAVIO. *La seconda parte de le historie*. Fauno, Lucio; Volterrano, Raffaele; Sabellico, Marco Antonio. Venice: Tramezzino, Michele, 1550. Vol. 1, 16°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, BZ 407.
100. BIONDO, FLAVIO. *La seconda parte de le historie*. Fauno, Lucio; Volterrano, Raffaele; Sabellico, Marco Antonio. Venice: Tramezzino, Michele, 1550. Vol. 1, 16°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, R-328.
101. BIONDO, FLAVIO. *Roma ristaurata e Italia illustrata*. Venice: Giglio, Domenico, 1558. Vol. 1, 16°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Biblioteca provinciale dell'Istria, 7841.
102. BIONDO, FLAVIO. *Roma ristaurata, et Italia illustrata*. Tarcagnota, Giovanni [Fauno, Lucio]. Venice: Tramezzino, Michele, 1542. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. PMP, 941/949. Donated by Nazario Gallo
103. BIONDO, FLAVIO. *Roma ristaurata, et Italia illustrata*. Tarcagnota, Giovanni [Fauno, Lucio]. Venice: Giglio, Domenico, 1558. Vol. 1, 8°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Bibliotec-a civica, 60.H.13.
104. BIONDO, FLAVIO. *Roma trionphante*. Fauno, Lucio. Venice: Tramezzino, Michele, 1544. Vol. 1, 16°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, R-202.
105. BIRINGUCCIO, VAN<UM, HANS. *Nüzlichs Säulenbuch oder Kunstmässige Beschreibung von dem Gebrauch der V. Säulen*. Zurich: Bodmer, Johann Jacob, 1668. Vol. 1, fol, edition 3, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 9212-2°. Kukolja-Magić 1995, N. 248
112. BOBYNET, PIERRE. *L'horographie ingenieuse*. Paris: Lanclois, François, 1647. Vol. 1, 8°, edition 1, language French. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 5467-8°. Kukolja-Magić 1995, N. 272
113. BÖCKLER, GEORG ANDREAS. *Architectura curiosa nova*. Sturm, Johann Christoph. Nuremberg: Fürsten, Paul; Gerhard, Christoph, 1664. Vol. 4, fol, edition 1, language Latin. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 11537-4°. 4 vols. bound together Kukolja-Magić 1995, N. 275
114. BÖCKLER, GEORG ANDREAS. *Arithmetica nova militaris*. Nuremberg: Endter, Johann Andreas & Wilfgang, 1661. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 5355-8°. Kukolja-Magić 1995, N. 290
115. BÖCKLER, GEORG ANDREAS. *Arithmetica nova militaris*. Nuremberg: Endter, Johann Andreas & Wilfgang, 1661. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NUK, GS 4102.
116. BÖCKLER, GEORG ANDREAS. *Compendium architecturae civilis*. Frankfurt: Götze, Thomas Matthäus, 1648. Vol. , 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 6554-8°. Kukolja-Magić 1995, N. 291
117. BÖCKLER, GEORG ANDREAS. *Manuale architecturae militaris*. Frankfurt: Götze, Thomas Matthäus, 1660. Vol. 4, 16°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 9784-16°. Vol. I (1672), II (1674), III (1660), IV (1672) Kukolja-Magić 1995, N. 293
118. BÖCKLER, GEORG ANDREAS. *Neues und zuvor nie also eingerichetes volkommenes Seulen-Buch*. Frankfurt: Zieger, Johann, 1684. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 11566-4°. Kukolja-Magić 1995, N. 294
119. BÖCKLER, GEORG ANDREAS. *Nutzliche Hauss- und Feld-Schule*. Nuremberg: Fürsten, Paul, 1683. Vol. 2, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 10681-8°. Kukolja-Magić 1995, N. 295
120. BÖCKLER, GEORG ANDREAS. *Nutzliche Hauss- und Feld-Schule*. Frankfurt: Merkle, Johann Adam, 1699. Vol. 2, 4°, edition 2, language German. 1. Architectural treatises. NUK, GS I 9494.
121. BÖCKLER, GEORG ANDREAS. *Schola militaris moderna*. Frankfurt: Götzens Fol. Erb., 1674. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NUK, GS 8018.

122. BÖCKLER, GEORG ANDREAS. *Schola militaris moderna*. Frankfurt: Oehrligen, Georg Heinrich, 1685. Vol. 1, 8°, edition 2, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 8874-8°. Kukolja-Magić 1995, N. 296
123. BÖCKLER, GEORG ANDREAS. *Theatrum machinarum novum*. Nuremberg: Fürsten, Paul; Gerhard, Christoph, 1673. Vol. 1, 4°, edition 2, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 11573-4°. Kukolja-Magić 1995, N. 297
124. BOILLOT, JOSEPH. *Artifices defeu, & divers instruments de guerre*. Brantz, Johann. Strasbourg: Bertram, Anton, 1603. Vol. 1, fol, edition 2, language French-German. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 13 adl 4. U18 (158-159).
125. BOISSARD, JEAN JACQUES. *Antiquitatum romanarum*. Giraldis, Lilio Gregorio. Frankfurt: Bry, Theodor de; Saur Johann, 1598. Vol. 4, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 10432-4°. Vols. I-II (1598) III (1600), IV (1602) Kukolja-Magić 1995, N. 298
126. BOISSARD, JEAN JACQUES. *Topographia Romae*. Panvino, Onofrio; Marliani, Bartolomeo; Victor, Publius. Frankfurt: Bry, Theodor de; Merian, Matthäus, 1597. Vol. 3, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 7541-4°. Vol. I (1627), II-III (1597) Kukolja-Magić 1995, N. 313
127. BOISSARD, JEAN JACQUES. *Topographia urbis Romae*. Frankfurt: Merian, Matthäus, 1681. Vol. 1, 2°, edition 2, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 7907-4°. Kukolja-Magić 1995, N. 316
128. BOLTZ, VALENTIN. *Neu [...] Illuminirbuch, künstlich alle Farben zu machen und bereiten*. Góra Świątej Anny: Nicolai, David, 1682. Vol. 1, 8°, edition 8, language German. 6. The arts. NKZG, Bibliotheca valvasoriana, M 9736-8° privez. 4. Unidentified edition Kukolja-Magić 1995, N. 317
129. BONNEFONS, NICOLAS DE. *Le jardinier françois*. Amsterdam: Bleau, Jean, 1654. Vol. 1, 16°, edition 2, language French. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 7238-16°. Kukolja-Magić 1995, N. 319
130. BONOTTO, MICHELANGELO. *Nuovi elementi delle matematiche universali*. Venice: Pezzana, Nicolò erede, 1772. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. ZPZHazu, Miočević-Rendić Collection, C140. Partly erased P1 'brazza b. S. zuane' (title page).
131. BONVICINO, ALESSANDRO. *Matematiche discipline per uso della illustrissima Accademia Delia di Padua*. Padua: Frambotto, Paolo eredi, 1665. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. ZPZHazu, Miočević-Rendić Collection, C 116. U6 (title page); U11 (front endpaper).
132. BORBONE, DOMENICO. *Diversi ornamenti d'architettura*. Paris: Daman excudit, 1646. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 10868-4°. U13 (plates 19, 20). S.a. but plates n. 3, 4, 20, 22, 24 bear the date 1646. Kukolja-Magić 1995, N. 323
133. BORDONE, BENEDETTO. *Isolario*. Venice: Zoppino, Nicolò d'Aristotele, 1534. Vol. 1, fol, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS II 46049.
134. BORDONE, BENEDETTO. *Isolario*. Venice: Torresano, Federico, 1547. Vol. 1, fol, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, Pappafava, R-317.
135. BORDONE, BENEDETTO. *Isolario*. Venice: Di Leno, Francesco, 1565. Vol. 1, 2°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Collegium Ragusinum, CR-II-1252.
136. BORDONE, BENEDETTO. *Libro nel qual si ragione di tutte l'isole del mondo*. Venice: Zoppino, Nicolò d'Aristotele, 1528. Vol. 1, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Mornarićna knjižnica, 1144. Missing Seelig 1905, I 43
137. BORGIO, CARLO. *Analisi ed esame ragionato dell'arte della fortificazione e difesa delle piazze*. Venice: Zatta, Antonio, 1777. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarićna knjižnica, 2303. Seelig 1905, I 43
138. BORGDORFF, ERNST FRIEDRICH. *Die befestigte Stütze eines Fürstenthums*. Nuremberg: Endter, Johann Georg, 1687. Vol. 1, 16°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 9890-16°. Kukolja-Magić 1995, N. 325
139. BORGDORFF, ERNST FRIEDRICH. *Die unüberwindliche Festung*. Ulm: Kühnen, Georg Wilhelm, 1682. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NUK, GS 21730. P1 'Franz Bronfans [...] / 1686' (title page); P6 'IV.a.d.z' (front paste-down); U8 (front paste-down). Bound with Pagan and Blondel (Bomben)
140. BORGDORFF, ERNST FRIEDRICH. *Die unüberwindliche Festung*. Ulm: Kühnen, Georg Wilhelm, 1683. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 3605-8°. Kukolja-Magić 1995, N. 326
141. BORROMEO, CARLO. *Acta ecclesiae Mediolanensis tribus partibus distincta*. Milan: Ponti, Pacifico, 1582. Vol. 1, 2°, edition 1, language Latin. 8. Miscellanea. NKZG, M 10596-4°.
142. BORROMEO, CARLO. *Acta synodalia ecclesiae Mediolanensis, pars secunda*. Brescia: Compagnia Bresciana, 1603. Vol. 1, 4°, edition 1, language Latin. 8. Miscellanea. DSD, 24-VI-1.
143. BORROMEO, CARLO. *Constitutiones et decreta condita in provinciali Synodo Mediolanensi*. Galesini, Pietro. Venice: Manuzio, Paolo, 1566. Vol. 1, 8°, edition 1, language Latin. 8. Miscellanea. ZKZ, R-62.
144. BORROMEO, CARLO. *Monitiones et instructiones*. Ljubljana: Promberger, Michael, 1788. Vol. 1, 8°, edition 1, language Latin. 8. Miscellanea. FSF, 20/36.
145. BORROMEO, CARLO. *Monitiones et instructiones*. Ljubljana: Promberger, Michael, 1788. Vol. 1, 8°, edition 1, language Latin. 8. Miscellanea. KSSKL, W BORROMEO C. Monitiones.
146. BORROMINI, FRANCESCO. *La chiesa, e fabbrica della Sapienza di Roma*. Rome: Giannini, Sebastiano, 1720. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS IV 10626. From the Ökonomische Gesellschaft
147. BORROMINI, FRANCESCO. *Opus architectonicum*. Rome: Giannini, Sebastiano, 1725. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS IV 11952. From the Ökonomische Gesellschaft

148. BOSCHINI, MARCO. *L'arcipelago con tutte le isole, scogli, secche, e bassi fondi*. Venice: Nicolini, Francesco, 1658. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Collegium Ragusinum, CR-21715.
149. BOSCHINI, MARCO. *Le minere della pittura veneziana*. Venice: Nicolini, Francesco, 1664. Vol. 1, 8°, edition 1, language Italian. 6. The arts. ZKD, Collegium Ragusinum, CR-20433. P6 'X 5' (front paste-down), 'G.X.48' (title page); U13 (various pp.).
150. BOSCHINI, MARCO. *Le ricche minere della pittura veneziana*. Venice: Nicolini, Francesco, 1674. Vol. 1, 8°, edition 1, language Italian. 6. The arts. ZKD, Collegium Ragusinum, CR-81054.
151. BOSIO, ANTONIO. *Abgebildetes neues Romm*. De Rossi, Filippo. Arnheim: Haagen, Johann Fridrich, 1662. Vol. 1, 16°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 4617-16°. Kukolja-Magić 1995, N. 2008
152. BOSSE, ABRAHAM. *Algemeen middel tot de prattijck der doorzicht-kunde op tefereelen*. Amsterdam: Danckertsz, Dancker, 1664. Vol. 1, 8°, edition 1, language Dutch. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 3656-8° privezek. Kukolja-Magić 1995, N. 330
153. BOSSE, ABRAHAM. *Algemeene Manier van de Hr. Desargues, tot de prattijck der Perspectiven*. Amsterdam: Danckertsz, Dancker, 1664. Vol. 1, 8°, edition 1, language Dutch. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 3656-8°. Kukolja-Magić 1995, N. 327
154. BOSSE, ABRAHAM. *L'art de laver, oder: die Kunst zu Tuschen, das ist: die allerneueste Manier Vestungen und andere Risse*. Nuremberg: Monath, Peter Conrad, 1719. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NUK, GS 14534.
155. BOSSE, ABRAHAM. *Geschickter und wohlerfahrner Baumeister*. Nuremberg: Monath, 1767. Vol. 1, 8°, edition 2, language German. 3. Shipbuilding and mechanics. NUK, GS I 8119.
156. BOSSE, ABRAHAM. *Gründliche Anweisung zur Radier- und Etz-Kunst*. Nuremberg: Monath, Peter Conrad, 1719. Vol. 1, 8°, edition 1, language German. 6. The arts. NUK, Bound with Bosse 1719, GS 14533.
157. BOSSE, ABRAHAM. *Gründliche Anweisung zur Radier- und Etz-Kunst*. Nuremberg: Monath, George Peter, 1761. Vol. 1, 8°, edition 2, language German. 6. The arts. NUK, GS o 5434.
158. BOSSE, ABRAHAM. *Manière universelle de Mr Desargues, pour pratiquer la perspective*. Paris: Des Hayes, Pierre, 1647. Vol. 1, 8°, edition 1, language French. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6870-8°. Kukolja-Magić 1995, N. 331
159. BOSSE, ABRAHAM. *Radier-Büchlein, hendelt von der Erzkunst*. Böckler, Georg Andreas. Nuremberg: Fürsten, Paul; Gerhard, Christoph, 1669. Vol. 1, 8°, edition 1, language German. 6. The arts. NKZG, Bibliotheca valvasoriana, M 4345-8°. Kukolja-Magić 1995, N. 332
160. BOSSE, ABRAHAM. *Traicté des manières de graver en taille douce sur l'airin*. Paris: Bosse, Abraham, 1645. Vol. 1, 8°, edition 1, language French. 6. The arts. NKZG, Bibliotheca valvasoriana, M 11041-8°. Kukolja-Magić 1995, N. 333
161. BOTERO, GIOVANNI. *Allgemeine Welt-beschreibung*. Cologne: Erben, Johann Gymnic, 1596. Vol. 1, 4°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. SAZU, Geografski inštitut Antona Melika, 184469.
162. BOTERO, GIOVANNI. *Delle relationi universali*. Venice: Vecchi, Alessandro, 1622. Vol. 1, 4°, edition 14, language Italian. 7. Descriptions of ancient and modern towns and regions. NKZG, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 165 a, b.
163. BOTERO, GIOVANNI. *Le relationi universali*. Vicenza: Perin, eredi, 1595. Vol. 3, 4°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. AMS, R 1584.
164. BOTERO, GIOVANNI. *Le relationi universali*. Venice: Angelieri, G., 1599. Vol. 4, 4°, edition 8, language Italian. 7. Descriptions of ancient and modern towns and regions. AMS, R 1585. P2 'Stephani Lucich Canonici Macarscensis'
165. BOTERO, GIOVANNI. *Le relationi universali*. Venice: Angelieri, Agostino, 1605. Vol. 1, 4°, edition 8, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS 2387.
166. BOTERO, GIOVANNI. *Le relationi universali*. Venice: Angelieri, Agostino, 1605. Vol. 1, 8°, edition 10, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Collegium Societatis Iesus (Rijeka), 4.F.14.
167. BOTERO, GIOVANNI. *Relationi universali*. Venice: Giunti, 1640. Vol. 1, 4°, edition 13, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS 2405.
168. BOTTAZZO, GIOVANNI IACOPO. *Dialogi maritimi*. Franco, Niccolò. Mantua: Ruffinelli, Giacomo, 1547. Vol. 1, 8°, edition 1, language Italian. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1707. Missing. Seelig 1905, I, 44
169. BOUGUER, PIERRE. *De la nature des vaisseaux*. Paris: Jombert, Claude, 1728. Vol. 1, 4°, edition 1, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1728. Missing. Seelig 1905, I, 44
170. BOUGUER, PIERRE. *Nouveau traité de navigation: contenant la théorie et la pratique du pilotage*. De la Caille. Paris: Desaint, 1769. Vol. 1, 8°, edition 3, language French. 3. Shipbuilding and mechanics. NUK, GS I 7964.
171. BOUGUER, PIERRE. *Nuovo trattato di navigazione*. Livorno: Società tipografica, 1795. Vol. 1, 4°, edition 2, language Italian. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 3743. Missing. Seelig 1905, I, 45
172. BOUGUER, PIERRE. *Traité de navire, de sa construction et de ses mouvemens*. Paris: Jombert, Charles-Antoine, 1746. Vol. 1, 4°, edition 1, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1137. Missing. Seelig 1905, I, 45
173. BOUGUER, PIERRE. *Traité de navire, de sa construction et de ses mouvemens*. Paris: Jombert, Charles-Antoine, 1746. Vol. 1, 8°, edition 1, language French. 3. Shipbuilding and mechanics. SKR, Biblioteca civica, VII.C.1.

174. BOUGUER, PIERRE. *Trattato della nave, della sua costruzione, e de' suoi movimenti*. Venice: Palese, Carlo, 1777. Vol. 1, 4°, edition 1, language Italian. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1723. Missing. Seelig 1905, I, 45
175. BOUGUER, PIERRE. *Trattato della nave, della sua costruzione, e de' suoi movimenti*. Venice: Palese, Carlo, 1777. Vol. 1, 8°, edition 1, language Italian. 3. Shipbuilding and mechanics. SKR, Biblioteca civica, III.C.1.
176. BOULANGER, JULES CÉSAR. *De Theatro, ludisque scenicis libri duo*. Troyes: Chevillot, Pierre, 1603. Vol. 1, 8°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. SKS, R-627. P2 'a Pierre Guya[r] 1799'
177. BRAMER, BENJAMIN. *Apollonius Cattus, oder Kern der gantzen Geometriae*. Marburg: Stock, Johann Heinrich; Ingebrands, Johann, 1684. Vol. 3, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10743-8°. Kukolja-Magić 1995, N. 334
178. BRAMER, BENJAMIN. *Beschreibung und Unterricht, wie allerley Theylungen zu den matematischen Instrumenten zu verfertigen*. Marburg: Egenolff, Paul, 1615. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 8621-8°. Kukolja-Magić 1995, N. 349
179. BRANCA, GIOVANNI. *Le machine. Volume nuovo et di molto artificio da fare effetti maraviglio*. Rome: Mascardi, Iacomo; Manuci, Iacomo, 1625. Vol. 1, 8°, edition 1, language Italian. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 9513-8°. Kukolja-Magić 1995, N. 350
180. BRANCA, GIOVANNI. *Manuale d'architettura [...] corretto ed accresciuto*. Rome: Giunchi, Paolo, 1783. Vol. 1, 16°, edition 5, language Italian. 1. Architectural treatises. ZPZHÄZU, Miočević-Rendić Collection, D 311.
181. BRANCA, GIOVANNI. *Manuale di architettura*. Rome: Barbiellini eredi, 1757. Vol. 1, 8°, edition 3, language Italian. 1. Architectural treatises. NUK, GS 8097. From the library of Jesuit College in Ljubljana
182. BRANCA, GIOVANNI. *Manuale d'architettura*. Rome: Barbiellini eredi, 1757. Vol. 1, 8°, edition 3, language Italian. 1. Architectural treatises. NUK, GS 8130. From the libraries of Družbe za kmetijstvo in uporabne umetnosti na Kranjskem and the Jesuit College in Ljubljana. It contains only the illustrations
183. BRANCACCIO, LELIO. *Fucina di Marte*. Melzo, Lodovico. Venice: Giunti, 1641. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. ZKZ, R-1224.
184. BRANCACCIO, LELIO. *I carichi militari*. Antwerp: Trognies, Joachimo, 1610. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 1134. Missing. Seelig 1905, I, 47
185. BRAUN, GEORG. *Civitates orbis terrarum*. Hogenberg, Franciscus. Cologne: Brachel, Peter von, 1573. Vol. 6, 2°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 24975-2°. Stolen. Kukolja-Magić 1995, N. 351
186. BRAUN, GEORG. *Beschreibung und Contrafactur der Vornembsten Stät der Welt*. Hogenberg, Franciscus. Cologne: Hogenberger, 1574. Vol. 1, fol, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NUK, GS 2344.
187. BRAUN, GEORG. *Civitates orbis terrarum*. Hogenberg, Franciscus. Cologne: Brachel, Peter von, 1612. Vol. 1, fol, edition 8, language Latin. 7. Descriptions of ancient and modern towns and regions. NUK, GS 2336.
188. BRENTEL, GEORG. *Quadrantis astronomici et geometrici utilitates*. Lauingen: Winter, Iacob, 1611. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11444-8°. Stolen. Kukolja-Magić 1995, N. 356
189. BRICE, GERMAIN. *Description de la ville de Paris*. Paris: Libraires associés, 1752. Vol. 4, 12°, edition 9, language French. 7. Descriptions of ancient and modern towns and regions. CANU, -.
190. BRISEUX, CHARLES-ÉTIENNE. *L'architecture moderne ou l'art de bien bâtir pour toutes sortes de personnes*. Paris: Jombert, Claude, 1728. Vol. 2, 4°, edition 1, language French. 1. Architectural treatises. NUK, GS 46071.
191. BRISEUX, CHARLES-ÉTIENNE. *L'art de bâtir des maisons de campagne*. Paris: Prault père, 1743. Vol. 2, 4°, edition 1, language French. 1. Architectural treatises. SKR, Biblioteca civica, XXIII.A.23-24.
192. BRUNN, LUKAS. *Praxis perspectivae*. Leipzig: Rober, Lorentz, 1615. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10436-4° privezek 1. Kukolja-Magić 1995, N. 363
193. BUONARROTI, MICHELANGELO. *Rime*. Florence: Giunti, 1623. Vol. 1, 4°, edition 1, language Italian. 6. The arts. SKS, R-660. P2 'Leonis S. Olschki'; P5 'Biblioteka tehničkog odjela Staba Mora NOVJ'.
194. BURCKHARD VON BIRKENSTEIN, ANTON ERNST. *Ertz-Herzögliche Handgriffe des zirkels und Linials*. Vienna: Verfasser, 1686. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7328-8°. Kukolja-Magić 1995, N. 384
195. BURCKHARD VON BIRKENSTEIN, ANTON ERNST. *Ertz-Herzögliche Handgriffe des zirkels und Linials*. Augsburg: Koppmayer, Jacob, 1699. Vol. 1, 4°, edition 2, language German. 4. Drawing, perspective and land survey. NUK, GS I 4071. From the library of Augustinian friars in Ljubljana; P2 'Žiga Jožef Lukančič'
196. BUSCA, GABRIELE. *Della espugnazione et difesa delle fortezze*. Turin: Tarino, Giovanni Domenico, 1598. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 7817. Missing. Seelig 1905, I, 55
197. BUSCA, GABRIELE. *L'architettura militare*. Milan: Bidelli, Giovanni Battista, 1619. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 7818. Erased P1 (title page); P5 'Regno d'Italia: Deposito della guerra', 'K.K. / Mil. Geogr. / Instituts / archiv', 'Hydrographisches amt bibliothek: S.K.K. kriegs marine' (title page and verso); U13 (14, 16, 17-24, 33-44, 145-148, 160); torn off illustrations (2-3, 6-7, 14-15, 38-39, 46-47). Seelig 1905, I, 55

198. CAESAR, CAIUS JULIUS. *Commentarii*. Venice: Manuzio, Aldo, 1575. Vol. 1, 8°, edition n.d., language Latin. 2. Military architecture. ZKD, Collegium Ragusinum, CR-20484.
199. CAESAR, CAIUS JULIUS. *Commentarii*. Manuzio, Aldo. Venice: Leni, Giovanni Maria, 1580. Vol. 1, 8°, edition n.d., language Latin. 2. Military architecture. FSD, 26-II-4.
200. CAESAR, CAIUS JULIUS. *Commentarii*. Manuzio, Aldo. Venice: Manuzio, Paolo, 1588. Vol. 1, 8°, edition n.d., language Latin. 2. Military architecture. FSD, 24-II-23.
201. CAESAR, CAIUS JULIUS. *Commentariorum De bello gallico*. Padua: Tipografia del Seminario, 1709. Vol. 1, 12°, edition n.d., language Latin. 2. Military architecture. DSZ, I-127. Unidentified edition
202. CAESAR, CAIUS JULIUS. *I commentari*. Baldelli, Francesco M. Venice: Giolito de Ferrari, Gabriele, 1573. Vol. 1, 12°, edition 2, language Italian. 2. Military architecture. SKS, R-575.
203. CAESAR, CAIUS JULIUS. *I commentari [...] con le figure in rame*. Palladio, Andrea. Venice: Foglietti, Girolamo, 1598. Vol. 1, 8°, edition 2, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, 36.603. P1 'Bausimivic Yanjch/ ... / de Lipoch' (title page); P2 (front endpaper); U2 (75, 278, 321); U11 (110-111); U13 (C 1v).
204. CAESAR, CAIUS JULIUS. *I commentari [...] con le figure in rame*. Palladio, Andrea. Venice: Foglietti, Girolamo, 1618. Vol. 1, 8°, edition 3, language Italian. 2. Military architecture. NUK, GS 1018.
205. CAESAR, CAIUS JULIUS. *Rerum ab se gestarum commentarii*. Lyons: Gryphius, Antoine, 1576. Vol. 1, 16°, edition n.d., language Latin. 2. Military architecture. NKZG, M 1359-16°.
206. CAESAR, CAIUS JULIUS. *Rerum ab se gestarum commentarii*. Lyons: Gryphius, Antoine; Tournes, Jean de, 1582. Vol. 1, 16°, edition n.d., language Latin. 2. Military architecture. NKZG, M 4923-16°.
207. CAGNOLI, ANTONIO. *Trigonometria plana e sferica*. Paris: Didot, François Ambroise, 1786. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. DSZ, III-142. P6 'Il.5. / 277' (title page)
208. CANTEL, PIERRE-JOSEPH. *De romana republica, sive De re militari & civili Romanorum*. Venice: Bassaglia, Pietro, 1730. Vol. 1, 8°, edition 9, language Latin. 2. Military architecture. AMS.
209. CANTZLER, BERNHARD. *Summa geometricae practicae*. Nuremberg: Endter, Johann Andreas & Wolfgang, 1673. Vol. 1, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 4194-8°. Kukolja-Magić 1995, N. 391
210. CAPACCIO, GIULIO CESARE. *La vera antichità di Pozzuolo*. Naples: Carlino, Gio. Giacomo, 1607. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 3578-8°. Kukolja-Magić 1995, N. 417
211. CARAMUEL Y LOBKOWITZ, JUAN. *Sublimium ingeniorum crux iam tandem aliquando deposita*. Leuven: Van der Heyden, Petrus, 1644. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. SKR, Biblioteca civica, II.E.45. Missing
212. CARLI, GIAN RINALDO. *Le antichità italiane*. Milan: Imperial monistero S. Ambrogio Maggiore, 1788. Vol. 5, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Collegium Ragusinum, CR-II-1511. Only vols. 2-4
213. CARTARI, VINCENZO. *Imagines deorum, qui ab antiquis colebantur*. Du Verdier, Antoine. Lyons: Julliéron, Guichard, Honorat, Barthélemy, 1581. Vol. 1, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. DSS, XXIX e 15. Dujmović 2010, n. 25
214. CASTIGLIONE, BALDASSARRE. *Aulicus Bathasaris Castilionii, factus ex italico sermone latinus*. Turler, Hieronymus. Wittenberg: Schuvertelius, Iohannes, 1569. Vol. 1, 8°, edition n.d., language Latin. 8. Miscellanea. NMS, K XI 14.
215. CASTIGLIONE, BALDASSARRE. *Der vollkommene Hofmann un Hof-Dame*. Frankfurt: Schäffern, Carl, 1684. Vol. 1, 8°, edition n.d., language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 8838-8°. Kukolja-Magić 1995, N. 439
216. CASTIGLIONE, BALDASSARRE. *Galante Nacht-Gesprache*. Dresden: Günther, Michael, 1685. Vol. 1, 8°, edition n.d., language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 5752-8°. Kukolja-Magić 1995, N. 437
217. CASTIGLIONE, BALDASSARRE. *Hofman, ein schon holdselig Buch*. Munich: Berg, Adam, 1565. Vol. 1, 8°, edition n.d., language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 4903-8°. Kukolja-Magić 1995, N. 438
218. CASTIGLIONE, BALDASSARRE. *Il cortegiano*. Venice: Giolito de Ferrari, Gabriele, 1544. Vol. 1, 8°, edition 9, language Italian. 8. Miscellanea. FSD, 11a-II-15.
219. CASTIGLIONE, BALDASSARRE. *Il cortegiano*. Venice: Giolito de Ferrari, Gabriele, 1563. Vol. 1, 16°, edition 24, language Italian. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 3528-16°. Kukolja-Magić 1995, N. 418
220. CASTIGLIONE, BALDASSARRE. *Il cortegiano*. Venice: Trino, Comin de, 1573. Vol. 1, 8°, edition 27, language Italian. 8. Miscellanea. ZKD, Collegium Ragusinum, R-20.431.
221. CASTIGLIONE, BALDASSARRE. *Il cortegiano*. Venice: Basa, Bernardo, 1584. Vol. 1, 8°, edition 29, language Italian. 8. Miscellanea. NUK, GS o 24941. P1 'Joseph Gabrijel pl. Buseti'.
222. CASTIGLIONE, BALDASSARRE. *Il libro del cortegiano*. Venice: Manuzio, Aldo eredi, 1545. Vol. 1, fol, edition 10, language Italian. 8. Miscellanea. SKR, CC-316.
223. CASTIGLIONE, BALDASSARRE. *Il libro del cortegiano*. Venice: Fagiani, Bernardino, 1559. Vol. 1, 8°, edition 19, language Italian. 8. Miscellanea. ZKD, Antiqua, A-156.
224. CASTIGLIONE, BALDASSARRE. *Cortegiano*. Venice: Trino, Comin de, 1573. Vol. 1, 8°, edition 27, language Italian. 8. Miscellanea. ZKD, Collegium Ragusinum, CR-20.431.
225. CASTRIOTTO, GIACOMO FUSTI DETTO. *Della fortificazione della città*. Maggi, Girolamo. Venice: Borgomineri, Camillo, 1583. Vol. 1, 2°, edition 2, language Italian. 2. Military architecture. AMZD, 8025/2017 A.

226. CATANEO, GIROLAMO. *Dell'arte militare libri cinque*. Brescia: Marchetti, Pietro Maria, 1584. Vol. 1, 8°, edition 5, language Italian. 2. Military architecture. ZKD, Collegium Ragusinum, CR-21.088. P1 'Floriano Matyas Zara' (title page); P5 'Kr. realna gimnazija u Dubrovniku / Stara učiteljska knjižnica / Br. 2850' (title page), 'Narodna republika Hrvatske / Naučna biblioteka Dubrovnik' (title page verso); P6 'A C / 8', 'LVIII.3' (title page); U5 (I 72v, V 29v); U10 (I 44v-45r, 64r, back endpaper); U12 (IV title page); U13 (I 31v, 34-35, 45r, 45-46, 57v, 63v, 72v, II 1r, 9v, 12-13, IV 2v, 21-22, 29-30, V 1-2, 3v, 9r, 12r).
227. CATANEO, GIROLAMO. *Dell'arte militare libri cinque*. Brescia: Marchetti, Pietro Maria, 1608. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 27. P5 'Kr. sveučilišna knjižnica u Zagrebu' (title page). Gudelj-Botica 2012, 32
228. CATANEO, GIROLAMO. *Libro nuovo di fortificare, offendere, et difendere*. Brescia: Bozzola, Tomaso, 1567. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 6139-8° privez 2. P5 'E Bibliotheca Metropolitanae Zagabrensis' (title page); P6 '24d3/d / 2' (title page); U13 (10r, 21v, 49v, 71v).
229. CATANEO, GIROLAMO. *Modo di forma con prestezza*. Brescia: Sabbio, Vincenzo; Bozzola, Tomaso, 1567. Vol. 1, 8°, edition 2, language Italian. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 6139-8° privez 3. P5 'E Bibliotheca Metropolitanae Zagabrensis' (1); P6 '24d3/e' (1).
230. CATANEO, GIROLAMO. *Opera nuova di fortificare, offendere e difendere*. Brescia: Bozzola, Giovanni Battista; Sabbio Lodovico, 1564. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 2188. Missing Seelig 1905, I, 60
231. CATANEO, PIETRO. *Le pratiche delle due prime matematiche*. Venice: Griffio, Giovanni, 1559. Vol. 1, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey. KHAZU, Rara, R-1643. Erased P1 (title page, 11r); P1 'Ex libris Georgi Sablich de Cherzo' (title page), 'Ex libris / Petrij Sablich de / Cherzio (back endpaper); U2 (fron endpaper, Ai v); U3 (3v, 4r, 6v, 7r, 10v, 15r, 17r-v, 18v, 36r, 37v, 38r, 39r, 73r, 76v, 77r, 78r, 81r); U5 (7r, 9v, 11r, 12v, 14v, 17v, 18r, 30v, 77v, 79r-v, 82r); U6 (17v); U7 (39r, 52r, back endpaper); U13 (2v, 7r, 9r, 10r, 11v, 12r, 19v, 35v, 40r, 41v, 45v, 53r, 71-72, 76v, 77v).
232. CATO, MARCUS PARCIUS. *De re rustica*. Venice: Pepoli, Alessandro, 1794. Vol. 3, 8°, edition n.d., language Latin. 8. Miscellanea. ZKD, Collegium Ragusinum, CR-20668. Only vol. 3 of 3.
233. CATO, MARCUS PORCIUS; COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; VARRO, MARCUS TERENTIUS. *De re rustica*. Reggio Emilia: Bruschi, Bartolomeo, 1482. Vol. 1, 2°, edition 2, language Latin. 8. Miscellanea. NUK, Ti II 1265. From the Auersperg Library, with coloured drawings
234. CATO, MARCUS PORCIUS; COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; VARRO, MARCUS TERENTIUS. *De re rustica*. Bologna: Benedicti Hectoris Bononiensis, 1494. Vol. 1, 2°, edition 3, language Latin. 8. Miscellanea. NUK, Ti II 1258. P1 '1516'; U7 (various pp.)
235. CATO, MARCUS PORCIUS; COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; VARRO, MARCUS TERENTIUS. *De re rustica*. Lyons: Gryphius, Sébastien, 1537. Vol. 1, 8°, edition 11, language Latin. 8. Miscellanea. ZKZ, R-276.
236. CATO, MARCUS PORCIUS; COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; VARRO, MARCUS TERENTIUS. *De re rustica*. Lyons: Gryphius, Sébastien, 1549. Vol. 1, 8°, edition 14, language Latin. 8. Miscellanea. NUK, GS I 915. P1 'Laurentij Andrian professor'
237. CATO, MARCUS PORCIUS; COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; VARRO, MARCUS TERENTIUS. *Libri de re rustica*. Angeli, Niccolò; Beroaldo, Filippo. Florence: Giunta, Filippo, 1521. Vol. 1, 4°, edition 3, language Latin. 8. Miscellanea. SKS, R-511. P1 'Zuane zenoa' (Bbviii v); U8 'Di primo ottobre ... / Angeler m.', 'Adi 9 Aprile 1569 / La Dominiga di note nella / note no... il mio poliodo', 'Adi 9 aprile 1591 / ...' (title page); U5 and U13 (various pp.).
238. CATO, MARCUS PORCIUS; COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; VARRO, MARCUS TERENTIUS. *Rei rusticae auctores latini veteres*. Heidelberg: Commelini, 1595. Vol. 1, 8°, edition 15, language Latin. 8. Miscellanea. NKZG, M 6660-8°.
239. CATO, MARCUS PORCIUS; COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; VARRO, MARCUS TERENTIUS. *Scriptores rei rusticae veteres latini*. Gesner, Johann Matthias; Loschi, Lodovico Antonio. Venice: Bettinelli, Tommaso, 1783. Vol. 5, 8°, edition 16, language Latin. 8. Miscellanea. ZKD, Zbirka Natali-Pozza-Sorgo, NPS-107/1,45. Only vols. I (1783), IV (1784), V (1784)
240. CAVALIERI, BONAVENTURA. *Trigonometria plana, et spherica, linearis, et logarithmica*. Bologna: Benacci, Vittorio erede, 1643. Vol. 1, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. SKS, R-653.
241. CAVALLOTTO, GIANDOMENICO. *Saggio di osservazioni particolari sopra lo stato in cui attrovassi presentemente la naval costruzione in Venezia*. Venice: Fenzo, Modesto, 1766. Vol. 1, 4°, edition 1, language Italian. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1710. Seelig 1905, I, 61
242. CELLARIUS, ANDREAS. *Architectura militaris*. Amsterdam: Jansson, Jodocus, 1645. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 5913-4°. Kukolja-Magić 1995, N. 440
243. CELLARIUS, ANDREAS. *Architectura militaris*. Amsterdam: Jansson, 1656. Vol. 1, 2°, edition 2, language German. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 248. Gudelj-Botica 2012, 34
244. CHACON, ALFONSO. *Columnae Trajani orthographia*. Rome: Salomonius, Johannes Generosus, 1773. Vol. 1, fol, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKZ, 1373 A. P11 'A cara sua Patria, Paravia'.
245. CHAMBERS, EPHRAIM. *Dizionario universale delle arti e delle scienze*. Venice: Pasquali, Giambattista, 1749. Vol. 12, 4°, edition 3, language Italian. 6. The arts. ZKD, Collegium Ragusinum, CR-25072.

246. CHAMBERS, EPHRAIM. *Dizionario universale delle arti e delle scienze*. Venice: Pasquali, Giambattista, 1748. Vol. 9, 4°, edition 3, language Italian. 6. The arts. FSD, 25-VIII-16-21. 1748-1749. Only 5 vols.
247. CHAMBERS, EPHRAIM. *Dizionario universale delle arti e delle scienze*. Venice: Pasquali, Giambattista, 1749. Vol. 9, 4°, edition 3, language Italian. 6. The arts. PMP, 03 CHAMBERS Dizionario 1-9.
248. CHAMBERS, EPHRAIM. *Supplemento di Giorgio Lewis al Dizionario universale delle arti e scienze*. Scott, George Lewis. Venice: Pasquali, Giambattista, 1762. Vol. 6, 4°, edition 1, language Italian. 6. The arts. PMP, 03 SCOTT Supplemento 1-6. 1762-1765
249. CHAMBERS, EPHRAIM. *Dizionario universale delle arti e delle scienze*. Venice: Pasquali, Giambattista, 1749. Vol. 9, 4°, edition 3, language Italian. 6. The arts. NUK, GS 6591.
250. CHAPMAN, FREDERIK HENRIK. *Traité de la construction des vaisseaux*. Brest: Malassis, R.; Jombert, Louis-Alexandre, 1781. Vol. 1, 4°, edition 2, language French. 3. Shipbuilding and mechanics. PMK, XLII / 1002. Erased P1 'C. E. M.' (title page); U5 (sporadic) Dabinović-Nikčević 2019, p. 11
251. CHAPMAN, FREDERIK HENRIK. *Traté de la construction des vaisseaux*. Brest: Malassis, R.; Jombert, Louis-Alexandre, 1781. Vol. 1, 4°, edition 2, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 7. Missing Seelig 1905, I, 63
252. CHIUSOLE, ADAMO. *De' precetti della pittura*. Vicenza: Turra, 1781. Vol. 1, 8°, edition 2, language Italian. 6. The arts. CNBCT, C I 138. P1 'Dujam Vuinich' (title page); P6 'i-2619 / 1987' (title page).
253. CHIUSOLE, ADAMO. *Dell'arte pittorica*. Venice: Caroboli, Giacomo; Pompeati, Domenico, 1768. Vol. 1, 8°, edition 1, language Italian. 6. The arts. CNBCT, C I 109. P1 'Dujan Vuinich' (title page); P6 'i-2174 / 1987' (title page).
254. CHIUSOLE, ANTONIO. *La geometria comune, legale ed aritmetica*. Venice: Recurti, Giovanni Battista, 1740. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. FSD, 1-XI-6.
255. CHOISEUL GOUFFIER, MARIE GABRIEL FLORENT AUGUSTE. *Voyage pittoresque de la Grèce*. Paris: s.n., 1782. Vol. 2, Fol, edition 1, language French. 7. Descriptions of ancient and modern towns and regions. FST, R IV-2°-7. P1: 'Pro usu simpliciter artistico ac scientifico P. Ottonis Skolla Ord. Min. S. P. Franc. Obs. reg. & reform. alumn. Qui hunc librum gallicum sub pretio competenti exsolvit in Conventu Nazaretano a Dom. Petro Mussi ludi-magistro in Parochia Schönstein in Styria inf. Anno Domini MDCCCL[X]VII' (front endpaper). Only vol. 1.
256. CIOGNA, GIOVANNI MATTEO. *Il primo libro del trattato militare*. Venice: Bariletti, Giovanni, 1567. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 6139 privez 5.
257. CLAVIUS, CHRISTOPHORUS. *Epitome arithmeticae practicae*. Cologne: Cholinus, Maternus, 1584. Vol. 1, 12°, edition 2, language Latin. 4. Drawing, perspective and land survey. NUK, GS o 4104. P1 'Nunc Simonis Georgis'
258. CLAVIUS, CHRISTOPHORUS. *Geometria practica*. Rome: Zanetti, Luigi, 1604. Vol. 1, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. SAZU, Centralna biblioteka, 101517. From the library of Ivan Jagr
259. CLAVIUS, CHRISTOPHORUS. *Opera mathematica*. Meinz: Hierat, Anton; Eitz, Reinhard, 1611. Vol. 5, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9328-4°. Kukolja-Magić 1995, N. 453
260. CLEMENTI, AFRICO. *Dell'agricoltura*. Treviso: Da Ponte, Pasqualino, 1677. Vol. 1, 8°, edition 4, language Italian. 8. Miscellanea. PMP, Biblioteca civica, 6 CLEMENTI Della.
261. CLEMENTI, AFRICO. *Trattato dell'agricoltura*. Treviso: Molino, Giovanni, 1692. Vol. 1, 8°, edition 4, language Italian. 8. Miscellanea. SKS, R-8631.
262. COLERUS, JOHANNES. *Oeconomia ruralis et domestica*. Frankfurt: Schönwetter, Johann Baptist, 1680. Vol. 1, 4°, edition 3, language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 11540-4°. Kukolja-Magić 1995, N. 473
263. COLLADO, LUIS. *Prattica manuale dell'artiglieria*. Milan: Bordone, Girolamo & Locarni, Pietro Martire, 1606. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 297.
264. COLLE, FLAMINIO PRIMO. *Cose meravigliose dell'alma città di Roma*. Rome: Facciotti, Guglielmo, 1606. Vol. 1, 8°, edition 7, language Italian. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 7186-8°. Kukolja-Magić 1995, N. 490
265. COLUMELLA, LUCIUS IUNIUS MODERATUS. *De cultu hortorum libri XI*. Padua: Siliprandi, Domenico, 1480. Vol. 1, fol, edition 1, language Latin. 8. Miscellanea. ZKD, Inkunabula, Ink.23. Estimated date
266. COLUMELLA, LUCIUS IUNIUS MODERATUS. *De l'agricoltura*. Lauro, Pietro. Venice: Cavalcalovo, Gironimo, 1559. Vol. 1, 8°, edition 2, language Italian. 8. Miscellanea. ZPZHAZU, Miočević-Rendić Collection, D 418.
267. COLUMELLA, LUCIUS IUNIUS MODERATUS; PALLADIUS, RUTILIUS TAURUS AEMILIUS; *De re rustica*. 1529. Vol. 1, edition 1, language Latin. 8. Miscellanea. ZKD, Collegium Ragusinum, CR-II-1439. P5 'Ex libris / Đordi-A. Svilokos'; handwritten index before the book; handwritten sheet numbers (on Columella only); U13 (various pp.); U6-7 (sporadic). Unidentified edition, may be Paris: Josse Bade 1529.
268. COMTE, FLORENT LE. *Cabinet des singularitez d'architecture, peinture, sculpture et graveure*. Brussels: Lambert, 1702. Vol. 3, 12°, edition 2, language French. 1. Architectural treatises. AMS,. Duplančić 2019
269. CONNETTE, MICHEL. *La géométrie réduite en une facile et briefue pratique*. Paris: Hulpeau, Charles, 1626. Vol. 1, 8°, edition 1, language French. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 3686-8°. Kukolja-Magić 1995, N. 482
270. CONTI, ALESSANDRO. *Elementi aritmetici*. Rome: Mainardi, Girolamo, 1741. Vol. 1, 8°, edition 2, language Italian. 4. Drawing, perspective and land survey. FSS, LIII.9.

271. CORDEMOY, JEAN-LOUIS DE. *Nouveau traité de toute l'architecture utile aux entrepreneurs, aux ouvriers, & à ceux qui font bâtir*. Paris: Coignard, Jean-Baptiste, 1706. Vol. 1, 4°, edition 1, language French. 1. Architectural treatises. KFG, VIII e 14. P6 'B.VI.25' (title page)
272. CORNARO, LUIGI OR ALVISE. *La Scuola Salernitana [...] con li discorsi della vita sobira*. Venice: Brigonci, Giovanni Pietro, 1662. Vol. 1, 8°, edition 2, language Italian. 8. Miscellanea. FSD, 63-L-1.
273. CORNARO, LUIGI OR ALVISE. *La Scuola Salernitana [...] con li discorsi della vita sobira*. Venice: Brigonci, Giovanni Pietro, 1662. Vol. 1, 8°, edition 2, language Italian. 8. Miscellanea. SKS, R-215.
274. CORNAZANO, ANTONIO. *De re militari*. Venice: Sessa, Melchior, 1526. Vol. 1, 16°, edition 6, language Italian. 2. Military architecture. SKR, Knjige 16. stoljeća, CC-234.
275. CORONELLI, VINCENZO. *Atlante Veneto*. Venice: Paduani, Domenico, 1690. Vol. 2, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Mornarična knjižnica, 2646. Missing Seelig 1905, I, 73
276. CORONELLI, VINCENZO. *Città, fortezze, isole, e porti principale dell'Europa*. Venice: Paduani, Domenico, 1689. Vol. 2, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Mornarična knjižnica, 2629. Missing Seelig 1905, I, 73
277. CORONELLI, VINCENZO. *Viaggi del P. Coronelli*. Venice: Tramontino, Giovanni Battista, 1697. Vol. 2, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. FSŠ, NVI.3.
278. COSTAGUTI, GIOVANNI BATTISTA SENIORE. *Architettura della basilica di S. Pietro in Vaticano*. Rome: Stamperia della Camera apostolica, 1684. Vol. 1, fol, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. AMS, R 1837.
279. COTRUGLI, BENEDETTO [KOTRULJEVIĆ, BENKO]. *Della mercatura e del mercante perfetto*. Venice: All'elefanta, 1573. Vol. 1, 8°, edition 1, language Italian. 8. Miscellanea. SKS, R-1504.
280. COUSIN, JEAN. *Livre de perspective*. Paris: Le Royer, Johan, 1560. Vol. 1, 2°, edition 1, language French. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 24380-2°. P2 Valvasor on a previous one (front paste-down); U2 (A2r); U5 (A II r); U13 (D IV r). Kukulja-Magić 1995, N. 505
281. CRANACH, LUCAS. *Hortulus animae = Lustgertlin der Saalen: mit schönen lieblichen Figuren*. Wittenberg: Rhaw, Georg, 1548. Vol. 1, 8°, edition 1, language German. 6. The arts. NUK, GS o 13829.
282. CRANACH, ULRICH. *Delicae Cranachianae [...] Rar und Kunstreiche Fried- und Krieges- Inventiones*. Hamburg: Schultzen, Gottfried, 1672. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7594-4° privez. 4. Kukulja-Magić 1995, N. 508
283. CRESCENZI, BARTOLOMEO. *Proteo militare*. Naples: Carlino, Gio. Giacomo, 1595. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKS, R-528. P1 'Rendić-Miočević Ivan' (front endpaper), 'Questo libro è di me Domenico Difnico' (title page v), 'Biblioteca dei conti Galbani e Rendich Mioceovich' (back endpaper); P5 'Gradska Biblioteka Split'; P6 'Sp / 5', '247 / I' (front endpaper) P11 'od prof. Miljenka Vidovića 1949'; U2 (10, 69, 73, 99, 173); U3 (69, 166); U5 (88 3v, 8, 18, 50, 69, 73-75, 89, 130-131, 162, 185, 191); U6 (title page, 8, 35, 50, 69, 89, 148, 185, 190); U10 (10, 106, 129, 165)
284. CRESCENZI, PIETRO. *Le cose della villa con le figure*. Venice: Rampazetto, Francesco, 1564. Vol. 1, 16°, edition 13, language Italian. 8. Miscellanea. NKZG, M 5636-16°.
285. CRESCENZI, PIETRO. *Le liure des prouffitz champestres et ruraulx*. Paris: Le Noir, Philippe, 1530. Vol. 1, fol, edition 1, language French. 8. Miscellanea. NSKZ, Zbirka rukopisa i starih knjiga, R VI-4°-15. P1 'Collegij Zagrab: / Loc: Irin / Cas: Inscriptur / 1655'.
286. CRESCENZI, PIETRO. *Opera di agricoltura*. Venice: Viani, Bernardino de, 1536. Vol. 1, 8°, edition 6, language Italian. 8. Miscellanea. NSKZ, Zbirka rukopisa i starih knjiga, 34-338. P1 (front paste-down); U8 (front and back endpapers); U13 (various pp.); U5 and U7 (P III r); U11 of an horse (back paste-down).
287. CRESCENZI, PIETRO. *Pietro Crescenzio tradotto novamente [...] nel quale si trattano le cose della villa*. Sansovino, Francesco. Venice: Rampazetto, Francesco, 1564. Vol. 1, 16°, edition 13, language Italian. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 5636-8°. P1 'Antonio Zlatarich'
288. CRESCENZI, PIETRO. *Vom Ackerbau, Erdtwücher, und Laxleuten*. Strasbourg: Knobloch, Hans, 1531. Vol. 1, fol, edition 1, language German. 8. Miscellanea. NUK, GS II 11055. P5 on a previous P1 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); P6 'V. A.b.28' (front paste-down); U7 (various pp.); U13 (various pp.); U17 (various illustrations)
289. CRESCENZI, BARTOLOMEO. *Nautica mediterranea*. Rome: Bonfadino, Bartolomeo, 1602. Vol. 1, 4°, edition 1, language Italian. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 2486. Missing Seelig 1905, I, 76
290. CRISTIANI, GIROLAMO FRANCESCO. *Delle misure d'ogni genere antiche, e moderne*. Brescia: Bossini, Giambattista, 1760. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. SKR, Biblioteca civica, -.
291. CRISTIANI, GIROLAMO FRANCESCO. *Delle misure d'ogni genere antiche, e moderne*. Brescia: Bossini, Giambattista, 1760. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. NUK, GS II 7913. From Žige Zoisa's library
292. DANIELETTI, DANIELE. *Elementi d'architettura civile*. Padua: Bettinelli, Niccolò, 1791. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. SKS, R-827 **. P5 'Gradska biblioteka Split' (title page).
293. DASSIÉ, F. *L'architecture navale contenant la manière de construire les navires, galeres, & chaloupes*. Paris: La Caille, Jean de, 1677. Vol. 1, 4°, edition 1, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 2006. Missing Seelig 1905, I, 80
294. DE AGOSTINI, FRANCESCO GIUSEPPE. *Specimen geometriae in quinque capita distributum*. Fano: Donati, Andrea, 1765. Vol. 1, 4°, edition 3, language Latin. 4. Drawing, perspective and land survey. FSD, 20-VI-1.

295. DE BAÏF, LAZARE. *Annotationes in legem II. de captivis et postliminio reversis, in quibus tractatur de re navali*. Basel: Frobenius et Episcopus, 1537. Vol. 1, 4°, edition 3, language Latin. 3. Shipbuilding and mechanics. NUK.
296. DE BAÏF, LAZARE. *Annotationes in L. 2 de captivis, et postliminio reversis. In quibus tractatur de re navali*. Paris: Estienne, Robert, 1536. Vol. 1, 4°, edition 1, language Latin. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 2640. Missing
Seelig 1905, I, 24
297. DE BAÏF, LAZARE. *De re navali commentarius*. Basel: Lasius, Balthazar; Platter, Thomas, 1537. Vol. 1, 8°, edition 3, language Latin. 3. Shipbuilding and mechanics. NUK, GS 1575.
298. DE BAÏF, LAZARE. *De re vestitaria, vascularia & navali*. Paris: Estienne, Charles, 1553. Vol. 1, 8°, edition 5, language Latin. 3. Shipbuilding and mechanics. NSKZ, Zbirka rukopisa i starih knjiga, 40.198 Privez 2.
299. DE FER, NICOLAS. *L'atlas curieux, ou le monde [...] L'introduction à la fortification ou les forces de l'Europe*. Paris: De Fer, Nicolas, 1704. Vol. 1, fol, edition 3, language French. 7. Descriptions of ancient and modern towns and regions. SKP, Mornarična knjižnica, 1956. Missing
Seelig 1905, I, 109
300. DE MARCHI, FRANCESCO. *Dell'architettura militare*. Brescia: Presegni, Comino, 1599. Vol. 1, 2°, edition 2, language Italian. 2. Military architecture. NSKZ, Zbirka rijetkosti, BZ 372. P2 'Nikola Zrinski 1646'; U2 handwritte table of contents (front endpaper); plates numbered with pencil. Unidentified edition. Gudelj-Botica 2012, 31
301. DE VILLE, ANTOINE. *Die Festungs- Bau - Kunst*. Amsterdam: Wolffgangs, Abraham, 1676. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 9587-8°. Kukolja-Magić 1995, N. 2424
302. DE VILLE, ANTOINE. *Les fortifications*. Lyons: Barlet, I., 1628. Vol. 1, 4°, edition 1, language French. 2. Military architecture. SKP, Biblioteca provinciale dell'Istria, 16836. Missing
303. DE VILLE, ANTOINE. *Les fortifications*. Amsterdam: s.n., 1672. Vol. 1, 16°, edition 4, language French. 2. Military architecture. SKP, Biblioteca provinciale dell'Istria, 27107.
304. DEIDIER, M ABBÉ. *Elementi generali delle principali parti delle matematiche*. Venice: Fenzo, Modesto, 1761. Vol. 3, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. PMK, CK I (inv. 5556). P1 'dal caro Milanovich Paolo' (front endpaper).
305. DEIDIER, M ABBÉ. *Elemens generaux des principales parties des mathématiques, necesaires à l'artillerie et au génie*. Paris: Jombert, Charles-Antoine, 1745. Vol. 2, 4°, edition 1, language French. 4. Drawing, perspective and land survey. SKP, Mornarična knjižnica, 1596. Missing
Seelig 1905, I, 83
306. DEIDIER, M ABBÉ. *Elementi generali delle principali parti delle matematiche*. Venice: Fenzo, Modesto, 1762. Vol. 3, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-1308 II.
307. DEIDIER, M ABBÉ. *L'arithmétique des géometres, ou nouveaux élémens de mathematiques*. Paris: Mortier, Pierre, 1739. Vol. 1, 4°, edition 1, language French. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-II-1853.
308. DEIDIER, M ABBÉ. *La science des géomètres*. Paris: Jombert, Charles-Antoine, 1739. Vol. 1, 8°, edition 1, language French. 4. Drawing, perspective and land survey. SKR, Biblioteca civica, VII.C.12.
309. DEIDIER, M ABBÉ. *Le parfait ingenieur françois*. Paris: Jombert, Charles-Antoine, 1742. Vol. 1, 8°, edition 3, language French. 4. Drawing, perspective and land survey. NMS, [II] 14263.
310. DEIDIER, M ABBÉ. *Le parfait ingenieur françois*. Paris: Chardon, Jacques; Jombert, Charles Antoine, 1742. Vol. 1, 4°, edition 3, language French. 2. Military architecture. NUK, GS II 8078.
311. DEIDIER, M ABBÉ. *Le parfait ingenieur françois*. Paris: Jombert, Charles-Antoine, 1757. Vol. 1, 8°, edition 2, language French. 2. Military architecture. SKR, Biblioteca civica, VII.C.16.
312. DEL MONTE, GUIDOBALDO. *Mechanischer Kunst-Lammer*. Frankfurt: Merian, Matthäus, 1626. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 11262-4°. Kukolja-Magić 1995, N. 1614
313. DESARGUES, GIRARD. *La pratique du trait à preuves [...] pour la coupe des pierre en l'architecture*. Paris: Des Hayes, Pierre 2, 1643. Vol. 1, 8°, edition 1, language French. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 8719-8°. Kukolja-Magić 1995, N. 514
314. DESMARTINS, L'AINÉ. *L'experience de l'architecture militaire*. Paris: Villery, Maurice, 1685. Vol. 1, 12°, edition 1, language French. 2. Military architecture. ZPZHazu, Miočević-Rendić Collection, D 377. P6 'ZRN / D 377' (front paste-down), 'ap 2 / 40', 'pag. 21 / I, '6/b'; U5 (47); U7 (79, 88, 103-104, 106, 107, 109); U10 and U14 (plate 10); U13 (Aij v, 7, 16-17, 81, 102, plate 2)
315. DÖGEN, MATTHIAS. *Architectura militaris moderna*. Amsterdam: Elsevir, Louis, 1647. Vol. 1, 2°, edition 1, language Latin. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 131. Gudelj-Botica 2012, 35
316. DU CHOUL, GUILLAUME. *Discorso [...] sopra la castramentatione et bagni antichi de i Greci et Romani*. Padua: Olmo, Marco Antonio, 1559. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 235. P1 'Jo. Baptistae Thomaceo' (title page), and 'Tittoli d'Elettori dell'Imperio' (back endpaper). Gudelj-Botica 2012, 64
317. DU CHOUL, GUILLAUME. *Discorso [...] sopra la castramentatione et bagni antichi de i Greci et Romani*. Lyons: Rouillé, Guillaume, 1569. Vol. 1, 4°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. DSS, XXIX g 7. Dujmović 2010, n. 11
318. DU CHOUL, GUILLAUME. *Los discursos de la religion, castramentación, assiento del campo, banos y exercicios de los antiguos Romanos y Griegos*. Lyons: Rouillé, Guillaume, 1579. Vol. 1, 4°, edition 1, language Spanish. 7. Descriptions of ancient and modern towns and regions. NUK, GS I 230.

319. DU MAITZ DE GOIMPY, LOUIS-EDME-GABRIEL. *Traité sur la construction des vaisseaux*. Paris: Courtier, D.P., 1776. Vol. 1, 4°, edition 1, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1964. Missing. Seelig 1905, I, 223
320. DUBREUIL, JEAN. *La perspective pratique*. Paris: Tavernier, Melchior; L'Ange, François, 1642. Vol. 3, 8°, edition 1, language French. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11802-8°. Vol. I (1642), II (1642), III (1649). Kukolja-Magić 1995, N. 557
321. DUHAMEL DU MONCEAU, HENRI-LOUIS. *Elemens de l'architecture navale, ou traité pratique de la construction des vaisseaux*. Paris: Jombert, Charles-Antoine, 1758. Vol. 1, 4°, edition 2, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1169. Missing. Seelig 1905, I, 94
322. DUHAMEL DU MONCEAU, HENRI-LOUIS. *Éléments de l'architecture navale ou traité pratique de la construction des vaisseaux*. Paris: Jombert, Charles-Antoine, 1758. Vol. 1, Fol, edition 2, language French. 3. Shipbuilding and mechanics. PMK, CK I (inv. 5559). Erased P1 'C. E. M.' (title page); U14 and U16 (folded plates). Dabinović-Nikčević 2019, p. 13
323. DURANTI DE LIRONCOURT. *Instruction élémentaire et raisonnée sur la construction-pratique des vaisseaux*. Paris: Musier fils, J.B.G., 1771. Vol. 1, 4°, edition 1, language French. 3. Shipbuilding and mechanics. NUK, GS I 8137. From the library of Družba za kmetijstvo in uporabne umetnosti na Kranjskem
324. DURANTI DE LIRONCOURT. *Instruction élémentaire et raisonnée sur la construction-pratique des vaisseaux*. Paris: Musier fils, J.B.G., 1771. Vol. 1, 4°, edition 1, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1900. Missing. Seelig 1905, I, 95
325. DÜRER, ALBRECHT. *De symmetria partium in rectis formis humanorum corporum*. Nuremberg: Andreae, Hieronymus, 1532. Vol. 1, 2°, edition 1, language Latin. 4. Drawing, perspective and land survey. SKR, Biblioteca civica, 29.B.31. Customized binding with Latin mottos (unreadable); erased P1 or P3 (front paste-down); U11 (sheet 44v); U13 (various pp.).
326. DÜRER, ALBRECHT. *De symmetria partium in rectis formis humanorum corporum*. Nuremberg: Formschnyder, Hieronymus, 1534. Vol. 1, 2°, edition 2, language Latin. 4. Drawing, perspective and land survey. NSKZ, Zbirka rijetkosti, R VI-4°-44. P5 'Biblioteka Dra. Nikole pl. Tomašića'; U5 and U11 (various pp.).
327. DÜRER, ALBRECHT. *De urbibus, arcibus, castellisq; condendis, ac muniendis rationes aliquot*. Paris: Wechel, Chrétien, 1535. Vol. 1, 2°, edition 1, language Latin. 2. Military architecture. SKR, Biblioteca civica, 29.B.31 privez. U1 page numbers (sheets b iii and b iiiii).
328. DÜRER, ALBRECHT. *Etliche Unterricht zu Befestigung der Stett, Schloss, und Flecken*. Nuremberg: s.n., 1527. Vol. 1, 2°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 10876-4° privez 2. Stolen. Kukolja-Magić 1995, N.596
329. DÜRER, ALBRECHT. *Hierinn sind begriffen vier Bücher von menschlicher Proportion*. Nuremberg: s.n., 1528. Vol. 1, 2°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10876-4°. Stolen. Kukolja-Magić 1995, N.597
330. DÜRER, ALBRECHT. *Underweysung der Messung*. Nuremberg: s.n., 1525. Vol. 1, 2°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10876-4° privez 1, primj. a. Stolen. Kukolja-Magić 1995, N.598
331. EBERHART, PHILIPP. *Kurtzer und gründlicher Bericht von dem neuen geometrischen Instrument*. Zuber, Leonhard. Basel: Königs, Ludwig, 1604. Vol. 1, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6568-8°. Kukolja-Magić 1995, N. 588
332. ERRARD, JEAN DE BAR-LE-DUC. *Fortificatio das ist kuenstliche un wolgegruendte Demonstration und Erweisung*. Frankfurt: Richter, Wolfgang, 1604. Vol. 1, 2°, edition 1, language German. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 13 adl. 2. U5 (2-5); U13 (50). Gudelj-Botica 2012, 36
333. ESTIENNE, CHARLES. *L'agricoltura, et casa di villa*. Catì, Ercole. Turin: Tarino, Giovanni Domenico, 1609. Vol. 1, 8°, edition 6, language Italian. 8. Miscellanea. NUK, GS I 9643.
334. ESTIENNE, CHARLES. *L'agricoltura, et casa di villa*. Catì, Ercole. Venice: Brignonci, Giovanni Pietro, 1668. Vol. 1, 4°, edition 10, language Italian. 8. Miscellanea. LHL, c 1 (57 a 11).
335. ESTIENNE, CHARLES. *L'agricoltura, et casa di villa*. Catì, Ercole. Venice: Prodotto, 1677. Vol. 1, 4°, edition 9, language Italian. 8. Miscellanea. SKS, R-519. P1 'Menghich Mengotti Abfobat' (back endpaper), U7 (extensive).
336. EUCLIDES. *Elementi geometrici piani, e solidi di Euclide*. Grandi, Guido. Venice: Savioni, Pietro, 1780. Vol. 1, 8°, edition 8, language Italian. 4. Drawing, perspective and land survey. DSZ, II-124. P6 'L.2. / 31' (title page)
337. EUCLIDES. *Elementorum geometricorum libri*. Grienberger, Christoph; Clavius, Christoph. Graz: Windmanstetter, Ernst, 1636. Vol. 1, 16°, edition n.d., language Latin. 4. Drawing, perspective and land survey. SKR, Collegium Societatis Iesus (Rijeka), 6.H.46.
338. EUCLIDES. *Elementorum libri XV*. Gracilis, Stephanus. Cologne: Cholinus, Maternus, 1587. Vol. 1, 8°, edition n.d., language Latin. 4. Drawing, perspective and land survey. NKZG, M 5313-16° privez 1.
339. EUCLIDES. *Preclarissimi opus elementorum [...] in artem geometriam*. Adekardus Barthensis; Campano da Novara. Venice: Ratdolt Erhard, 1482. Vol. 1, fol, edition 1, language Latin. 4. Drawing, perspective and land survey. FSS, YZ.IX.89. U7 by Marko Marulić
340. EUCLIDES. *Preclarissimi opus elementorum [...] in artem geometriam*. Adekardus Barthensis; Campano da Novara. Venice: Ratdolt Erhard, 1482. Vol. 1, fol, edition 1, language Latin. 4. Drawing, perspective and land survey. FSS, YZ.IX.90.
341. EULER, LEONHARD. *Scientia navalis seu tractatus de construendis ac dirigendis navibus*. St Petersburg: Typic Academiae scientiarum, 1749. Vol. 2, 4°, edition 1, language Latin. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 404. Missing. Seelig 1905, I, 105

342. FABRI, OTTAVIO. *L'uso della squadra mobile*. Padua: Gattella, 1673. Vol. 1, 8°, edition 3, language Italian. 4. Drawing, perspective and land survey. SKS, R-650. P1 'Di me Sebastiano Pilloni' (title page); U13 (21, 36).
343. FABRI, OTTAVIO. *L'uso della squadra mobile*. Padua: Gattella, 1673. Vol. 1, 8°, edition 3, language Italian. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-21434. P5 'Kr. realna gimnazija u Dubrovniku' (title page); P6 'DVII15' (front endpaper); 'G 277' (title page); U12 (77); U13 (53, 69, 87, 99); torn of page (95).
344. FABRONI, ADAMO. *Istruzioni elementari di agricoltura*. Venice: Graziosi, 1787. Vol. 1, 8°, edition 2, language Italian. 8. Miscellanea. MGS, Capogrosso Kavanjin, 9106. U7 (various pp.) Zglav-Martinac 2009, 338
345. FAETERMANN, JOSEF ADOLF. *Theatrum diagraphicae, sive Artis delineatoriae*. Brixen: Immenthal, Jo. Fri., 1678. Vol. 1, 4°, edition 1, language German. 6. The arts. NKZG, Bibliotheca valvasoriana, M 19866-4°. Kukolja-Magić 1995, N. 603
346. FALDA, GIOVANNI BATTISTA. *Il nuovo teatro delle fabbriche et edificii in prospettiva di Roma moderna*. Rome: De Rossi, Domenico, 1665. Vol. 4, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NMS, [II] 11228.
347. FAULHABER, JOHANNES. *Ingenieurs-Schul*. Ulm: Saur, Jonam, 1633. Vol. 3, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7289-8°. Kukolja-Magić 1995, N. 682
348. FAULHABER, JOHANNES. *Ingenieurs-Schul*. Nuremberg: Endter, Wolfgang, 1637. Vol. 3, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7731-8°. Kukolja-Magić 1995, N. 981
349. FAULHABER, JOHANNES. *Ingenieurs-Schul [...] in ein kurtz Compendium*. Frankfurt: Stotzenbergern, Joh. Nicolai, 1630. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10333-8°. Kukolja-Magić 1995, N. 678
350. FAULHABER, JOHANNES. *Tabula fortificatoria*. s.l.: s.n., s.a. Vol. 1, 4°, edition n.d., language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 25171-4°. Unidentified edition. A manuscript of this book is in the Bayerische Staatsbibliothek, Cod. icon. 229a. Kukolja-Magić 1995, N. 683
351. FELDEN, JOHANN VON. *Ars geometrica*. Jena: Cröker, Henric Christophor, 1690. Vol. 1, 16°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 4589-16° privezek. Kukolja-Magić 1995, N. 684
352. FÉLIBIEN DES AVAUX, JEAN-FRANÇOIS. *Les plans et les descriptions de deux des plus belles maisons de campagne de Plinie le consul*. Amsterdam: Roger, Estienne, 1706. Vol. 1, 12°, edition 2, language French. 1. Architectural treatises. NUK, ZST o 705317.
353. FÉLIBIEN DES AVAUX, JEAN-FRANÇOIS. *Recueil historique de la vie et des ouvrages des plus celebres architectes*. Paris: Mabre-Cramoisy, Sébastien, 1687. Vol. 1, 4°, edition 1, language French. 1. Architectural treatises. ZKZ, 5512-27-4-1. Donated by Pier Alessandro Paravia.
354. FÉLIBIEN DES AVAUX, JEAN-FRANÇOIS. *Vita degli architetti [...] tradotta dal francese*. Venice: Fossati, Giorgio, 1755. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. ZKZ, 17935-68-2-2.
355. FÉLIBIEN DES AVAUX, JEAN-FRANÇOIS. *Vita degli architetti [...] tradotta dal francese*. Venice: Fossati, Giorgio, 1755. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, D 162.
356. FÉLIBIEN, ANDRÉ. *Entretiens sur les vies et sur les ouvrages des plus excellens peintres anciens et modernes*. London: Mortier, David, 1705. Vol. 4, 12°, edition 5, language French. 6. The arts. KHAZU, 10.985-Rn.
357. FELICIANO, FRANCESCO. *Libro di arithmetica & geometria speculativa & praticale*. Venice: Di Leno, Francesco, 1561. Vol. 1, 4°, edition 5, language Italian. 4. Drawing, perspective and land survey. SKS, R-523. P1 'est Lijbro di mij Marco de Marino Raguseo', 'Hic liber est maus. Nicola Doimice in Civitate Veteri', and 'Dominic Duimovich'.
358. FELINI, PIETRO MARTIRE. *Trattato nuovo delle cose meravigliose dell'alma città di Roma*. Rome: Zanetti, Bartolomeo, 1615. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS 3742.
359. FELINI, PIETRO MARTIRE. *Trattato nuovo delle cose meravigliose dell'alma città di Roma*. Rome: Franzini, Giovanni Domenico & Girolamo, 1625. Vol. 1, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 8996-8°. Kukolja-Magić 1995, N. 688
360. FELINI, PIETRO MARTIRE. *Trattato nuovo delle cose meravigliose dell'alma città di Roma*. Rome: Franzini, Giovanni Domenico & Girolamo, 1625. Vol. 1, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, X I 18/č. Pio 'Ano gubileo 1650 ...' (last page)
361. FERRACINO, BARTOLOMEO. *Narrazione istorica del campanile di San Marco in Venezia*. Venice: Occhi, Bortolo, 1757. Vol. 1, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. KFG, VIII h 70.
362. FERRETTI, FRANCESCO. *Della osservanza militare*. Venice: Borgomineri, Camillo & Rutilio, 1576. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. SKS, Martinis-Marchi, R-994. Duplancić-Kovačić 2001, 165
363. FERRO, FRANCESCO. *Istruzioni militari*. Brescia: Turlino, Giacomo, 1751. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. NKZD, 135 (=286).
364. FERRO, FRANCESCO. *Istruzioni militari*. Brescia: Turlino, Giacomo, 1751. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. NMS, [II] 14264.
365. FIAMMELLI, GIOVANNI FRANCESCO. *Il principe cristiano guerriero*. Rome: Zanetti, Luigi, 1602. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. ZKD, Antiqua, A-1271.
366. FIGATELLI, GIUSEPPE MARIA. *Trattato aritmetico: diviso in due parti*. Guidi, Gaetano. Venice: Vizzieri, Bonifacio; Occhi, Domenico, 1751. Vol. 1, 8°, edition 10, language Italian. 4. Drawing, perspective and land survey. CNBCT, C I 69.

367. FINÉ, ORONCE. *Arithmetica practica*. Paris: Colinaeus, Simon, 1535. Vol. 1, 2°, edition 1, language Latin. 4. Drawing, perspective and land survey. FSD, 24-II-22. Unidentified edition
368. FINÉ, ORONCE. *De re et praxi geometrica*. Paris: Gorbin, Aegidium, 1586. Vol. 1, 8°, edition 4, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 12066-8°. Kukolja-Magić 1995, N. 690
369. FINÉ, ORONCE. *Opere*. Bartoli, Cosimo. Venice: Combi, 1670. Vol. 1, 4°, edition 2, language Italian. 4. Drawing, perspective and land survey. ZPZHazu, Miočević-Rendić Collection, B 29. P1 'Ad usum di Bartolomei Zorzi / Ecclesia Santa Sophia'.
370. FIORENZA, FRANCESCO. *Le curieux simple soldat parfait en la fortification*. Liège: Eller, Pierre, 1645. Vol. 1, 16°, edition 1, language French. 2. Military architecture. SKS, Martinis-Marchi, R-579. Duplančić-Kovačić 2001, 166
371. FISCHER, LEOPOLD. *Brevis notitia urbis veteris Vindobonae ex variis documentis collecta*. Vienna: Trattner, Johann Thomas, 1764. Vol. 1, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. SKR, Collegium Societatis Iesus (Rijeka), 29.C.34.
372. FISCHER, LEOPOLD. *Brevis notitia urbis veteris Vindobonae ex variis documentis collecta*. Vienna: Ex typographaeo Jahniano, 1767. Vol. 3, 4°, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, V I 24/č-26/č. Published in 1767-1769
373. FISCHER, LEOPOLD. *Brevis notitia urbis veteris Vindobonae ex variis documentis collecta [...] pars quarta*. Vienna: Ex typographaeo Jahniano, 1770. Vol. 1, 4°, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, W I 13/č.
374. FISCHER, LEOPOLD. *Brevis notitia urbis veteris Vindobonae ex variis documentis collecta*. Vienna: Ex typographaeo Schulziano, 1771. Vol. 3, 4°, edition 3, language Latin. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, V I 27/č-29/č. Published in 1771-1775
375. FLORIANI, PIETRO PAOLO. *Difesa et offesa delle piazze*. Venice: Baba, Francesco, 1654. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 8573-8°. Kukolja-Magić 1995, N. 699
376. S.A. *Florilegium fortificatorium tripartitum*. Halle: Myly, Christoff, 1662. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 4640-8°. Kukolja-Magić 1995, N. 711
377. FONDA, GIROLAMO MARIA. *Elementi di architettura civile, e militare ad uso del collegio nazareno*. Rome: Mainardi, 1764. Vol. 2, 8°, edition 1, language Italian. 1. Architectural treatises. AMZD, 5606 A.
378. FONDA, GIROLAMO MARIA. *Elementi di architettura civile, e militare ad uso del collegio nazareno*. Rome: Mainardi, 1764. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. FSŠ, S.IX.13.
379. FONDA, GIROLAMO MARIA. *Elementi di architettura civile, e militare ad uso del collegio nazareno*. Rome: Mainardi, 1764. Vol. 2, 4°, edition 1, language Italian. 1. Architectural treatises. ZKD, Collegium Ragusinum, CR-20.898. P5 'Kr. realna gimnazija u Dubrovniku' (title page).
380. FONDA, GIROLAMO MARIA. *Elementi di architettura civile, e militare ad uso del collegio nazareno*. Rome: Mainardi, 1764. Vol. 2, 4°, edition 1, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, B 17. P1 'Galbiani' (front paste-down)
381. FONTANA, CARLO. *Utilissimo trattato dell'acque correnti*. Specchi, Alessandro. Rome: Buagni, Giovanni Francesco, 1696. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. SKLJ, Stara knjižnica, T VII 22/r.
382. FONTANA, CARLO. *Utilissimo trattato dell'acque correnti*. Specchi, Alessandro. Rome: Buagni, Giovanni Francesco, 1696. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. SKR, Biblioteca civica, 6.B.10.
383. FONTANA, DOMENICO. *Della trasportatione dell'obelisco vaticano et delle fabbriche di nostro signore papa Sisto 5*. Rome: Basa, D., 1590. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. AMS, R 1811. P5 'C.K. Arheologički Muzej u Splitu'; U13 (41-42)
384. FONTANA, DOMENICO. *Della trasportatione dell'obelisco vaticano et delle fabbriche di nostro signore papa Sisto 5*. Rome: Basa, Domenico, 1590. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. AMZD, 4190 A. P1 (back endpaper) Incomplete copy
385. FONTANA, DOMENICO. *Della trasportatione dell'obelisco vaticano et delle fabbriche di nostro signore papa Sisto 5*. Bonifacio, Natale da Sebenico. Rome: Basa, Domenico, 1590. Vol. 1, 2°, edition 1, language Italian. 1. Architectural treatises. KHAZU, Rara, R-904. P5 'Knjižnica Jugoslavenske Akademije' (title page); U5 (I, sheets r-v, 9r-v, 13r, 14r, 65r, 67r; II, sheet 23r); U6 (I, sheets 13r, 14r, 43r; II, sheet 23r); U7 (13r, 14r, plates 20, 25); U13 (60v)
386. FONTANA, DOMENICO. *Della trasportatione dell'obelisco vaticano et delle fabbriche di nostro signore papa Sisto 5*. Naples: Vitale, Costantino, 1604. Vol. 1, fol, edition 2, language Italian. 1. Architectural treatises. NSKZ, Zbirka rijetkosti, R II F-2°-66.
387. FONTANA, DOMENICO. *Della trasportatione dell'obelisco vaticano et delle fabbriche di nostro signore papa Sisto 5*. Naples: Vitale, Costantino, 1604. Vol. 1, fol, edition 2, language Italian. 1. Architectural treatises. ZPZHazu, Zbirka Baltazara Bogišića, . Gudelj-Ruso 2013, 108
388. FOURCROY DE RAMECOURT, ANTOINE-FRANÇOIS; GRANIER DE STE-CÉCILE, JOSEPH-MODEST; DU FRESNE DE FRANCHEVILLE, JOSEPH. *Mémoires sur la fortification perpendiculaire*. Paris: Noyon, Jean-Luc; Clousier, 1786. Vol. . 4°, edition 2, language French. 2. Military architecture. SKP, Mornarična knjižnica, 2308. Seelig 1905, I, 233
389. FOURNIER, GEORGES. *Traité des fortifications, ou Architecture militaire*. Paris: Hénault, Jean, 1649. Vol. 1, 16°, edition 1, language French. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 4621-16°. Kukolja-Magić 1995, N. 713
390. FRÉART DE CHAMBRAY, ROLAND. *Parallele de l'architecture antique et de la moderne*. Paris: Martin, Edme, 1650. Vol. 1, 2°, edition 1, language French. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 11730-2°. Kukolja-Magić 1995, N. 720

391. FREITAG, ADAM. *Architectura militaris nova et aucta*. Leiden: Elzevir, Bonaventura & Abraham, 1635. Vol. 1, fol, edition 1, language German. 2. Military architecture. NUK, GS 8105.
P6 '8105.IV.B.d' (front paste-down), 'K.K. Lyceal Bibliothek zu Laibach' (title page v); U1 and U2 (table annexed to the pp. 24, 37); U5 (58, 176); U13 (1-2, 4, 7, 11, 13-18, 99, 189, plate A, C, G, Kk)
392. FREITAG, ADAM. *Architectura militaris nova et aucta*. Leiden: Elzevir, Bonaventura & Abraham, 1635. Vol. 1, fol, edition 1, language Latin. 2. Military architecture. NUK, GS 7380.
P6 'N. 127 / 7380.IV.A.a' (front paste-down), '839 / N. 127' (title page); U13 (plate C); U18 (28-29).
393. FREITAG, ADAM. *Architectura militaris nova et aucta*. Amsterdam: Elzevier, Daniel, 1665. Vol. 1, 4°, edition 3, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11740-4° privezek. Kukolja-Magić 1995, N. 768
394. FREITAG, ADAM. *L'architecture militaire ou la fortification nouvelle*. Leiden: Elzevir, Bonaventura & Abraham, 1635. Vol. 1, 4°, edition 1, language French. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 265. Gudelj-Botica 2012, 35
395. FREITAG, ADAM. *L'architecture militaire, ou la fortification nouvelle*. Leiden: Elzevir, Bonaventura & Abraham, 1635. Vol. 1, 4°, edition 1, language French. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 6471-4°. P1 'Viebre Charles Pinguvr / d'hay Gainy' (front endpaper r); P2 Valvasor on a previous one (front paste-down); U13 (27, 51, 130, 148, 163, 178 plates H, Hh); U10 (36-37); U11 (68-69). Kukolja-Magić 1995, N. 767
396. FRONTINUS, SEXTUS JULIUS. *Astutie militari*. Durantino, Francesco Lucio. Venice: Nicolini da Sabbio, Giovanni Antonio; Arrivabene, Andrea, 1537. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 7839. Missing Seelig 1905, I, 16
397. FRONTINUS, SEXTUS JULIUS. *Astutie militari*. Venice: Torti, Alvise, 1543. Vol. 1, 16°, edition 3, language Italian. 2. Military architecture. NSKZ, Zbirka rijetkosti, BZ 235 adl. 2.
398. FRONTINUS, SEXTUS JULIUS. *Astutie militari*. Durantino, Francesco Lucio. Venice: Nicolini da Sabbio, Giovanni Antonio; Arrivabene, Andrea, 1543. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. ZKZ, Pappafava, R-330. U13 (sheet 9r and 49v).
399. FRONTINUS, SEXTUS JULIUS. *De aqueductibus urbis Romae commentarius*. Poleni, Giovanni. Padua: Manfré, Giovanni, 1722. Vol. 1, 4°, edition n.d., language Latin. 7. Descriptions of ancient and modern towns and regions. NUK, GS I 969.
400. FRONTINUS, SEXTUS JULIUS. *Opera*. Zweibrücken: Tipographia Societatis, 1788. Vol. 1, 12°, edition n.d., language Latin. 2. Military architecture. AMZG, XXX F.
P5 'Narodna republika hrvatska' (title page v); P6 '6377/1949'; U13 (27).
401. FRONTINUS, SEXTUS JULIUS. *Stratagematicon*. Paris: Chamoisy, Sébastien & Gabriel, 1650. Vol. 1, 16°, edition n.d., language Latin. 2. Military architecture. NSKZ, Zbirka rijetkosti, 32.950.
402. FRONTINUS, SEXTUS JULIUS. *Stratagematicon*. Leipzig: Schwickert, 1772. Vol. 1, 8°, edition n.d., language Latin. 2. Military architecture. NUK, GS 1022.
403. FRONTINUS, SEXTUS JULIUS. *Stratagemi militari*. Gandino, Marco Antonio. Venice: Zaltiero, Bolognino, 1574. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKD, .
P5 'Seminarium Ragusinum S.B.' (title page); P6 '6399' (title page), '+ AMB (unidentified monogram) / N.° 3029' (title page v).
404. FRONTINUS, SEXTUS JULIUS. *Stratagemi militari*. Gandino, Marco Antonio. Venice: Zaltieri, Bolognino, 1574. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 1188. Missing Seelig 1905, I, 123
405. FRONTINUS, SEXTUS JULIUS. *Stratagemi militari*. Gandino, Marco Antonio. Venice: Bolognino, Zaltiero, 1574. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. ZKD, Antiqua, A-933.
406. FURIETTI, GIUSEPPE ALESSANDRO. *De musivis*. Rome: Salvioni, Giovanni Maria, 1752. Vol. 1, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. AMS, R 309.
P1 'Bibliothecae Cappuccinorum Aliminis'
407. FURIETTI, GIUSEPPE ALESSANDRO. *De musivis*. Rome: Salvioni, Giovanni Maria, 1752. Vol. 1, 4°, edition 1, language Latin. 6. The arts. SKP, Biblioteca provinciale dell'Istria, 5949.
408. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura civilis*. Ulm: Saur, Jonam, 1628. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 9280-4°. Kukolja-Magić 1995, N. 2541
409. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura martialis*. Ulm: Saur, Jonam, 1630. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 9280-4° privez. Kukolja-Magić 1995, N. 2625
410. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura martialis*. Ulm: Saur, Jonam, 1630. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NUK, GS II 8068/adl. 1.
P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); P6 (front paste-down); U10 (plate 35); U13 (plate 50). Bound with Fürstենbach 1635 and 1643
411. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura martialis*. Ulm: Saur, Jonam, 1630. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NUK, GS II 8107.
P1 of the Cistercensian Convent in Kostanjevic; P2 'Franciscus Carolus de Schwinz'; U13 (32, 38, plates 3, 5).
412. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura navalis*. Ulm: Saur, Jonam, 1629. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 6707-4° privezek. Kukolja-Magić 1995, N. 769
413. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura navalis*. Ulm: Saur, Jonam, 1629. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NUK, GS II 8106.
P1 '[...] 1753' (title page); P2 'Franciscus Carolus / de Schwizen / J.V.D.' (title page v); P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U13 (35, 70, 107, 115, plates 1, 17). Bound with Fürstենbach 1630
414. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura privata, das ist gründliche Beschreibung*. Augsburg: Schultes, Johann, 1641. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 6707-4°.

- P2 Valvasor, U2 (15).
Kukolja-Magić 1995, N. 794
415. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura recreationis*. Augsburg: Schultes, Johann, 1640. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 12024-4°. Kukolja-Magić 1995, N. 795
416. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura universalis*. Ulm: Medern, Johann Sebastian, 1635. Vol. 1, fol, edition 1, language German. 1. Architectural treatises. NMS, K 18718/2. P1 'Wolfgangi Engelberti Comitii ab Auersperg 1689'. bound with Fürsttenbach 1643
417. FÜRSTENBACH, JOSEPH (THE ELDER). *Architectura universalis*. Ulm: Medern, Johann Sebastian, 1635. Vol. 1, fol, edition 1, language German. 1. Architectural treatises. NUK, GS II 8068. P1 'C.M. 1661' (front cover). ; bound with Fürsttenbach 1630 and 1643
418. FÜRSTENBACH, JOSEPH (THE ELDER). *Büchsenmeisterei-Schul, darinnen die new angehende Büchsenmeister und Feuerwerker*. Augsburg: Schultes, Johann, 1643. Vol. 1, fol, edition 2, language German. 2. Military architecture. NMS, K 18718/1. Bound with Fürsttenbach 1635
419. FÜRSTENBACH, JOSEPH (THE ELDER). *Büchsenmeisterei-Schul, darinnen die new angehende Büchsenmeister und Feuerwerker*. Augsburg: Schultes, Johann, 1643. Vol. 1, fol, edition 2, language German. 2. Military architecture. NUK, GS II 8068/adl. 2. U1 (a ij); U13 (39, 49) Bound with Fürsttenbach 1635
420. FÜRSTENBACH, JOSEPH (THE ELDER). *Mannhaffter Kunst-Spiegel*. Augsburg: Schultes, Johann, 1663. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 11570-4°. Kukolja-Magić 1995, N. 798
421. FÜRSTENBACH, JOSEPH (THE ELDER). *Mannhaffter Kunst-Spiegel*. Augsburg: Schultes, Johann, 1663. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NUK, GS 1872. Bound with Fürsttenbach 1630 and 1635
422. FÜRSTENBACH, JOSEPH (THE ELDER). *Mannhaffter Kunst-Spiegel*. Augsburg: Schultes, Johann, 1663. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NUK, GS 652.
423. FÜRSTENBACH, JOSEPH (THE ELDER). *Mechanische Reissladen*. Augsburg: Schultes, Johann, 1646. Vol. 1, 8°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 11513-8°. Kukolja-Magić 1995, N. 796
424. FÜRSTENBACH, JOSEPH (THE ELDER). *Newes Itinerarium Italiae*. Ulm: Saur, Jonam, 1627. Vol. 1, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 11688-8°. Kukolja-Magić 1995, N. 797
425. FÜRSTENBACH, JOSEPH (THE ELDER). *Newes Itinerarium Italiae*. Ulm: Saur, Jonam, 1627. Vol. 1, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NMS, 12062.
426. FÜRSTENBACH, JOSEPH (THE ELDER). *Newes Itinerarium Italiae*. Ulm: Saur, Jonam, 1627. Vol. 1, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NUK, GS o 2755.
427. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Feriae architectonicae*. s.l.: s.n., 1662. Vol. 1, 8°, edition 3, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 11513-8° privezek. Kukolja-Magić 1995, N. 799
428. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Garten-Palladins-Gebäu*. Augsburg: Schultes, Johann, 1667. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7563-8° privezek 3. Kukolja-Magić 1995, N. 800
429. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Gewerb-Stattgebäu*. Augsburg: Schultes, Johann, 1650. Vol. 1, 8°, edition 1, language German. 5. Town design and ideal cities. NKZG, Bibliotheca valvasoriana, M 7563-8°. Kukolja-Magić 1995, N. 801
430. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Gotts-Ackhars-Gebäu*. Augsburg: Schultes, Johann, 1653. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7563-8° privezek 5. Kukolja-Magić 1995, N. 802
431. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Hochzeit-Hauss-Gebäu*. Augsburg: Schultes, Johann, 1662. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7563-8° privezek 2. Kukolja-Magić 1995, N. 803
432. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Hospitals-Gebäu*. Augsburg: Schultes, Johann, 1655. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7563-8° privezek 4. Kukolja-Magić 1995, N. 804
433. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Kirchen-Gebäu*. Augsburg: Schultes, Johann, 1649. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7679-8°. Kukolja-Magić 1995, N. 805
434. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Mayer-Hoffs Gebäu*. Augsburg: Schultes, Johann, 1649. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7679-8° privezek 2. Kukolja-Magić 1995, N. 806
435. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Pass-Verwahrung*. Augsburg: Schultes, Johann, 1651. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7563-8° privezek 1. Kukolja-Magić 1995, N. 807
436. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Teutsches Schul-Gebäu*. Augsburg: Schultes, Johann, 1649. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7679-8° privezek 1. Kukolja-Magić 1995, N. 809
437. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Von Sonnenuhren*. Augsburg: Schultes, Johann, 1652. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 12207 privezek. Kukolja-Magić 1995, N. 808
438. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Von Sonnenuhren*. Augsburg: Schultes, Johann, 1652. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7563-8° privezek 6. Kukolja-Magić 1995, N. 809

439. FÜRSTENBACH, JOSEPH (THE YOUNGER). *Von Sonnenuhren*. Augsburg: Schultes, Johann, 1652. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7675-8° privezek 2. Kukolja-Magić 1995, N. 809
440. GALGEMAIR, GEORGE. *Inventum P. Apiani, das ist: Beschreibung eines geometrichen Instruments*. Apian, Peter. Augsburg: Franck, David, 1616. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11642-8°. Stolen. Kukolja-Magić 1995, N. 811
441. GALGEMAIR, GEORGE. *Organon logikon*. Augsburg: Klocker, Johann, 1633. Vol. 1, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7678-8°. Kukolja-Magić 1995, N. 813
442. GALGEMAIR, GEORGE. *Organon logikon*. Augsburg: Weh, Iohannis, 1655. Vol. 1, 8°, edition 3, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7675-8°. Kukolja-Magić 1995, N. 814
443. GALILEI, GALILEO. *Le operazioni del compasso geometrico, et militare*. Padua: Marinelli, Pietro, 1606. Vol. 1, fol, edition 1, language Italian. 4. Drawing, perspective and land survey. NUK, GS 8354.
444. GALILEI, GALILEO. *Le operazioni del compasso geometrico, et militare*. Padua: Frambotto, Paolo, 1649. Vol. 1, 8°, edition 3, language Italian. 4. Drawing, perspective and land survey. NKZD, 1708/D (2565).
445. GALLACCINI, TEOFILO. *Trattato [...] sopra gli errori degli architetti*. Visentini, Antonio. Venice: Pasquali, Giambattista, 1767. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS III 8053. From the Ökonomische Gesellschaft
446. GALLACCINI, TEOFILO. *Trattato [...] sopra gli errori degli architetti*. Visentini, Antonio. Venice: Pasquali, Giambattista, 1767. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 133.
447. GALLI BIBIENA, FERDINANDO. *Architetture, e prospettive*. Paris: Bascan, 1740. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS IV 10625. From the library of Družba za kmetijstvo in uporabne umetnosti na Kranjskem. Published between 1740 and 1750.
448. GALLI BIBIENA, FERDINANDO. *Architetture, e prospettive*. Paris: Bascan, 1740. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS IV 1'639. Missing title page. Published between 1740 and 1750.
449. GALLI BIBIENA, FERDINANDO. *Direzioni a' giovani studenti nel disegno dell'architettura civile, nell'Accademia Clementina*. Bologna: Della Volpe, Lelio, 1745. Vol. 2, 12°, edition 3, language Italian. 1. Architectural treatises. SKP, Mornarična knjižnica, 2196. Vol. I (1745), II (1753). Missing. Seelig 1905, I, 36
450. GALLI BIBIENA, FERDINANDO. *Direzioni a' giovani studenti nel disegno dell'architettura civile, nell'Accademia Clementina*. Venice: Pezzana, Francesco; Orlandelli, Giuseppe, 1796. Vol. 2, 8°, edition 7, language Italian. 1. Architectural treatises. OKK, Domosnanski oddelek Gris Omara, VI polica 4 GALLI BIBIENA *Direzioni*/1-2.
451. GALLICIUS, JOSEF. *Geometria militaris*. Munich: Jäcklin, Johann, 1676. Vol. 1, fol, edition 1, language Latin. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 126.
452. GALLICIUS, JOSEF. *Geometria militaris*. Munich: Jäcklin, Johann, 1676. Vol. 1, 2°, edition 1, language Latin. 2. Military architecture. SKP, Mornarična knjižnica, 1195. Seelig 1905, I, 122
453. GALLICIUS, JOSEF. *Geometria militaris*. Munich: Jäcklin, Johann, 1676. Vol. 1, 2°, edition 1, language Latin. 2. Military architecture. SKP, Mornarična knjižnica, 1195.
454. GALLO, AGOSTINO. *Agricoltura*. -: -, -. Vol. 1, -, edition n.d., language Italian. 8. Miscellanea. FSD, 14-III-3. Missing title page and part of the book. Unidentified edition.
455. GALLO, AGOSTINO. *Le vinti giornate dell'agricoltura*. Venice: Imberti, Domenico, 1596. Vol. 1, 4°, edition 10, language Italian. 8. Miscellanea. ZPZHAZU, Miočević-Rendić Collection, C 83.
456. GALLO, AGOSTINO. *Le vinti giornate dell'agricoltura*. Venice: Imberti, Giuseppe, 1628. Vol. 1, 4°, edition 16, language Italian. 8. Miscellanea. FSS, UV12.
457. GALLO, AGOSTINO. *Le vinti giornate dell'agricoltura*. Venice: Imberti, Gerardo, 1629. Vol. 1, 4°, edition 16, language Italian. 8. Miscellanea. ZKZ, 52233-d. P11 'Dar Ravnateljstva Gimnazije u Zadru' (front endpaper).
458. GALLO, AGOSTINO. *Le vinti giornate dell'agricoltura*. Venice: Miloco, Benetto, 1674. Vol. 1, 4°, edition 18, language Italian. 8. Miscellanea. FSD, 14-IX-14.
459. GAMUCCI, BERNARDO. *Libri quattro dell'antichità della città di Roma*. Rome: Varisco, Giovanni, 1565. Vol. 1, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, V IV 2/č. P1 'Ex Aula Ep[iscopali]
460. GAMUCCI, BERNARDO. *Le antichità della città di Roma*. Porcacchi, Tommaso. Rome: Varisco, Giovanni, 1588. Vol. 1, 8°, edition 4, language Italian. 7. Descriptions of ancient and modern towns and regions. AMZD, 3109 A. Signed 'Ad uso. Jadera'
461. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Somasco, Giovanni Battista, 1585. Vol. 1, 4°, edition 1, language Italian. 3. Shipbuilding and mechanics. ZKD, Antiqua, A-II-95.
462. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Somasco, Vincenzo, 1587. Vol. 1, 8°, edition 2, language Italian. 3. Shipbuilding and mechanics. ZKZ, R-1078. P1 'Mauri Montenero 1736'.
463. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Somasco, Giovanni Battista, 1588. Vol. 1, 4°, edition 3, language Italian. 3. Shipbuilding and mechanics. SKS, R-503.
464. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Somasco, Vincenzo, 1595. Vol. 1, 4°, edition 5, language Italian. 3. Shipbuilding and mechanics. ZKZ, 27716-98-3. Donated by Valdimir Pappafava. Gudelj-Botica 2012, 37

465. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Meglietti, Roberto, 1605. Vol. 1, 8°, edition 8, language Italian. 3. Shipbuilding and mechanics. KHAZU, 7,382-R.
466. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Bertano, Pietro Maria, 1626. Vol. 1, 4°, edition 10, language Italian. 3. Shipbuilding and mechanics. NSKZ, Zbirka rijetkosti, 159.722.
467. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Bertano, Pietro Maria, 1638. Vol. 1, 4°, edition 11, language Italian. 3. Shipbuilding and mechanics. NUK, GS 5443.
468. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Barezzi, 1651. Vol. 1, 8°, edition 13, language Italian. 3. Shipbuilding and mechanics. FSD, 41a-IV-16.
469. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Berezzi, 1651. Vol. 1, 4°, edition 13, language Italian. 3. Shipbuilding and mechanics. NSKZ, Zbirka rijetkosti, BZ 150.
470. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Miloco, Michiel, 1655. Vol. 1, 4°, edition 14, language Italian. 3. Shipbuilding and mechanics. NSKZ, 19418-73-5-1.
From the library of the Galineo-Bervaldi family.
471. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Miloco, Michiel, 1665. Vol. 1, 4°, edition 15, language Italian. 3. Shipbuilding and mechanics. FSD, 16-VIII-11.
472. GARZONI, TOMMASO. *La piazza universale di tutte le professioni del mondo*. Venice: Miloco, Michiel, 1665. Vol. 1, 4°, edition 15, language Italian. 3. Shipbuilding and mechanics. FSE, 27/3.
473. GARZONI, TOMMASO. *Piazza univereale, das ist Allgemeiner Schauwplatz*. Frankfurt: Hoffman, Nicolao, 1619. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 7887-4°. Kukolja-Magić 1995, N. 822
474. GARZONI, TOMMASO. *Piazza univereale, das ist Allgemeiner Schauwplatz*. Venice: 1619. Vol. 1, 4°, edition 9, language German. 3. Shipbuilding and mechanics. NUK, GS 5332.
475. GARZONI, TOMMASO. *Piazza univereale, das ist Allgemeiner Schauwplatz*. Frankfurt: Merian, Matthäus, 1659. Vol. 1, 8°, edition 3, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 12136-8°. Kukolja-Magić 1995, N. 824
476. GAUTIER, HENRY. *Architettura delle strade antiche, e moderne*. Vicenza: Veronese, Antonio, 1769. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. AMS, R 251.
477. GAUTIER, HUBERT. *L'arte di acquerellare*. Lucca: Rocchi, Giuseppe, 1760. Vol. 1, 12°, edition 1, language Italian. 6. The arts. ZPZHAZU, Miočević-Rendić Collection, D 457.
478. GAYA, LOUIS DE. *Ars militaris, Das ist Eigentliche Vorstellung der heutigs Tags üblichsten Kriegs-Manieren*. Ulm: Wildeisen, Johann Georg & Erhard Friderich, 1678. Vol. 1, 16°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 5175-16°. Kukolja-Magić 1995, N. 110
479. GENTILINI, EUGENIO. *Il perfeto bombardiero et real instruttione di artiglieri*. Venice: Vecchi, Alessandro, 1626. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 7600. Missing
Seelig 1905, I, 126
480. GENTILINI, EUGENIO. *Il perfeto bombardiero et real instruttione di artiglieri*. Venice: Vecchi, Alessandro, 1626. Vol. 1, 8°, edition 2, language Italian. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7293-8°. Kukolja-Magić 1995, N. 825
481. GETALDIĆ, MARIN [GHETALDI, MARINO]. *Promotus Archimedes seu De varijs corporum generibus gravitate et magnitudine comparatis*. Rome: Zanetti, Luigi, 1603. Vol. 1, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. ZKZ, Pappafava, R-1374.
482. GILIBERTI, VINCENZO. *La città d'Iddio incarnato*. Venice: Compagnia Minima, 1611. Vol. 2, 4°, edition 3, language Italian. 5. Town design and ideal cities. FSŠ, B.II.1.
483. GIRALDI, LILIO GREGORIO. *De re nautica libellus*. Basel: Bebel, Johann, Isengrin, Michael, 1540. Vol. 1, 8°, edition 1, language Latin. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1759. Missing
Seelig 1905, I, 129
484. GOLDMANN, NICOLAUS. *Elementorum architecturae militaris*. Amsterdam: Elzevier, 1643. Vol. 3, 8°, edition 1, language Latin. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 10046-8°. Kukolja-Magić 1995, N. 837
485. GOLDMANN, NICOLAUS. *Elementorum architecturae militaris*. Amsterdam: Elzevir, Bonaventura & Abraham, 1643. Vol. 3, 8°, edition 1, language Latin. 2. Military architecture. SKP, Mornarična knjižnica, 1193. Missing
Seelig 1905, I, 131
486. GOLDMANN, NICOLAUS. *Tractatus de usu proportionatorii sive circini proportionalis cum tabulis*. Amsterdam: De Croy, Philipp, 1656. Vol. 1, 4°, edition 1, language Latin-German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 8602-4°. Kukolja-Magić 1995, N. 909
487. GORGIERI, LAURO. *Trattato della guerra, del soldato, del castellano, et come ha da esser uno general di esercito*. Pesaro: Cesano, Bartolomeo, 1555. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 1192. Missing
Seelig 1905, I, 131
488. GORI, FRANCESCO ANTONIO. *Antiquitates Etruscae*. Nuremberg: Lichtensteger, Georg, 1770. Vol. 1, Fol, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. AMS, R 301/3.
Duplancić 2019
489. GRAEVIUS, JOANNES GEORGIUS. *Thesaurus antiquitatum Romanarum*. Rome: Savarina, Bartholomaeus, 1732. Vol. 12, fol, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKD, Antiqua, A-III-19.
Published in 1732-37
490. GRAEVIUS, JOHANNES GEORGIUS. *Thesaurus antiquitatum et historiarum Siciliae*. Leiden: Aa, Petrus van der, 1725. Vol. 14, fol, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, R II F-2°-25.
Only vol. 14 on Dalmatia
491. GRAPALDI, FRANCESCO MARIO. *De partibus aedium*. Parma: Ugoletto, Angelo, 1501. Vol. 1, 4°, edition 2, language Latin. 8. Miscellanea. AMS, R 265.
Missing title page; U5 (sporadic).

492. GRAPALDI, FRANCESCO MARIO. *De partibus aedium*. Strasbourg: Prüss, Johann, 1508. Vol. 1, 4°, edition 3, language Latin. 8. Miscellanea. NUK, GS 8138.
P1 'Joannes Baptista Sepacher / habet hunc librum a suo / genitore 1560' (title page); P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U5 (101v); U6 (102r); U7 (97v); U13 (70-72).
493. GRAPALDI, FRANCESCO MARIO. *De partibus aedium*. Parma: Ugoletto, Francesco & Saladi, Ottaviano; Quinzano, Antonio, 1516. Vol. 1, 4°, edition 5, language Latin. 8. Miscellanea. NUK, GS 8131.
P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U5 (title page, 115v); U1 (tabula, 53r, 62r, 64r, 71r, 73r); U7 (13r-v, 24v, 25v, 32r, 36r, 39v, 51v, 58v, 59v, 64r, 69r, 71r, 74v, 75r, 78r, 81r-v, 84v, 88r, 89r, 90v, 91r, 117r, 127v, 137r, 170v, 194v, 198r, 228r)
494. GRAPALDI, FRANCESCO MARIO. *De partibus aedium*. Parma: Ugoletto, Francesco & Saladi, Ottaviano; Quinzano, Antonio, 1516. Vol. 1, 4°, edition 5, language Latin. 8. Miscellanea. SKS, R-530 **.
Missing title page, P1 'Die primo Januari 1690 / Ex munere ill.mi D. Triphonis Mladinei' (front endpaper); P5 'Gabinetto di lettura / Spalato / E.67', 'Gradska biblioteka, Split' (front endpaper); P6 'L.D.B.V. 39.E.VII' (front endpaper); U5 (117r, 120r); U13 (sheets ++ VIIIr-v, 2r, 24r, 41v, 64v, 84-87, 89-94, 97-98, 103v, 104r, 122v, 123-126, 204-206, 218v, 239r, 164-165)
495. GRAPALDI, FRANCESCO MARIO. *Lexicon de partibus aedium*. Lyons: Vincent, Simon; Trechel, Melchior & Gaspar, 1535. Vol. 1, 4°, edition 10, language Latin. 8. Miscellanea. NSKZ, Zbirka rijetkosti, 44.347.
P1 'A. Barichevics' and 'Velimir Gaj'
496. GRIENDEL VON ACH, JOHANN FRANZ. *Nova architectura militaris*. Nuremberg: Zieger, Johann, 1683. Vol. 1, 4°, edition 2, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11313-4°. Kukolja-Magić 1995, N. 910
497. GRISELINI, FRANCESCO. *Dizionario delle arti e de' mestieri*. Venice: Fenzo, Modesto, 1768. Vol. 18, 8°, edition 1, language Italian. 6. The arts. MGS, Capogrosso Kavanjin, 9219.
Vols. 1-3, 1768; 4-6, 1769; 7-8, 1770; 10-11, 1771; 12-13, 1972; 14-15, 1973; 17, 1775; 18, 1778
Zglav-Martinac 2009, 442
498. GROTIUS, HUGO. *Bücher von Kriegs- und Friedens-Rechten in welchen das Recht der Natur un das allgemeine Wölcher-Recht*. Frankfurt: Bauern, Johann, 1709. Vol. 1, fol, edition 1, language German. 2. Military architecture. NSKZ, Zbtvoreno spremište, 000.563.
499. GUČETIĆ, NIKOLA VITOV [GOZZE, NICOLA VITO]. *Dello stato delle repubbliche secondo la mente di Aristotele*. Venice: Manuzio, Aldo, 1591. Vol. 1, 4°, edition 1, language Italian. 5. Town design and ideal cities. CNBCT, C II 4.
500. GUČETIĆ, NIKOLA VITOV [GOZZE, NICOLA VITO]. *Governo della famiglia*. Venice: Manuzio, Aldo II, 1589. Vol. 1, 8°, edition 1, language Italian. 8. Miscellanea. DSD, 45-1-19.
501. GUČETIĆ, NIKOLA VITOV [GOZZE, NICOLA VITO]. *Governo della famiglia*. Venice: Manuzio, Aldo, 1589. Vol. 1, 8°, edition 1, language Italian. 8. Miscellanea. FSD, 41b-1-10.
502. GUČETIĆ, NIKOLA VITOV [GOZZE, NICOLA VITO]. *Governo della famiglia*. Venice: Manuzio, Aldo II, 1589. Vol. 1, 8°, edition 1, language Italian. 8. Miscellanea. NSKZ, Zbirka rukopisa i starih knjiga, R II F-16*-26.
503. GUICCIARDINI, LODOVICO. *Descrittione di tutti i Paesi Bassi*. Antwerp: Silvius, Willem, 1567. Vol. 1, 2°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. AMS, Martinis-Marchi, R 405.
Duplančić-Kovačić 2001, 174
504. HALT, PETER. *Perspectivische Reiss Kunst*. Augsburg: Franck, David, 1625. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10436-4° privezek 2.
Kukolja-Magić 1995, N. 942
505. HARTMANN, DANIEL. *Bürgerliche Wohnungs Bau-Kunst*. Basel: Richter, Johann Philipp, 1688. Vol. 1, 2°, edition 3, language German. 1. Architectural treatises. NUK, GS 8111.
506. HEDRAEUS, BENEDICTUS. *Nova et accurata astrolabii geometrici structura*. Leiden: Boxe, Willem Christiaens van der, 1643. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 4795-8°. Kukolja-Magić 1995, N. 1004
507. HEIDEMANN, CHRISTOPH. *Architectura militaris*. Munich: Jäcklin, Johann, 1664. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 13256-4°. Kukolja-Magić 1995, N. 1035
508. HERON ALEXANDRINUS. *Buch von Luft- und Wasser-Künsten*. Commandino, Federico; Aleotti, Giovanni Battista; Nilsen, Tobias; De Caus, Salomon. Frankfurt: Ammon, Wilhelm, 1688. Vol. 1, 8°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 10779-8°. Kukolja-Magić 1995, N. 1037
509. HERON ALEXANDRINUS. *Spiritali*. Giorgi, Alessandro. Urbino: Ragusi, Bartolomeo & Simone, 1592. Vol. 1, 8°, edition 1, language Italian. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 7629-8°. Kukolja-Magić 1995, N. 1062
510. HILLEFELDT, ANTON. *Kurtze Anweisung zur Allgemeinen Fortification*. Hannover: Schwendimann, Wolfgang, 1673. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7656-8° privezek.
Kukolja-Magić 1995, N. 1063
511. HIRSCH, SIEGFRIED. *Amussis Ferdinandeae, ad problemata universae matheseos, et praesertim architecturae militaris explicata*. Munich: Henric, Nicolai, 1654. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11850-8°. Kukolja-Magić 1995, N. 1083
512. HOLBEIN, HANS. *Imagines mortis. His accesserunt Epigrammata e Gallico idiomatae*. Lyons: Frelon, Jean & François, 1545. Vol. 1, 16°, edition 1, language Latin. 6. The arts. NKZG, M 3370-16°.
513. HOSTE, PAUL. *Théorie de la construction des vaisseaux*. Lyons: Anisson & Posuel, 1697. Vol. 1, 2°, edition 1, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 2613.
Missing
Seelig 1905, I, 161
514. HULSIUS, LEVINUS. *Theoria et praxis quadrantis geometrici*. Nuremberg: Jode, Cornelis; Gerlach, Katharina, 1594. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9461-8°. Kukolja-Magić 1995, N. 1137
515. HULSIUS, LEVINUS. *Tractat der mechanischen Instrumenten*. Frankfurt: Richtern, Wolfgang, 1604. Vol. 4, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6568-8° privezek.
Kukolja-Magić 1995, N. 1086

516. DE ROSSI, ANTONIO. *Indice delle stampe intagliate in rame e bulino, e in acqua forte esistenti nella già stamperia de i De Rossi ora nella calcografia della Rev. Cam. Apost. e pie di marmo [...] valutate a moneta romana di scudi*. Rome: De Rossi, Antonio, 1741. Vol. 1, 8°, edition 10, language Italian. 6. The arts. ZKD, Zbirka Natali-Pozza-Sorgo, NPS-22. P1 'Paolo Gozze Roma', 'Di Paolo Gozze 1746', and 'Orsatto Vladislavo di Gozze Ragusa'.
517. IZZO, GIOVANNI BATTISTA. *Anfangsgründe der bürgerlichen Baukunst*. Riedel, Franz Xaver. Vienna: Kurzböck, Joseph von, 1773. Vol. 1, 8°, edition 1, language German. 1. Architectural treatises. NUK, GS 8140.
518. IZZO, GIOVANNI BATTISTA. *Elementa architecturae civilis in usum Nobilium Collegii regii Theresiani*. Vienna: Trattner, Johann Thomas, 1764. Vol. 1, 8°, edition 1, language Latin. 1. Architectural treatises. AMZG, XXVIII 218. P5 'Ravnateljstvo arheološko-historičkoga odjela hrv. narodnoga muzeja u Zagrebu' (front endpaper), 'Knjižnica zen. muzeja u Zagrebu. Arheološki odjel' (title page); P6 '159 / XX B 2 XVIII 218' (front endpaper), 'S-159 / 1945'; U1 (67); U2 (plate IV VI); U5 (244-245); U7 (23, 24); U13 (138, 177, 199, 226)
519. IZZO, GIOVANNI BATTISTA. *Elementa architecturae civilis in usum Nobilium Collegii regii Theresiani*. Vienna: Trattner, Johann Thomas, 1764. Vol. 1, 8°, edition 1, language Latin. 1. Architectural treatises. NSKZ, Zbirka rukopisa i starih knjiga, Knjižnica obitelj Kušvić, L VI D 2.
520. IZZO, GIOVANNI BATTISTA. *Elementa architecturae civilis in usum Nobilium Collegii regii Theresiani*. Vienna: Trattner, Johann Thomas, 1764. Vol. 1, 8°, edition 1, language Latin. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, D 156.
521. IZZO, GIOVANNI BATTISTA. *Elementa architecturae civilis in usum Nobilium Collegii regii Theresiani*. Vienna: Trattner, Johann Thomas, 1765. Vol. 1, 8°, edition 1, language Latin. 1. Architectural treatises. AMZG, XXVIII 218a.
522. JACQUIER FRANCISCUS. *Elementa arithmeticae, algebrae et geometriae*. Rome: Palaeus, Marcus, 1777. Vol. 1, 8°, edition 3, language Latin. 4. Drawing, perspective and land survey. FSD, 2-VI-5.
523. JAMNITZER, WENTZEL. *Perspectiva corporum regularium*. Nuremberg: Heussler, 1568. Vol. 1, 2°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9202-2°. Kukolja-Magić 1995, N. 1179
524. JOMBERT, CHARLES-ANTOINE. *Architecture moderne, ou l'art de bien bâtir pour toutes sortes de personnes*. Paris: Jombert, Charles-Antoine, 1764. Vol. 2, 4°, edition 1, language French. 1. Architectural treatises. NUK, GS II 10723.
525. JOUSSE, MATHURIN. *Le Théâtre de l'art de charpentier [...] Brief traicté des cinq ordres des colonnes*. La Flèche: Griveau, Georges, 1627. Vol. 1, 4°, edition 1, language French. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 6456-4°. Kukolja-Magić 1995, N. 1188
526. JUNGENICKEL, ANDREAS. *Schlüssel zur Mechanica*. Nuremberg: Fürsten, Paul; Gerhard, Christoph, 1661. Vol. 1, 8°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 11942-8°. Kukolja-Magić 1995, N. 1197
527. KASCHUTNIG, JOHANNES BAPTISTA. *Prima elementa arithmeticae, algebrae, geometriae, trigonometriae planae et sphaericae, architecturae civilis ac militaris*. Graz: Lechner, Joseph Mauritius, 1757. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. SKR, Collegium Societatis Iesus (Rijeka), 26.D.39. Missing
528. KEILL OANNIS. *Introductiones ad veram Physicam et veram Astronomiam. Quibus accedunt trigonometria*. Milan: Agnelli, Francesco, 1742. Vol. 1, 4°, edition 3, language Latin. 4. Drawing, perspective and land survey. DSZ, III-136.
529. KEYZER, HENDRIK DE. *Architectura moderna*. Amsterdam: Seevenhoven, C. Dankerts, 1631. Vol. 1, 2°, edition 1, language Dutch. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 3751-2°. P2 Valvasor (front paste-down); U5 and U17 (last folded plate). Kukolja-Magić 1995, N. 1202
530. KEYZER, HENDRIK DE. *Architectura moderna*. Amsterdam: Seevenhoven, C. Dankerts, 1631. Vol. 1, 2°, edition 1, language Dutch. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 9278-2° privezek. Kukolja-Magić 1995, N. 1225
531. KINCKHUYSEN, GERARD. *Het ghebruyck des Quadrants*. Haarlem: Passchiers, Hans, 1643. Vol. 1, 8°, edition 1, language Dutch. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9246-8° privezek 4. Kukolja-Magić 1995, N. 810
532. KIRCHER, ATHANASIVS. *Ars magna lucis et umbrae*. Amsterdam: Jansson, Jodocus, 1671. Vol. 1, 2°, edition 2, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9417-2°. Kukolja-Magić 1995, N. 1225
533. KIRCHER, ATHANASIVS. *Neue Hall- und Thon-Kunst*. Nuremberg: Schultes, Friderich; Heylen, Arnold, 1684. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10439-4°. Kukolja-Magić 1995, N. 1233
534. KIRCHER, ATHANASIVS. *Phonurgia nova sive Conjugium mechano-physico artis et naturae*. Kempten: Dreher, Rudolph, 1673. Vol. 1, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7941-4° privezek. Kukolja-Magić 1995, N. 1242
535. KIRCHER, ATHANASIVS. *Turris Babel, sive Archontologia*. Amsterdam: Jansson, Jodocus, 1679. Vol. 1, 2°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 9420-2°. Kukolja-Magić 1995, N. 1244
536. KIRCHER, ATHANASIVS. *Turris Babel, sive Archontologia*. Amsterdam: Jansson, Jodocus, 1679. Vol. 1, 2°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, V VIII 7/č.
537. KIRCHER, ATHANASIVS. *Ars magna lucis et umbrae*. Rome: Scheus, Hermann & Grignani, Lodovico, 1646. Vol. 2, fol, edition 1, language Latin. 4. Drawing, perspective and land survey. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 260.
538. KIRCHER, ATHANASIVS. *Ars magna lucis et umbrae*. Rome: Scheus, Hermann & Grignani, Lodovico, 1646. Vol. 2, Fol, edition 1, language Latin. 4. Drawing, perspective and land survey. NUK, GS II 8100. P1 'Bibliotheca Philosophicae Cat. Infer. A[nn]o 1658', 'Colegij Soc. Jesu. Labaci 1697', 'Wolff. Engelb. ... ab Auersperg'

539. KIRCHMANN, ALBRECHT AUGUST. *Anleitung zur Deich-Schleusen- und Stak-Bau-Kunst*. Lüneburg: Lemke, Johann Friedrich Wilhelm, 1790. Vol. 2, 8°, edition 2, language German. 1. Architectural treatises. BMSNS.
540. KÖBEL, JACOB. *Geometrey: vonn künstlichem Feldmessen*. Frankfurt: Egenolffs, Christian, 1556. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NUK, GS I 21303. P1 'Leonardus Fabianitsch' (title page)
541. KÖBEL, JACOB. *Geometrey: vonn künstlichem Feldmessen*. Frankfurt: Latomo, Sigismund, 1608. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9500-8° privezek 3. Stolen Kukolja-Magić 1995, N. 1250
542. KÖBEL, JACOB. *Geometrey: vonn künstlichem Feldmessen*. Frankfurt: Steinmeyer, Vincenti, 1616. Vol. 1, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6923-8° privezek 1. Kukolja-Magić 1995, N. 1269
543. KÖBEL, JACOB. *Geometrey: vonn künstlichem Feldmessen*. Frankfurt: Steinmeyer, Vincenti, 1616. Vol. 1, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7718-8° privezek 2. Kukolja-Magić 1995, N. 1268
544. KOHLHANS, JOHANN CHRISTOPH. *Neuerfundene mathematische und optische Curiositäten*. Leipzig: Lankischen, Friederich, 1677. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11150-8°. Kukolja-Magić 1995, N. 1268
545. KRAMMER, GABRIEL. *Architectura*. Prague: Bussemacher, 1600. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 25445-4° privezek. Kukolja-Magić 1995, N. 1271
546. LA CAILLE, NICOLAS LOUIS DE. *Elementi delle matematiche pure secondo il metodo. Col trattato della trigonometria sferica*. Boscovich, Ruggiero Giuseppe. Venice: Bettinelli, Tommaso, 1796. Vol. 1, 8°, edition 2, language Italian. 4. Drawing, perspective and land survey. CNBCT, C I 166.
547. LA CAILLE, NICOLAS LOUIS DE. *Lezioni elementari di matematica ovvero elementi d'algebra e di geometria*. Naples: Raimondi, Giuseppe, 1761. Vol. 2, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey. FSD, 1-V-14, 15. Published in 1761-64
548. LA CAILLE, NICOLAS-LOUIS DE. *Elementi di matematiche pure*. Boscovich, Ruggiero Giuseppe. Venice: Bettinelli, T., 1775. Vol. 1, 8°, edition 2, language Italian. 4. Drawing, perspective and land survey. AMS, R 93.
549. LACOMBE, JACQUES. *Dizionario portatile delle belle arti*. Venice: Remondini, Giovanni Battista, 1758. Vol. 1, 8°, edition 1, language Italian. 6. The arts. DSZ, II-34. P6 '16-IV-11' (front cover); U5 'Poussin Nic. Pag. 304' (back endpaper).
550. LACOMBE, JACQUES. *Dizionario portatile delle belle arti*. Venice: Remondini, 1758. Vol. 1, 8°, edition 1, language Italian. 6. The arts. KHAZU, 6.800-Rn.
551. LACOMBE, JACQUES. *Dizionario portatile delle belle arti*. Venice: Remondini, 1768. Vol. 1, 8°, edition 2, language Italian. 6. The arts. KFG, XII c 2.
552. LACOMBE, JACQUES. *Dizionario portatile delle belle arti*. Venice: Remondini, 1768. Vol. 1, 8°, edition 2, language Italian. 6. The arts. KFG, VII b 20a. U8 (front and back cover)
553. LACOMBE, JACQUES. *Dizionario portatile delle belle arti*. Venice: Remondini, 1768. Vol. 1, 8°, edition 2, language Italian. 6. The arts. KFG, VII b 20.
554. LAMY, BERNARD. *Entretiens sur les sciences*. Lyons: Certe, Jean, 1694. Vol. 1, 12°, edition 2, language French. 4. Drawing, perspective and land survey. CANU.
555. LANA TERZI, FRANCESCO. *Magisterium naturae et artis. Opus physico-mathematicum*. Brescia: Rizzardi, Giovanni Maria, 1684. Vol. 3, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6302-4°. Only vols. 1 (1684), 2 (1686) Kukolja-Magić 1995, N. 1384
556. LANA TERZI, FRANCESCO. *Magisterium naturae et artis. Opus physico-mathematicum*. Brescia: Rizzardi, Giovanni Maria, 1684. Vol. 3, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. SKLJ, Stara knjižnica, T VII 14/r-16/r.
557. LANSBERGE, PHILIPPE VAN. *Verklaaringhe van het ghedruyck des astronomischen ende geometrischen Quadrants*. Middelburch: Roman, Zacharias, 1633. Vol. 1, 8°, edition 2, language Dutch. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9246-8° privezek 2. Kukolja-Magić 1995, N. 1395
558. LAUREMBERG, PETER. *Die elde Garten-Wissenschaft*. Stromer von Reichenbach, Wolfgang Albrecht. Nuremberg: Endter, Johann Friederich & Michael, 1682. Vol. 1, 8°, edition 1, language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 10126-8°. Kukolja-Magić 1995, N. 1413
559. LAUREMBERG, PETER. *Horticultura*. Frankfurt: Merian, Matthäus, 1654. Vol. 1, 8°, edition 2, language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 6374-8°. Kukolja-Magić 1995, N. 1404
560. LAURO, GIACOMO. *Antiquae urbis splendor*. Rome: Lauro, Giacomo, 1612. Vol. 1, 8°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 24432-4°. Kukolja-Magić 1995, N. 2009
561. LAUTENSACK, HEINRICH. *Dess Circeless und Richtscheits, auch der Perspectiva, und Proportion der Penschen*. Frankfurt: Schamberger, Simon, 1618. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10436-4° privezek 3. Kukolja-Magić 1995, N. 1414
562. LAVATER, HANS CONRAD. *Kriegs-Büchlein: Das ist Grundliche Anleitung zum Kriegswesen*. Zurich: Bodmer, Jacob, 1651. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7303-8°. Kukolja-Magić 1995, N. 1415
563. LE BLOND, GUILLAUME. *Éléments de fortification, contenant la construction raisonnée de tous les ouvrages de la fortification*. Paris: Jombert, Charles-Antoine, 1764. Vol. 1, 8°, edition 5, language French. 2. Military architecture. NUK, GS I 7961. P1 'Josephus de Pezinger / ia Parma ... 15 Julij '770'
564. LE BLOND, GUILLAUME. *Essai sur la castramentation*. Paris: Jombert, Charles-Antoine, 1748. Vol. 1, 8°, edition 1, language French. 2. Military architecture. NUK, GS I 8012. P1 'Josephus de Pezinger / ia Parma ... 15 Julij '770'

565. LE BLOND, GUILLAUME. *L'arithmétique et la géométrie de l'officier*. Paris: Jombert, Charles-Antoine, 1748. Vol. 1, 8°, edition 1, language French. 2. Military architecture. NUK, GS I 4261.
P1 'Josephus de Pezinger / ia Parma ... 15 Julij '770'
566. LE BLOND, GUILLAUME. *Traité de la défense des places*. Paris: Jombert, Charles-Antoine, 1762. Vol. 1, 8°, edition 2, language French. 2. Military architecture. NUK, GS I 7965.
P1 'Josephus de Pezinger / ia Parma ... 15 Julij '770'
567. LE BLOND, JEAN BAPTISTE ALEXANDRE. *L'artiglieria per principj, e per raziocinio*. Zener, Gabriel. Venice: Locatelli, Antonio, 1772. Vol. 2, 8°, edition 1, language Italian. 2. Military architecture. AMZD, 8077/2018 A.
only vol. 1
568. LE CLERC, SÉBASTIEN. *Abhandlung der Bau-Kunst*. Krafft, Wolfgang Georg. Nuremberg: Weigel, Christoph, 1759. Vol. 2, 8°, edition 1, language German. 1. Architectural treatises. NSKZ, Zatvoreno spremište, 1210 sv. 1-2.
569. LE CLERC, SÉBASTIEN. *Abhandlung der Bau-Kunst*. Krafft, Wolfgang Georg. Nuremberg: Weigel, Christoph, 1759. Vol. 2, 8°, edition 1, language German. 1. Architectural treatises. NUK, GS I 8133.
570. LE CLERC, SÉBASTIEN. *Geometria pratica*. Venice: Zatta, Antonio, 1796. Vol. 2, 8°, edition 5, language Italian. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-21256.
571. LE CLERC, SÉBASTIEN. *Pratica di geometria in carta e in campo per istruzione della nobile gioventù*. Brulon, Emerico. Rome: Monaldini, Venanzio, 1746. Vol. 1, 12°, edition 1, language Italian. 4. Drawing, perspective and land survey. FSS, K.III.8.
572. LE CLERC, SÉBASTIEN. *Pratica di geometria in carta e in campo per istruzione della nobile gioventù*. Rome: Monaldini, Venanzio, 1761. Vol. 1, 12°, edition 3, language Italian. 4. Drawing, perspective and land survey. NMS, K 7425.
P1 'Ex Cesaris Ceriali Trieste 1822'
573. LE CLERC, SÉBASTIEN. *Traité de géométrie theorique et pratique à l'usage des artistes*. Paris: Jombert, Charles-Antoine, 1774. Vol. 1, 16°, edition 2, language French. 4. Drawing, perspective and land survey. SKR, Biblioteca civica, 2.F5.
574. LEPAUTRE, PIERRE. *Les plans, profils, élévations des ville, et château de Versailles*. Paris: Demortain, 1716. Vol. 1, fol, edition 1, language French. 7. Descriptions of ancient and modern towns and regions. NUK, GS IV 10630.
From the library of Žiga Zois and the Ökonomische Gesellschaft
575. LE ROY, JULIEN-DAVID. *Les ruines des plus beaux monuments de la Grèce*. Paris: Delatour, Louis-François, 1770. Vol. 2, fol, edition 2, language French. 7. Descriptions of ancient and modern towns and regions. SKS, Rr-34.
576. LEFÈVRE D'ÉTAPLES, JACQUES. *Epitome compendiosa introductio in libros arithmeticos divi Saverini Boetii*. Boetius. Paris: Estienne, Henty 1, 1510. Vol. 1, 4°, edition 2, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 15489-4°
privezek 2.
Kukolja-Magić 1995, N. 1417
577. LETO, POMPONIO. *Opera*. Strasbourg: Schürer, Mattheus, 1510. Vol. 1, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NUK, GS I 21098.
578. LETO, POMPONIO. *L'antiquità di Roma*. Venice: Giolito de Ferrari, Gabriele, 1550. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, R-275.
579. LINEMANN, ALBERT. *Anleitung zur Niederländischen Fortification und darzu nothwendig vorher gehenden Wissenschaften*. Tübingen: Brunn, Philibert, 1654. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7675-8°.
Kukolja-Magić 1995, N. 66
580. LIPS, JOOST. *Admiranda, sive De Magnitudine Romana*. Antwerp: Moretus, Balthasar; Officina Plantiniana, 1617. Vol. 1, 8°, edition 4, language Latin. 7. Descriptions of ancient and modern towns and regions. AMZD, 5614 A.
581. LIPS, JOOST. *De amphiteatro liber*. Antwerp: Plantiniana, officina, 1589. Vol. 1, 8°, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. KHAZU, 40.083-R.
P1 'Sum ex libris Wolff / gangj Godefrid / a Manchenheim / ex rncupalj Bech / Jolzheim / Aog 1597 / Empt. Heijdelberg' (title page).
582. LIPS, JOOST. *De amphiteatro liber*. Antwerp: Officina Plantiniana; Moretium, Ioannem, 1604. Vol. 1, fol, edition 3, language Latin. 7. Descriptions of ancient and modern towns and regions. AMZD, 3433 A.
583. LIPS, JOOST. *De amphiteatro liber*. Antwerp: Officina Plantiniana; Moretium, Ioannem, 1604. Vol. 1, fol, edition 3, language Latin. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 267 adl 2.
Gudelj-Botica 2012, 65
584. LIPS, JOOST. *De amphiteatro liber*. Antwerp: Officina Plantiniana; Moretium, Ioannem, 1604. Vol. 1, fol, edition 3, language Latin. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zatvoreno spremište, 000.476.
585. LIPS, JOOST. *De amphiteatro liber*. Antwerp: Moretus, Balthasar; Officina Plantiniana, 1621. Vol. 1, 4°, edition 4, language Latin. 7. Descriptions of ancient and modern towns and regions. MGR, Stancoviciana, S 1440.
Dobrić 1995, 14
586. LIPS, JOOST. *De militia romana libri quinque*. Polybius. Antwerp: Moretus, Iohannes; Officina Plantiniana, 1598. Vol. 1, 4°, edition 2, language Latin. 2. Military architecture. AMS, R 568.
Duplančić 2019
587. LIPS, JOOST. *De militia romana libri quinque*. Polybius. Antwerp: Moretus, Iohannes; Officina Plantiniana, 1602. Vol. 1, 4°, edition 3, language Latin. 2. Military architecture. AMS, R 569.
588. LIPS, JOOST. *De militia romana libri quinque*. Polybius. Antwerp: Moretus, Iohannes; Officina Plantiniana, 1602. Vol. 1, 4°, edition 3, language Latin. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 267 adl 3.
589. LIPS, JOOST. *Poliorecticon sive de machinis*. Antwerp: Moretus, Iohannes; Officina Plantiniana, 1596. Vol. 1, 4°, edition 1, language Latin. 3. Shipbuilding and mechanics. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 172.
590. LIPS, JOOST. *Poliorecticon sive de machinis*. Antwerp: Moretus, Iohannes; Officina Plantiniana, 1599. Vol. 1, 4°, edition 2, language Latin. 3. Shipbuilding and mechanics. AMS, R 568.
Duplančić 2019

591. LIPS, JOOST. *Poliorceticon sive de machinis*. Antwerp: Moretus, Iohannes; Officina Plantiniana, 1605. Vol. 1, 4°, edition 3, language Latin. 3. Shipbuilding and mechanics. AMS, R 569.
592. LIPS, JOOST. *Poliorceticon sive de machinis*. Antwerp: Officina Plantiniana; Moretium, Ioannem, 1605. Vol. 1, 4°, edition 3, language Latin. 3. Shipbuilding and mechanics. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 267 adl 4.
593. LISER, FRANZ. *Architectura pratica nova*. Frankfurt: Bencard, J.C., 1672. Vol. 3, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 10425-4°. vol. 1, 1672; vol. 2 1673; vol. 3, 1674 Kukolja-Magić 1995, N. 1436
594. LOCHMAN, WOLFGANG. *Instrumentum instrumentorum mathematicorum*. Stettin: Gutten, Martin, 1626. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11395-8°. Kukolja-Magić 1995, N. 1472
595. LOMAZZO, GIOVANNI PAOLO. *Idea del tempio della pittura*. Bologna: Istituto delle scienze, 1785. Vol. 1, 4°, edition 2, language Italian. 6. The arts. SKP, Biblioteca provinciale dell'Istria, 5707. S.d. Date from the imprimatur. Missing
596. LOMAZZO, GIOVANNI PAOLO. *Trattato dell'arte della pittura, scoltura, et architettura*. Milan: Da Ponte, Gottardo, 1585. Vol. 1, 4°, edition 2, language Italian. 6. The arts. NSKZ, Zbirka rijetkosti, 62.539. P1 'Giulian Cassani muratore' (title page); P6 '62539' (front endpaper); P9 'V. Cicognara Catalogo N. 160. / V. Comolli Bibliografia, a Roma / 1788 volumi 1° pag. 18 / V. In fine Mss. un capitolo / aggiunto, e una nota / M.G.; U2 (261, 272, 302, 332, 333); U5 (9, 14, 15, 27, 29-32, 41, 58, 105, 213, 215, 247, 316); U6 (213, 247); U7 (front endpaper, 299, 333); U11 (218-219); U13 (+7-+8, 22, 28, 34, 40, 43, 125, 245, 254, 263, 292, 335, 438, 481, 486). Gudelj-Botica 2012, 52
597. LOMBARDI, ALESSANDRO. *Della fortificazione regolare*. Parma: Vigna, Mario, 1646. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7877-4° privezek 1. Kukolja-Magić 1995, N. 1481
598. LORINI, BONAIUTO. *Delle fortificationi [...] libri cinque*. Venice: Rampazetto, Giovanni Antonio, 1597. Vol. 1, 2°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 2591. Missing Seelig 1905, I, 217
599. LORINI, BONAIUTO. *Fünff Bücher von Vestung Bawen*. Wormbs: David; Bry, Johann Theodor de. Frankfurt: Kämpffer, Erasmo, 1616. Vol. 2, 4°, edition 2, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11308-4°. P2 Valvasor on a previous one (front paste-down); P6 '48 c 20' (front paste-down); U7 (vol. I, 18-21, 41-43, plates 1, 4, 5, 8); U10 (plate 4, 5); U13 (vol. I, 45, 70, 81, 113; vol. II, 17, plate 5-8) vol. 1, 1621; vol. 2, 1616 Kukolja-Magić 1995, N. 1485
600. LORINI, BONAIUTO. *Le fortificationi. Nuovamente ristampate, corrette & ampliate*. Venice: Rampazetto, Francesco, 1609. Vol. 1, fol, edition 2, language Italian. 2. Military architecture. AMZD, 8040/2017 A.
601. LORINI, BONAIUTO. *Le fortificationi. Nuovamente ristampate, corrette & ampliate*. Venice: Rampazetto, Francesco, 1609. Vol. 1, fol, edition 2, language Italian. 2. Military architecture. NUK, GS 8054.
602. LUCCHESI, MATTEO. *Riflessioni sulla pretesa scoperta del sopraornato toscano*. Venice: Monti, Stefano, 1730. Vol. 1, 12°, edition 1, language Italian. 1. Architectural treatises. KFG, VIII e 15/2.
603. LUNESCHLOS, IOANNES DE. *Thesaurus mathematum*. Padua: Crivellari, Giulio, 1646. Vol. 1, fol, edition 1, language Latin. 4. Drawing, perspective and land survey. FSS, H.XI.8.
604. MACHIAVELLI, NICCOLÒ. *Dell'arte della guerra*. Venice: Manuzio, Aldo, 1540. Vol. 1, 8°, edition 5, language Italian. 2. Military architecture. SKS, R-571. Rilegato con "Il principe"
605. MACHIAVELLI, NICCOLÒ. *Dell'arte della guerra*. Venice: Manuzio, Aldo eredi, 1546. Vol. 1, 8°, edition 7, language Italian. 2. Military architecture. ZKZ, R-91.
606. MACHIAVELLI, NICCOLÒ. *Dell'arte della guerra*. Venice: Giolito de Ferrari, Gabriele, 1550. Vol. 1, 12°, edition 8, language Italian. 2. Military architecture. NSKZ, 52.339 sv. 4.
607. MACHIAVELLI, NICCOLÒ. *Dell'arte della guerra*. Venice: Giolito de Ferrari, Gabriele, 1550. Vol. 1, 12°, edition 8, language Italian. 2. Military architecture. NUK.
608. MACHIAVELLI, NICCOLÒ. *Dell'arte della guerra*. Florence: Giunti, 1551. Vol. 1, 4°, edition 9, language Italian. 2. Military architecture. NKZG, M 7632-8° privez 3.
609. MACHIAVELLI, NICCOLÒ. *Dell'arte della guerra*. Venice: Pasquali, Giambattista, 1769. Vol. 1, 8°, edition 14, language Italian. 2. Military architecture. KHAZU, 6.901-Rn.
610. MACHIAVELLI, NICCOLÒ. *Il principe*. Florence: Giunta, Bernardo, 1532. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. FSD, 26-VI-5.
611. MACHIAVELLI, NICCOLÒ. *Kriegs-Kunst*. Wümpelgardt: Königs, Ludwig, 1623. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 12152-8°. Kukolja-Magić 1995, N. 1495
612. MACHIAVELLI, NICCOLÒ. *Opere*. The Hague: s.n., 1726. Vol. 4, 8°, edition n.d., language Italian. 2. Military architecture. ZKD, Zbirka Natali-Pozza-Sorgo, NPS-81.
613. MACHIAVELLI, NICCOLÒ. *Tutte le opere*. s.l.: s.n., 1550. Vol. 5, 4°, edition n.d., language Italian. 2. Military architecture. DSD, 9-VI-24. Counterfeit edition of 1600-1650
614. MACHIAVELLI, NICCOLÒ. *Tutte le opere*. s.l.: s.n., 1550. Vol. 5, 4°, edition n.d., language Italian. 2. Military architecture. NUK, GS o 3086. Counterfeit edition of 1600-1650
615. MACHIAVELLI, NICCOLÒ. *Tutte le opere*. s.l.: s.n., 1550. Vol. 5, 4°, edition n.d., language Italian. 2. Military architecture. ZKD, Antiqua, A-848. Counterfeit edition of 1600-1650
616. MAFFEI, PAOLO ALESSANDRO; ROSSI, DOMENICO. *Raccolta di statue antiche e moderne*. Rome: De Rossi, Domenico, 1704. Vol. 1, fol, edition 1, language Italian. 6. The arts. NUK, GS IV 11986. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem
617. MAFFEI, SCIPIONE. *De gli anfitrati e singolarmente del veronese*. Verona: Tumermani, Giovanni Alberto, 1728. Vol. 1,

- 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. KFG, VIII e 15/1. Handwritten table of contents (front endpaper); P6 'B.IV.93' (front endpaper); U5 (324, 330, 331); U7 (339).
618. MAFFEI, SCIPIONE. *De gli anfiteatri e singolarmente del veronese*. Verona: Tumermani, Giovanni Alberto, 1728. Vol. 1, 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NMS, K 7095.
619. MAFFEI, SCIPIONE. *De gli anfiteatri e singolarmente del veronese*. Verona: Tumermani, Giovanni Alberto, 1728. Vol. 1, 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKP, Biblioteca provinciale dell'Istria, 15455.
620. MAFFEI, SCIPIONE. *De gli anfiteatri e singolarmente del veronese*. Verona: Tumermani, Giovanni Alberto, 1728. Vol. 1, 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZPZHazu, Miočević-Rendić Collection, C 91.
621. MAFFEI, SCIPIONE. *De' teatri antichi e moderni*. Verona: Carattoni, Agostino, 1754. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Biblioteca civica, 59-B51.
622. MAFFEI, SCIPIONE. *Verona illustrata*. Verona: Vallarsi, Jacopo, 1731. Vol. 4, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Biblioteca civica, 59C.44-47.
623. MAFFEI, SCIPIONE. *Verona illustrata*. Venice: Curti, Giacomo, 1796. Vol. 2, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. CNBCT, C III 29.
624. MAGNAN, DOMINIQUE. *La ville de Rome ou description abrégée de cette superbe ville*. Rome: Losi, Carlo, 1778. Vol. 1, 8°, edition 1, language French. 7. Descriptions of ancient and modern towns and regions. FSP, F-215. P1 'Ex libris / P Grafis' (front endpaper); P6 '99.B.e.10.R.z', 'C.e.q. / F-215' (front paste-down). Guide approved by the general procurator of the Minimi, Louis Hubert
625. MALTHUS, FRANCIS. *Pratique de la guerre contenant l'usage de l'artillerie*. Paris: Clovisier, Gervais, 1650. Vol. 1, 8°, edition 2, language French. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7768-8°. Kukolja-Magić 1995, N. 1519
626. MANESSON-MALLET, ALAIN. *Beschreibung des gantzen Welt-Kreisses*. Frankfurt: Zunner, Johann David, 1684. Vol. 4, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 7782-8°. vol. 1, 1684; voll. 2-4, 1685 Kukolja-Magić 1995, N. 1525
627. MANESSON-MALLET, ALAIN. *Kriegsarbeit, oder Neuer Festungsbau so wohl der Lehrsatzmässige*. Amsterdam: Meurs, Jakob von, 1672. Vol. 2, 8°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 8307-8°. Kukolja-Magić 1995, N. 1527
628. MANESSON-MALLET, ALAIN. *Les travaux de mars ou la fortification nouvelle tant régulière, qu'irrégulière*. Paris: Barbin, Claude; Hénault, Jean, 1671. Vol. 3, 8°, edition 1, language French. 2. Military architecture. SKP, Mornarična knjižnica, 2216. Vols. printed in 1671-72. Missing Seelig 1905, I, 224
629. MANNI, DOMENICO MARIA. *Notizie storiche intorno al parlagio ovvero anfiteatro di Firenze*. Bologna: Colli, Tommaso, 1746. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Antiqua, A-30/4.
630. MARCHELLI, GIOVANNI. *Trattato del compasso di proporzione*. Milan: Galeazzi, Giuseppe, 1759. Vol. 1, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-20589.
631. MARINO, GIAMBATTISTA. *La galeria distinta in pitture e sculture*. Venice: Ciotti, Giovanni Battista, 1635. Vol. 1, 12°, edition 4, language Italian. 6. The arts. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 352.
632. MARLIANI, BARTOLOMEO. *Descrizione di Roma antica e moderna*. Panvino, Onofrio; Donati, Alessandro; Nardini, Famiano. Rome: Rossi, Filippo, 1708. Vol. 2, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. AMZD, 3110 A. Only vol. 1, signed "Pro usu [...] Simonis Gudegl [...] 1780
633. MARLIANI, BARTOLOMEO. *Descrizione di Roma antica e moderna*. Panvino, Onofrio; Donati, Alessandro; Nardini, Famiano. Rome: Rossi, Pier Vincenzo, 1708. Vol. 2, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, X II 10/č; X II 11/č.
634. MARLIANI, BARTOLOMEO. *Descrizione di Roma antica e moderna*. Panvino, Onofrio; Donati, Alessandro; Nardini, Famiano. Rome: Amidei, Fausto, 1739. Vol. 2, edition n.d., language Italian. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, V III 22/č; V III 23/č.
635. MAROLOIS, SAMUEL. *Mathematicum opus absolutissimum*. Amsterdam: Jansson, Joannes, 1644. Vol. 2, 4°, edition 3, language Latin. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7614-4°. vol. 1, 1644; vol. 2, Ars muniendi, sive fortificationis, 1644-47 Kukolja-Magić 1995, N. 1530
636. MARTINELLI, DOMENICO. *Horologi elementari divisi in tre parti*. Venice: Tramontino, Bortolo, 1670. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. FSD, 2-XII-11.
637. MARTINELLI, DOMENICO. *Il ritratto di Venezia*. Venice: Hertz, Giovanni Giacomo, 1684. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS o 429. P1 'Leopold Maksimilijan Rasp'
638. MARTINELLI, DOMENICO. *Il ritratto di Venezia*. Venice: Hertz, Giovanni Giacomo, 1684. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. SKLJ, Stara knjižnica, X I 23/č.
639. MARTINELLI, FIORAVANTE. *Roma ricercata nel suo sito con tutte le curiosità, che in essa si ritrovano*. Rome: Leone, Pietro; Buagni, Giovanni Francesco, 1693. Vol. 1, 8°, edition 11, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, 40.749. P1 'Coll. S. J. Zagreb. Catalog inscriptus 1710'
640. MARTINELLI, FIORAVANTE. *Roma ricercata nel suo sito con tutte le curiosità, che in essa si ritrovano*. Rome: Barbiellini eredi, 1762. Vol. 1, 8°, edition 18, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS 21716.
641. MARTINELLI, FIORAVANTE. *Roma ricercata nel suo sito, con tutte le curiosità, che in essa si ritrovano*. Flentin, Mathieu. Rome: Leone, Francesco; Buagni, Giovanni Francesco, 1693. Vol. 1, 8°, edition 9, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS o 423.

642. MARTINELLI, FIORAVANTE. *Roma ricercata nel suo sito, et nella scuola di tutti gli antiquarij*. Venice: Brignonci, Giovanni Pietro, 1664. Vol. 1, 12°, edition 5, language Italian. 7. Descriptions of ancient and modern towns and regions. FSD, 15-II-4. P1 'Aiz... f. Sebastiani / a Ragugia' (front paste-down); U8 (back endpaper).
643. MARTINELLI, FIORAVANTE. *Roma ricercata nel suo sito, et nella scuola di tutti gli antiquarij*. Venice: Brignonci, Giovanni Pietro, 1664. Vol. 1, 12°, edition 5, language Italian. 7. Descriptions of ancient and modern towns and regions. FSSB, A-16*-58.
644. MARTINELLI, FIORAVANTE. *Roma ricercata nel suo sito, et nella scuola di tutti gli antiquarij*. Venice: Valvasense, Giovanni Francesco, 1677. Vol. 1, 8°, edition 7, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS 21087.
645. MAURO, LUCIO. *Le antichità della città di Roma*. Aldrovandi, Ulisse. Venice: Ziletti, Giordano, 1562. Vol. 1, 16°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Biblioteca civica, 14.H.43.
646. MAZZA, VINCENZO. *Ragionamento intorno al formare logge arcate*. Bologna: Della Volpe, Lelio, 1778. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, .
647. MERIAN, MATTHÄUS. *Topographia Franconiae*. Frankfurt: Merian, Matthäus, 1648. Vol. 1, 4°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 6693-4°. Kukolja-Magić 1995, N. 1542
648. MERIAN, MATTHÄUS. *Topographia Hassiae et Regionum vicinarum*. Frankfurt: Merian, Matthäus, 1647. Vol. 1, 4°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 6693-4° privezek 1. Kukolja-Magić 1995, N. 1590
649. MERIAN, MATTHÄUS. *Topographia Westphaliae*. Frankfurt: Merian, Matthäus, 1647. Vol. 1, 4°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 6693-4° privezek 2. Kukolja-Magić 1995, N. 1591
650. MESCHINELLO, GIOVANNI ANTONIO. *Chiesa ducale di S. Marco*. Venice: Baronchelli, Bartolomeo, 1753. Vol. 3, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. KHAZU, 6.998-Rn. Vol. I (1753), II (1753), III (1754)
651. MESCHINELLO, GIOVANNI ANTONIO. *La chiesa ducale di S. Marco colle notizie del suo innalzamento*. Venice: Baronchelli, Bartolomeo, 1753. Vol. 4, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. FSS, I.IX.8.
652. METIUS, ADRIAAN. *Fortificatie, ofte Sterckten-Bouwinghe*. Franeker: Balck, Ulderick, 1626. Vol. 1, 8°, edition 1, language Dutch. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 9246-8° privezek 1. Kukolja-Magić 1995, N. 1592
653. METIUS, ADRIAAN. *Maet-costigh Libiael, ofte Proportionalen Ry ende Platten passer*. Franeker: Balck, Ulderick, 1626. Vol. 1, 8°, edition 1, language Dutch. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9246-8°. Kukolja-Magić 1995, N. 1599
654. MEYER, GEORG FRIDERICH. *Doctrina triangulorum, sive Trigonometria*. Basel: Königs, Hans Rudolph & Ludwig, 1678. Vol. 1, 16°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9776-16°. Kukolja-Magić 1995, N. 1600
655. MICHELI VITTURI, RADOS ANTONIO. *Saggio sopra l'antica città di Salona*. Venice: Coleti, Stamperia, 1779. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, Pappafava, R-815.
656. MILIZIA, FRANCESCO. *Dell'arte di vedere nelle belle arti del disegno secondo i principi di Sulzer e di Mengs*. Venice: Pasquali, Giambattista & Pietro, 1792. Vol. 1, 8°, edition 3, language Italian. 6. The arts. ZPZHazu, Miočević-Rendić Collection, A 26.
657. MILIZIA, FRANCESCO. *Dizionario delle belle arti del disegno*. Bassano: Remondini, 1797. Vol. 2, 8°, edition 1, language Italian. 6. The arts. ZPZHazu, Miočević-Rendić Collection, A 113.
658. MILIZIA, FRANCESCO. *Memorie degli architetti antichi e moderni*. Bassano: Remondini, 1785. Vol. 2, 8°, edition 1, language Italian. 1. Architectural treatises. NSKZ, Zatvoreno spremište, 539.736 sv. 1. Only vol. 1
659. MILIZIA, FRANCESCO. *Memorie degli architetti antichi e moderni*. Bassano: Remondini, 1785. Vol. 2, 8°, edition 1, language Italian. 1. Architectural treatises. PMP, 7 MILIZIA.
660. MILIZIA, FRANCESCO. *Memorie degli architetti antichi e moderni*. Bassano: Remondini, 1785. Vol. 2, 8°, edition 1, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, C 106.
661. MILIZIA, FRANCESCO. *Principj di architettura civile*. Bassano: Remondini, 1785. Vol. 3, 8°, edition 2, language Italian. 1. Architectural treatises. PMP, Biblioteca Civica Pirano, 7 MILIZIA.
662. MILIZIA, FRANCESCO. *Principj di architettura civile*. Bassano: Remondini, 1785. Vol. 3, 8°, edition 2, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, C 107.
663. MILIZIA, FRANCESCO. *Roma delle belle arti del disegno. Parte prima dell'architettura civile*. Bassano: Remondini, 1787. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, D 319.
664. MILLET DE CHALES, CLAUDE FRANÇOIS. *L'art de fortifier, de défendre et d'attaquer les places*. Frankfurt: s.n., 1677. Vol. 1, 16°, edition 1, language French. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 5120-16°. Kukolja-Magić 1995, N. 1608
665. MONTANO, GIOVANNI BATTISTA. *Li cinque libri di architettura*. Rome: De Rossi, Giovanni Giacomo, 1684. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. SKR, Biblioteca civica, 19.A.13. U10 (book 4, plate 6), U13 (book II, plate 25)
666. MONTFAUCON, BERNARD DE. *Antiquitates graecae et romanae*. Nuremberg: Lichtensteger, Georg; Fleischmann, Johann Joseph, 1757. Vol. 2, 2°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. AMZG, XXV 3. P6 'S-303 / 1945' (vol. I, title page v); U2 (vol. I, plate XIII); U7 (vol. II, 195-197, 203).
667. MONTFAUCON, BERNARD DE. *Antiquitates graecae et romanae*. Nuremberg: Lichtensteger, Georg, 1757. Vol. 2, Fol, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. AMS, R 301/1-2. Duplančić 2019

668. MONTFAUCON, BERNARD DE. *Antiquitates graecae et romanae*. Nuremberg: Lichtensteger, Georg, 1757. Vol. 2, Fol, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NUK, GS 46065.
669. MONTFAUCON, BERNARD DE. *L'antiquité expliquée et représentée en figures*. Paris: Delaulne, Florentin, 1719. Vol. 2, 2°, edition 1, language French. 7. Descriptions of ancient and modern towns and regions. NUK, GS III 10600 and 10650. Unidentified P4.
670. MONTI, GIROLAMO. *Tractatus [...] de finibus regendis civitatum, castrorum, ac praediorum, tam urbanorum, quam rusticorum*. Venice: Compagnia degli Uniti, 1585. Vol. 1, 4°, edition 4, language Latin. 2. Military architecture. NUK, GS 17856.
671. MONTI, GIROLAMO. *Tractatus [...] de finibus regendis civitatum, castrorum, ac praediorum, tam urbanorum, quam rusticorum*. Venice: Compagnia degli Uniti, 1585. Vol. 1, 16°, edition 3, language Latin. 2. Military architecture. SKR, Biblioteca civica, 3.F19.
672. MORETTI, TOMASO. *Trattato dell'artiglieria*. Brescia: Gromi, Giovanni Battista, 1672. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. CNBCT, C II 9. P1 'Duiian Vuinich (title page); P5 'Centralna / narodna biblioteka / Cetinje / Inv. Broj 96' (front endpaper); P6 'i-2386 / 1987'; U2 (A 5r, A 6v); U3 (4); U5 (A 5r); U10 (A 5r); U13 (A 4r, 4, 5-8, 16, 17, 23, 27-30, 33-36, 45-48, 50, 55)
673. MOROZZI, FERDINANDO. *Delle case de' contadini trattato architettonico*. Florence: Cambiagi, Gaetano, 1770. Vol. 1, 8°, edition 1, language Italian. 8. Miscellanea. KFG, VII b 6. U18 with seal 'ficazioni, e può calcolare sugli effetti / Gio Luca Garagnin' (40-41).
674. MURRAY, MUNGO. *A treatise on ship building and navigation*. London: Henry and Cave, 1754. Vol. 1, 4°, edition 1, language English. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1791. Missing Seelig 1905, I, 247
675. MYDORGE, CLAUDE. *Examen du livre des recreations mathématiques et de ses problèmes en Géométrie, Mécanique, Optique et Catoptrique*. Paris: Boutonné, Rolet, 1630. Vol. 1, 8°, edition 1, language French. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 4865-8°. Kukolja-Magić 1995, N. 1632
676. NANNI, GIOVANNI. *I cinque libri della antichità*. Venice: Costantini, 1550. Vol. 1, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, R-55.
677. NAUDIN. *L'ingenieur françois*. Lyons: Certe, Jacques, 1738. Vol. 1, 8°, edition 3, language French. 2. Military architecture. SKP, Mornarična knjižnica, 2238. Missing Seelig 1905, I, 164
678. NELLI, GIOVANNI BATTISTA CLEMENTE. *Discorsi di architettura*. Florence: Paperini, eredi, 1753. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, D 263.
679. NEUFFORGE, JEAN-FRANÇOIS. *Recueil elementaire d'architecture*. Paris: Neufforge, Jean-François, 1757. Vol. 8, fol, edition 1, language French. 1. Architectural treatises. NUK, GS 10649. From the library of the Kranjska družba za kmetijstvo in koristne umetnosti
680. NICERON, JEAN-FRANÇOIS. *Thaumaturgus opticus*. Paris: Langlois, François, 1646. Vol. 1, 2°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 9205-2°. Kukolja-Magić 1995, N. 1653
681. NOLLET, ABATE. *Lezioni di fisica sperimentale*. Venice: Pasquali, Giambattista, 1746. Vol. 6, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey. DSZ, II-8. Only vols. II (1746), III (1747), IV (1749)
682. ORLANDI, PELLEGRINO ANTONIO. *Abecedario pittorico: contenente le notizie de' professori di pittura, scoltura ed architettura*. Venice: Pasquali, Giambattista, 1753. Vol. 1, 4°, edition 3, language Italian. 6. The arts. KHAZU, 6.012-Rn.
683. ORSINI, BALDASSARRE. *Della geometria e prospettiva pratica*. Rome: Franzesi, Benedetto, 1771. Vol. 3, 12°, edition 1, language Italian. 4. Drawing, perspective and land survey. ZPZHazu, Miočević-Rendić Collection, C 79. P1 'Get. Galbiani' (front paste-down) Vol. I (1771), II (1773), III (1773).
684. ORSINI, LATINO. *Trattato del radio latino*. Danti, Egnazio. Rome: Moretti, Marcantonio, 1586. Vol. 1, 8°, edition 2, language Italian. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10552-8°. Kukolja-Magić 1995, N. 1675
685. ÖRTEL, HIERONYMUS. *Chronologia, oder Historische Beschreibung aller Kriegsempörungen und Belägerung*. Nuremberg: Endter, Wolfgang, 1620. Vol. 3, 8°, edition 2, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 11126-8°. Kukolja-Magić 1995, N. 1699
686. ORTELIUS, ABRAHAM. *Il theatro del mondo*. Marchetti, Pietro Maria. Brescia: Compagnia Bresciana, 1598. Vol. 1, 4°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. PMP, Biblioteca Civica Pirano, n. 70.
687. ORTELIUS, ABRAHAM. *Theatro del mondo*. Venice: Turrini, Giovanni Maria, 1655. Vol. 1, 16°, edition 5, language Italian. 7. Descriptions of ancient and modern towns and regions. CNBCT, C I 19.
688. ORTELIUS, ABRAHAM. *Theatro del mondo*. Venice: Lovisa, Domenico, 1697. Vol. 1, 8°, edition 10, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Collegium Societatis Iesus (Graz), 14.H.9.
689. ORTELIUS, IOHANNES CHRISTOPHORUS. *Trigonometria geometrica*. Frankfurt: Groschuff, Friderich, 1690. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 12001-8° privezek 1. Kukolja-Magić 1995, N. 1700
690. OZANAM, JACQUES. *Cours de mathématique*. Paris: Jombert, Jean, 1693. Vol. 3, 8°, edition 1, language French. 4. Drawing, perspective and land survey. KHAZU, 10.731-R.
691. OZANAM, JACQUES. *Dictionnaire mathématique*. Amsterdam: Huguenat, 1691. Vol. 1, 8°, edition 1, language French. 4. Drawing, perspective and land survey. KHAZU, 10.464-R.
692. OZANAM, JACQUES. *L'usage du compas de proportion*. The Hague: Bulderen, Hendrik van, 1691. Vol. 1, 12°, edition 2, language French. 4. Drawing, perspective and land survey. SKS, Martinis-Marchi, R-617. Duplančić-Kovačić 2001, 195
693. OZANAM, JACQUES. *La trigonométrie rectiligne et sphérique*. Paris: Jombert, Charles-Antoine, 1765. Vol. 1, 8°, edition 5, language French. 4. Drawing, perspective and land survey. ZKD, PK-28.899.

694. OZANAM, JACQUES. *Récreations mathématiques et phisiques*. Paris: Jombert, Charles-Antoine, 1723. Vol. 1, 8°, edition 7, language French. 4. Drawing, perspective and land survey. NUK, GS 4387.
695. PAGAN, BLAISE-FRANÇOIS DE. *Festungs-Bau*. Leipzig: Fleischer, Johann Theodor & David, 1677. Vol. 1, 16°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 4966-16°. Kukulja-Magić 1995, N. 1704
696. PAGAN, BLAISE-FRANÇOIS DE. *Neuer Vestungs-Bau*. Frankfurt: Drullmann, Johann Georg, 1684. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NUK, GS 21731. P1 'Ex libris Franc. Bernha / rdi Tansrer L.B. De / Weixelbach 1686' (title page); U13 (37). Bound with Borgsdorff 1682
697. PAGNINI, GIOVANNI. *Trattato della sfera, ed introduzione alla navigazione per uso de' piloti*. Venice: Recurti, Giovanni Battista, 1750. Vol. 1, 4°, edition 1, language Italian. 3. Shipbuilding and mechanics. PMK. Dabinović-Nikčević 2019, p. 11
698. PALLADIO, ANDREA. *Antiquitates almae urbis Romae*. Lupardi, Giovanni. Rome: Bona, Girolamo; Stampria Camerale, 1618. Vol. 1, 8°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. KSSKL, A-C8 D6 (O PALLADIO A. antiquitates).
699. PALLADIO, ANDREA. *Antiquitates almae urbis Romae*. Lupardi, Giovanni. Rome: Bona, Girolamo; Stampria Camerale, 1618. Vol. 1, 8°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. KSSKL, A-E8 F12 (O PALLADIO A. mirabilia). P1 'Mgri Georgii Rossa Commissarii in Scallis 1691', 'Loca Capucinatorum Locopoli 1713'
700. PALLADIO, ANDREA. *Architettura = Architecture*. Muttoni, Francesco. Venice: Pasinelli, Angelo, 1740. Vol. 8, 2°, edition 1, language Italian-French. 1. Architectural treatises. PMP, Biblioteca Civica Pirano, 7 PALLADIO Architecture. Vol. I-II (1740), III (1741), IV (1743), V (1744), VI (1745), VII (1747), VIII (1748).
701. PALLADIO, ANDREA. *Architettura = Architecture*. Muttoni, Francesco. Venice: Pasinelli, Angelo, 1741. Vol. 1, 4°, edition 2, language Italian-French. 1. Architectural treatises. FSŠ, PXL11. P1 'E / Francisc [lacuna]' (front paste-down), "Fran" (back paste-down); U11 (sheet. 63r); Paper template between sheets 6v and 7r.
702. PALLADIO, ANDREA. *Delli cinque ordini di architettura*. Venice: Pasinelli, Angelo, 1764. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. AMS, R 250. P1 'Baron Laboriette' (title page); P5 'C.K. Arheološki Muzej / u Splitu' (front endpaper).
703. PALLADIO, ANDREA. *Elementi di architettura [...] con i cinque ordini illustrati e ridotti a metodo facile*. Cipriani, Giovanni Battista. Bassano: Remondini, 1803. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. AMS, R 249.
704. PALLADIO, ANDREA. *Elementi di architettura [...] con i cinque ordini illustrati e ridotti a metodo facile*. Cipriani, Giovanni Battista. Bassano: Remondini, 1803. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. DSK.
705. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: De Franceschi, Domenico, 1570. Vol. 1, 2°, edition 1, language Italian. 1. Architectural treatises. NUK, GS III 8056. P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U13 (book 3, 21; book IV, 4). 1751 reprint?
706. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: De Franceschi, Domenico, 1570. Vol. 1, 2°, edition 1, language Italian. 1. Architectural treatises. ZKD, Antiqua, A-II-50. P1 'Co. Francis. di Gond.[ol]a / Ra[gl]ugia' (front cover), 'Di Franc.co Fran.ci Gondola' (front endpaper), 'Marino Fran.co Gondola' (title page); P5 'Kr. Realna gimnazija u Dubrovniku / Stara učiteljska knjižnica' (A 3r); P6 'X / 35' (front cover), 'G.III.9' (front paste-down); U5 (book I, 38; book IV, 16, 24, 50, 53, 57, 62, 67, 77, 86, 87, 105, 113, 126, 130); U8 (book IV, 6); U10 (book IV, 13); U11 (book IV, 17); U12 (book II, 31; book IV, 7, 63, 68); U13 (book I, 9, 10, 37; book II, 4, 5, 10, 18, 29, 55-60, 77; book II, 11-47; book IV, 13, 19-22, 28, 50, 51, 62, 69, 100, 104, 107-112, 126, 129-132)
707. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: Carampello, Bartolomeo, 1601. Vol. 1, 4°, edition 3, language Italian. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 10404-4°. P1 'Bohl' (title page); U13 (book I, 5; book II, 1, 25, 71; book III, 36; book IV, 34, 41, 58, 64, 81, 85, 109, 124) Kukulja-Magić 1995, N. 1717
708. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: Carampello, Bartolomeo, 1616. Vol. 1, fol, edition 4. language Italian. 1. Architectural treatises. SKP, Biblioteca provinciale dell'Istria, 5621. Missing
709. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: Brogiollo, Marco Antonio, 1642. Vol. 1, 4°, edition 5, language Italian. 1. Architectural treatises. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 362. U13 (book I, 63; book II, 5-12; book III, 3, 9-16; book IV, 11, 13, 43-50, 57-60, 62, 71, 73, 109). Gudelj-Botica 2012, 53
710. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: Brogiollo, Marco Antonio, 1642. Vol. 1, 2°, edition 5, language Italian. 1. Architectural treatises. NUK, GS III 8109. P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page v); U10 (book I, 59); U13 (book I, 8, 14, 44, 45-56, 57; book II, 22, 43, 60, 61; book IV, 65, 67-70). Bound with Reverse Bruto 1627
711. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: Pasquali, 1766. Vol. 1, 2°, edition 7, language Italian. 1. Architectural treatises. KFG, XXVII h 1. P6 'H.VI.16' (title page).
712. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Venice: Pasquali, Giambattista, 1766. Vol. 1, 2°, edition 7, language Italian. 1. Architectural treatises. ZKD, Antiqua, A-II-12. Erased P1 (title page); P5 'Narodna republika Hrvatska / Dubrovnik / Naučna biblioteka' (title page); U3 (book I, 3), U4 (book I, 8, 10); U5 (book I, 1-3, 5-7, 10, 11); U7 (book I, 13); U9 (book I, 11, 17; book IV, 84); U13 (book II, 3-34, 7-22; book III, 3).
713. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Muttoni, Francesco. Venice: Pasinelli, Angelo, 1769. Vol. 1, 2°, edition 8, language Italian. 1. Architectural treatises. NUK, GS III 10648. From the Ökonomische Gasellschaft
714. PALLADIO, ANDREA. *I quattro libri dell'architettura*. Muttoni, Francesco. Venice: Pasinelli, Angelo, 1769. Vol. 1, 2°, edition 8, language Italian. 1. Architectural treatises. SKP, Biblioteca provinciale dell'Istria, 5650. Missing

715. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Accolti, Giulio, 1566. Vol. 1, 8°, edition 5, language Italian. 7. Descriptions of ancient and modern towns and regions. FSE, 1/17.
716. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Facciotti, Guglielmo; Franzini, Girolamo, 1595. Vol. 1, 8°, edition 30, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 694a. P1 'H.B. de Wlassim' Gudelj-Botica 2012, 62
717. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Facciotti, Guglielmo, 1606. Vol. 1, 8°, edition 35, language Italian. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 7186-8° privezek 1. Kukolja-Magić 1995, N. 1716
718. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Franzini, Girolamo, 1615. Vol. 1, 8°, edition 38, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 694b. Gudelj-Botica 2012, 62
719. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Grignani, Lodovico, 1625. Vol. 1, 8°, edition 42, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Antiqua, A-1219. P1 'Coll. Rag. Soc. Jesu' (title page); P5 'Narodna republika Hrvatska / Dubrovnik / Naučna biblioteka' (front endpaper); 'Kr. realna gimnazija u Dubrovniku / Učiteljska biblioteka' (title page), P6 'III / 97' (front cover), 'B.x.4' (front endpaper); U5 (10, 15, 18, 21, 22, 24-55).
720. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Bona, Maurizio; Cavalli, Francesco, 1636. Vol. 1, 8°, edition 45, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 236. Gudelj-Botica 2012, 63
721. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Bona, Maurizio; Mascardi, Vitale, 1637. Vol. 1, 8°, edition 45, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS o 427/2. P1 'Conlg. Labacensis / ad D. Joseph / Discalc. / S.P. / Augustini / 1725' (title page); P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page).
722. PALLADIO, ANDREA. *L'antichità di Roma*. Rome: Zempel, Giovanni, 1750. Vol. 1, 8°, edition 50, language Italian. 7. Descriptions of ancient and modern towns and regions. FSE, 5/116.
723. PALLADIO, ANDREA. *Le cose meravigliose di Roma*. Rome: Facciotti, Guglielmo, 1640. Vol. 1, 8°, edition n.d., language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS o 427. Bound with Palladio 1637
724. PALLADIO, ANDREA. *Traicté des cinq ordres d'architecture*. Le Muet, Pierre. Paris: Langlois, François, 1645. Vol. 1, 8°, edition 1, language French. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 11370-8°. Kukolja-Magić 1995, N. 1718
725. PALLAVICINO, RANUCCIO. *I trionfi dell'architettura nella sontuosa residenza di Monaco*. Augsburg: Uzschneider, Simon, 1680. Vol. 1, 4°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS 8129.
726. PANCIOLOTTI, OTTAVIO. *Roma sacra, e moderna*. Posterla, Francesco; Cecconi, Giovanni Francesco. Rome: Mainardi, Girolamo, 1725. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. KSSKL, *4A-3B8 3C4.
727. PANTERA, PANTERO. *L'armata navale*. Rome: Spada, Egidio, 1614. Vol. 1, 4°, edition 1, language Italian. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1815. Missing Seelig 1905, I, 264
728. PAPACINO D'ANTONI, ALESSANDRO VITTORIO. *Dell'architettura militare per le regie scuole teoriche d'artiglieria, e fortificazione*. Turin: Stamperia reale, 1759. Vol. 6, 8°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 2094. Vol. I (1778), II (1779), III (1759), IV (1780), V (1781), VI (1782). Seelig 1905, I, 79
729. PATRIZI, FRANCESCO. *De' discorsi [...] sopra le cose appartenenti ad una città libera, e famiglia nobile*. Fabrini, Giovanni. Venice: Manuzio, Aldo eredi, 1545. Vol. 1, 8°, edition 1, language Italian. 5. Town design and ideal cities. KHAZU, 9.978-R. P1 'Morapl. Seon' (title page); P6 'SS P VI 35 / 33' (front paste-down), 'XVIII.a.24', '317 43 / 07' (title page); U5 (113); U13 (217-218, 224, 230, 243)
730. PATRIZI, FRANCESCO. *Il sacro regno de' gran' Patrio de' vero reggimento e de la vera felicità de' principe e beatitudine humana*. Fabrini, Giovanni. Venice: Trino, Comin de, 1547. Vol. 1, 8°, edition 1, language Italian. 5. Town design and ideal cities. NSKZ, Zbirka rukopisa i starih knjiga, R VI-8°-197. Gudelj-Botica 2012, 65
731. PATRIZI, FRANCESCO. *Il sacro regno de' gran' Patrio de' vero reggimento e de la vera felicità de' principe e beatitudine humana*. Fabrini, Giovanni. Venice: Manuzio, Aldo eredi, 1553. Vol. 1, 16°, edition 2, language Italian. 5. Town design and ideal cities. KHAZU, R-802. P1 'Cayphas Cayphus Cayphus / Joseph Maria F' (title page), P5 'Leop. Hartman's Bouchh. Agram' (last page); U5 (sporadic); U13 (various pp.).
732. PELÈRIN, JEAN. *De artificiali perspectiva*. Viator. Toul: Jacobi, Pierre, 1504. Vol. 1, 4°, edition 1, language Latin-French. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 19731-4° privezek 2. Stolen Kukolja-Magić 1995, N. 1719
733. PELLICCIARI, BARTOLOMEO. *Avvertimenti militari*. Modena: Verdi, Giovanni Maria, 1600. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKS, R-906.
734. PELLICCIARI, BARTOLOMEO. *Avvertimenti militari*. Venice: Farri, Pietro, 1619. Vol. 1, 4°, edition 3, language Italian. 2. Military architecture. FSE, 5/211.
735. PELLICCIARI, BARTOLOMEO. *Avvertimenti militari*. Venice: Farri, Pietro, 1619. Vol. 1, 4°, edition 3, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 164.
736. PENTHER, JOHANN FRIEDRICH. *Bau-Anschlag oder Richtige Anweisung in zweyen Beyspielen*. Augsburg: Pfeffel, Johann Andreas, 1643. Vol. 1, edition 1, language German. 1. Architectural treatises. NUK, GS 21393. P1 'Johannis Dismae Florianschitsch de Grünenfeld'.
737. PENTHER, JOHANN FRIEDRICH. *Bau-Anschlag oder Richtige Anweisung in zweyen Beyspielen*. Augsburg: Pfeffel, Johann Andreas; Lotter, Johann Jakob, 1765. Vol. 1, edition 3, language German. 1. Architectural treatises. NUK, GS II 8065. P1 'J. Weichard D. Barbo'

738. PENTHER, JOHANN FRIEDRICH. *Bau-Anschlag oder Richtige Anweisung in zweyen Beyspielen*. Augsburg: Pfeffel, Johann Andreas; Lotter, Johann Jakob, 1765. Vol. 1, edition 3, language German. 1. Architectural treatises. NUK, GS 8058. Bound with Penther 1768
739. PENTHER, JOHANN FRIEDRICH. *Lexicon architectonicum*. Augsburg: Pfeffel, Johann Andreas; Lotter, Johann Jakob, 1762. Vol. 1, 2°, edition 2, language German. 1. Architectural treatises. NUK, GS II 8057/1. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem. Bound with Penther's Baukunst, parts II-IV.
740. PENTHER, JOHANN FRIEDRICH. *Lexicon architectonicum*. Augsburg: Pfeffel, Johann Andreas; Lotter, Johann Jakob, 1762. Vol. 1, 2°, edition 2, language German. 1. Architectural treatises. SAZU, Umetnostnozgodovinski inštitut Franceta Steleta, Knjižnica I. Stopar II 178176/1. Bound with Penther's Baukunst, part II
741. PENTHER, JOHANN FRIEDRICH. *Praxis geometriae*. Augsburg: Wolff, Jeremiae, 1732. Vol. 1, edition 1, language German. 4. Drawing, perspective and land survey. NUK, GS 21394. P1 'Christianus II. DG Princeps Anhaltinus Come Ascaniae'
742. PENTHER, JOHANN FRIEDRICH. *Praxis geometriae*. Augsburg: Probst, Johann Michael; Lotter, Johann Jacob, 1768. Vol. 1, edition 7, language German. 4. Drawing, perspective and land survey. NUK, GS 8007. Bound with Penther 1765
743. PENTHER, JOHANN FRIEDRICH. *Praxis geometriae*. Augsburg: Probst, Johann Michael, 1788. Vol. 1, edition 9, language German. 4. Drawing, perspective and land survey. NUK, GS 4218. Bound with Penther 1790
744. PENTHER, JOHANN FRIEDRICH. *Praxis geometriae*. Augsburg: Probst, Johann Michael, 1790. Vol. 1, edition 9, language German. 4. Drawing, perspective and land survey. NUK, GS II 4218/adl. Bound with Penther 1788
745. PERRET, JACQUES. *Architecture et perspective etlicher Festungen, Stätt, Kirchen, Schlösser, und Häuser*. De Bry, Johann Theodor. Frankfurt: Richtern, Wolfgang, 1602. Vol. 1, 4°, edition 1, language French. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 10598-4°.
- P5 Valvasor (front paste-down); P6 '41 a 16' (front paste-down); U10 (plates Dii, F). Kukulja-Magić 1995, N. 1761
746. PERRET, JACQUES. *Architecture et perspective etlicher Festungen, Stätt, Kirchen, Schlösser, und Häuser*. De Bry, Johann Theodor. Oppenheim: Galler, Hieronymus, 1613. Vol. 1, 2°, edition 2, language French-German. 1. Architectural treatises. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 13 adl. 3. U5 on several illustrations. Gudelj-Botica 2012, 37
747. PERRET, JACQUES. *Des fortifications et artifices, architecture et perspective*. Paris: , 1601. Vol. 1, fol, edition 2, language French. 2. Military architecture. SKR, Biblioteca civica, 31.A.I/17.
748. PETRIĆ, FRANE. *Della nuova geometria*. Ferrara: Baldini, Vittorio, 1587. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey. FSD, 34-III-20. P5 'Bibliotheca francescana / Ragusii'; U8 '1664 in Ragusa [...] (front and back endpaper)
749. PETRIĆ, FRANE. *Della nuova geometria*. Ferrara: Baldini, Vittorio, 1587. Vol. 1, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey. NSKZ, Zbirka rukopisa i starih knjiga, RIIF-8°-201. Gudelj-Botica 2012, 34
750. PETRIĆ, FRANE. *La città felice*. Venice: Griffio, Giovanni, 1553. Vol. 1, 16°, edition 2, language Italian. 5. Town design and ideal cities. NSKZ, Zbirka rukopisa i starih knjiga, R II F-16°-46.
751. PETRIĆ, FRANE. *La militia Romana di Polibio, di Tito Livio e di Dionigi Alicarnaseo*. Ferrara: Mamarelli, Domenico, 1583. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. FSD, 33-IV-5.
752. PETRIĆ, FRANE. *La militia Romana di Polibio, di Tito Livio e di Dionigi Alicarnaseo*. Ferrara: Mamarelli, Domeni, 1583. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, RIIF-8°-316 a, b. Gudelj-Botica 2012, 33
753. PETRIĆ, FRANE. *La militia Romana di Polibio, di Tito Livio e di Dionigi Alicarnaseo*. Ferrara: Mamarelli, Domeni, 1583. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. SKR, Biblioteca civica, 13.E.45.
754. PETRIĆ, FRANE. *Paralleli militari*. Rome: Zanetti, Luigi; Facciotto, Guglielmo, 1594. Vol. 2, fol, edition 1, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, R II F-4°-55. Published in 1594-95
755. PETRIĆ, FRANE. *Paralleli militari*. Rome: Zanetti, Luigi; Facciotto, Guglielmo, 1594. Vol. 2, 4°, edition 1, language Italian. 2. Military architecture. SKP, Biblioteca provinciale dell'Istria, 4944-a. Published in 1594-95
756. PEVERONE, GIOVAN FRANCESCO. *Due brevi e facili trattati, il primo d'arithmetica: l'altro di geometria*. Lyons: Tournes, Jean de I, 1558. Vol. 1, 8°, edition 2, language Italian. 4. Drawing, perspective and land survey. KHAZU, R-1643. Missing title page; P1 'Ex libris / Petrij Georgij Sablich / de Chersii' (61); P5 'Knjižnica 'hrvatske Akademije / Zagreb' (a 3r); P6 'R-531 / o8' (a 3r); U3 (15, 18, 22, 29, 73); U5 (20, 21, 41, 42, 49, 60, 87, 108, 133-134); U9 (85); U13 (13, 79, 91-95, 99, 117). Not catalogued in Kukulja-Magić 1995.
757. PFENZING, PAUL. *Optica*. Augsburg: Franck, David, 1616. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10436-4° privezek 4. Kukulja-Magić 1995, N. 1766
758. PILES, ROGER DE. *Einleitung in die Malerey aus Grundsätzen*. Leipzig: Dyck, Johann Gottfried, 1760. Vol. 1, 8°, edition 1, language German. 6. The arts. NUK, GS o 5359. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem.
759. PILES, ROGER DE. *L'idea del perfetto pittore*. Venice: Locatelli, Francesco, 1772. Vol. 1, 8°, edition 2, language Italian. 6. The arts. FSŠ, KV. 17.
760. PILES, ROGER DE. *L'idea del perfetto pittore*. Venice: Locatelli, Francesco, 1772. Vol. 1, 8°, edition 3, language Italian. 6. The arts. ZPZHAZU, Miočević-Rendić Collection, D 318.
761. PLAW, JOHN. *Rural architecture or designs from the simple cottage to the decorated villa*. London: Taylors, J. & J., 1794. Vol. 1, 4°, edition 3, language English. 8. Miscellaneous. SKP, Mornarična knjižnica, 8641. Missing Seelig 1905, I, 274

762. POLYAENUS, MACEDO. *Strategemi dell'arte della guerra*. Mutoni, Niccolò. Venice: Valgrisi, Vincenzo, 1552. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. NMS, K XXIX 303.
763. POLYAENUS, MACEDO. *Gli stratagemmi [...] di grandissimo utile ai capitani nelle diverse occasioni della guerra*. Carani, Lelio. Venice: Giolito de Ferrari, Gabriele, 1552. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. ZKZ, R-173.
764. POLYBIUS. *Dell'imprese de' Greci, de gli Asiatici, de' Romani, et d'altri*. Domenichi, Lodovico; Porcacchi, Tommaso. Venice: Giolito de Ferrari, Gabriele, 1564. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. ZKZ, R-260.
765. POLYBIUS. *Geschichte des Polyb*. Folard, Jean-Chales de; Guichard, Karl Theophil. Vienna: Trattner, Johann Thomas, 1759. Vol. 7, 4°, edition n.d., language German. 2. Military architecture. NUK, GS I 611/I-VII.
From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem; monogram 'AS'
766. POLYBIUS. *Histoire de Polybe*. Thuillier, Vincent. Amsterdam: Chatelein, Zacharie & Fils, 1759. Vol. 7, 4°, edition 4, language French. 2. Military architecture. CNBCT, C III 21.
Only vol. 1
767. POLYBIUS. *Histoire de Polybe*. Thuillier, Vincent. Amsterdam: Chatelein, Zacharie & Fils, 1759. Vol. 7, 4°, edition 4, language French. 2. Military architecture. NUK, GS 44557.
768. POLYBIUS. *Historiarium libri quinque*. Niccolò Perotto. Venice: Manuzio, Aldo, 1521. Vol. 1, 8°, edition 3, language Latin. 2. Military architecture. ZKD, A-1452.
Extracted from a miscellanea with Titus Livius and Lucius Florus
769. POLYBIUS. *Historiarium libri quinque*. Niccolò Perotto. Florence: Giunta, Filippo, 1522. Vol. 1, 8°, edition 4, language Latin. 2. Military architecture. AMS, R 1980.
770. POLYBIUS. *Historiarium libri quinque*. Niccolò Perotto. Lyons: Gryphius, Sébastien, 1554. Vol. 1, 16°, edition 10, language Latin. 2. Military architecture. AMS, R 1275.
P5 "Bibl. Mission. Spal. Soc. Iesu".
771. POLYBIUS. *Polibio, historico greco, tradotto*. Domenichi, Lodovico. Venice: Giolito de Ferrari, Gabriele, 1545. Vol. 1, 8°, edition 1, language Latin. 2. Military architecture. ZKD, A-166.
772. POZZO, ANDREA. *Perspectiva pictorum et architectorum*. Rome: Komarek, Giovanni Giacomo, 1693. Vol. 2, Fol, edition 1, language Italian-Latin. 4. Drawing, perspective and land survey. FST, A 2° 29.
P1 'Conventus Tersactensis Divae Virginis Gratianae' (title page), 'Ex libris P.F. Petri Franceticha Flumine min.ri proale. bibliothecae contiis du gratia tersactensis ordinis non ref. inscriptis' (title page v), 'Ex libris f. is Petri Francevich à Flumine ex Probis / Con.tus Tersectensis D. Virginis Gratianae' (second title page).
Only vol. I.
773. POZZO, ANDREA. *Perspectiva pictorum et architectorum*. Rome: Komarek, Giovanni Giacomo, 1693. Vol. 2, fol, edition 1, language Latin. 4. Drawing, perspective and land survey. HFPCM.
774. POZZO, ANDREA. *Perspectiva pictorum et architectorum*. Rome: Komarek, Giovanni Giacomo, 1693. Vol. 2, fol, edition 1, language Latin. 4. Drawing, perspective and land survey. NUK, GS III 8049.
From the library of the Kranjska družba za kmetijstvo in koristne umetnosti
775. POZZO, ANDREA. *Perspettiva de pittori e architetti = Farnsehkunst Derenmahlern und Bawmeistern*. Rome: Komarek, Giovanni Giacomo, 1700. Vol. 2, fol, edition 2, language Italian-German. 4. Drawing, perspective and land survey. OHK, Umetnostna zgodovina, Vitrina V/ Pozz/1/ii.
776. POZZO, ANDREA. *Perspectivae pictorum atque architectorum*. Augsburg: Wolff, Jeremias; Detleffs, Peter, 1708. Vol. 2, fol, edition 3, language Latin. 4. Drawing, perspective and land survey. NUK, GS 8108.
P2 'Jois Disma Floriantschitsch de Grienfeld 1722'
777. POZZO, ANDREA. *Perspectivae pictorum atque architectorum*. Augsburg: Wolff, Jeremias; Detleffs, Peter, 1719. Vol. 2, 2°, edition 6, language Latin. 4. Drawing, perspective and land survey. NUK, ZST II 719244.
Belonged to Velentin and Mirko Šubić
778. POZZO, ANDREA. *Perspectivae pictorum atque architectorum*. Augsburg: Wolff, Jeremias; Detleffs, Peter, 1719. Vol. 2, fol, edition 6, language Latin. 4. Drawing, perspective and land survey. OHK, Umetnostna zgodovina, Vitrina V/ Pozz/2/ii.
779. PROCOPIUS CAESARIENSIS. *De bello persico [...] De Justiniani Caesaris aedificiis*. Lyons: Le Preux, François, 1549. Vol. 1, 8°, edition 3, language Latin. 7. Descriptions of ancient and modern towns and regions. ZKZ, Pappafava, R.329.
780. PROCOPIUS CAESARIENSIS. *De rebus Gothorum, Persarum ac Vandalorum*. Basel: Hervagius, I., 1531. Vol. 1, 2°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. AMS, R 384.
781. PROCOPIUS CAESARIENSIS. *Opera*. Venice: Javarina, Bartolomeo, 1729. Vol. 6, 2°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. KHAZU, I-407-R.
782. RAMELLI, AGOSTINO. *Le diverse et artificiose machine*. Paris: Ramelli, Agostino, 1588. Vol. 1, 2°, edition 1, language Italian. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 6675-2°. Kukolja-Magić 1995, N. 1880
783. RAMELLI, AGOSTINO. *Schatzkammer, Mechanischer Künste*. Leipzig: Gross, Henning, 1620. Vol. 1, 4°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 7923-4°. Kukolja-Magić 1995, N. 1898
784. RAMUSIO, GIOVANNI BATTISTA. *Delle navigationi et viaggi*. Venice: Giunta, Tommaso, 1563. Vol. 1, 2°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, R-187.
785. RAUSCH VON TRAUBENBERG, FRANZ. *Elementa architecturae et structuras oeconomicas applicatae in usum academiarum per Regnum Hungariae*. Buda: Regia Universitas Hungarica, 1779. Vol. 1, 8°, edition 1, language Latin. 1. Architectural treatises. BMSNS.
786. RAUSCH VON TRAUBENBERG, FRANZ. *Elementa architecturae et structuras oeconomicas applicatae in usum academiarum per Regnum Hungariae*. Buda: Regia Universitas Hungarica, 1779. Vol. 1, 8°, edition 1, language Latin. 1.

- Architectural treatises.
FSF, 27/9.
787. RAUSCH VON TRAUBENBERG, FRANZ. *Elementa architecturae et structuras oeconomicas applicatae in usum academiarum per Regnum Hungariae*. Buda: Regia Universitas Hungarica, 1779. Vol. 1, 8°, edition 1, language Latin. 1. Architectural treatises.
NSKZ, Zbirka rijetkosti, RVI-8°-343.
788. REINHOLD, ERASMUS. *Gründlicher Bericht vom Feldtmessen*. Frankfurt: Bringern, Johann, 1615. Vol. 1, 8°, edition 2, language German. 4. Drawing, perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 6923-8°. Kukolja-Magić 1995, N. 1924
789. REQUENO Y VIVES, VICENTE. *Saggi sul ristabilimento dell'antica arte de' greci e de' romani pittori*. Parma: Gatti, Giovanni, 1784. Vol. 1, 8°, edition 1, language Italian. 6. The arts.
ZKZ, R-210.
790. REUSCH, ERHARD. *Alter und Neuer Staat des Koenigreichs Dalmatien*. Nuremberg: Monath, Peter Conrad, 1718. Vol. 1, 8°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions.
AMZG, XXIV 130.
P1 'En lib. Joan. Ant. Hoys.' (title page); P6 '61300', '2608 / XX.B.25.ž' (front paste-down); U13 (1, 154, 171, pp. 225-230).
791. REVESE BRUTO, OTTAVIO. *Archisesto per formar con facilità li cinque ordini d'architettura*. Vicenza: Armadio, Domenico eredi, 1627. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises.
NUK, GS III 8110.
U13 (4, 9, 27, 31-34, 53, 77-90).
Bound with Palladio 1642
792. RIEGER, CHRISTIANUS. *Universae architecturae civilis elementa*. Vienna: Trattner, Johann Thomas, 1756. Vol. 1, 4°, edition 1, language Latin. 1. Architectural treatises.
NUK, GS I 8072.
793. RIEGER, CHRISTIANUS. *Universae architecturae civilis et militaris elementa*. Vienna: Trattner, Johann Thomas, 1756. Vol. 2, 8°, edition 1, language Latin. 1. Architectural treatises.
SKR, Biblioteca civica, 25.D.1-2.
794. RIEGER, CHRISTIANUS. *Universae architecturae militaris elementa*. Vienna: Trattner, Johann Thomas, 1758. Vol. 1, 4°, edition 2, language Latin. 2. Military architecture.
NUK, GS 8123.
795. RIPA, CESARE. *Erneuerte Iconologia oder Bilder-Sprach*. Frankfurt: Serlin, Wilhelm, 1669. Vol. 1, 8°, edition 1, language German. 6. The arts.
NKZG, Bibliotheca valvasoriana, M 6917-8°. Kukolja-Magić 1995, N. 1959
796. RIPA, CESARE. *Erneuerte Iconologia oder Bilder-Sprach*. Frankfurt: Serlin, Wilhelm, 1669. Vol. 1, 4°, edition 1, language German. 6. The arts.
NUK, GS I 1953.
P1 'Henrik Matthaeus Schweiger'
797. RIPA, CESARE. *Erneuerte Iconologia oder Bilder-Sprach*. Frankfurt: Serlin, Wilhelm, 1670. Vol. 1, 8°, edition 1, language German. 6. The arts.
NKZG, Bibliotheca valvasoriana, M 10759-8° privezek.
Kukolja-Magić 1995, N. 1968
798. RIPA, CESARE. *Iconologia [...] accresciuta d'immagini, di annotazioni, e di fatti*. Orlandi, Cesare. Perugia: Costantini, Piergiovanni, 1764-67. Vol. 5, 4°, edition 11, language Italian. 6. The arts.
ZPZHAZU, Miočević-Rendić Collection, C 102.
Only vols. 1-4
799. RIPA, CESARE. *Nova iconologia*. Padua: Tozzi, PP, 1618. Vol. 1, 4°, edition 6, language Italian. 6. The arts.
AMS, R 260.
Signed "Ad Simplicem / Fratris Nicolai / de Castro Franco"
800. RODLER, HIERONYMUS. *Eyn schön nützlich Büchlin und underweisung der Kunst des Messens mit dem Zirckel, Richtscheidt oder Linial*. Simmern: Rodler, Hieronymus, 1531. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 9304-4° privezek 2.
Kukolja-Magić 1995, N. 1969
801. RUSCELLI, GIROLAMO. *Precetti della militia moderna*. Venice: Sessa, 1568. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 12158-8°. Kukolja-Magić 1995, N. 2020
802. RUSE, HEINRICUS. *Architectura militaris*. Frankfurt: Sand, Hermann von, 1670. Vol. 1, 4°, edition 1, language German. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 10868-4°. P2 Valvasor.
Kukolja-Magić 1995, N. 2027
803. RUSE, HEINRICUS. *Korte en klare Instructie can regulare en irregulare Fortificatie*. Utrecht: Waesberge, Joan van, 1658. Vol. 1, 8°, edition 1, language Dutch. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 4073-8°. Kukolja-Magić 1995, N. 2028
804. RUSE, HEINRICUS. *Versterckte Vesting, uyrtgevonden in velerley voorvallen*. Amsterdam: Bleau, Jean, 1654. Vol. 1, 4°, edition 1, language Dutch. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 7900-4°. Kukolja-Magić 1995, N. 2029
805. RYFF, PETRUS. *Quaestiones geometricae*. Euclides. Frankfurt: Wechel, Andreas, 1600. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 9500-8°. Stolen
Kukolja-Magić 1995, N. 2011
806. RYFF, WALTHER HERMANN. *Der furnembsten, notwendigsten, der ganzen Architectur angehörigen Mathematischen und Mechanischen künst*. Nuremberg: Petreius, Johan, 1547. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises.
NKZG, Bibliotheca valvasoriana, M 6469-4°. Customized cover; 'Perspectiva Teutch / M C LI'; partly erased P1 '1575 / B.D. [...] / Jonas [...] (front paste-down); P2 Valvasor (front paste-down). Von Künstliche gebrauch... P5 'A bibliotheca / metr. ecclesiae / zagabriensis' (title page); U2 (book I, 1r-4v, book II, 15r, 16v, 18r); U3 (book III, 5v); U5 (book II, 32v; book III, 5v, 6r); U7 (book II, 18v; book III, 7v, 43r); U8 (book III, 3r-v); U9 (book I, 25r-v); U10 (6v, 7r, 21r, 22r, 27v, 28v, 33v, 34r, 34v, 35v, 36r, 41r; book II, 12r, 13r-v, 14v, 15r, 23v, 24r, 27v, 32r, 33v, 34v, 35v, 38v, 41v, 50r); U11 (front paste-down and endpaper, book I, 16r; book II, 11v, 13v, 26r, 38v, 51r; book III, 20v); U13 (book I, 3r, 6-8, 10-11, 24v; book II, 1-4, 13v, 17v, 33v; book III, 4r, 6v, 7v, 8r, 10r, 18v, 19r, 24r, 29v, 30-32, 36v, 38v, 41v); U17 (book I 3v; book II, 14v, 16v, 17r, 18v, 25r, 30r, 32r, 33v, 35v, 38v, 41v, 43v, 44v, 47r, 52r; book III, 7v, 24v). Der Geometrische Bürenmeisteren, U13 (2r, 13r, 28-29, 30v, 34v, 36r, 43v, 49-54); U17 (4r-v, 6v). Von der Grundtlegung erbawing und befestigung der Stedt, Schlösser und Flecken, U11 (38r); U13 (1r, 4r, 5r, 6r, 11r, 20r, 25r, 38r); U17 (2v, 28r). Der Geometrischen messung, P1 'J. [...] W. Wiermolldie-stechte [...] (41r); P3 'Non può noiar malignità a fortezza'; U8 (3r); U13 (title page, 1v, 5r, 15v, 16v, 18r, 34v). Der Geometrischen messung angeheft, P4 with a fish. Von fürstlicher bereitung der Welschen Schnelwagen [...], U8 (4r, back paste-down); U10 (back paste-down); U11 (12v); U13 (1r).
Kukolja-Magić 1995, N. 2030
807. RYVES, THOMAS. *Historia navalis antiqua; Historia navalis mediae*. London: Barjer, Robert; Bill, John, 1633. Vol. 2, 8°, edition 1, language Latin. 3. Shipbuilding and mechanics.
SKP, Mornarična knjižnica, 3801.
Missing
Seelig 1905, I, 305

808. S.A. *Breve descrizione del disegno della cappella di Sant'Ignazio Loiola eretta nella chiesa del Gesù di Roma*. Rome: Ercole, Domenico Antonio, 1697. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions.
ZKD, Collegium Ragusinum, CR-21807.
809. S.A. *Der getreue Reiss-Gefert durch Ober- und Nieder Teutschland*. Nuremberg: Riegel, Christoff, 1686. Vol. 1, 16°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions.
NKZG, Bibliotheca valvasoriana, M 3619-16°. Kukolja-Magić 1995, N. 1939
810. S.A. *Descrizione della reale galleria di Firenze secondo lo stato attuale*. Florence: Cambiagi, Gaetano, 1794. Vol. 1, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions.
ZKD, Collegium Ragusinum, CR-21927.
811. S.A. *Disegno della cappella di S. Ignazio Loiola di Roma*. Rome: Ercole, Domenico Antonio, 1697. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions.
ZKD, Collegium Ragusinum, CR-22177.
812. S.A. *Gut befundenes Garten-Büch. Item, von Bienen und Tauben*. s.l.: s.n., 1730. Vol. 1, 8°, edition n.d., language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 4880-8°. Unidentified edition, 1730 or 1788.
Kukolja-Magić 1995, N. 815
813. S.A. *Kurtze Anweisung die Gläser zu schleiffen und Perspective zu zurichten*. Dresden: Mieth, Johann Christoph, 1680. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 4347-8°. Kukolja-Magić 1995, N. 84
814. S.A. *Pratica di conteggiare di nuova inventione ridotta in modo facile*. Venice: Finozzi, Bortolo, 1777. Vol. 1, 12°, edition 2, language Italian. 4. Drawing, perspective and land survey.
CNBCT, C I 551.
815. S.A. *Recueil de plusieurs desseins des fortifications et des machines*. Paris: Tavernier, Melchior, 1639. Vol. 1, 2°, edition 1, language French. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 9201-2°. Kukolja-Magić 1995, N. 1899
816. S.A. *Roma ampliata, e rinovata o sia Nuova descrizione dell'antica, e moderna città di Roma*. Rome: Roisecco, Gregorio, 1750. Vol. 1, 8°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions.
ZKD, A-529.
817. S.A. *Roma antica, e moderna*. Rome: Roisecco, Gregorio; Puccinelli, Ottavio, 1750. Vol. 3, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions.
NUK, GS o 238.
818. S.A. *Roma antica, e moderna*. Rome: Roisecco, Nicola, 1765. Vol. 3, 8°, edition n.d., language Italian. 7. Descriptions of ancient and modern towns and regions.
SAZU, Zgodovinski inštitut Milka Kosa, 102455.
819. S.A. *Theatrum cosmographico-historicum*. Augsburg: Koppmayer, Jacob, 1686. Vol. 4, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions.
NKZG, Bibliotheca valvasoriana, M 9097-8°. Kukolja-Magić 1995, N. 2324
820. S.A. *Vollenkommene Unterweisung wie Raketen, Feuer-Wasser, Sturm-Kugeln, Granaten, Pech-Kräfte und allerhand Lust und Ernsthafte Feuer-Wercke zubereiten*. Osnabrück: Schwänders, Johann Georg, 1660. Vol. 1, 4°, edition 1, language German. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 11320-4°. Kukolja-Magić 1995, N. 2382
821. S.A. *Von der Kunst Perspectius*. s.l.: s.n., 1509. Vol. 1, 4°, edition n.d., language German. 4. Drawing, perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 12062-4°. Unidentified edition
Kukolja-Magić 1995, N. 1367
822. SALA, ANTONIO. *Il sergente maggiore*. Venice: Albrizzi, Girolamo, 1697. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture.
AMS, Martinis-Marchi, R 64.
Duplančić-Kovačić 2001, 205
823. SALBACH, JOHANN CHRISTOPH. *Zwofache Seule philologischer Merck-würdiger Curiositäten*. Frankfurt: Bourgeat, Ludwig; Drullmann, Johann Georg, 1678. Vol. 2, 8°, edition 1, language German. 6. The arts.
NKZG, Bibliotheca valvasoriana, M 6915-8°. Kukolja-Magić 1995, N. 2033
824. SANDERUS, ANTONIUS. *Flandria illustrata*. Cologne: Egmond, Cornelius, 1641. Vol. 3, 2°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions.
NKZG, Bibliotheca valvasoriana, M 24731-2°. Vol. 1, 1641; vol. 2, 1644
Kukolja-Magić 1995, N. 2051
825. SANDRART, JOACHIM VON. *Iconologia deorum*. Nuremberg: Froberger, Christian Siegmund, 1680. Vol. 1, 2°, edition 1, language German. 6. The arts.
NKZG, Bibliotheca valvasoriana, M 11086-2°. Kukolja-Magić 1995, N. 2060
826. SANDRART, JOACHIM VON. *L'Academia tedesca della architectura, scultura, et pittura*. Nuremberg: Merian, Matthäus; Miltenberger, Johann Philipp, 1675. Vol. 3, 2°, edition 1, language German. 6. The arts.
NKZG, Bibliotheca valvasoriana, M 22503-2°. Vol. 1, 1675; vol. 2, 1679
Kukolja-Magić 1995, N. 2059
827. SANDRART, JOACHIM VON. *L'Academia tedesca della architectura, scultura, et pittura*. Nuremberg: Merian, Matthäus; Miltenberger, Johann Philipp, 1675. Vol. 2, 2°, edition 1, language German. 6. The arts.
NUK, GS III 10660.
From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem
828. SANGIOVANNI, ANTONIO. *La squadra mobile, l'aritmetica e l'agricoltura*. Arduino, Giovanni. Vicenza: Occhi, Giandomenico, 1759. Vol. 1, 4°, edition 1, language Italian. 4. Drawing, perspective and land survey.
DSZ, III-169.
829. SANMICHELI, MICHELE. *Li cinque ordini d'architettura civile*. Pompei, Alessandro. Verona: Vallarsi, Jacopo, 1735. Vol. 1, 2°, edition 1, language Italian. 1. Architectural treatises.
AMZD, 5372 A.
830. SANMICHELI, MICHELE. *Li cinque ordini d'architettura civile*. Pompei, Alessandro. Verona: Vallarsi, Jacopo, 1735. Vol. 1, 2°, edition 1, language Italian. 1. Architectural treatises.
SKP, Mornarična knjižnica, 2367.
Missing
Seelig 1905, I, 276
831. SANSOVINO, FRANCESCO. *Venetia città nobilissima et singolare*. Venice: Farri, Domenico, 1581. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions.
NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 195.
832. SANSOVINO, FRANCESCO. *Venetia città nobilissima, et singolare*. Stringa, Giovanni; Martinioni, Giustiniano. Venice: Curti, Stefano, 1669. Vol. 1, 4°, edition 3, language Italian. 7. Descriptions of ancient and modern towns and regions.
FSŠ, F.II.14.
833. SANTINI, ANGELO. *Regole ed avvertimenti pratici per fabricar con sodezza e geometriche riflessioni*. Ferrara: Rinaldi, Giuseppe, 1770. Vol. 1, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey.
FSD, 1-X-19.
P5 'Bibliotheca francescana / Ragusii'; U13 (18, 34).

834. SANVITALI, FEDERICO. *Elementi di architettura civile*. Brescia: Rizzardi, Giammaria, 1765. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 101.
835. SANVITALI, FEDERICO. *Elementi di architettura civile*. Brescia: Rizzardi, Giammaria, 1765. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. NUK, GS II 8127. From the Agriculturs Bibliothec, and the Ökonomische Gesellschaft
836. SARAINA, TORELLO. *De origine & amplitudine Civitatis Veronae*. Verona: Putelleti, Antonio, 1540. Vol. 1, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, R VI-4°-47.
837. SARDI, PIETRO. *Corno dogale della architettura militare*. Venice: Giunti, 1639. Vol. 1, fol, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 7819. Missing Seelig 1905, I, 317
838. SARDI, PIETRO. *Corno dogale della architettura militare*. Venice: Giunti, 1639. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. ZKD, Antiqua, A-II-75. P1 'S. Sig. Gozze' (title page); P5 'Kr. realna gimnazija u Dubrovniku, Stara učiteljska biblioteka' (title page); trimmed and torn off illustrations (99, 129, 145, 147).
839. SARDI, PIETRO. *Corona imperialis architecturae militaris*. Frankfurt: Jacobi, Paul, 1623. Vol. 2, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7904-4°. Vol. 1, 1648; vol. 2, 1623 Kukolja-Magić 1995, N. 2061
840. SARDI, PIETRO. *Discorso sopra la necessità et utilità dell'architettura militare*. Venice: Bariletti, Antonio, 1642. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. AMZD, 5604 A.
841. SARDI, PIETRO. *Discorso sopra la necessità et utilità dell'architettura militare*. Venice: Bariletti, Antonio, 1642. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 173. Exlibr. "Nikola Zrinski 1646" Gudelj-Botica 2012, 33
842. SARDI, PIETRO. *Il capo de' bombardieri esaminato, & approvato dal generale dell'artiglieria*. Venice: Giunta, Tommaso, 1641. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. NSKZ, Zbirka rijetkosti, BZ 166 adl 2. Gudelj-Botica 2012, 53
843. SARDI, PIETRO. *Il capo de' bombardieri esaminato, & approvato dal generale dell'artiglieria*. Venice: Giunti, 1641. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. ZKZ, R-1223.
844. SATTLER WISSENBURG, JOHANN HEINRICH. *Fortificatio, das ist: Von Vestungen, Schntzen und gegen-Schantzen*. Basel: Königs, Ludwig, 1627. Vol. 1, 8°, edition 2, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 6196-8°. Kukolja-Magić 1995, N. 2063
845. SAUR, ABRAHAM. *Stäte-Buch*. Frankfurt: Baeyrn, Johann; Ammon, Joh. W.; Serlin, Wilhelm, 1658. Vol. 1, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 6252-8°. Kukolja-Magić 1995, N. 2065
846. SAVORGNANO, MARIO. *Arte militare terrestre, e marittima*. Venice: Combi, Sebastiano, 1614. Vol. 1, fol, edition 2, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 261.
847. SAVOT, LOUIS. *L'architecture françoise des bastimens particuliers*. Paris: Robinot, Antoine, Gesselin, Jean, 1642. Vol. 1, 8°, edition 1, language French. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 6927-8° privezek. Kukolja-Magić 1995, N. 2068
848. SCAMOZZI, VINCENZO. *Dell'idea della architettura universale*. Venice: Albrizzi, Girolamo, 1714. Vol. 2, 2°, edition 4, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 131. Missing
849. SCAMOZZI, VINCENZO. *L'idea della architettura universale*. Ramiro, Antonio. Venice: Valentini, Giorgio, 1615. Vol. 2, 2°, edition 1, language Italian. 1. Architectural treatises. PMP, Biblioteca Civica Pirano, 7 SCAMOZZI Idea.
850. SCAMOZZI, VINCENZO. *L'idea della architettura universale*. Amsterdam: Danker, Ravensteyn, 1640. Vol. 1, 2°, edition 1, language Dutch. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 9278-2°. P2 Valvasor. Kukolja-Magić 1995, N. 2070
851. SCAMOZZI, VINCENZO. *L'idea della architettura universale*. Nuremberg: Hoffmann, Johann, 1678. Vol. 1, 4°, edition 2, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 7889-4°. Kukolja-Magić 1995, N. 2072
852. SCHADAEUS, OSEAS. *Summum Argentoratensium Templum*. Strasbourg: Zetzner, Lazar, 1617. Vol. 1, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 6563-8° privezek 5. Kukolja-Magić 1995, N. 2073
853. SCHEFFER, JOHANN. *De re vehiculari veterum libri duo*. Ligorio, Pirro. Frankfurt: Zunner, Johann David, 1671. Vol. 1, 8°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 6393-8°. Kukolja-Magić 1995, N. 2073
854. SCHEITHER, JOHANN BERNHARD. *Examen fortificatorium*. Strasbourg: Spoor, Johann Friderich, 1677. Vol. 1, 2°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 5879-2°. Kukolja-Magić 1995, N. 2079
855. SCHEITHER, JOHANN BERNHARD. *Novissima praxis militaris*. Braunschweig: Zilligern, Christoff Friderich; Grubern, Caspar, 1672. Vol. 1, 2°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 2081-2° privezek. Kukolja-Magić 1995, N. 2080
856. SCHICKARD, WILHELM. *Kurtze Anweisung, Wie Künstliche Land- Tafeln*. Tübingen: Cotta, Johann Georg, 1669. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 8017-8° privezek 4. Kukolja-Magić 1995, N. 2081
857. SCHILDKNECHT, WENDELIN. *Harmonia in fortaliis construendis, defendis et oppugnandis*. Stettin: Rheten, JV, 1652. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 7910-4°. Kukolja-Magić 1995, N. 2084

858. SCHÖFFERLE, JAKOB. *Bau-Kunst, das ist Künstliche und gründliche Beschreibung von dem Gebrauch der fünff Säulen*. Augsburg: Wehen, Johann, 1671. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 8554-4°. Kukolja-Magić 1995, N. 2086
859. SCHOTT, CASPAR. *Cursus mathematicus, sive absoluta omnium mathematicarum disciplinarum encyclopaedia*. Bamberg: Schönwettters, Johann Martin, 1677. Vol. 1, 4°, edition 2, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M-5901-4°. Kukolja-Magić 1995, N. 2125
860. SCHOTT, CASPAR. *Magia optica*. Frankfurt: Schönwettters, Johann Martin, 1677. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6146-8°. Kukolja-Magić 1995, N. 2126
861. SCHOTT, CASPAR. *Magia universalis naturae et artis*. Bamberg: Schönwettters, Johann Martin, 1659. Vol. 4, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 12172-8°. Only vols. 1, 1677; 3, 1677; 4, 1659. Kukolja-Magić 1995, N. 2106
862. SCHOTT, CASPAR. *Mathesis Caesarea*. Würzburg: Schönwettters, Johann Gottfried, 1662. Vol. 1, 8°, edition 1, language Latin. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11973-8°. Kukolja-Magić 1995, N. 2129
863. SCHOTT, CASPAR. *Mechanica hydraulico-pneumatica*. Würzburg: Schönwettters, Johann Gottfried, 1658. Vol. 1, 8°, edition 1, language Latin. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 7692-8°. Kukolja-Magić 1995, N. 2121
864. SCHOTT, CASPAR. *Organum mathematicum*. Würzburg: Endter, Johann Andreas & Wolfgang, 1668. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7999-8°. Kukolja-Magić 1995, N. 2123
865. SCHOTT, CASPAR. *Pantometrum Kircherianum*. Würzburg: Schönwettters, Johann Gottfried, 1660. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7550-8°. Kukolja-Magić 1995, N. 2120
866. SCHOTT, CASPAR. *Tecnica curiosa, sove Mirabilia artis*. Würzburg: Endter, Johann Andreas & Wolfgang, 1664. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 10688-8°. Kukolja-Magić 1995, N. 2122
867. SCHULEMBURG, JOHANN MATTHIAS, GRAD VON DER. *Essercizio militare, e regola universale dell'infanteria della serenissima Repubblica di Venezia*. Venice: Pinelli, Giovanni Antonio & Almorò, 1724. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. LHL, a 20.
868. SCHWENTER, DANIEL. *Deliciae physico-mathematicae*. Nuremberg: Endter, Johann Andreas & Wolfgang, 1651. Vol. 3, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6179-8°. vols. 1-2, 1651; vol. 3, 1653. Kukolja-Magić 1995, N. 2124
869. SCHWENTER, DANIEL. *Deliciae physico-mathematicae*. Nuremberg: Dümmler, Jeremia, 1651. Vol. 1, 4°, edition 2, language German. 4. Drawing, perspective and land survey. NUK, GS 4154.
870. SCHWENTER, DANIEL. *Geometriae practicae novae et auctae*. Nuremberg: Halbmayer, Simon, 1641. Vol. 4, 8°, edition 2, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 19747-8°. Kukolja-Magić 1995, N. 2161
871. SCHWENTER, DANIEL. *Geometriae practicae novae et auctae*. Nuremberg: Endter, Johann Andreas & Wolfgang, 1667. Vol. 1, 8°, edition 3, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6744-8°. Kukolja-Magić 1995, N. 2162
872. SEMS, JOHAN. *Practica des Landmessens*. Amsterdam: Jansson, Wilhelm, 1616. Vol. 2, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7301-8°. Kukolja-Magić 1995, N. 2163
873. SENFFTEL, JOHANN JAKOB. *Rhenus fluminum princeps*. Augsburg: Koppmayer, Jacob, 1689. Vol. 1, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 8753-8°. Kukolja-Magić 1995, N. 1943
874. SENFFTEL, JOHANN JAKOB. *Rhenus fluminum princeps*. Augsburg: Koppmayer, Jacob, 1689. Vol. 1, 8°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 8753-8° privezek. Kukolja-Magić 1995, N. 1958
875. SERDONATI, FRANCESCO. *De' fatti d'arme de' Romani*. Venice: Ziletti, Giordano, 1572. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. ZKZ, R-216.
876. SERLIO, SEBASTIANO. *Architettura*. Venice: Nicolini da Sabbio, Pietro, 1551. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. DSD, 51-VIII-5.
877. SERLIO, SEBASTIANO. *De architectura libri quinque*. Venice: De Franceschi, Francesco; Criegher, Johann, 1568. Vol. 1, 4°, edition 1, language Latin. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 10417-4° privezek. P2 Valvasor (front paste-down); P6 '44.b.32' (front paste down); U13 (book I, 11, 28); U10 and U14 (book II 42-43). Kukolja-Magić 1995, N. 2178
878. SERLIO, SEBASTIANO. *Extraordinario libro di architettura*. Lyons: Rouillé, Guillaume, 1560. Vol. 1, 2°, edition 5, language Italian. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 9200-2°. Kukolja-Magić 1995, N. 2182
879. SERLIO, SEBASTIANO. *Extraordinario libro di architettura*. Venice: Sessa, Melchiorre & Giovanni Battista, 1568. Vol. 1, fol, edition 8, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 135. Obliterated P1 (2r); P1 'Domenico Uvoda: sevispist: vel: sev: s' and obliterated P1 (back endpaper); P6 or P7 'H 6 A 19 1703' (back endpaper); U2 (plate 7); U4 (plate 1); U5 (A2v, A3r, A3v); U7 (plates 1-6, 35); U9 (plate 8); U10 (plates 20, 31, 38); U11 (plate 7); U13 (plate 8). Bound within Serlio, Libro primo [-quinto] d'architettura, Venice 1559 (C 135). Plates are between 65v-66; title page and written explanations are after book V.
880. SERLIO, SEBASTIANO. *Il primo [-quinto] libro d'architettura*. Venice: Sessa, Melchiorre; Nicolini da Sabbio, Pietro e Cornelio, 1551. Vol. 4, 2°, edition 1, language Italian. 1. Architectural treatises. SKP, Biblioteca provinciale dell'Istria, 15675. Missing

881. SERLIO, SEBASTIANO. *Il terzo libro [...] nel quale si figurano, e descrivono le antichità di Roma*. Venice: Marcolini, Francesco, 1540. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS III 7311. P1 'Giacomo Baldinesia di Birote' (title page), 'questo libro edi mè Marco Antonio Chiarini Pittore / l'Anno 1692' (title page v); P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U11 (67); U13 (53, 53, 56, 61, 72, 77, 99, 106, 123, 128); U16 (19). bound with the previous book
882. SERLIO, SEBASTIANO. *Il terzo libro [...] nel quale si figurano, e descrivono le antichità di Roma*. Venice: Marcolini, Francesco, 1540. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. ZKD, Antiqua, A-II-46/3. Missin title and ending page, handwritten title in the front endpaper. P1 'Ex Dono Sigismundi Tudisi / Coll. Ragusini Soc. Jesu' (5); P3 'Ptebasij Alg.dizle et Aipilgi' (front endpaper); P5 'K. realna gimnazija u Dubrovniku / Učiteljska biblioteka' (front endpaper); P6 'I.II. g' (front endpaper); U10 (59, 77, 79, 110, 111, 115, 119, 127); U13 (7-10, 12, 17-20, 26, 33-36, 44, 50, 52, 58, 60, 65, 69, 73, 75, 77, 85-90, 92, 95, 98, 105-140, 107, 122, 123-130, 127, 142, 144, 147); U14 (19, 110, 111, 115, 119); U16 (19, 49, 59, 77, 79, 110, 115, 146, 147); U18 (16-17, 30-31).
883. SERLIO, SEBASTIANO. *Il terzo libro [...] nel quale si figurano, e descrivono le antichità di Roma*. Venice: Marcolini, Francesco, 1544. Vol. 1, fol, edition 2, language Italian. 1. Architectural treatises. CRSR, Library, CXLVII/2; 391/L 1995. P1 'Di me G. Baisdradić' (5r), 'de me Paolo Gasparetto muraro son queo libro' (155v); U1 (39r).
884. SERLIO, SEBASTIANO. *Libro primo [-quinto] d'architettura*. Venice: Sessa, Melchior & Giovanni Battista, 1559. Vol. 4, fol, edition 1, language Italian. 1. Architectural treatises. ZPZHazu, Miočević-Rendić Collection, C 135. Missing title page. P1, 'Di io Uvoda di Sorche / Di [...] (book I, 6r); P9 'Edizione del 1500' (book I, 2r); U1 (book I, 6r, 13r; book IV, 36v); U2 (book II, 6; book III, 106); U3 (book III, 150); U4 (book I, 2v); U5 (book I, 14v; book II, 22v, 24v, 25r, 26v-27v; book III, 128, 150; book IV, 1v, 17r, 17v, 19r, 36v, 60v, 68v, 69v, 71r; book V, 1r, 2v); U6 (book II, 25r, 26r-27v; book III, 5; book IV, 30v, 68v, 69v; book V, 1v, 11v, 12r); U7 (book I, 15r; book III, 129; book IV, 1v, 17r-v, 19v, 36v, 37r, 61r, 71r; book V, 1r); U8 (book I, 2v, 7v; book IV, 63r); U9 (book III, 137); U10 (book IV, 70r); U13 (book III, 123; book IV, 4v, 9v, 9-15, 25r, 27r, 28r, 35r, 36r, 41r-v, 51r, 52r, 63r, 64r-v, 65r, 71r; book V, 13r, 14v).
885. SERLIO, SEBASTIANO. *Regole generali di architettura sopra le cinque maniere de gli edifici*. Venice: Marcolini, Francesco, 1537. Vol. 1, 2°, edition 1, language Italian. 1. Architectural treatises. NUK, GS III 7311. U5 (17r, 18r, 36v, 48v); U6 (17r); U7 (36v, 37r, 38r); U8 (17r); U13 (title page, 3v, 8r, 13v, 14r, 15r, 16v, 18v, 24r, 25v, 30r, 39r, 54r, 55r, 59r, 61-63, 71v, 73r, 75r); U16 (7r, 23r, 24r).
886. SERLIO, SEBASTIANO. *Regole generali di architettura sopra le cinque maniere de gli edifici*. Venice: Marcolini, Francesco, 1540. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. ZKD, Antiqua, A-II-46/4. Missing title page and sheet 1. U10 (10r, 26r); U11 (8r, 22r); U13 (2-3, 6-12, 11v, 13v, 17v, 18r, 33v, 34r, 38v, 40r, 41r, 43v, 47v, 51-52, 53-57, 60r, 61r-v, 64v); U14 (10r, 19v); U16 (7r, 19v, 38r, 41r); U18 (1v-2r).
887. SERLIO, SEBASTIANO. *Regole generali di architettura sopra le cinque maniere de gli edifici*. Venice: Marcolini, Francesco, 1544. Vol. 1, fol, edition 2, language Italian. 1. Architectural treatises. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 364. P1 'H.B. de Wlassim' (title page); U1 (76r); U2 (7r, 74r); U10 (7r, 14r, 15v, 23r, 27r, 36r, 40v, 41r, 59r); U12 (A1-4v); U13 (title page, 3v, 4r, 7-8, 14r, 15-1617v, 20r, 21v, 23r, 28v, 29v, 31v, 36r, 39-40, 40v, 41v, 43r, 46r, 47r, 48v, 58r, 60v, 64v, 67v, 69r, 72v); U14 (14r, 15v, 36r, 37r); U16 (7r, 14r, 27r, 38r, 41r). Gudelj-Botica 2012, 52
888. SERLIO, SEBASTIANO. *Tutte l'opere d'architettura*. Venice: De Franceschi, Francesco, 1584. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. SKP, Biblioteca provinciale dell'Istria, 5708. Missing
889. SERLIO, SEBASTIANO. *Tutte l'opere d'architettura, et prospettiva*. Scamozzi, Vincenzo. Venice: De Franceschi, Francesco, 1600. Vol. 1, 4°, edition 2, language Italian. 1. Architectural treatises. NUK, ZST I 737922. P1 'Questo libro è di me Pietro Antonio Conti deto / ball levoco stucadore e capo mastro di Lugano / lano 1728 di 28 marco in Lubiana' (front paste-down), 'Caroli Martinucci liber' (title page); U1 (22-44); U2 (145v; book VII, 3); U5 (52v); U7 (108r, 139r, 141v; book VII, 80, c2r, c2v, c3r, back paste-down); U11 (book VI, plate 20); U13 (A2r-4, 6v, 10-11, 20v, 26r, 49r, 51v, 54v, 62-63, 65v, 68r-v, 80r, 85r, 94-95, 96r, 96v, 97v, 107-111, 112v, 113v, 115v, 119v, 123v, 126-127, 128v, 157v, 167r, 169r, 179r, 205v, 206v, 208r, 210r, 217v, 218r-v; book VII, 8, 14, 19, 43, 51, 54, 62, 77, 80, 83, 85, 97, 101, 110, 113, 127, 129, 132, 134, 135, 139, 142, 143, 191, c4r); U14 (141r)
890. SERLIO, SEBASTIANO. *Tutte l'opere d'architettura, et prospettiva*. Scamozzi, Vincenzo. Venice: De Franceschi, Francesco, 1600. Vol. 1, 4°, edition 2, language Italian. 1. Architectural treatises. SKS, Rara, R-667. P5 'Gradska Biblioteka, Split / Br. Inv. / Signatura RR667' (front endpaper), partly erased P5 (title page); U1 (5v); U2 (5v, 12r, 44r, 46v); U5 (f3r, 14v, 18r, 139r, 158v); U6 (18v, 31r, 50r, 140v, 158v); U7 (19r, 20v, 25r, 52r); U8 (10r); U10 (9r, 11v, 19r, 28v, 29r, 164v); U13 (cr-c4, 3-4, 9r, 17-19, 29r, 36r, 38-39, 41r, 46-47, 52v, 64v, 65r, 67r, 72r, 79r, 84-85, 96v, 117-120, 127-128, 130r, 142r, 143-144, 155-156, 169-170, 174r, 178-180, 192r, 201v).
891. SERLIO, SEBASTIANO. *Von der Architectur fünf Bücher*. Basel: Königs, Ludwig, 1609. Vol. 1, 2°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 24823-2° privezek. P2 Valvasor (front paste-down); P6 '87 a 6 b' (front endpaper); U6 (book III, 12r, 16v, 29r); U7 (book II, 9r); U10 (book I, 14v; book 9r); U13 (book III, 60v; book IV, 22r); U14 (22r). Kukulja-Magić 1995, N. 2183
892. SERLIO, SEBASTIANO. *Von der Architectur fünf Bücher*. Basel: Königs, Ludwig, 1609. Vol. 1, fol, edition 1, language German. 1. Architectural treatises. NUK, GS III 23272.
893. SERRAGLI, SILVIO. *La S. Casa abbellita*. Loreto: Serafini, Paolo & Giovanni Battista, 1639. Vol. 1, 8°, edition 4, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Biblioteca civica, 14.H.32.
894. SERRAGLI, SILVIO. *La S. Casa abbellita*. Loreto: Serafini, Giovanni Battista, 1639. Vol. 1, 8°, edition 4, language Italian. 7. Descriptions of ancient and modern towns and regions. SKR, Collegium Societatis Iesus (Rijeka), 14.H.32.
895. SERRAGLI, SILVIO. *La S. Casa abbellita*. Macerata: Salvioni, Girolamo, 1640. Vol. 1, 12°, edition 4, language Italian. 7. Descriptions of ancient and modern towns and regions. OKK, Franciscan Convent of St Anna in Koper, F/VII J 27.
896. SERRAGLI, SILVIO. *La S. Casa abbellita*. Loreto: Paradiso, Serafino, 1644. Vol. 1, 8°, edition 5, language Italian. 7. Descriptions of ancient and modern towns and regions. KSSKL, M SERRAGLI S. La S. casa.
897. SERRAGLI, SILVIO. *La S. Casa abbellita*. Loreto: Piccini, Giuseppe, 1659. Vol. 1, 8°, edition 8, language Italian. 7. Descriptions of ancient

- and modern towns and regions.
NUK, GS 15736.
898. SERRAGLI, SILVIO. *La S. Casa abbellita*. Loreto: Piccini, Giuseppe, 1661. Vol. 1, 8°, edition 8, language Italian. 7. Descriptions of ancient and modern towns and regions.
NUK, GS 21297.
899. SGUARIO, EUSEBIO. *Specimen physico-geometricum de terraemotu ultimate concinnatum*. Venice: Recurti, Giovanni Battista, 1756. Vol. , 4°, edition 1, language Latin. 3. Shipbuilding and mechanics.
PMK, CK II (inv. 5531).
P5 'Biblioteka C.K. Nautička Škola / Kotor' (title page); P6 'LXIV 20', XL / 875' (front endpaper); U1 (13); U13 (XII).
900. SIEMIENOWICZ, KAZIMIERZ. *Vollkommene Geschütz-Feuerwerk und Büchsenmeisterei-Kunst*. Frankfurt: Zunner, Johann David, 1676. Vol. 1, 4°, edition 1, language German. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 9432-4° privezek 1.
Kukolja-Magić 1995, N. 2184
901. SIRIGATTI, LORENZO. *La pratica della prospettiva*. Venice: Franceschi, Girolamo, 1596. Vol. 1, 2°, edition 1, language Italian. 4. Drawing, perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 12021-2° privezek.
Missing title page and part of the text replaced by a handwritten copy (chapt. II).
Kukolja-Magić 1995, N. 1781
902. SIRIGATTI, LORENZO. *La pratica della prospettiva*. Venice: De Franceschi, Girolamo, 1596. Vol. 1, 2°, edition 1, language Italian. 4. Drawing, perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 24380-2° privezek.
Missing title page, handwritten title on the first page.
Kukolja-Magić 1995, N. 2195
903. SIRIGATTI, LORENZO. *La pratica della prospettiva*. Venice: De Franceschi, Girolamo, 1596. Vol. 1, 2°, edition 1, language Italian. 4. Drawing, perspective and land survey.
NUK, GS III 8051.
From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem. P1 'Johannes Waltherius' (front paste-down); U10 (plates 32, 49).
Bound with Vignola 1607.
904. SITONO, LAUDROMO. *Saggio dell'architettura civile*. Milan: Bianchi, Giovanni Battista, 1776. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises.
ZPZHazu, Miočević-Rendić Collection, D 321.
905. SOAVE, FRANCESCO. *Elementi di meccanica teorico-pratica ad uso delle scuole*. Venice: Storti, Giacomo, 1793. Vol. 1, 8°, edition 1, language Italian. 3. Shipbuilding and mechanics.
FSS, QVIII.19.
906. SOLIANI RASCHINI, ANTONIO. *Trattato di fortificazione moderna pe' giovani militari italiani*. Venice: Pavini, Luigi, 1748. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture.
SKP, Mornarična knjižnica, 7893.
Seelig 1905, I, 286
907. SOLINORI, SANTI. *Stazioni delle chiese di Roma, per tutta la quaresima*. Rome: Facciotto, Guglielmo; Franzini, Girolamo, 1595. Vol. 1, 8°, edition 2, language Italian. 7. Descriptions of ancient and modern towns and regions.
NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 234.
Gudelj-Botica 2012, 62
908. SPECKLIN, DANIEL. *Architectura von Vestungen*. Strasbourg: Jobin, Bernhart, 1589. Vol. 1, 4°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions.
NKZG, Bibliotheca valvasoriana, M 10405-4°. Stolen
Kukolja-Magić 1995, N. 2202
909. SPECKLIN, DANIEL. *Architectura von Vestungen*. Strasbourg: Jobin, Bernhart, 1589. Vol. 1, 4°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions.
NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 123.
P1 'Dominus Benedictus Thury de Naghy Thur Sacrae Caesareae Raegiequae Majestatis Dux Supremus Papensis. ac vice Comes Conutatis Vesprensi, ensis Anno ... 1658' (back paste-down); U7 (24-25, 26-27, 41-42, 66-66a, 77-78)
Gudelj-Botica 2012, 33
910. SPECKLIN, DANIEL. *Architectura von Vestungen*. Strasbourg: Zatzner, Lazari, 1608. Vol. 1, 2°, edition 3, language German. 7. Descriptions of ancient and modern towns and regions.
NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 8.
P1 'Francisci Listij'
Gudelj-Botica 2012, 34
911. SPON, JACOB. *Miscellanea eruditae antiquitatis*. Lyons: Faëton, Jacques, 1685. Vol. 1, 2°, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions.
AMZG, Pol. II/a 8.
P6 'S-1033 / 1945'; U5 (141, 299); U13 (various pp.).
912. SPON, JACOB. *Viaggi [...] per la Dalmazia, Grecia e Levanti*. Wheler, George. Bologna: Monti, G., 1688. Vol. 1, 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions.
AMS, R 749.
913. SPON, JACOB. *Voyage d'Italie, de Dalmatie, de Grece et du Levant*. Wheler, George. Lyons: Cellier, A. fils, 1678. Vol. 3, 12°, edition 1, language French. 7. Descriptions of ancient and modern towns and regions.
AMS, R 747/1-3.
P1 B.M. 1818; P5 'Museum Britannicum / Duplicate'.
914. SPON, JACOB. *Italiänische, Dalmatische, Griechische und Orientalische Reise-Beschreibung*. Wheler, George. Nuremberg: Hoffmann, Johann, 1690. Vol. 2, 2°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions.
SKP, Biblioteca provinciale dell'Istria, 15395.
915. SPRETI, DESIDERIO. *Della grandezza, della ruina, & della restaurazione di Ravenna*. Pesaro: Giglio, Aloisio, 1574. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions.
SKR, Collegium Societatis Iesus (Trst), 13.E.33.
916. SPRETI, DESIDERIO. *Della grandezza, della ruina, & della restaurazione di Ravenna*. Pesaro: Giglio, Aloisio, 1574. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions.
SKR, Biblioteca civica, 13.E.33.
917. STAHL, GEORG CONRAD. *Des europäischer Ingenieur*. Nuremberg: Riegel, Christoff, 1687. Vol. 1, 16°, edition 1, language German. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 9890-16°. Kukolja-Magić 1995, N. 1534
918. STALKARTT, MARMADUKE. *Naval architecture*. London: Boydell, I; Dodsley, I; Sewell, J., 1787. Vol. 1, fol, edition 2, language English. 3. Shipbuilding and mechanics.
SKP, Mornarična knjižnica, 7406.
Missing
Seelig 1905, I, 342
919. STEVIN, SIMON. *Festung-Bawung*. Frankfurt: Palthen, Hartman, 1623. Vol. 1, 8°, edition 2, language German. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 11390-8°. Kukolja-Magić 1995, N. 2221
920. STEVIN, SIMON. *Les oeuvres mathématiques*. Girard, Albert. Leiden: Elzevir, Bonaventura & Abraham, 1634. Vol. 1, 2°, edition 1, language French. 2. Military architecture.
SIKNN, PZ II 1819.

921. STÖR, LORENZ. *Geometria et perspectiva*. Augsburg: Manger, Michael, 1567. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 6473-4°. Kukolja-Magić 1995, N. 2266
922. STRADA, JACOPO. *Epitome thesauri antiquitatum*. Lyons: Tournes, Jean de (I), 1553. Vol. 1, 4°, edition 1, language Latin. 7. Descriptions of ancient and modern towns and regions. NKZG, M 9368-8°.
923. STRADA, JACOPO. *Epitome thesauri antiquitatum*. Zurich: Gesner, Andreas & Jacob, 1557. Vol. 1, 8°, edition 2, language Latin. 7. Descriptions of ancient and modern towns and regions. KHAZU, 40.331-R. Missing title page replaced by a handwritten one; erased P1 'Ex libris Sigmund Lertola Minfeovit[...] / Batochi' (1); P13 'Sum Wolfgang Lutstackh Vicmensis Austriae / amicitiae ergo datus a Carolo Reschio Cremser / menses Augusto Anno Salutis M DL XX' (1); P2 'Ivan Kukuljivić Sakcinski' (title page); U2 (203); U5 (187, 209, 228, 237, 238, 245, 250, 254, 311, 317, 318); U6 (113, 192, 193, 208, 209, 226, 233, 236, 238, 253, 257, 258, 282, 300, 301, 303, 311, 317, 321-326, 328, 334); U7 (27, 192, 233, 321, 322, 325, 326, 328); U13 (204, 208).
924. STRADA, JACOPO. *Künstliche Abriss allerhandt Wasserkünsten*. Frankfurt: Grenenbruch, Gerhard, 1618. Vol. 1, 4°, edition 1, language German. 8. Miscellanea. NKZG, Bibliotheca valvasoriana, M 13942-4°. Kukolja-Magić 1995, N. 2271
925. STRATICO, SIMONE. *Dell'antico teatro di Padua*. Padua: Stamperia del Seminario, 1795. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NSKZ, Zbirka rukopisa i starih knjiga, R II F-4°-247.
926. STRATICO, SIMONE. *Dell'antico teatro di Padua*. Padua: Stamperia del Seminario, 1795. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ.
927. STRATICO, SIMONE. *Oratio [...] cum mathesim et theoriā nauticā tradere aggrediretur*. Padua: Typis Cominiani, 1765. Vol. 1, 8°, edition 1, language Latin. 3. Shipbuilding and mechanics. NSKZ, Zbirka rukopisa i starih knjiga, R II F-8°-788.
928. STURM, JOHANN CHRISTOPH. *Des invergleichlichen Archimedes Kunst-Bücher oder Heutigs Tags befindliche Schrifften*. Archimedes. Nuremberg: Fürsten, Paul, 1670. Vol. 1, 4°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 7535-4°. Kukolja-Magić 1995, N. 89
929. STURM, LEONHARD CHRISTOPH. *Frundlicher Vett. Streit der Französischen, Holländischen und Deutschen Kriegen-Bau-Kunst*. Rimpler, Georg. Augsburg: Wolff, Jeremiae, 1718. Vol. 1, fol, edition 1, language German. 2. Military architecture. NUK, GS 24342.
930. STURM, LEONHARD CHRISTOPH. *Prodromus architecturae Goldmannianae*. Goldmann, Nikolaus. Augsburg: Wolff, Jeremiae, 1714. Vol. 1, fol, edition 1, language German. 1. Architectural treatises. NUK, GS IV 10636.
931. SUTHERLAND, WILLIAM. *The ship-builders assistant or, some essays towards compleating the art of marine architecture*. London: Mount, Bell and Smith, 1755. Vol. 1, 12°, edition 2, language English. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1830. Missing Seelig 1905, I, 352
932. TACQUET, ANDRÉ. *Arithmeticae theoria et praxis*. De Martino, Nicola Antonio. Venice: Viezzeri, Bonifazio, 1740. Vol. 1, 8°, edition 5, language Latin. 4. Drawing, perspective and land survey. KHAZU, 14.534-Rn.
933. TACQUET, ANDRÉ. *Arithmeticae theoria et praxis*. Venice: Viezzeri, 1740. Vol. 1, 8°, edition 5, language Latin. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-20606.
934. TACQUET, ANDRÉ. *Arithmeticae theoria et praxis*. Milan: Agnelli, Francesco, 1741. Vol. 1, 8°, edition 6, language Latin. 4. Drawing, perspective and land survey. FSH, Rara, R-3043. P2 'Nicolaus Mari'
935. TACQUET, ANDRÉ. *Elementa euclidae geometriae planae ac solidae*. Whiston, William. Amsterdam: De Coup, Peter, 1725. Vol. 1, 8°, edition n.d., language Latin. 4. Drawing, perspective and land survey. NUK, GS I 4336. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem
936. TACQUET, ANDRÉ. *Elementa euclidae geometriae planae ac solidae*. Boscovich, Ruggiero Giuseppe. Venice: Remondini, 1762. Vol. 2, 8°, edition 7, language Latin. 4. Drawing, perspective and land survey. FSD, 1-VII-1, 2.
937. TACQUET, ANDRÉ. *Elementa geometriae planae ac solidae quibus accedunt selecta ex archimede theoremata*. Padua: Typis Seminarii, 1694. Vol. 1, 8°, edition 5, language Latin. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-20266.
938. TACQUET, ANDRÉ. *Elementa geometriae planae ac solidae quibus accedunt selecta ex archimede theoremata*. Padua: Manfré, Giovanni, 1729. Vol. 1, 8°, edition n.d., language Latin. 4. Drawing, perspective and land survey. NUK, GS o 4168. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem
939. TACQUET, ANDRÉ. *Elementa geometriae planae ac solidae quibus accedunt selecta ex archimede theoremata*. Padua: Typis Seminarii, 1738. Vol. 1, 8°, edition n.d., language Latin. 4. Drawing, perspective and land survey. PMP, Biblioteca civica, 5 TACQUET Elementa.
940. TACQUET, ANDRÉ. *Elementa geometriae planae ac solidae quibus accedunt selecta ex archimede theoremata*. Padua: Manfré, Giovanni, 1751. Vol. 1, 8°, edition 19, language Italian. 4. Drawing, perspective and land survey. SKS, Martinis-Marchi, R-1048. Duplancić-Kovačić 2001, 213
941. TACQUET, ANDRÉ. *Elementa geometriae planae ac solidae quibus accedunt selecta ex archimede theoremata*. Boscovich, Ruggiero Giuseppe. Padua: Typis Seminarii, 1783. Vol. 1, 8°, edition 23, language Latin. 4. Drawing, perspective and land survey. DSZ, II-12. P5 'Samostan S. Dominika Šibenik' (title page); P6 '1/2 / 28' (title page).
942. TACQUET, ANDRÉ. *Opera mathematica [...] in collegio Societatis Iesu Lovanii*. Antwerp: Meurs, Jacob van, 1669. Vol. 2, 2°, edition 1, language Latin. 4. Drawing, perspective and land survey. FSS, H.XI.5; H.XI.7.
943. TACQUET, ANDRÉ. *Trigonometria plana nec non Trigonometria sphaerica*. Boscovich, Ruggiero Giuseppe. Venice: Bertella, J., 1746. Vol. 2, 8°, edition 10, language Latin. 4. Drawing, perspective and land survey. AMS, R 96. Only vol. II
944. TACQUET, ANDRÉ. *Trigonometria plana nec non Trigonometria sphaerica*. Boscovich, Ruggiero Giuseppe. Bassano: Remondini, 1781. Vol. 2, 8°, edition 14, language Latin. 4. Drawing, perspective and land survey. FSE, 7/104. Only vol. II

945. TANARA, VINCENZO. *L'economia del cittadino in villa*. Bologna: Dozza, Evangelista, eredi, 1651. Vol. 1, 4°, edition 3, language Italian. 8. Miscellanea.
NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 159.
946. TARTAGLIA, NICCOLÒ. *La nova scientia*. Venice: Navò, Curzio Troiano, 1562. Vol. 1, 4°, edition 2, language Italian. 2. Military architecture. SKS, Rara, R-514 **. P1 'Louier Alexandre, Croiset', 'Flaminii [...] chili liber' (title page); P5 'Gradska biblioteka / Split' (title page). Nova scientia, U5 (2v, 3v, 4r-v, 10v); U6 (1r-4r, 10v-11r); U7 (1r-4r, 6r, 7r, 8r-9v, 25v, 26v); U11 (7r); U17 (25r). Quesiti et inventioni diverse, U5 (60v, 81r); U6 (38r, 43r, 63r, 64r-65v, 66v, 67r, 75v-77r, 78r, 79r-81v); U7 (37r-38v, 40r-v, 42r, 43r, 46r, 63r, 64r-67r, 75v-78r, 79r-81v); U13 (9v, 22r, 24v, 31v). Appended the "Quesiti et inventioni".
947. TARTAGLIA, NICCOLÒ. *Nova scientia*. Venice: Nicolini da Sabbio, Stefano, 1537. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 871. Missing
Seelig 1905, I, 353
948. TARTAGLIA, NICCOLÒ. *Opere [...] Quesiti, Travagliata inventione, Nova scientia, Ragionamento sopra Archimede*. Venice: Navò, Curzio, eredi, 1606. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. KHAZU, 7,369-R. P5 Knjižnica / Jugoslavske / Adademie' (title page); P6 '26.c.q' (front endpaper). Quesiti et inventioni diverse, U13 (52, 138). Ragionamenti sopra la travagliata inventione, U5 (book I, 18, 24, 36); U7 (book I, 31); U8 (back endpaper); U13 (book I, 12-16; book III, 3)
949. TARTAGLIA, NICCOLÒ. *Opere [...] Quesiti, Travagliata inventione, Nova scientia, Ragionamento sopra Archimede*. Venice: Navò, Curzio, eredi, 1606. Vol. 1, 4°, edition 1, language Italian. 2. Military architecture. SKS, Rara, R-648. Unreadable P1 (front cover). Travagliata inventione, U13 (25-32, 33, 39-46). Quesiti et inventioni diverse, U13 (2, 3, 9-16, 18, 21, 23-32, 43-48, 57-64, 73-80, 89-96, 107-110, 121-126, 135-142, 151-158, 169-174, 199-206, 203, 215-222, 231-238, 247-254, 253, 267-270, 279-286). Nova scientia, U13 (9-16, 25-32, 36, 41-48, 54, 59-64, 67-72). Ragionamenti sopra la travagliata inventione, U13 (11-16, 27-30).
950. TARTAGLIA, NICCOLÒ. *Quesiti et inventioni diverse*. Venice: Bascarini, Niccolò, 1554. Vol. 1, 4°, edition 3, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 2398.
- Missing
Seelig 1905, I, 353
951. TARTAGLIA, NICCOLÒ. *Tutte l'opere d'arithmeticca*. Giovannini, Girolamo. Venice: Navò, Curzio, eredi, 1592. Vol. 2, 4°, edition 1, language Italian. 2. Military architecture. NUK, GS 4117. Vol. I (1592), II (1593).
952. TARTAGLIA, NICCOLÒ. *Tutte l'opere d'arithmeticca*. Venice: Navò, Curzio, eredi, 1592. Vol. 2, 4°, edition 1, language Italian. 2. Military architecture. ZKD, Collegium Ragusinum, CR-21284. Obliterated P1 [...] De Vecchi [...] (title page); P3 (+2v); P5 'K. realna gimnazija u Dubrovniku / Učiteljska biblioteka' (title page); P6 'DVIII.34' (front endpaper); U9 (+2r); U11 (vol. II, 279v); U13 (vol. II, 136v, 157v, 200v, 233v); U14 (vol. II, 232r); U18 (vol. II, 11v-12r). Vol. I (1592), II (1593).
953. TEMANZA, TOMMASO. *Vite dei più celebri architetti, e scultori veneziani che fiorirono nel secolo decimosesto*. Venice: Palese, Carlo, 1778. Vol. 1, 4°, edition 1, language Italian. 6. The arts. KFG, I c 6.
954. TEMANZA, TOMMASO. *Vite dei più celebri architetti, e scultori veneziani che fiorirono nel secolo decimosesto*. Venice: Palese, Carlo, 1778. Vol. 1, 4°, edition 1, language Italian. 6. The arts. PMP, Biblioteca civica, 7 TEMANZA Vite.
955. TEMANZA, TOMMASO. *Antica pianta dell'inclita città di Venezia*. Venice: Palese, Carlo, 1781. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. PMP, Biblioteca civica, 7 TEMANZA Antica.
956. TENSINI, FRANCESCO. *La fortificatione guardia, difesa et espugnatione delle fortezze sperimentata*. Venice: Deuchino, Evangelista, 1624. Vol. 1, fol, edition 1, language Italian. 2. Military architecture. AMZD, 8018/2017 A. P1 'procuratore Agostin Nani'
957. TENSINI, FRANCESCO. *La fortificatione guardia, difesa et espugnatione delle fortezze sperimentata*. Venice: Bariletti, Antonio, 1630. Vol. 1, 2°, edition 2, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 117. P2 'Nikola Zrinski 1646' (front paste-down); P3 'Pars bona nihil aliud' (front paste-down); U5 (book III, 87, 88); U13 (book I, 21, 23, 25-34, 36, 53; book II, 11, 69, 71-76, 77-80, 81; book III, 19, 36, 75, 107, plate 43). Gudelj-Botica 2012, 32
958. THETI, CARLO. *Disorsi di fortificationi*. Rome: Accolto, Giulio, 1569. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 6139 privez 1. P5 'E Bibliotheca Metropolitanae Zagabrensis' (title page); P6 '24d3/c / 2' (title page); U6 (21v); U13 (18v, 21r); U14 (19r).
959. TIELKE, JOHANN GOTTLIEB. *Unterricht für die Offiziers die sich zu Feldingenieurs bilden*. Dresden: Gerlach, Johann Nicolaus, 1779. Vol. 1, 8°, edition 3, language German. 2. Military architecture. NSKZ, Zatvoreno spremište, 1241.
960. TIELKE, JOHANN GOTTLIEB. *Unterricht für die Offiziers die sich zu Feldingenieurs bilden*. Vienna: Trattner, Johann Thomas, 1783. Vol. 1, 8°, edition 4, language German. 2. Military architecture. NUK, GS 7959.
961. TITI, FILIPPO. *Ammaestramento utile, e curioso di pittura scoltura et architettura nelle chiese di Roma*. Rome: Vannacci, Giuseppe, 1686. Vol. 1, 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. PMP, 72 TITI Ammaestramento.
962. TITI, FILIPPO. *Studio di pittura, scoltura e architettura nelle chiese di Roma*. Rome: Mancini, Filippo Maria, 1675. Vol. 1, 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, A-181. P5 'Općinska / Knjižnica / br. 1561' (front paste-down); U8 'Nel palazzo di S. Pietro vi sono cinque milla, e cinque cento stanze, e tredici milla tra porte, e finestre'; 'Nel 1680. minaciava rovina e fu risarcita' (71).
963. TOLOMEI, CLAUDIO. *De le lettere*. Venice: Giolito de Ferrari, Gabriele, 1557. Vol. 1, 16°, edition 6, language Italian. 1. Architectural treatises. SKR, Biblioteca civica, 58.H.27.
964. TORELLI, GIUSEPPE. *Elementorum prospectivae libri 2*. Bertolini, Giovanni Battista. Verona: Moroni, Marco eredi, 1788. Vol. 1, 8°, edition 1, language Latin. 4. Drawing, perspective and land survey. SKP, Mornarična knjižnica, 2373. Missing
Seelig 1905, I, 359
965. TOTTI, POMPILO. *Abgebildetes altes Romm*. Arnheim: Haagen, Johann Fridrich, 1662. Vol. 1, 16°, edition 1, language German. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 3697-16°. Kukulja-Magić 1995, N. 1997

966. TOTTI, POMPILIO. *Ritratto di Roma moderna*. Rome: Mascardi, 1638. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NKZG, Bibliotheca valvasoriana, M 7265-8°. Kukolja-Magić 1995, N. 2327
967. TOTTI, POMPILIO. *Ritratto di Roma moderna*. Rome: Mascardi, 1638. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. NUK, GS o 430. P1 'Francisci Otthonis TV. doctorij'
968. TRABER, ZACHARIS. *Nervus opticus, sive Tractatus theoricus*. Vienna: Cosmerovius, Jo. Chr., 1675. Vol. 1, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11279-4°. Kukolja-Magić 1995, N. 2351
969. TRABER, ZACHARIS. *Nervus opticus, sive Tractatus theoricus*. Vienna: Cosmerovius, Jo. Chr., 1675. Vol. 1, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. NUK, GS 8448.
970. TREU, ABDIAS. *Compendium fortificationis*. Nuremberg: Dümmler, Jeremia, 1641. Vol. 1, 16°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 3498-16°. Kukolja-Magić 1995, N. 2352
971. TRINCANO, DIDIER-GRÉGOIRE. *Elements de fortification, de l'attaque et de la defence des places*. Paris: Musier, Jean Baptiste Guillaume, 1768. Vol. 1, 8°, edition 1, language French. 2. Military architecture. SKP, Mornarična knjižnica, 1269. Missing Seelig 1905, I, 362
972. TRINCI, COSIMO. *L'agricoltore sperimentato*. Venice: Gatti, Giovanni, 1772. Vol. 1, 8°, edition 9, language Italian. 8. Miscellanea. FSS, IVIII5.
973. TRINCI, COSIMO. *L'agricoltore sperimentato*. Venice: Gatti, Giovanni, 1783. Vol. 1, 8°, edition 12, language Italian. 8. Miscellanea. MGS, Capogrosso Kavanjin, 9146. Zglav-Martinac 2009, 1029
974. TRINCI, COSIMO. *L'agricoltore sperimentato*. Venice: Gatti, Giovanni, 1783. Vol. 1, 8°, edition 12, language Italian. 8. Miscellanea. PMP, Biblioteca civica, 62/69 TRINCI L'agricoltore.
975. TRINCI, COSIMO. *Nuovo trattato d'agricoltura*. Genovesi, Antonio; Wildman, Daniele. Venice: Gatti, Giovanni, 1778. Vol. 1, 8°, edition 13, language Italian. 8. Miscellanea. CNBCT, C I 32.
976. UFANO, DIEGO. *Archeley, das ist Gründlicher und eygentlicher Bericht von Geschütz und aller zegehör*. Frankfurt: Erben, Egnolph, 1614. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 8594-4°. Kukolja-Magić 1995, N. 2360
977. UFANO, DIEGO. *Archeley, das ist Gründlicher und eygentlicher Bericht von Geschütz und aller zegehör*. Bry, Johann Theodor. Frankfurt: Emmein, Egenolph, 1614. Vol. 1, 2°, edition 1, language German. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 13 adl. 1. P1 'Francisci Listij' (front paste-down), 'C Nie a Zara M' (title page); P3 'Pars bona nihil aliud' (title page); P5 'Kr. Sveučilišna knjižnica u Zagrebu' (title page); U5 (78, 79, 80, 81, 87, 88) U6 (152).
978. UNTEUTSCH, FRIEDRICH. *Neues Zieratenbuch den Schreibern, Tischlern oder Küstlern und Bildhauern sehr dienlich*. Nuremberg: Fürsten, Paul, 1650. Vol. 1, 4°, edition 1, language German. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 10599-4°. Date circa. Kukolja-Magić 1995, N. 2394
979. UTTENHOFER, CASPAR. *Circinus geometricus, zu Teutsch Mess-Cirkel*. Nuremberg: Halbmayer, Simon, 1626. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11837-8°. Kukolja-Magić 1995, N. 2395
980. UTTENHOFER, CASPAR. *Pes mechanicus, oder Werckschuch*. Nuremberg: Halbmayer, Simon, 1615. Vol. 1, 8°, edition 1, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 6563-8° privezek 6. Kukolja-Magić 1995, N. 2398
981. UTTENHOFER, CASPAR. *Pes mechanicus, oder Werckschuch*. Nuremberg: Halbmayer, Simon, 1620. Vol. 1, 8°, edition 2, language German. 3. Shipbuilding and mechanics. NKZG, Bibliotheca valvasoriana, M 7718-8°. Kukolja-Magić 1995, N. 2399
982. VALIER, AGOSTINO. *Constitutiones et decreta in conventu Reverendissimorum D.D. Spalatensis et Jadrensis Provinciarum*. Verona: Dalle Donne, Sebastiano & Giovanni, 1579. Vol. 1, 4°, edition 1, language Latin. 8. Miscellanea. ZKZ, Pappafava, Rari 23.
983. VALLE, BATTISTA DELLA. *Vallo, libro pertinente a capitani per retenere et fortificare una città con bastioni*. Venice: Ravani, Vittore & C., 1539. Vol. 1, 8°, edition 5, language Italian. 2. Military architecture. SKP, Mornarična knjižnica, 1277. Missing Seelig 1905, I, 367
984. VALLE, BATTISTA DELLA. *Vallo, libro pertinente a capitani per retenere et fortificare una città con bastioni*. Venice: Guarisco, Giovanni, 1558. Vol. 1, 8°, edition 11, language Italian. 2. Military architecture. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 235. Gudelj-Botica 2012, 31
985. VALTRINI, GIANNANTONIO. *De re militari veterum Romanorum*. Cologne: Birckmann, 1597. Vol. 1, 8°, edition 1, language Latin. 2. Military architecture. AMS, Martinis-Marchi, R 627. Duplancić-Kovačić 2001, 217
986. VANVITELLI, LUIGI. *Dichiarazione dei disegni del Reale Palazzo di Caserta*. Naples: Regia Stamperia, 1756. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS IV 10644. From Žiga Zoisa's library; P2 'Franc. Hiarca de Ubertis 1756'
987. VASARI, GIORGIO. *Ragionamenti dell'autore sopra le invenzioni di lui dipinte in Firenze nel palazo di D. Francesco Medici*. Arezzo: Bellotti, Michele, 1762. Vol. 1, 4°, edition 4, language Italian. 6. The arts. FSD, 54-VI-33.
988. VASARI, GIORGIO. *Vite de' più eccellenti pittori scultori e architetti*. Florence: Giunti, 1568. Vol. 3, 4°, edition 2, language Italian. 6. The arts. DSS, XXI b 56. Missing title page; U7 (various pp.) Only vol. 3. Dujmović 2010, n. 8
989. VASARI, GIORGIO. *Vite de' più eccellenti pittori scultori e architetti*. Florence: Pagani, Anton Giuseppe; Stecchi, Gio Battista, 1767. Vol. 7, 4°, edition 7, language Italian. 6. The arts. KHAZU, 7.152-Rn. Vol. I (1767), II-III (1771), IV-VII (1772).
990. VASARI, GIORGIO. *Vite de' più eccellenti pittori scultori e architetti*. Livorno: Coltellini, Marco, 1767. Vol. 7, 4°, edition 7, language Italian. 6. The arts. NUK, GS I 161. P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); P9 (title page). Vol. I (1767), II-III (1771), IV-VII (1772). From the Žiga Zoisa's library.

991. VASARI, GIORGIO. *Vite de' più eccellenti pittori scultori e architetti*. Della Valle, Guglielmo. Siena: Pazzini Carli, 1791. Vol. 11, 8°, edition 8, language Italian. 6. The arts. ZKD, Antiqua, A-1117. Vol. I-IV (1791), V-VII (1792), VIII-IX (1793), X (1794), XI (1795).
992. VASARI, GIORGIO. *Vite de' più eccellenti pittori scultori e architetti*. Bologna: Manolesi, 1681. Vol. 3, 4°, edition 5, language Italian. 6. The arts. DSD, 1-VIII-33.
993. VASI, MARIANO. *Descrizione della basilica di S. Pietro e del Palazzo Vaticano*. Rome: Perego, Luigi Salvioni, 1794. Vol. 1, 12°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. KHAZU, 6.707-Rn.
994. VAUBAN, SÉBASSTIEN LE PRESTRE DE. *Abhandlung von der Vertheidigung der Festungen*. Berlin: Voss, Christian Friedrich, 1770. Vol. 1, 8°, edition 1, language German. 2. Military architecture. NUK, GS I 7979. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem
995. VAUBAN, SÉBASSTIEN LE PRESTRE DE. *De l'attaque et de la defense des places*. The Hague: De Nondr, P., 1737. Vol. 2, 4°, edition 1, language French. 2. Military architecture. SKR, Biblioteca civica, 23.A.30-31. P5 'Biblioteca civica / Fiume' (vol. I, title page); U11 (vol. I 14-15); U13 (vol. I, 78-79, 143-144; vol. II, 16, 48, 59, 67, 105, 109, 129, 132, 154); (U18 (vol. I, 30-31).
996. VAUBAN, SÉBASSTIEN LE PRESTRE DE. *Der Angriff und die Vertheidigung der Festungen*. Berlin: Haude & Spener, 1751. Vol. 2, 4°, edition 4, language German. 2. Military architecture. GKZ, Rara, R-10508.
997. VAUBAN, SÉBASSTIEN LE PRESTRE DE. *Der Angriff und die Vertheidigung der Festungen*. Berlin: Haude & Spener, 1751. Vol. 2, 4°, edition 4, language German. 2. Military architecture. NUK, GS I 8132.
998. VAUBAN, SÉBASSTIEN LE PRESTRE DE. *Der wahre Vauban*. Nuremberg: Monath, Georg Peter, 1761. Vol. 1, 4°, edition 2, language German. 2. Military architecture. NUK, GS I 8073. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem
999. VAUBAN, SÉBASSTIEN LE PRESTRE DE. *Manier de fortifier*. Amsterdam: Mortier, 1689. Vol. 1, 8°, edition 1, language French-German. 2. Military architecture. NUK, GS 8139. P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page).
1000. VAUBAN, SÉBASSTIEN LE PRESTRE DE. *Oeuvres militaires*. Latour-Foissac, Philippe-François. Paris: Magimel, 1795. Vol. 3, 4°, edition 2, language French. 2. Military architecture. SKP, Mornarična knjižnica, 2326. Seelig 1905, I, 368
1001. VEGETIUS, FLAVIUS RENATUS. *De re militari*. Lyons: Gabiano, Baldassarre & Huyon, Guillaume, 1523. Vol. 1, 8°, edition 7, language Latin. 2. Military architecture. ZPZHAZU, Miočević-Rendić Collection, .
1002. VEGETIUS, FLAVIUS RENATUS. *De re militar*. Antwerp: Officina Plantiniana, Raphelengium, Franciscum, 1592. Vol. 1, 8°, edition 12, language Latin. 2. Military architecture. NSKZ, Zbirka rijetkosti, BZ 221.
1003. VEGETIUS, FLAVIUS RENATUS. *De re militari*. Leiden: Maire, Johannis, 1633. Vol. 1, 16°, edition 16, language Latin. 2. Military architecture. NSKZ, Zbirka rijetkosti, 22.744. Gudelj-Botica 2012, 36
1004. VEGETIUS, FLAVIUS RENATUS. *Dell'arte della guerra*. Ferrosi, Francesco. Venice: Giolito de Ferrari, Gabriele, 1551. Vol. 1, 8°, edition 1, language Italian. 2. Military architecture. ZKZ, R-257.
1005. VEGETIUS, FLAVIUS RENATUS. *Commentarius ad Flavi Vegeti Renati De re militari*. Stewechius, Godescalus. Amsterdam: Plantin, 1592. Vol. 1, 8°, edition 2, language Latin. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11910-8°. Kukolja-Magić 1995, N. 2264
1006. VEGETIUS, FLAVIUS RENATUS. *Romanische Kriegskunst*. Frankfurt: Jacobi, Paul, 1616. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 8584-4° privezek. Kukolja-Magić 1995, N. 2400
1007. VEGETIUS, FLAVIUS RENATUS. *Vier Bücher der Ritterschafft*. Augsburg: Steiner, Heinrich, 1529. Vol. 1, 4°, edition 1, language German. 2. Military architecture. NKZG, Bibliotheca valvasoriana, M 11575-4°. Kukolja-Magić 1995, N. 2422
1008. VEGLIA, PIETRO DIONIGI. *Geometria pratica*. Perugia: Alvigi, Annibale, 1626. Vol. 1, 8°, edition 1, language Italian. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 5563-8°. Kukolja-Magić 1995, N. 2423
1009. VIAL DU CLAIRBOIS, HONORÉ SÉBASTIEN. *Essai géométrique et pratique, sur l'architecture navale*. Brest: Malassis, Jean-Zacharie, 1776. Vol. 2, 8°, edition 1, language French. 3. Shipbuilding and mechanics. PMK Dabinović-Nikčević 2019, p. 13
1010. VIGNOLA, GIACOMO BAROZZI DA. *Anhang zu der ausführlichen Anleitung der ganzen Civil-Baukunst*. Aviler, Charles Augustin d'; Sturm, Leonhard Christoph. Augsburg: Hertel, Johann Georg, 1759. Vol. 1, 4°, edition n.d., language German. 1. Architectural treatises. NUK, GS II 8124. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem. P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page).
1011. VIGNOLA, GIACOMO BAROZZI DA. *Architettura [...] concernente i cinque ordini delineati ed arricchiti*. Venice: Locatelli, Francesco, 1777. Vol. 1, 8°, edition 45, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, 1152. Missing Gudelj-Ruso 2013, 107
1012. VIGNOLA, GIACOMO BAROZZI DA. *Architettura, concernente i cinque ordini, delineati, ed arricchiti*. Venice: Locatelli, Francesco, 1777. Vol. 1, 8°, edition 45, language Italian. 1. Architectural treatises. SKP, Biblioteca provinciale dell'Istria, 5498.
1013. VIGNOLA, GIACOMO BAROZZI DA. *Ausführliche Anleitung zu der gantzen Civil-Bau-Kunst*. Aviler, Charles Augustin d'; Sturm, Leonhard Christoph. Augsburg: Hertel, Johann Georg, 1759. Vol. 1, 4°, edition 6, language German. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, D 461.
1014. VIGNOLA, GIACOMO BAROZZI DA. *Ausführliche Anleitung zu der ganzen Civil-Bau-Kunst*. Aviler, Charles Augustin d'; Sturm, Leonhard Christoph. Augsburg: Hertel, Johann Georg, 1747. Vol. 1, 4°, edition 4, language German. 1. Architectural treatises. NUK, GS I 8121. From the libraries of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem and the Ökonomische Gesellschat. P1 'Zür Mechanic / 1772' (title page); P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U10 (45, 61); U13 (165).

1015. VIGNOLA, GIACOMO BAROZZI DA. *L'architettura [...] aggiuntovi un trattato di meccanica*. Venice: Locatelli, Francesco, 1778. Vol. 2, 8°, edition 2, language Italian. 1. Architectural treatises. KFG, II b 21. Only vol. 1.
1016. VIGNOLA, GIACOMO BAROZZI DA. *L'architettura [...] aggiuntovi un trattato di meccanica*. Bassano: Remondini, 1787. Vol. 1, 8°, edition 3, language Italian. 1. Architectural treatises. KFG, XX c 14. P6 'VV.2' (title page).
1017. VIGNOLA, GIACOMO BAROZZI DA. *Le due regole della prospettiva pratica*. Danti, Egnazio. Bologna: Longhi, Giuseppe, 1682. Vol. 1, Fol, edition 4, language Italian. 4. Drawing, perspective and land survey. SKD. U5 (64); U8 'Lemma, a germanorum / Theorema, speculatio Hos.poh' (front endpaper); U9 (front endpaper); U 10 and U11 (139-140); U10 and U14 (129).
1018. VIGNOLA, GIACOMO BAROZZI DA. *Li cinque ordini di architettura*. Venice: Antonelli, Giuseppe, 1749. Vol. 1, 8°, edition 32, language Italian. 1. Architectural treatises. NUK, GS 8135.
1019. VIGNOLA, GIACOMO BAROZZI DA. *Quinque ordines architecturae*. Venice: Remondini, Giovanni Antonio, 1720. Vol. 1, 4°, edition 1, language Latin. 1. Architectural treatises. PMP, Biblioteca Civica Pirano, A-E 8, F 12; 7 BAROZZI Quinque.
1020. VIGNOLA, GIACOMO BAROZZI DA. *Regel der fünf Orden*. Nuremberg: Zieger, Johann; Lehmann, Georg, 1699. Vol. 1, 8°, edition 5, language German. 1. Architectural treatises. NUK, GS 8158.
1021. VIGNOLA, GIACOMO BAROZZI DA. *Regel der fünf Orden, von der Architectur*. Le Muet, Pierre. Augsburg: Wolff, Jeremias, 1717. Vol. 1, 8°, edition 7, language German. 1. Architectural treatises. FSE, 26/169.
1022. VIGNOLA, GIACOMO BAROZZI DA. *Regeln über die Füngg Säulen*. Faesch, Johann Rudolph. Nuremberg: Weigel, Christoph, 1725. Vol. 1, 8°, edition 10, language German. 1. Architectural treatises. KHAZU, 30.127-R. P6 'IV.b.124' (front paste-down); U13 (plate 44).
1023. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Rome: Vaccari, Andrea, 1607. Vol. 1, 2°, edition 8, language Italian. 1. Architectural treatises. NUK, GS III 8050.
- From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem. P1 'Johannes Waltherius' (front paste-down), 'Bibliotheca Philosophica / Collegij Labacensis Soc. Jesu catalogo inscriptus Anno 1757' (title page); U16 (plates 5, 11). Bound with Sirigatti 1596.
1024. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Rome: De Rossi, Giovanni Battista, 1620. Vol. 1, fol, edition 9, language Italian. 1. Architectural treatises. SKR, Biblioteca civica, 31.A/1.30. P1 'Faust' (front cover); U6 (title page); U10 (plates 7, 8, 23); U11 (back endpaper); U12 (plate 27); U13 (plates 3, 6, 12, 18, 19, 33, 40; Nova et ultima aggiunta..., title page, plate s.n. [66]); U16 (23).
1025. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Venice: Doino, Catarin, 1626. Vol. 1, fol, edition 11, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 137. P1 'Qsto libro edime Domenico Difnico / dasebenico' (title page v); U2 (plate 14); U9 and U 10 (title page).
1026. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Bologna: Longhi, Giuseppe, 1635. Vol. 1, 2°, edition 12, language Italian. 1. Architectural treatises. AMZD, 1145 A.
1027. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Rome: Rossi, Matteo, 1719. Vol. 1, 8°, edition 27, language Italian. 1. Architectural treatises. KFG, X c 17. P6 'LV.132' (front endpaper).
1028. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Quadri, Giovanni Lodovico. Bologna: Della Volpe, Lelio, 1736. Vol. 1, 8°, edition 29, language Italian. 1. Architectural treatises. AMZD, 598 A.
1029. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Bologna: Dalla Volpe, Lelio, 1736. Vol. 1, 4°, edition 29, language Italian. 1. Architectural treatises. AMZD, 598 A.
1030. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Bologna: Dalla Volpe, Lelio, 1736. Vol. 1, 4°, edition 29, language Italian. 1. Architectural treatises. SKS. Missing
1031. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Milan: Galeazzi, Giuseppe, 1776. Vol. 1, 8°, edition 44, language Italian. 1. Architectural treatises. NUK, TSZ o 708919. P2 'G. Trabutto'
1032. VIGNOLA, GIACOMO BAROZZI DA. *Regola delli cinque ordini d'architettura*. Milan: Galeazzi, Giuseppe, 1776. Vol. 1, 8°, edition 44, language Italian. 1. Architectural treatises. SKP, Biblioteca provinciale dell'Istria, 15454.
1033. VIGNOLA, GIACOMO BAROZZI DA. *Reigle des cinq ordres d'architecture*. Paris: Firens, Pierre, 1638. Vol. 1, 4°, edition 3, language French. 1. Architectural treatises. SKP, Mornarična knjižnica, 2598. Missing Seelig 1905, I, 22
1034. VIGNOLA, GIACOMO BAROZZI DA. *Reigle des cinq ordres d'architecture*. Nuremberg: , 1759. Vol. 1, 8°, edition n.d., language German. 1. Architectural treatises. NUK, GS II 8124. Unidentified edition
1035. VINGBOONS, PHILIPS. *Afbeeldsels der voornaemste gebouwen*. Amsterdam: Blaeu, 1648. Vol. 1, 2°, edition 1, language Dutch. 1. Architectural treatises. NUK, GS III 10608. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem. P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U8 (back endpaper).
1036. VIOLA ZANINI, GIUSEPPE. *Della architettura*. Padua: Bolzetta, Francesco, 1629. Vol. 1, 4°, edition 1, language Italian. 1. Architectural treatises. SKP, Mornarična knjižnica, 1278. Missing Seelig 1905, I, 393
1037. VIOLA ZANINI, GIUSEPPE. *Della architettura*. Padua: Cadorino, Giacomo, 1677. Vol. 1, 8°, edition 2, language Italian. 1. Architectural treatises. AMZD, 5605 A.
1038. VISENTINI, ANTONIO. *Osservazioni [...] che servono di continuazione al Trattato di Teofilo Gallaccini*. Venice: Pasquali, Giambattista, 1771. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NUK, GS III 8052. From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem
1039. VISENTINI, ANTONIO. *Osservazioni [...] che servono di continuazione al Trattato di Teofilo Gallaccini*. Venice: Pasquali, Giambattista, 1771. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 132.

1040. VITRUVIUS POLLIO. *Architettura*. Durantino, Francesco Lucio. Venice: Zoppino, Niccolò & Aristotele, 1535. Vol. 1, fol, edition 2, language Italian. 1. Architectural treatises. ZKZ, R-234.
P1 'Ex libris Antonii Duplavich Jadrensis / an. 1806' (front endpaper), 'Questo libro è di mistro Nichollo Protto di marangoni' (110r), 'Io Giovan Battista Fontana ho comprato questo libro in / Cattaro per lire quindici val lire £ 25 / 1670' (110v); P6 '7462 / Scaff. XXX / Gd. 2 I / Fil. III II' (front endpaper); U4 (59r); U5 (17r, 21r, 26v); U13 (3-8, 26v, 36r, 56r, 57v, 77-80, 83-87, 88v, 95-96); U15 (2r, 31r, 37r, 85v, 90r, 91r, 92r, 96r, 98r, 103v, 104v, 106v, 107v).
1041. VITRUVIUS POLLIO. *De architectura*. Philandrier, Guillaume. Lyons: Tornaesium, Ioan., 1552. Vol. 1, 8°, edition 2, language Latin. 1. Architectural treatises. FSD, 41b-VI-22.
Missing copy
1042. VITRUVIUS POLLIO. *De architectura*. Philandrier, Guillaume. Lyons: Tournes, Jean de (I), 1552. Vol. 1, 4°, edition 4, language Latin. 1. Architectural treatises. SKR, Biblioteca civica, 12.C.50.
P1 'A Julio de Banzonijs S.R.I.E., et Rego Assessore Guberniali dono datus magnifico Publico Fluminensi. anno 1779' (title page); P5 'Biblioteca civica / Fiume' (title page); U1 (229); U2 progressive numbering of paragrahs in all the commentaries by Philandrier and in the following chapters by Vitruvius: II 4-10, III 3, VIII 7); U7 (229, 304, 350, 406, 429); U13 (288).
1043. VITRUVIUS POLLIO. *In decem Libros M. Vitruvii Pollionis de Architectura Annotationes*. Philandrier, Guillaume. Rome: Dossena, Andrea, 1544. Vol. 1, 8°, edition 1, language Latin. 1. Architectural treatises. NUK, GS o 710965.
P1 'Wolfg. Engelb F.R.J. Com. ab Auersperg / Cat. Insc.1660' (title page), 'Ex libris Derek Gair Gibson' (front endpaper); P5 'Fuerstlich Auerspergsche Fideicommissbibliothek zu Laybach / IVY.27' (front paste-down); P7 '10/8/82 / Derek Gair' (front paste-down); U5 (64, 66, 74, 94, 141, 144, 166, 172, 173, 249, 254, 296, 304, 313, 356, 360, 366, 370); U13 (a4r, 257, 362)
1044. VITRUVIUS POLLIO. *De architectura*. Barbaro, Daniele. Venice: De Franceschi, Francesco; Criegher, Johann, 1567. Vol. 1, 4°, edition 2, language Latin. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 10417-4°. P2 Valvasor; U5 (42); U13 (43).
Kukulja-Magić 1995, N. 2453
1045. VITRUVIUS POLLIO. *Exercitationes vitruvianae primae*. Poleni, Giovanni. Padua: Typis Seminarii, 1739. Vol. 1, fol, edition 1, language Latin. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, B 49.
1046. VITRUVIUS POLLIO. *I dieci libri dell'architettura [...] tradotti et commentati da monsignor Barbaro*. Barbaro, Daniele. Venice: Marcolini, Francesco, 1556. Vol. 1, fol, edition 1, language Italian. 1. Architectural treatises. NSKZ, Zbirka rijetkosti, I 1088.
1047. VITRUVIUS POLLIO. *I dieci libri dell'architettura [...] tradotti et commentati da monsignor Barbaro*. Barbaro, Daniele. Venice: De Franceschi, Francesco; Criegher, Johann, 1567. Vol. 1, 4°, edition 2, language Italian. 1. Architectural treatises. AMS, R 1294.
P1 'Io. Zuanne raguseo', Ignacija Macanović and Lodovico Riboli (1885). Drawings by Macanović (endpaper), many folded corners, various reading marks, some underlined words and a few annotations
Fisković 1992-93; Piplović 1997, 26-27.
1048. VITRUVIUS POLLIO. *I dieci libri dell'architettura [...] tradotti et commentati da monsignor Barbaro*. Barbaro, Daniele. Venice: Vecchi, Alessandro, 1629. Vol. 1, 4°, edition 4, language Italian. 1. Architectural treatises. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 148.
P1 'H.B. de Wlassim' (title page); P5 'Kr. Sveučilišna knjižnica u Zagrebu' (title page); P6 '222.E.5' (front paste-down); U5 (182); U13 (379-384, 390, 398).
Gudelj-Botica 2012, 52
1049. VITRUVIUS POLLIO. *I dieci libri dell'architettura [...] tradotti et commentati da monsignor Barbaro*. Barbaro, Daniele. Venice: Vecchi, Alessandro, 1629. Vol. 1, 4°, edition 3, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, B 51.
1050. VITRUVIUS POLLIO. *L'architettura*. Galliani, Berardo. Naples: Terres, fratelli, 1790. Vol. 1, fol, edition 2, language Italian. 1. Architectural treatises. SKP, Mornarična knjižnica, 2601.
Missing
Seelig 1905, I, 276
1051. VITRUVIUS POLLIO. *L'architettura*. Galliani, Berardo. Siena: Bindi, Luigi & Benedetto, 1790. Vol. 1, fol, edition 2, language Italian. 1. Architectural treatises. ZPZHAZU, Miočević-Rendić Collection, C 130.
1052. VITRUVIUS POLLIO. *L'architettura generale di Vitruvio*. Perrault, Claude; Barbaro, Daniele. Venice: Albrizzi, Giambattista, 1747. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. AMZD, 412 A.
1053. VITRUVIUS POLLIO. *L'architettura generale di Vitruvio*. Perrault, Claude; Barbaro, Daniele. Venice: Albrizzi, Giambattista, 1747. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. KFG, I g 10.
P6 'PL33' (title page); U18 (128).
Piplović 1997, 28.
1054. VITRUVIUS POLLIO. *L'architettura generale di Vitruvio*. Perrault, Claude; Barbaro, Daniele. Venice: Albrizzi, Giambattista, 1747. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. SKS, R-722/2.
P1, 'Di Giorgio Politeo', 'Di Antonio Burgo' (frontispiece); P1 'Ad uso di Antonio Burg. an. 1832' (title page); U8 (front endpaper, plate 19); U11 (front and back endpapers); U13 (**8v, 7, 19, 43-48, 53-56, 59-64, 110, 137-143, 147-150, 171-173, 187-192, plates 5-6).
Piplović 1997, 27-28.
1055. VITRUVIUS POLLIO. *L'architettura generale di Vitruvio*. Perrault, Claude; Barbaro, Daniele. Venice: Albrizzi, Giambattista, 1747. Vol. 1, 8°, edition 1, language Italian. 1. Architectural treatises. SKS, R-722.
P5 'Gradska biblioteka, Split' (title page).
Piplović 1997, 27-28.
1056. VITRUVIUS POLLIO. *M. Vitruvius per locundum solito castigato*. Giocondo, Giovanni fra'. Venice: Tridino, Giovanni, 1511. Vol. 1, 4°, edition 1, language Latin. 1. Architectural treatises. NKZG, Bibliotheca valvasoriana, M 19731-4°. Stolen
Kukulja-Magić 1995, N. 2465
1057. VITRUVIUS POLLIO. *M. Vitruvius per locundum solito castigato factus cum figuris et tabula*. Giocondo, Giovanni fra'. Venice: Tacuino, Giovanni, 1511. Vol. 1, 2°, edition 1, language Latin. 1. Architectural treatises. ZKD, Antiqua, A-III-91.
P1 '1799 / P. Caroli Josephi Ghigliotti Bibliothici Capuc' (front paste-down), 'Nicolai Spinulae [...] liber [...]', 'L.B.' (title page); P9 (front paste-down); P5 'Narodna republika Hrvatska / Dubrovnik / Naučna biblioteka' (title page v); U3 (1r-3r, 4r-9v, 79r); U5 (1v, 2v, 3r, 79r); U10 (29r); U12 (5-8, 22v, 55v, 65r, 69-72, 85-88, 92v, 101-103); U13 (89r, 99v, 110r-v).
Gudelj-Ruso 2013, 102
1058. VITRUVIUS POLLIO. *Vitruvius Deutsch*. Ryff, Walther Hermann. Nuremberg: Petreius, Johann, 1548. Vol. 1, Fol, edition 2, language German. 1. Architectural treatises. KHAZU, R-913.
P1 'Anno 1660 [...] 29 Maij iab H. Michael Maximilianus Sommer von Holzberg auß

- Yafullignes Bürger in Brauna vamlanz
Hofschafft Zäulerau vinbn hins im bündz
außbuchler lastanz so I. Ar. ab 50 und 8
Augusti [...] / Signatur Zraulerau / und 31 maij
/ 1660; 'Ivan Kukuljević Sakcinski, 1844' (front
endpaper); 'Gabriel Michael Sommer, 1660'
(115v); P6 'Id.51.26', 'a.a. y12 / VIII 11' (front
paste-down); P13 '1555 [...]', 1609 [...] (front
endpaper); U5 (C2r-D6v, 36r, 58r, 222r; U6 (C2r-
D6v); U11 (63); U13 (B1r, B2v, B3-B4, 2r, 29v, 35r,
37r, 49v, 76v, 87v, 89v, 90v, 91v102v, 104r, 114r,
123r, 148v, 157r, 172v, 179v, 209r, 221r, 223v, 227r,
232r, 238r, 243r, 259r, 247v, 248v, 231v, 283r, 296r,
316v); U18 (80-81, 285-286, 306-307, 311-312).
1059. VITRUVIUS POLLIO. *Vitruvius Teutsch*. Ryff,
Walther Hermann. Nuremberg: Petreius,
Johann, 1548. Vol. 1, fol, edition 2, language
German. 1. Architectural treatises.
NUK, GS II 1391.
P1 'Joan. Ludovici Schönleben ... 1660 ...';
unidentified P1 '1630'; U7 (various pp.)
1060. VITRUVIUS POLLIO. *Zehen Bücher con der
Architectur und künstlichem Bauen*. Ryff,
Walther Hermann. Basel: Henricpetri,
Sebastian, 1575. Vol. 1, 2°, edition 3, language
German. 1. Architectural treatises.
NUK, GS 1375.
Erased P1 'Puch...', 'Bibliotheca Philosophica /
Labacensis Collegij / Societatis Jesu / Catalog
inscriptus / Anno 1707' (title page); P5 'K.K. /
Lyceal / Bibliotheca / zu / Laibach' (title page).
1061. VITRUVIUS POLLIO. *Zehen Bücher con der
Architectur und künstlichem Bauen*. Ryff,
Walther Hermann. Basel: Henricpetri,
Sebastian, 1614. Vol. 1, 4°, edition 4, language
German. 1. Architectural treatises.
NKZG, Bibliotheca valvasoriana, M 10393-4°.
Kukulja-Magić 1995, N. 2464
1062. VITRUVIUS POLLIO. *Zehen Bücher con der Archi-
tectur und künstlichem Bauen*. Ryff, Walther
Hermann. Basel: Henricpetri, Sebastian, 1614.
Vol. 1, 2°, edition 4, language German. 1.
Architectural treatises.
NUK, GS 1385.
P5 'K.K. / Lyceal / Bibliotheca / zu / Laibach'
(title page).
1063. VIZZANI, POMPEO. *Descrittione della città,
contado, governo, et altre cose notabili di Bologna*.
Bologna: Rossi, Giovanni, 1602. Vol. 1, 8°,
edition 1, language Italian. 7. Descriptions of
ancient and modern towns and regions.
ZKZ, 5546-23-4-1.
Donated by Pier Alessandro Paravia. P2 'Ex
Bibliotheca Nobilis Viri Comitis Balthassaris
de Carratis' (front paste-down), 'Libri di
Cesare Saluzzo' (front endpaper).
1064. VOGTHERR, GEORG. *Ein wolgegründs
kunstreichs Summari-Büchlin*. Strasbourg:
Müller, Christian, 1559. Vol. 1, 8°, edition 2,
language German. 4. Drawing, perspective
and land survey.
NKZG, Bibliotheca valvasoriana, M 7984-8°
privezek 1.
Kukulja-Magić 1995, N. 371
1065. VOSS, ISAAC. *De triremium et liburnicarum
construcone*. 1537. Vol. 1, edition n.d., language
Latin. 3. Shipbuilding and mechanics.
SKP, Mornarična knjižnica, 2640.
Unidentified edition. Missing
Seelig 1905, I, 375
1066. VREDEMAN DE VRIES, HANS. *Architectura oden
Bauung der Antiquen auss dem Vitruvius*.
Antwerp: Jode, G. de, 1581. Vol. 1, 2°, edition 2,
language German. 1. Architectural treatises.
NKZG, Bibliotheca valvasoriana, M 3750-2°.
Stolen
Kukulja-Magić 1995, N. 2466
1067. VREDEMAN DE VRIES, HANS. *Das erst Buch,
gemacht auff de zwey Colommen Dorica und
Ionica; Das ander Buech, gemacht auff die zway
Colonnen, Corintihia und Composita*. Antwerp:
Cock, Hieronymus, 1565. Vol. 1, 2°, edition 1,
language German. 1. Architectural treatises.
NKZG, Bibliotheca valvasoriana, M 9432
privez 3.
Missing title page
Not included in the catalogue of the Valvasor
Library.
1068. VREDEMAN DE VRIES, HANS. *Der hochber-
huembten Khunst, der Perspectiven*. Leiden:
Hondius, Henrich, 1605. Vol. 1, 4°, edition 1,
language German. 1. Architectural treatises.
NKZG, Bibliotheca valvasoriana, M 25445-4°.
P2 Valvasor (front paste-down); P6 '95 i 16'
(front paste-down); missing title page; U10
(plates 2, 8, 16, 23); U11 (plate 6v); U17 (plates 3,
9, 20, 22).
Kukulja-Magić 1995, N. 2479
1069. WAGENER, HANNS CHRISTOPH. *Gründliche
Anweisung zu de Civil-Bau-Kunst*. Dresden:
Keyl, Michael, 1755. Vol. 1, 2°, edition 1,
language German. 1. Architectural treatises.
NUK, GS o 9665.
P1 'Bibl. Cöll. Lab. SJ'
1070. WAGNER, JOHANN CHRISTOPH. *Delineatio
provinciarum Pannoniae et Imperi Turcici in
Oriente*. Augsburg: Koppmayer, Jacob, 1684.
Vol. 3, 4°, edition 1, language German. 7.
Descriptions of ancient and modern towns
and regions.
NKZG, Bibliotheca valvasoriana, M 7931-4°.
Vol. I, 1684; vol. II, 1685; vol. III, s.a.
Kukulja-Magić 1995, N. 2480
1071. WAGNER, JOHANN CHRISTOPH. *Türkischer
Staedt- und Geschicht-Spiegel*. Augsburg:
Koppmayer, Jacob, 1687. Vol. 2, 4°, edition 1,
language German. 7. Descriptions of ancient
and modern towns and regions.
NKZG, Bibliotheca valvasoriana, M 8586-4°.
vol. I, 1687; vol. II, 1691
Kukulja-Magić 1995, N. 2484
1072. WALLHAUSEN, JOHANN JACOB VON. *Archiley
Kriegskunst*. Hanau: Wallhausen, Johann Jacob
von, 1617. Vol. 1, 4°, edition 1, language
German. 2. Military architecture.
NKZG, Bibliotheca valvasoriana, M 6689-4°.
Kukulja-Magić 1995, N. 1153
1073. WECK, ANTON. *Der Chur-Fürstlichen
Sächischen weitberuffen Residenz- und Haupt-
Vestung Dresden*. Nuremberg: Hoffmann,
Johann, 1680. Vol. 1, 4°, edition 1, language
German. 7. Descriptions of ancient and
modern towns and regions.
NKZG, Bibliotheca valvasoriana, M 10646-4°.
Stolen
Kukulja-Magić 1995, N. 2485
1074. WELPER, EBERHARD. *Elementa geometrica*.
Strasbourg: Reppius, Johann, 1620. Vol. 1, 8°,
edition 1, language Latin. 4. Drawing,
perspective and land survey.
NKZG, Bibliotheca valvasoriana, M 6586-8°.
Kukulja-Magić 1995, N. 2502
1075. WELSER, MARCUS. *Rerum Augustanar.
Vindelicar libri octo*. Venice: Manuzio, Aldo II,
1594. Vol. 1, fol, edition 2, language Latin. 7.
Descriptions of ancient and modern towns
and regions.
AMZG, Kasa.
P1 'Ex Libris J. C. Draskovich. In Bib. Zagr.
Anno 1826', 'Ex libris Dr Damir Kovač';
U13 (211, 227, 256).
1076. WESTEN, WYNANT VON. *Het eerste deel vande
Mathematische vermeacklycheden*. Arnheim:
Biesen, Jacob von, 1641. Vol. 1, 8°, edition 2,
language Dutch. 4. Drawing, perspective and
land survey.
NKZG, Bibliotheca valvasoriana, M 5558-8°.
Kukulja-Magić 1995, N. 2522
1077. WILHELM, JOHANN. *Architectura civilis*.
Nuremberg: Fürsten, Paul, 1668. Vol. 2, 2°,
edition 3, language German. 1. Architectural
treatises.
NKZG, Bibliotheca valvasoriana, M 7543-2°.
Kukulja-Magić 1995, N. 2533
1078. WILHELM, JOHANN. *Architectura civilis*.
Nuremberg: Fürsten, Paul, 1668. Vol. 1, 2°,
edition 3, language German. 1. Architectural
treatises.
NUK, GS 8055.
1079. WINCKELMANN, JOHANN JOACHIM. *Storia
delle arti del disegno presso gli antichi*. Milan:
Imperial monistero di S. Ambrogio maggiore,
1779. Vol. 2, 4°, edition 1, language Italian. 6.
The arts.

- AMS, R 244/1-2.
Duplančić 2019
1080. WITSEN, NICOLAAS; EYK, CORNELIS VAN. *L'art de bâtir les vaisseaux, et d'en perfectionner la construction*. Amsterdam: Mortier, David, 1719. Vol. 2, 4°, edition 1, language French. 3. Shipbuilding and mechanics. SKP, Mornarična knjižnica, 1857. Missing
Seelig 1905, I, 15
1081. WOLFF, CHRISTIAN FREIHERR VON. *Elementa matheseos universae*. Magdeburg: Renger, Johann Gottfried, 1713. Vol. 4, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. FSD, 1-X-21, 22, 23, 24. Published in 1713-15
1082. WOLFF, CHRISTIAN FREIHERR VON. *Elementa matheseos universae*. Verona: Ramanzini, Dionisio, 1741. Vol. 5, 4°, edition 1, language Latin. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-II-1508.
1083. WOLFF, CHRISTIAN FREIHERR VON. *Elementa matheseos universae*. Verona: Ramanzini, Dionisio, 1746. Vol. 5, 4°, edition 2, language Latin. 4. Drawing, perspective and land survey. ZKD, Collegium Ragusinum, CR-II-1506.
1084. WOLFF, CHRISTIAN FREIHERR VON. *Auszug aus den Anfangs-gründen aller mathematischen Wissenschaften*. Frankfurt: Regerisch, 1752. Vol. 1, 16°, edition 3, language German. 4. Drawing, perspective and land survey. CNBCT, C I 71.
P1 'Dujam Vuinich' (title page); P5 'Centralna / narodna biblioteka / Cetinje / Inv. Broj R-393' (title page); P6 'XXIII.D16' (front endpaper), 'i-2494 / 1987' (title page); U13 (9-12, 359-366, 671)
1085. ZABAGLIA, NICOLA. *Castelli e ponti [...] con alcune ingegnose pratiche*. Cosatti, Lelio. Rome: Pugliarini, Nicolò and Marco, 1743. Vol. 1. Fol, edition 1, language Italian. 3. Shipbuilding and mechanics. NUK, GS IV 10655.
From the library of the Družba za kmetijstvo in uporabne umetnosti na Kranjskem. P5 'K.K. / Lyceal / Bibliothek / zu / Laibach' (title page); U12 (2-3).
1086. ZORIČIĆ, MATE. *Aritmetika u slavni jeziki Illirički sastavljena*. Ancona: Ferki, Petar, 1766. Vol. 1, 16°, edition 1, language Croatian. 4. Drawing, perspective and land survey. FSH, Rara, R-3365.
1087. ZORIČIĆ, MATE. *Aritmetika u slavni jezik illirički Sastavljena*. Ancona: Ferchi, P., 1766. Vol. 1, 16°, edition 1, language Croatian. 4. Drawing, perspective and land survey. ZKZ, Pappafava, R-720.
1088. ZUALLART, JEAN. *Il devotissimo viaggio di Gerusalemme [...] Aggiuntovi i disegni di varij luoghi di Terra Santa*. Bonifacio, Natale da Sebenico. Rome: Zanetti, Francesco & Ruffinelli, Giacomo, 1586. Vol. 1, 4°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKZ, Rari 9.
1089. ZUBLER, LEONHARD. *Fabrica et usus instrumenti chorographici*. Basel: Königs, Ludwig, 1607. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11044-8° Privezek 2.
Kukulja-Magić 1995, N. 2626
1090. ZUBLER, LEONHARD. *Nova geometrica pyrobulia. Neuwe geometrische Büchsenmeisterey*. Zurich: Gessner, Jonas, 1608. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11044-8° privezek3.
Kukulja-Magić 1995, N. 2616
1091. ZUBLER, LEONHARD. *Novum instrumentum geometricum*. Basel: Königs, Ludwig, 1607. Vol. 1, 8°, edition 1, language German. 4. Drawing, perspective and land survey. NKZG, Bibliotheca valvasoriana, M 11044-8° privezek 1.
Kukulja-Magić 1995, N. 2618
1092. ZUCCHI, NICCOLÒ. *Nova de machinis philosophia*. Rome: Manelfi, Manelfo eredi, 1649. Vol. 1, 4°, edition 1, language Latin. 3. Shipbuilding and mechanics. NSKZ, Zbirka rukopisa i starih knjiga, Bibliotheca Zriniana, BZ 284.
1093. ZUZORIĆ, IVAN LUKA [ZUZZERI, GIO. LUCA]. *D'una antica villa scoperta sul dosso del Tusculo e d'un antico orologio a sole*. Venice: Fenzo, Modesto, 1746. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Collegium Ragusinum, R-2784.
1094. ZUZORIĆ, IVAN LUKA [ZUZZERI, GIO. LUCA]. *D'una antica villa scoperta sul dosso del Tusculo e d'un antico orologio a sole*. Venice: Fenzo, Modesto, 1746. Vol. 1, 8°, edition 1, language Italian. 7. Descriptions of ancient and modern towns and regions. ZKD, Collegium Ragusinum, CR-22176.