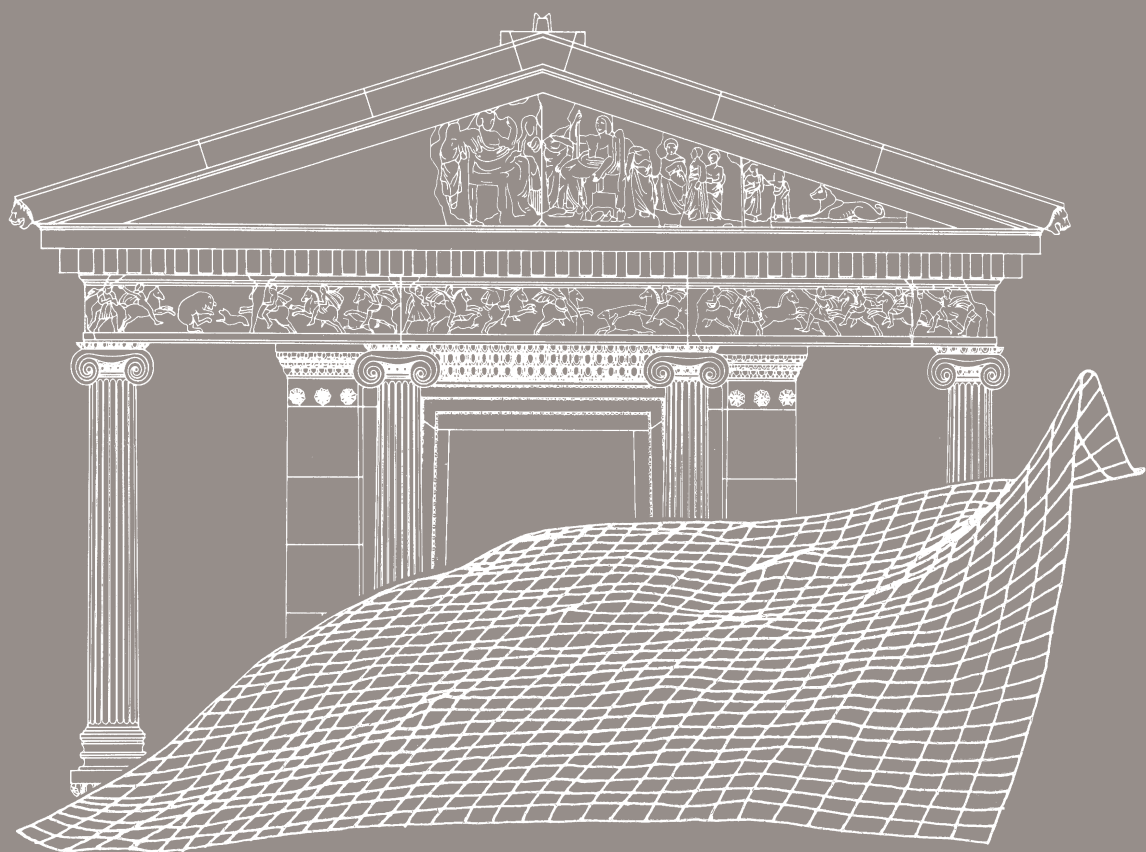




ARCHEOLOGIA E CALCOLATORI

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ARCHEOLOGIA E CALCOLATORI



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INDICE

NETWORKS AND QUANTITATIVE METHODS IN ARCHAEOLOGY AND ART HISTORY: ESSAYS FROM THE VENICE SYMPOSIUM (5-6 DECEMBER 2024), edited by MYRIAM PILUTTI NAMER, ANDREA AUCONI, GIULIA A.B. BORDI

GUIDO CALDARELLI, ACHILLE GIACOMETTI, SIMONE PIAZZA, LUIGI SPERTI, <i>Preface</i>	9
MYRIAM PILUTTI NAMER, ANDREA AUCONI, GIULIA A.B. BORDI, <i>Introduction</i>	11
GUIDO CALDARELLI, ALESSANDRO CODELLO, <i>The new science of Long Data: presentation of the Venice Long Data Project</i>	15
PAOLO CARAFA, NICCOLÒ CECCONI, FRANCESCO DE STEFANO, <i>Sharing assessed knowledge, sharing heritage</i>	23
GEORGE BRUSEKER, KATHLEEN CHRISTIAN, DENITSA NENOVA, <i>The Semantic Census: a new expression of the Census of Antique Works of Art and Architecture Known in the Renaissance</i>	39
SIMONE PIAZZA, GIULIA A.B. BORDI, <i>The 'Sacra Absentia' database on the lost furnishings of medieval churches in Venice: from the overall framework to the case study of Sant'Agnese</i>	55
CARLOTTA ZARAMELLA, MYRIAM PILUTTI NAMER, GIULIA A.B. BORDI, <i>The church of San Fantin in Venice: digital modeling, archival research, and the reuse of ancient marbles</i>	71
RUGGERO LONGO, ELISABETTA SCIROCCO, <i>Fragmented objects/Fragmented data. Quantitative methods and digital approaches in the Project Mapping Sacred Spaces: Forms, Functions and Aesthetics in Medieval Southern Italy</i>	85
CARLO BIANCHINI, ROBERTO BARNI, RINALDO D'ALESSANDRO, MARIKA GRIFFO, FRANCESCA PORFIRI, MARCO PISTOLESI, <i>The church of San Lorenzo in Miranda: populating an ecosystem</i>	103
MAURO MISSORI, CHIARA CASARIN, RENATA CODELLO, GUIDO CALDARELLI, <i>Remote reflectance spectroscopy on the painting 'Saints Peter and Stephen' conserved at the Fondazione Giorgio Cini</i>	119
MYRIAM PILUTTI NAMER, <i>A review of two recent volumes on archaeological network research</i>	131

INVESTIGATING RESILIENT ROMAN AGRICULTURAL LANDSCAPES
IN SOUTHERN ITALY. AN INTEGRATED AND OPEN IT APPROACH FOR
ARCHAEOLOGICAL TOPOGRAPHY OF CENTURIATION. PROCEEDINGS OF
THE FINAL CONFERENCE OF THE PRIN 2022 PROJECT 'IN.RES.AGRI'
(NAPLES, 20th-21st NOVEMBER 2025), edited by RODOLFO BRANCATO,
VERONICA FERRARI, IRENE ROSSI

RODOLFO BRANCATO, VERONICA FERRARI, IRENE ROSSI, <i>The In.Res.Agri final conference. From project results to future steps</i>	141
IMMACOLATA DITARANTO, VINCENZO GIORDANO, <i>Data integration for a hypothesis of ancient land division in Eastern Irpinia: preliminary results</i>	147
FRANCESCA DI PALMA, PASQUALE MEROLA, <i>Remote sensing techniques and Machine Learning analyses in archaeology: a methodological approach to territory investigations</i>	159
RODOLFO BRANCATO, ANTONINO BOTTONE, GIUSEPPE LUONGO, TERESA TESCIONE, <i>Legacy data GIS integration and surface survey for the archaeology of the Atellan landscape (Campania, Italy)</i>	179
GIULIANA BOENZI, <i>Modalità e forme di sfruttamento agricolo del territorio napoletano e della Piana Campana meridionale tra Neolitico ed età del Bronzo</i>	199
RODOLFO BRANCATO, MARTA TOSOLINI, ELDA RUSSO ERMOLLI, <i>Interaction between natural dynamics and human settlements in the territory of Gricignano d'Aversa (Campania Plain, Italy) from the Neolithic to the Roman age</i>	215
LUCA DI FRANCO, <i>Il paesaggio agrario di Acerrae e Suessula: il sistema delle ville rustiche</i>	225
DANIELE DE SIMONE, ILARIA MATARESE, STEFANIA FERRANTE, BENEDETTA MUSELLA, <i>Uomo e ambiente a Nola: i casi di via Feudo e Masseria Cianciulli</i>	247
TERESA TESCIONE, <i>The resilience of ancient landscapes through the analysis of ceramic assemblages: the Campanian Plain as a case study</i>	263
MARCO PACCIARELLI, RODOLFO BRANCATO, ELDA RUSSO ERMOLLI, FABIO TERRIBILE, IMMACOLATA DITARANTO, PATRIZIA GENTILE, PASQUALE MEROLA, <i>ASH: Archaeology and Soil Heritage. A PRIN PNRR research project on the role of Andosols from Late Prehistory to Antiquity</i>	277
LORENZO FIORILLO, <i>The North Vulsinian Survey: digital mapping, systematic territorial research, and the problem of protohistoric occupation and land use in Southern Etruria</i>	293
GIULIA BUONO, ALESSANDRA CARAVALLE, IRENE ROSSI, <i>An open digital archive for the integration of heterogeneous data for topographical research</i>	313

PREFACE

The ongoing development of quantitative methods in the study of cultural heritage has become an increasingly significant avenue for scholarly exploration across disciplines, particularly in the fields of archaeology and art history. One of the most notable advancements in this domain has been the convergence of these traditional humanities disciplines with tools and methodologies derived from the sciences, such as data analysis, statistical modeling, and machine learning. This cross-disciplinary dialogue is at the heart of contemporary research, as it fosters innovative approaches to understanding and interpreting the past, while also addressing the complex nature of historical and archaeological evidence.

In this context, the international symposium titled *Exploring the Legacy of the Past in Venice: Networks and Quantitative Methods in Archaeology and Art History* – held at the Ca' Foscari University of Venice on December 5th and 6th, 2024 – served as an essential milestone for scholars working at the intersection of these fields. The symposium was part of the activities of the PNR, Spoke 8, Unit Ca' Foscari Venice, and aimed to present some of the preliminary results of ongoing research within the framework of national and international projects that are testing the potential of quantitative methods in archaeology and art history. Venice, with its unique documentary, art-historical, and archaeological assets, is an ideal setting for such an exchange. As a city whose historical layers stretch back centuries and whose monumental heritage has made it a focal point of cultural significance worldwide, Venice serves as both a case study and a laboratory for experimentation with innovative research methodologies. Its architectural splendor, vibrant artistic tradition, and layered history have attracted scholars from all over the world for centuries, yet the sheer complexity of its heritage – comprising countless objects, monuments, archival records, and artworks – poses significant challenges for traditional research methods. The integration of quantitative tools has thus emerged as a promising way to unlock new insights and facilitate a deeper understanding of this multifaceted city. Indeed, by leveraging methods such as network analysis, spatial modeling, digital mapping, and machine learning, we are able to analyze vast datasets, reconstruct historical connections, and generate visualizations that would have been previously unthinkable.

The symposium, which brought together specialists from archaeology, art history, and physics, exemplified the potential for collaboration across disciplines. Not only did the event provide a platform for presenting cutting-edge research, but it also encouraged a wider reflection on the broader impact of these methodologies on the way we understand the past. In this sense, the

symposium represented more than just a gathering of experts – it was an opportunity to rethink and reframe the very nature of heritage scholarship, by asking how the combination of quantitative approaches and traditional humanities can enrich our interpretations of historical data.

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