



Abstract – Between Plague and Trade. Topography and Typology of the Maritime Lazarettos in Dubrovnik – In 1377, Dubrovnik (Ragusa) was the first city to implement a quarantine during an epidemic, imposing a month-long isolation on all travelers arriving from infected regions. In the following three centuries, the Ragusan anti-plague system came both to reflect and to introduce trends in dealing with disease while at the same time working to preserve commercial trade. Many solutions to contain epidemics were drawn by the Ragusan government, consisting mainly of controlling mobility and imposing spatial confinement. This paper focuses on a series of lazaretto complexes built in the Ragusan territory starting in 1429, when the first design for a confinement building was implemented. Derived from written, visual, and material sources, the examples presented here are subjected to a dual analysis: topographical and typological. Analysis of these complexes' locations and architectural forms cross-examined against information about their use, has enabled reconstruction of a dynamic system of prevention/care for foreigners/citizens in periods of and between epidemics. Contrary to the previous, more linear chronological interpretation, this approach underlines the parallel use of Ragusan lazaretto complexes according to different functional categories and exigencies.

Keywords – Danče, lazaretto, Lokrum, movement control, plague prevention, Ploče, quarantine architecture, Supetar

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Between Plague and Trade

Topography and Typology of the Maritime Lazarettos in Dubrovnik

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Port cities, as ultimate trade hubs in the pre-modern and early modern periods, in addition to major advantages, suffered the disadvantage of being particularly exposed to the spread of contagious diseases. Struck by the devastating plague pandemic of 1348, the governments of European (both coastal and continental) cities gradually introduced various measures for containing the infection. The first reaction concerned urban sanitation, seeing that air corruption (*miasma*) was considered the cause of all infectious diseases. The governments of Venice and Florence in 1348 ordered that the streets be cleaned, garbage collected, and sewers emptied¹. While cleaning,

ventilation, fumigation, and perfuming remained important anti-plague methods, the authorities soon became aware that the miasmatic corruption also spread from person to person, directly or via objects, especially textiles. This provided the basis for spatial anti-plague strategies that relied on the accessibility of urban space, combining house

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1 Ann G. Carmichael, "Plague Legislation in the Italian Renaissance", *Bulletin of the History of Medicine*, LVII/4 (1983), pp. 508–525, sp. p. 510; Carlo Cipolla, *Miasmas and Disease: Public Health and the Environment in the Pre-Industrial Age*, New Haven 1992, p. 4.

arrest, expulsion of the sick, and prohibiting entry to the city. The city of Florence banned entry to anyone coming from Genoa and Pisa during the first outbreak, while Duke Bernabò Visconti closed off Milan and Reggio Emilia in 1374, expelling all the sick to nearby fields². Similarly, in 1363 Dubrovnik forbade entry to anyone coming from Italy³.

Cutting cities off from entire regions was untenable for trade-dependent maritime republics such as Dubrovnik, which was located on the southern Adriatic coast, connecting the Mediterranean trade routes to the Balkan hinterland. The stable and well-organised Ragusan state attempted to solve its precarious position by constantly juggling between opening and closing with a set of strategies revolutionary in international terms, the most important of which was the introduction of the first quarantine – based on the concept of incubation – in 1377. The complex regulative system for both trading activities and sanitary security resulted in a very early organisation of the health office and promotion of anti-plague measures that included the construction of the first lazaretto, the building for isolation of the sick and suspected plague carriers, contemporary to the famous *Lazzaretto Vecchio* in Venice as the first plague hospital⁴. The elaborate system of separation of the sick from the suspected cases and carriers, together with a high level of service offered to the quarantined, resulted in several lazaretto complexes scattered throughout the Republic's territory in the period of two centuries.

Previous research on the Ragusan quarantine, mostly in the field of history of medicine, did not deal with spatial issues (geographical or architectural), putting the measures and related buildings in an evolutionary perspective⁵. On the other hand, architectural historians did not address the entire Ragusan system, rather dealing with separate case studies – prevalently with the most recent and best preserved Ploče lazaretto. This article individuates micro- and macro-spatial categories featured in the Ragusan anti-epidemic measures by revisiting the published and examining the unpublished archival sources. The city councils' decisions to construct lazarettos are elaborated in detail, from the first one passed in 1429 for the islet of Supetar, the second for Danče in 1466, the third for the

island of Lokrum in 1534, to the last lazaretto in the suburbs of Ploče in 1590. Not only that each of them featured a different architectural design reflecting the actual strategy of disease control (typology), but their position also reflected the actual strategies of spatial management of maritime and continental trade (topography). Moreover, the documents reveal that most of the lazarettos were used contemporaneously and for long periods, attesting to functional diversification (though frequently *ad hoc*) of various confinement complexes.

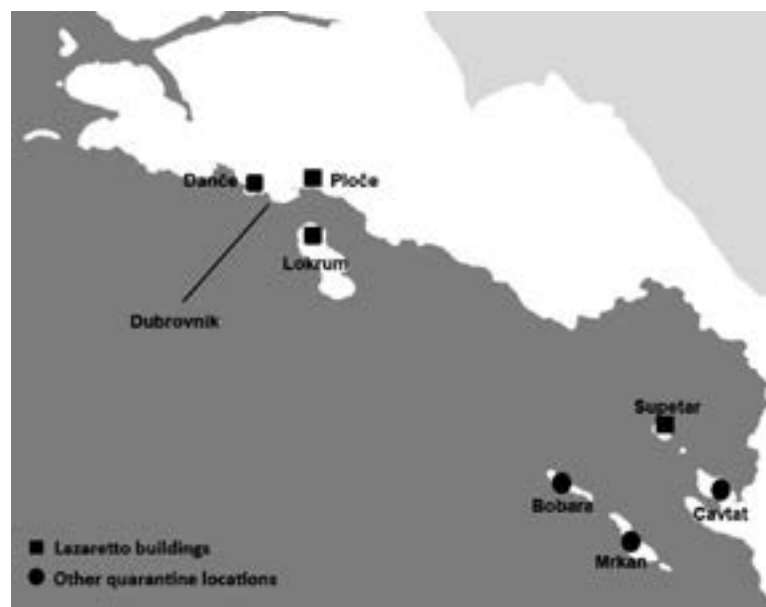
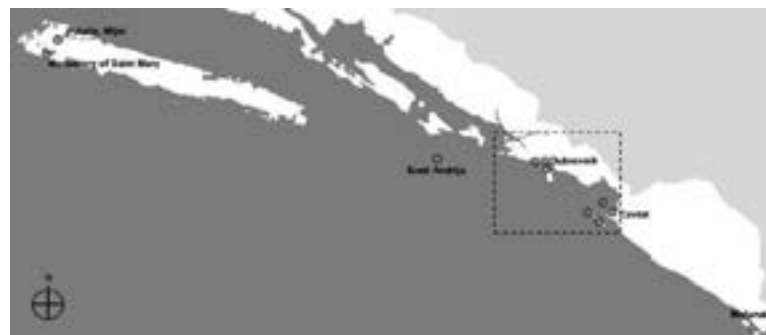
Topography

The archipelago

The character of the first anti-plague measures was strictly related to the blocking of movement, which seriously obstructed trade flows. A sustainable alternative was found in 1377 in Dubrovnik with the implementation of the world's first quarantine⁶. This new approach opportunely allowed travel and trade to continue while containing the disease. Considering the disease an "imported" issue, the 1377 regulation introduced the practice of month-long isolation (*trentina*) for all those arriving from plague-suspected areas. The quarantine took place on the islet of Mrkan and the nearby town of Cavtat on the southern frontier of the Ragusan territory [Figs 1–2]⁷. The legislation remained in effect throughout the existence of the Republic (until 1808), although it was occasionally expanded and elaborated, while the locations of the quarantine frequently changed. Such was the case in 1397 when the Health magistrate (*officiales cazamortuorum*) was established as a permanent office, while the Benedictine abbey on the northernmost Ragusan island of Mljet was added as an additional location for the arriving suspected travellers⁸. Monastic complexes were highly appropriate for gathering large groups of people in an isolated (enclosed and distant) place and provided with the necessary infrastructure (e.g. church, water supply). This trend continued

2 Francesco Caraballese, *La peste del 1348 e le condizioni della sanità pubblica in Toscana*, Rocca San Casciano 1897, pp. 44–45; Risto Jeremić, Jorjo Tadić, *Prilozi za istoriju zdravstvene kulture starog Dubrovnika* [Addenda to the History of Health Culture of Old Dubrovnik], vol. 1, Belgrade 1938, p. 68.

- 3 Carmichael, "Plague Legislation" (n. 1), p. 512.
- 4 Ragusan exceptionalism lay in the preventive nature of its quarantine, implemented to stop the plague from entering the city, whereas in Venice it was of the palliative nature, with no mention of the quarantine in the establishing act of the *Lazzaretto Vecchio*. On Venetian quarantine, see Loris Premuda, "Storia della Quarantena nei Porti Italiani", *Acta Medicae Historiae Patavinae*, XXIII (1976–1977), pp. 45–64, sp. pp. 46–48; Richard Palmer, *The Control of Plague in Venice and Northern Italy, 1348–1600*, PhD thesis, (University of Kent), 1978; *Venezia e la peste, 1348–1797*, exhibition catalogue (Venice, Palazzo Ducale 1979–1980), Orazio Pugliese ed., Venice 1979; *Rotte mediterranee e baluardi di sanità: Venezia e i lazzeretti mediterranei*, exhibition catalogue (Venice, Biblioteca Nazionale Marciana 2004), Elena Vanzan Marchini ed., Milan 2004; Jane Stevens Crawshaw, *Plague Hospitals: Public Health for the City in Early Modern Venice*, Farnham 2012.
- 5 On plague-related medical practice in Dubrovnik, see Filip de Diversis, *Opis slavnoga grada Dubrovnika* [Description of the Famous City of Dubrovnik] – *Situs aedificiorum, politiae et laudabilium consuetudinum inclitae civitatis Ragusii*, Zdenka Janeković-Römer ed., Zagreb 2004 [Croatian-Latin edition of the original manuscript from 1440], pp. 141–142, 168–170; Serafino Razzi, *Storia di Raugia*, Lucca 1595, pp. 64–65; Jeremić/Tadić, *Prilozi* (n. 2); Vladimir Bazala, *Pregled povijesti zdravstvene kulture Dubrovačke Republike* [Historical Overview of the Health Culture in the Republic of Dubrovnik], Zagreb 1972; Mirko Dražen Grmek, "Le concept d'infection dans l'antiquité et au Moyen-Âge, les anciennes mesures sociales contre les maladies contagieuses et la fondation de la première quarantaine à Dubrovnik (1377)", *Rad JAZU*, CCCLXXXIV (1980), pp. 9–55; Zlata Blažina Tomić, Vesna Blažina, *Expelling the Plague: The Health Office and the Implementation of Quarantine in Dubrovnik, 1377–1533*, Montreal 2015; Rina Kralj Brassard, "Dubrovačke protuepidemijske mjere: gospodarski odgovor na izazov kuge", *Povijesni prilozi*, LX (2021), pp. 11–38.
- 6 All the cited archival sources are from the State Archives in Dubrovnik (HR-DADU); Liber Viridis, cap. 49, p. 23, July 27, 1377. The Ragusan legislation was first published by Karl Lechner, *Das Grosse Sterben in Deutschland in Den Jahren 1348 Bis 1351 Und Die Folgenden Pestepidemien Bis Zum Schlusse Des 14. Jahrhunderts*, Innsbruck 1882, pp. 67–68. Although the Italian medical historian Loris Premuda first stated in 1976 that Dubrovnik was the first city to implement quarantine, see Premuda, "Storia della Quarantena" (n. 4), pp. 46–47; it was Mirko Dražen Grmek who comparatively proved that it was the first such systematic regulation in the world, see Grmek, "Le concept d'infection" (n. 5).
- 7 Grmek suggested that Cavtat (at the time a deserted Roman town) was used for those arriving from the continent, whereas the isle of Mrkan for those arriving by a ship. Grmek, "Le concept d'infection" (n. 5), p. 51. Although the document does not differentiate between the two, this assumption seems plausible considering that it would minimise the local transport of infected persons.
- 8 *Odluke dubrovačkih vijeća 1395–1397* [Decisions of the Dubrovnik Councils 1395–1397], Nella Lonza ed., Zagreb/Dubrovnik 2011, pp. 372–373. The 1397 regulation also established a model for supplying the city via sea without entering the port. On the institution of the Health Office, see Blažina Tomić / Blažina, *Expelling the plague* (n. 5), sp. p. 112. Grmek speculated that this decision makes the monastery of Mljet the earliest lazaretto in the world in Grmek "Le concept d'infection" (n. 5), p. 52; however, the temporary nature of the Mljet confinement as an *ad hoc* measure makes it difficult to support such a claim.



1/ Map of the quarantine locations in the Republic of Dubrovnik

2/ Map of the quarantine locations in the city district of Dubrovnik

in the first half of the fifteenth century when the quarantine for the sick inhabitants of the island of Lopud was set in the monastery on the remote island of Sveti Andrija in 1416⁹.

In this first period of quarantine implementation, peripheral and isolated locations were extensively used – predominantly the small islands on (or even outside) the state borders. Preventive measures were strongly emphasised, with particular attention paid to travellers arriving by ships. The civic authorities apparently recognised the contagious character of the disease and created policies to rearrange the accessibility of the city and mobility within its territory. The external prevention no longer seemed sufficient as the local inhabitants were recognised as a potential contagion source, and thus a triple categorisation was put in effect: suspected incoming carriers, suspected local carriers, and the sick. A complex geographically conceived system was implemented to cover those categories and subcategories. Many new locations were put to use *ad hoc*, regularly on the maritime fringes of the territory and almost exclusively on tiny islands, functioning as an archipelago of quarantines surrounding primarily the city of Dubrovnik, but also the smaller towns on the Republic's maritime frontier.

The seaborne spread was acknowledged during the mild outbreak of 1422 when the Senate prohibited Ragusan citizens from travelling to the entire Italian coast from Ravenna to Crotona, together with Vlorë in Albania¹⁰. Citizens were confined to their houses, while the islets of Mrkan and Supetar were used for quarantine – Mrkan for the sick inhabitants and their contacts and Supetar only for the (presumably foreign) suspected carriers¹¹. This is the first mention of confinement on Supetar, the smallest of the islands in front of Cavtat, which possibly overtook Mrkan's original purpose (mentioned in 1377 and 1397) as the quarantine for travellers from plague-infested regions. Bobara was added to the system in 1427 for quarantining sick citizens during a particularly strong epidemic, whereas their contacts were sent to the new southern frontier of the Republic, the peninsula of Molunat¹². While the use of Mrkan was banned in 1483¹³, Supetar, Bobara, and various locations on Mljet remained in regular use

until the second quarter of the sixteenth century together with the introduction of various new locations (e.g. the islets of Olipa and Ruda on the northernmost Ragusan frontier).

Although the islands were used interchangeably at various times for various types of confinement, a significant shift towards institutionalisation took place in 1429 with the decision to construct permanent quarantine buildings on Supetar and Bobara¹⁴. With the implementation of this decision on Supetar in 1431, the islet with its new infrastructure became the main Ragusan quarantine, used extensively for the next hundred years. The 1429 decision is particularly interesting as it reflects the complex yet flexible arrangement of the types and places of confinement. Namely, the two islets were nominally intended exclusively for the quarantine of suspected travellers arriving from infected areas; should a person on Supetar develop symptoms, all the healthy ones were to be moved to Bobara. The quarantine on Mrkan was supposed to be abolished but the authorities reserved the right to confine local citizens there in case the epidemic entered the city. Such a complicated network of permanent and pop-up quarantines reveals the important policy of multiple separations. Firstly, the sick were separated from the suspected carriers, and secondly, the local inhabitants from travellers, thus creating categories of permanent external prevention (Supetar and Bobara) and provisional internal one (Mrkan). The external preventive measures were the visionary contribution of the early Ragusan anti-epidemic system and were maintained in the centuries to follow. However, the care-oriented, plague hospital system shows considerable variations in quality prior to its relatively late institutionalisation in the second half of the fifteenth century on the peninsula of Danče.

The hospital

Although the dislocated position of the island quarantines kept the potential danger away from the city, it was more suitable for inbound travel and trade than for care for the sick. The need to have a proper plague hospital prompted the Republic to organise a lazaretto on the mainland,

in close proximity to the city. The quarantine on the peninsula of Danče in the western suburbs of Dubrovnik was first mentioned in 1428 when wooden huts for the confined suspected carriers were built, and in 1430 several private houses were sequestered for that purpose¹⁵. The shift towards a care-oriented institution took place during the epidemic of 1436–1437 when Danče replaced Supetar as the quarantine for Ragusan citizens, while Mrkan and Cavtat were used for suspected cases¹⁶. During the 1456–1459 epidemic, the citizens were quarantined at Danče and Mrkan, whereas Supetar was used for those with mild symptoms and their families, separated in two different buildings (wings)¹⁷.

Although very effective, such a complicated system of controlling various subgroups of confined citizens, separated according to a complex hierarchy of danger of spreading the disease, was not sustainable without proper infrastructure¹⁸. As a first step, at the end of 1457, the Senate decided to construct at Danče a church with a graveyard¹⁹. Following the particularly strong outbreak of 1464, and after the initial use of Mrkan and Supetar to quarantine the sick that outnumbered the capacities at Danče, in 1466 Danče was officially established the single quarantine area for the sick²⁰. A wall was built cutting off the peninsula, and construction was initiated of a permanent lazaretto-hospital (*hospitale vocatum Lazaret*)²¹. The construction of a permanent building was a logical step in the development of Danče into a plague hospital for the local citizens. In contrast to Mrkan, Supetar, and Bobara where regularly the suspected cases were confined and where the policy of removing potential contagion far from the urban environment was retained, the hospital that provided care for the sick was located close to the city and equipped with all the necessary facilities.

Not only was medical and spiritual care administered to the sick but also the gradual “resocialisation” of the suspected carriers was devised in 1482–1483. The sick were confined in the lazaretto and the suspected carriers in wooden barracks outside the wall²². The suspected carriers who did not show plague symptoms for twenty days were transferred from the barracks to the assigned space in the outer city walls where they remained

for a month²³. The new suspected carriers were to be kept inside the wall at Danče, separately from the sick, and after twenty days without symptoms were moved under the Lovrijenac fortress (adjacent to Danče) for the other twenty days. Finally, they were sent to the same space in the city walls for another month before being allowed to return to the city. Such a cautious gradual procedure allowed for basic urban functions to carry on even during epidemics.

The multifunctional lazaretto

While the Danče hospital hosted exclusively the local population and thus allowed for the city

- 9 Cons. Rog. 1, 45v, Apr 21, 1416; Jeremić/Tadić, *Prilozi* (n. 2), p. 71.
- 10 Cons. Rog. 3, 101r, Jul 18, 1422; Jeremić/Tadić *Prilozi* (n. 2), p. 72. Such prohibitions were recurrent throughout the 15th century.
- 11 Cons. Rog. 3, 105r, Aug 22, 1422; Jeremić/Tadić, *Prilozi* (n. 2), pp. 72–73.
- 12 Cons. Min. 4, 120v, Nov 29, 1427; Jeremić/Tadić, *Prilozi* (n. 2), p. 73. The Republic of Dubrovnik acquired the Konavle region with Molunat in 1426. Pavo Živković, “Ustupanje Konavala Dubrovčanima”, in *Konavle u prošlosti, sadašnjosti i budućnosti*, vol. 1, Vladimir Stipetić ed., Dubrovnik 1998, pp. 77–100.
- 13 Cons. Min. 22, 69v, March 13, 1483. The island was owned by the bishop of Trebinje-Mrkan who opposed confinement in proximity of the Mrkan monastery. Ivica Puljić, “Sedam stoljeća otoka Mrkana u naslovu trebinjskih biskupa” [Seven Centuries of the Island of Mrkan under the Title of the Trebinje Bishops], *Hercegovina: Časopis za kulturno i povijesno nasljeđe*, xxvi/1 (2015), pp. 89–114, sp. pp. 94–97.
- 14 Cons. Rog. 4, 120v–121r, Oct 14, 1429; Appendix I. Cf. Jeremić/Tadić, *Prilozi* (n. 2), p. 75.
- 15 Cons. Min. 5, 42r, Oct 23, 1430; Francesco Maria Appendini, *Notizie storico-critiche sulle antichità, storia e letteratura de’ Ragusei*, vol. 1, Dubrovnik, 1802, pp. 319–320; Giuseppe Gelcich, *Delle istituzioni marittime e sanitarie della Repubblica di Ragusa*, Trieste 1882, p. 41; Jeremić/Tadić, *Prilozi* (n. 2), p. 74.
- 16 Jeremić/Tadić, *Prilozi* (n. 2), pp. 75–76.
- 17 Cons. Rog. 15, 95v–96r, Feb 12, 1457; Jeremić/Tadić, *Prilozi* (n. 2), pp. 79–81.
- 18 It took a year for the 1464 epidemic to spread from the neighbouring Venetian island of Korčula to the city of Dubrovnik, attesting to the efficacy of the strict measures undertaken by the Ragusan government. Jeremić/Tadić, *Prilozi* (n. 2), p. 82.
- 19 Cons. Rog. 15, 182r, Dec 5, 1457, Appendix III; Jeremić/Tadić, *Prilozi* (n. 2), pp. 80–81.
- 20 Cons. Rog. 18, 144r, Apr 1, 1465; 168v–169r, June 15, 1465; Cons. Rog. 19, 41r, Apr 28, 1466; Jeremić/Tadić, *Prilozi* (n. 2), pp. 81–82.
- 21 Cons. Rog. 19, 41v, Apr 28, 1466; Cons. Mai. 13, 11r, May 20, 1466.
- 22 Cons. Rog. 24, 106r, Oct 14, 1482. Jeremić/Tadić, *Prilozi* (n. 2), pp. 88–89.
- 23 Cons. Rog. 24, 126v, Jan 11, 1483.

to remain open during epidemics, the other lazarettos quarantined incoming travellers, merchants and their trade goods. For example, the extant records of the Health Office from 1500 to 1530 mention Supetar as well as the bay of Polače on Mljet as places for the confinement of merchants arriving from the Ottoman Empire²⁴. Those confinements were conceived as places of isolation, rather than of providing care. However, seeing their considerable distance from the urban centre, they were plausibly not attractive to merchants. The island of Lokrum was conveniently located in front of the Ragusan port, while also suitable for merchants arriving from the Balkan hinterland²⁵. Already from 1466, the Ragusan authorities started funnelling continental (Levantine) trade to the area of Ploče in front of the eastern city gate where the road to Constantinople started²⁶, while seaborne traffic was concentrated in front of the harbour chain since 1397 and from there redirected to quarantine²⁷.

The northeastern bay of the island of Lokrum was mentioned as an additional quarantine for the sick during the strong epidemic of 1464–1467²⁸, as well as in 1526–1527, when Lokrum, Mljet, and Supetar were used to supplement the central hospital on Danče²⁹. When in 1533 the plague sneaked into Dubrovnik with the merchants from the Ottoman hinterland, the northeastern part of Lokrum was immediately allocated to quarantine the sick, while infected and suspected ships were anchored in the small bay below³⁰. Finally, on 14 January 1534, the Senate decided to construct a proper lazaretto on the spot, with its own walled-off harbour³¹. The lazaretto and its harbour were easily controllable from the city, whereas the other island's harbour was controlled by the local Benedictines. Therefore, although being much closer and more accessible from the city than any previous Ragusan lazaretto, the one at Lokrum could also be strictly isolated and better controlled.

Because the island was the propriety of the Benedictine monastery belonging to the Congregation of S. Giustina, the Ragusan government needed to procure their or papal permission³². Having presumably acquired the permission, the project was relaunched according to a new model in 1553³³. Its first recorded use was only in 1580, when certain travellers were confined there,

instead of on the island of Mljet³⁴. During the epidemic of 1585–1586, Danče and Lokrum were used in tandem, with the “suspected cases in worse condition” held at Danče and the milder cases sent to Lokrum³⁵. Finally, the variety of plague-related functions was recognised by the committee sent in 1632 to survey the lazaretto, which stated that it was adequate to welcome both the infected, as well as suspected people, goods, and merchandise³⁶.

The mercantile lazaretto

Towards the late sixteenth century the endemic epidemics became increasingly rare in Europe, yet still raged in the Ottoman Empire – the main Ragusan trade partner. The decision to construct the mercantile lazaretto in front of the eastern city gate at Ploče in 1590 was motivated exclusively by the requirements of the caravan route. Its location, however, drew upon earlier traditions of anti-epidemic mercantile spatial grouping.

At the end of 1468, the news spread that the plague was present in the Ottoman Empire. All continental arrivals were confined in Gruž (a gulf north of Dubrovnik) and Ploče for a month before entering the city³⁷. In 1466, all foreigners coming to buy salt were prohibited from entering the city and redirected instead to a small house in the suburbs of Ploče³⁸. In 1517 there is a mention of a wooden barrack and a small house for decontamination of the Ottoman-imported merchandise³⁹. The procedure was formalised with the 1533 decree that redirected all Levantine trade to the space in front of the Ploče gate⁴⁰. The use of Ploče only intensified in the absence of epidemics in the latter half of the century, as continental traffic rose. The danger, however, still existed since the Ottoman Empire did not use the lazaretto system. The 1590 decision to construct a permanent lazaretto on Ploče specified that it was intended for the Levantine merchandise coming from the hinterland, whose customs duties financed the construction⁴¹.

While internal (Danče) and external maritime quarantines (Lokrum) were still operating, they were becoming unnecessary. From its institution in 1377, the Ragusan quarantine system went through the processes of topographical and organisational expansion and later functional

concentration in the urban outskirts at Danče, Lokrum, and Ploče, of which the latter from the seventeenth century onwards proved sufficient. This process can also be observed in the architectural forms of the Ragusan lazarettos, following and contributing to the evolution of the quarantine system and the functional requirements of their intended use.

Typology

Jane Stevens Crawshaw introduced a hierarchical three-class response to the pandemics⁴². The third-class response regarded the temporary requisition of pre-existing buildings or the construction of wooden structures that could be burned after use. In the second-class response, permanent buildings were constructed but only occasionally used, while the first-class response concerned permanent buildings in permanent use, fully staffed and supplied. These measures were not mutually exclusive, and each of the three classes of response can be observed in Dubrovnik, showing a progression from simpler solutions to more elaborate constructions.

Although the first Ragusan quarantine regulation of 1377 did not specify the use of any buildings, the monastery on Mljet (and possibly Mrkan) was utilised at least from 1397. The use of remote monasteries (or their hospitals) situated on small islands was a common practice, and it is also recorded for the monasteries on Sveti Andrija and Lokrum at diverse periods. Additionally, fortifications were used to quarantine suspected merchants and recovering citizens in the concluding phase of confinement. Both military and monastic architecture shared architectural features suitable for confinement: they were large enough to host a multitude of users and could be further internally divided. Not only their isolated position but also their form – surrounded by high walls, featuring small windows and a single,

Ragusan lazarettos, was exposed to the strong dry northern wind, while being sheltered from the humid southern one. The connection of winds to health was a recurrent topos in early modern writings, and thus the 15th-century author Philippus de Diversis particularly praised the salubrious air in Dubrovnik as the cause of the health and longevity of its population, making the plague outbreaks particularly rare and short; Diversis, *Opis* (n. 5), pp. 13–15. On the importance of winds for the position and disposition of plague hospitals see Crawshaw, *Plague Hospitals* (n. 4), pp. 72–73. The early modern stance on winds and other meteorological phenomena as plague-inducing or preventing factors is brought in Carlo Guglielmo Ingegneri, *Meteorologia ovvero Vaticanij perpetui della mutatione de' tempi, & d'altri accidenti del Mondo*, Milan 1657.

- 26 During the plague of that year, foreigners were prohibited from entering the city. Cons. Rog. 19, 60r, June 4, 1466.
- 27 These decisions were formalised and systemised on June 18, 1533. Cons. Rog. 41, 212r.
- 28 Cons. Rog. 18, 171r–v, June 17, 1465; Jeremić/Tadić, *Prilozi* (n. 2), p. 83.
- 29 Cons. Rog. 38, 192v, Dec 19, 1526; 228v, Dec. 22, 1526; Gelcich, *Delle istituzioni marittime* (n. 15), pp. 46–50; Jeremić/Tadić, *Prilozi* (n. 2), pp. 93, 97. Each of these places was provided with small wooden houses, and the services of a priest, a doctor, a barber, and four servants, resembling provisional hospitals. In addition, a wooden structure was built on Lokrum for the decontamination of the belongings of plague victims; Cons. Rog. 38, 235r, Apr 18, 1527. Belongings of those who died in the city were washed and ventilated at Danče. Blažina Tomić *et al.*, *Knjiga gospode* (n. 24), pp. 295–296, 326.
- 30 Cons. Rog. 41, 222v, July 6, 1533; Jeremić/Tadić, *Prilozi* (n. 2), p. 97. The *fossato* (moat) was rejected for that purpose. Cons. Rog. 41, 207r, May 27, 1533.
- 31 Cons. Rog. 41, 261v–263r, Jan 14, 1534; Appendix VIII. Jeremić/Tadić, *Prilozi* (n. 2), pp. 78, 113.
- 32 Appendix VIII; Cons. Rog. 42, 102v, Nov 19, 1534; 139r, March 6, 1535.
- 33 Cons. Rog. 51, 258r–v, Oct 10, 1553. Cons. Rog. 53, 123r–125v, Dec 3–5, 1553; Jeremić/Tadić, *Prilozi* (n. 2), p. 113.
- 34 Cons. Rog. 65, 211r, May 14, 1580.
- 35 The decision was reversed on Jan 16, 1586. Cons. Rog. 68, 271r. Cf. Jeremić/Tadić, *Prilozi* (n. 2), p. 99.
- 36 Div. Canc. 206, 42r, Oct 29, 1632; Gelcich, *Delle istituzioni marittime* (n. 15), p. 55.
- 37 Jeremić/Tadić, *Prilozi* (n. 2), p. 85. The Ottoman customs office was set up on Ploče at least from 1477. Vesna Miović, “Život u karanteni: Lazareti na Pločama u vrijeme Republike” [Life in Quarantine: Hospitals in Ploče during the Republic], in *Lazareti u Dubrovniku: Početak karantenske službe u Europi* [Hospitals in Dubrovnik: Start of Quarantine Service in Europe], Ante Milošević ed., Dubrovnik 2018, pp. 13–48, sp. p. 14.
- 38 Cons. Rog. 19, 60r, June 4, 1466.
- 39 Vladimir Bazala, “Pomorski lazareti u starom Dubrovniku” [Marine Infirmeries in Old Dubrovnik], in *Dubrovačko pomorstvo: U spomen sto godina Nautičke škole u Dubrovniku* [Dubrovnik Seafaring: In Commemoration of A Hundred Years of the Nautical School in Dubrovnik], Jozo Luetić *et al.* eds, Dubrovnik 1952, pp. 293–308, sp. p. 301; Lukša Beritić, *Utvrdjenja grada Dubrovnika* [Fortifications of the City of Dubrovnik], Zagreb 1955, p. 176.
- 40 Cons. Rog. 41, 212r, June 18, 1533. For similar decisions, see Cons. Rog. 53, 241r–v, Oct 10, 1556; 259v–260r, Nov. 13, 1556; Cons. Rog. 68, 309v, March 13, 1586.
- 41 Cons. Rog. 70, 152v–153r, Feb 12, 1590; 197v–198r, May 19, 1590; published in Zdravko Šundrića, *Tajna kutija dubrovačkog arhiva II* [The Secret Box of the Dubrovnik Archives II], Zagreb/Dubrovnik 2009, pp. 11–13.
- 42 Crawshaw, *Plague Hospitals* (n. 4), pp. 8–9.

24 Zlata Blažina Tomić *et al.*, *Knjiga gospode zdravstvenih službenika 1500–1530* [The Book of the Health Officers 1500–1530], Dubrovnik/Zagreb 2021, pp. 256, 340. Cf. Jeremić/Tadić, *Prilozi* (n. 2), pp. 107–108.

25 Certain climatic aspects could have influenced the choice of the location. The lazaretto on Lokrum, as all the previous

easily controllable entrance – indicated separation⁴³. The buildings were orientated towards an inner courtyard providing illumination, ventilation and the necessary infrastructure, such as cisterns and food storages. Monasteries featured churches or chapels, which, together with graveyards, infirmaries, and pharmacies, offered both spiritual and medical care to the confined⁴⁴. As analysed below, the “cloistered” form proved to be most effective for the purpose-built lazarettos, although it prevailed only after a period of experimentation with the form of long warehouses (*tezzoni*) isolated by tall walls.

Supetar

The Ragusan government passed the first deliberation on the construction of a completely new building for confinement in 1429⁴⁵. It regarded the construction of a lazaretto on the island of Supetar, intended explicitly for those coming from plague-infested areas. There were two subsequent versions of the project. The first one proposed a longitudinal single-floor building (24 × 4 m large and 2.5 m high), internally separated into two spaces, each with its entrance⁴⁶. The bipartite structure was plausibly conceived for separating the suspected carriers from the sick. Following the completion of the first structure, the plan was to construct a similar building on the nearby islet of Bobara intended exclusively for the suspected cases – in case of developing symptoms, they would immediately be transferred to Supetar. Although the Senate advised haste, the ongoing epidemic postponed the construction and in 1431 the Minor Council discussed an altered design for the Supetar lazaretto⁴⁷. The new project envisaged a significantly shorter main body (14 × 4 m) again separated in two, with two additional wings (*gambe*), each the size of 6 × 4 m [Figs 3–4]. Each of the four spaces had a separate entrance and was furnished with a fireplace and narrow windows (*fenestre balisterie*, i.e. arrowslits). The second deliberation does not specify the use of particular spaces of the lazaretto, but it is plausible that the quadripartite structure substituted the two bipartite ones, indicating a complex system of separation of its users⁴⁸.

Although the two concepts are generally similar in the functional aspect, the first design was formally closer to a warehouse than to a hospital, whereas the second one belonged to the “cloistered” type, organised around a central open area. The shift thus reflected the development in the concept of spatial control: instead of elongating the building on a single axis, the authorities opted for a centralised, easily controllable design with a higher level of internal separation.

Such an innovative design of the quarantine building, conceived as early as 1431, has no precedent. The design proposed for the first lazaretto in Venice in 1423, the year of its establishment as the first permanent lazaretto, envisaged a new building with at least twenty rooms, located on Lido or elsewhere near the city⁴⁹. This type of building reflects its planned use exclusively as a hospital for the sick, with no spatial measures regarding the separation of the suspected cases during the incubation period. The project was, however, soon abandoned and the lazaretto was situated in the monastery of S. Maria di Nazareth. Only in 1429, the Venetian *Maggior Consiglio* passed the decision on the construction of eighty separate rooms for the sick. Therefore, the projects for the *Lazzaretto Vecchio* and the Supetar lazaretto were conceived simultaneously. The two concepts, however, differed since the Venetian was focused on providing care and the Ragusan on prevention. The general designs of the earliest two lazarettos reflected those different concepts – the Ragusan solution featuring the spatial division of subgroups as a result of applying the concept of incubation. In addition, the first Venetian lazaretto was constructed on a previous monastic site, whereas the Ragusan one was conceived *ex nihilo*. Since no previous anti-epidemic architecture existed yet, the models for the earliest lazarettos were taken from the architecture related to trade (warehouses) or from monasteries (central courtyard, encircling walls), with certain references to military architecture.

Danče

The lazaretto at the Danče peninsula further improved the innovative design conceived for the Supetar complex. This primarily regards the use of

Danče for the local population (with its location in the suburbs) that entailed more elaborate facilities. The peninsula was used for the confinement of the sick since 1428 when wooden barracks were mentioned⁵⁰. Amidst the severe epidemic of 1457, the Senate decided to erect a church at Danče provided with a cemetery and a priest so that the “poor souls who die there during plague would not die like sheep but be buried as Christians in a holy place”⁵¹. However, the housing at Danče was inadequate, and in April 1465 the Senate agreed with stonemason Mihoč on constructing “a house or two” for the accommodation of the sick⁵². The Senate formally decreed Danče as the location of the central plague hospital in April 1466, ordering the construction of a 140 m long and 2,5 m high wall with a guarded single gate to separate the peninsula from the surrounding suburban area⁵³. In May, plans were laid for the construction and management of the new *Nazareti* at Danče: the main building 20 × 6 m large, with two entrances (possibly suggesting the internal bipartite division), intended for the sick with and without clear plague symptoms⁵⁴. The internal

43 Several 16th-century Italian lazarettos use elements of military architecture (corner towers, crenellation, moat), such as those in Verona or Genoa, as well as the 16th to 18th century lazarettos in the Venetian *Stato da Mar* (Split, Herceg Novi, Corfu, Zakynthos, Argostoli).

44 For Italian examples of the use of monastic buildings and fortifications for quarantine, see Crawshaw, *Plague Hospitals* (n. 4), pp. 70–71.

45 The Major Council first proposed the project on January 14 and the Senate accepted it on October 14, 1429; Cons. Rog. 4, 120v–121r; Appendix 1.

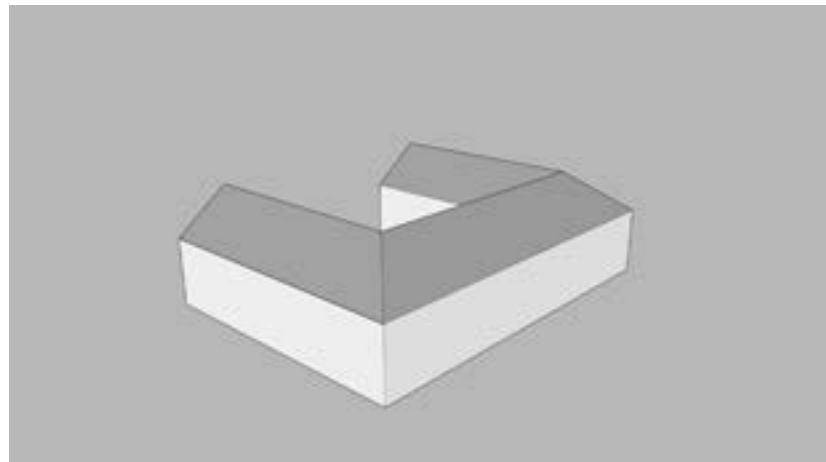
46 The large longitudinal shape of a warehouse was adequate for the merchants carrying goods that had to be decontaminated. As comparative examples, although of a later date, the Venetian *Lazzaretto Vecchio* and *Lazzaretto Nuovo* also featured long warehouse structures (*tezzoni*). Crawshaw, *Plague Hospitals* (n. 4), pp. 68–69.

47 Cons. Min. 5, 91v, Jan 20, 1431; Appendix II. The physical remains on Supetar attest (by corresponding sizes and traces of four entrances) that the project was completed. This is confirmed by Diversis, who mentions the lazaretto on Supetar; Diversis, *Opis* (n. 5), p. 86. The lazaretto on Bobara was not mentioned after 1429, nor is there any visible material trace.

48 The Ragusan administration separated not only the sick from the possible carriers, but also local citizens from the travellers arriving from suspected areas. Whereas the sick could plausibly be accommodated together, the suspected cases were separated between the local contacts and the incoming travellers. The fourth space was possibly intended for the subcategories (e.g. the sick without clear plague symptoms, the convalescent).

49 Palmer, *The Control of Plague* (n. 4), pp. 183–184.

50 Jeremić/Tadić, *Prilozi* (n. 2), p. 74.



3/ Model of the lazaretto on Supetar according to the decision of 1431

4/ Aerial view of Supetar with the ruins of the lazaretto

51 Cons. Rog. 15, 182r, Dec 5, 1457; Appendix III. The dedicatory inscription can still be observed in the church: DIVAE MARIAE VIRGINI/S. C. DECRETO AD PAVPERVM SEPUL./EX.AER.PVB. DOTIBVS./VIII.IDVS DECEMBRIS MCCCCLVII./D. The church was subsequently enlarged and a small monastery was built next to it for the Franciscan tertiary nuns, possibly encompassing earlier auxiliary structures.

52 Cons. Rog. 18, 144r, Apr 1, 1465; Gelcich, *Delle istituzioni marittime* (n. 15), p. 44.

53 Cons. Rog. 19, 41r–v, Apr 28, 1466; Gelcich, *Delle istituzioni marittime* (n. 15), p. 44.

54 Cons. Mai. 13, 11r, May 20, 1466; Liber Croceus, cap. 25, 25v–27r, post May 20, 1466; Appendix IV. Gelcich, *Delle istituzioni marittime* (n. 15), pp. 149–150; Risto Jeremić, Jorjo Tadić, *Prilozi za istoriju zdravstvene kulture starog Dubrovnika* [Addenda to the History of Health Culture of Old Dubrovnik], vol. III, Belgrade 1940, pp. 93–94.



arrangement of this building resembled a hospital, the ward layout facilitating the administering of medical and spiritual care as more people could be surveyed at the same time, care provided immediately, and sacraments administered to a group⁵⁵.

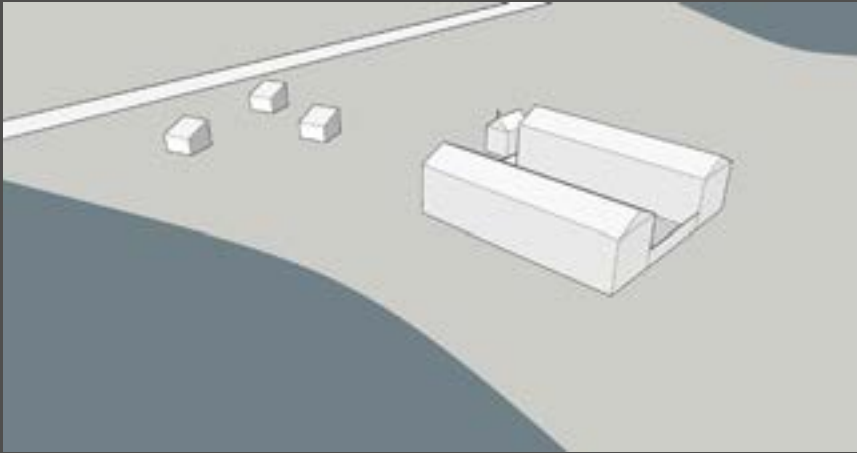
The hospital was part of a larger complex including the recently erected church and the graveyard, as well as a cistern and several smaller houses (4 × 4 m) “on the other side of Danče” for the suspected carriers and the convalescent [Figs 5–6]. In 1496–1498 the main building was raised by one floor and another building of exactly the same shape was built parallelly, thus creating an internal courtyard encompassed by a wall⁵⁶. Whereas for the first building and its future management (including an appointed physician, a barber, a priest, guards, and servants) new taxes along with testamentary legates were set aside⁵⁷, the second building was constructed from a private endowment of Ragusan nobleman Hieronymus de Gradis⁵⁸.

The lazaretto complex at Danče (referred to as *domus sive hospitale vocatum Lazaret* in 1496) continued the effective practice of separating the suspect from the sick, introduced in 1429 with the plan for Supetar and Bobara. Similarly to the Supetar lazaretto, the Danče complex had a bipartite

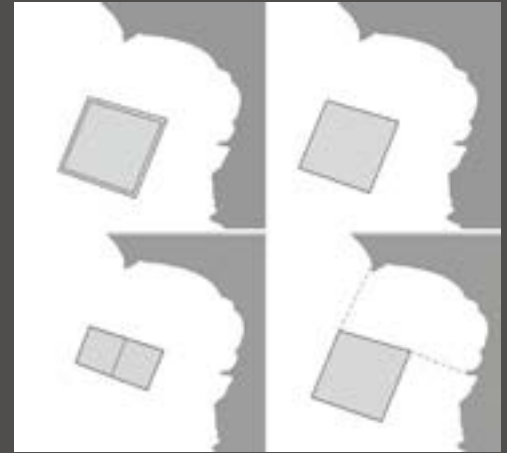
organisation for the two main categories: the sick and the suspect/convalescent. Since it accommodated various groups of citizens as well as members of staff, featuring several buildings scattered on the peninsula and the appertaining infrastructure, defended by a long wall – Danče resembled an “urban” complex. The typological importance of this lazaretto lies, therefore, as much in functional as in formal innovation, being the result of both urban regulation and an architectural concept. That the formal appearance of the Danče complex was the successful result of a focused policy is attested by the government’s consideration of Danče as a model for the new lazaretto on Lokrum.

Lokrum

In January 1534 the Ragusan Senate passed a decision to construct another lazaretto, this time on the island of Lokrum⁵⁹. By November, two proposals were prepared for discussion, one of them being the model of the Danče lazaretto⁶⁰. The negotiation process with the Congregation of S. Giustina (and possibly the pope) needs further archival research, though it possibly delayed the construction. Eventually, permission was obtained from the monastic authorities⁶¹, and in 1553



5/ Historical postcard of Danče showing the remains of the lazaretto complex, early 20th century



6/ Model of the lazaretto at Danče, according to the decisions of 1457, 1465, 1466, 1496, and 1498

7/ Four models proposed for the lazaretto on Lokrum in 1553

the definitive discussion took place, on which four models were presented [Fig. 7]⁶². The first model proposed a square complex surrounded by double walls; the second was a simplified version of the first one (with a single perimeter wall); the third model featured two courtyards, while the fourth proposal was an elaboration of the second model, with an addition of two external wall sections closing-off the small harbour. The last proposal was accepted with a majority of votes.

The physical remains of the lazaretto, together with an eighteenth-century depiction, add much detail to the extremely abbreviated description of the accepted design in the Senate records [Figs 8–10]. The building consists of a square courtyard 10 000 m² large, surrounded by continuous residential wings. The size of the courtyard allowed for an increase in capacity during a particularly strong epidemic, but primarily served for disinfection and ventilation of goods. The only opening in the entire outer perimeter was the entrance gate in the northern wall, leading to the small port orientated towards the city⁶³. The planned external stretches of the wall leading towards the sea were seemingly never executed, since there are no traces of construction around the complex. The interior was organised in the form of a cloister:

the spacious, sloped courtyard was surrounded by two-floor southern and western wings and mostly

- 55 The ward layout was already used in monastic infirmaries, whereas in 1540 for the institution of the Ragusan public hospital (*Domus Christi*) the internal walls of a pre-existing building were torn down and rooms united into two wards; Tatjana Buklijaš, Irena Benyovsky, "Domus Christi in Late-Medieval Dubrovnik: A Therapy for the Body and Soul", *Dubrovnik Annals*, VIII (2004), pp. 81–107, sp. p. 94.
- 56 Div. Not. 76, 5r–v, Feb 25, 1496 (the floor); Appendix vi. Test. Not. 27, 54v–55r, Dec 22, 1494 and Apr 25, 1495 (the second building); Appendix v. The traces of the two buildings are visible in the preserved perimetral wall.
- 57 Liber Croceus, cap. 25, 25v–27r, post May 20, 1466; Appendix iv.
- 58 The legate was carried out by his brother Stephanus. Div. Canc. 92b, 68v–69r, Feb 9, 1498; Appendix VII. Cvito Fisković, *Naši graditelji i kipari xv. i xvi. stoljeća u Dubrovniku* [Our Builders and Sculptors in the 14th- and 15th-Century Dubrovnik], Zagreb 1947, p. 55.
- 59 Cons. Rog. 41, 261v. The location was confirmed and construction ordered on Dec 12, 1534. Cons. Rog. 42, 110v; Appendix x. Bazala, *Pomorski lazareti* (n. 39), p. 301.
- 60 Cons. Rog. 42, 102v, Nov 19, 1534; Appendix IX. Jeremić/Tadić, *Prilozi* (n. 2), p. 113.
- 61 Cons. Rog. 41, 261v and 262r, Jan 14, 1534, Appendix VIII; Cons. Rog. 42, 139r, March 6, 1535.
- 62 Cons. Rog. 52, 12v–13r, Nov 16, 1553; Appendix XI. Jeremić/Tadić, *Prilozi* (n. 2), p. 113.
- 63 The missing inscription next to the entrance, commemorating the citizens' role in the construction, is preserved in the transcription of 1632: COLLATA PECVNIA EX PIORVM/ HOMINVM TESTAMENTIS/ RAGVSINI PATRES FECER' MDLVII./ FAXIT D.O.M. VT NVLLO VNQVAM/ TEMPORE HACCE OPE OPVS SIT; Gelcich, *Delle istituzioni maritime* (n. 15), p. 55.

single-floor northern and eastern ones. The wings consisted of individual rooms open only towards the courtyard, each equipped with a fireplace and a waste chute in the external wall. The internal façades have not been preserved and no archaeological surveys conducted, so it is not possible to speculate on possible internal porticos. There are also no traces of the internal spatial division between the subgroups of the confined persons, though the later cross-shaped path could indicate an original functional division into quadrants⁶⁴.

The introduction of individual rooms at Lokrum (as opposed to wards used in Supetar and Danče) was a novelty that followed the practices in Northern Italy, starting with the Venetian *Lazzaretto Vecchio*. The mentioned facilities offered rather comfortable accommodation in terms of cooking and heating, access to water (a cistern is preserved in the northeastern quadrant) and waste removal, illumination and ventilation. Dubrovnik, concurrently with Milan, Genoa, Bergamo, Verona, and Padua, aimed at providing the highest quarantine standards, not only as a strategy to attract tradesmen, but also to ensure the well-being of its citizens, as attested with the plague hospital on Danče a century earlier.

By the mid-sixteenth century, several monumental lazarettos were built in Northern Italy, providing comparative examples for the models proposed for Lokrum. The only known lazaretto with the attested (partial) double perimetral wall was in Genoa (Foce), constructed from 1522 to 1532 [Fig. 11]⁶⁵. The Genoese lazaretto also featured two courtyards, surrounded on three sides by two-floor wings with ground-floor porticos. The unconventional design of the new Genoese lazaretto could have influenced the rejected third proposal for Lokrum in 1553. The only monumental lazaretto with a double-courtyard disposition other than Genoa was the *Lazzaretto di San Pancrazio* in Verona

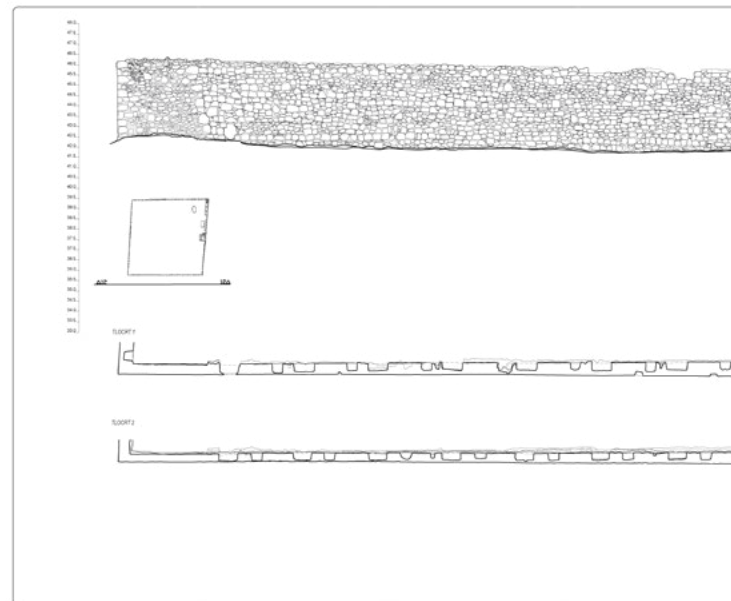
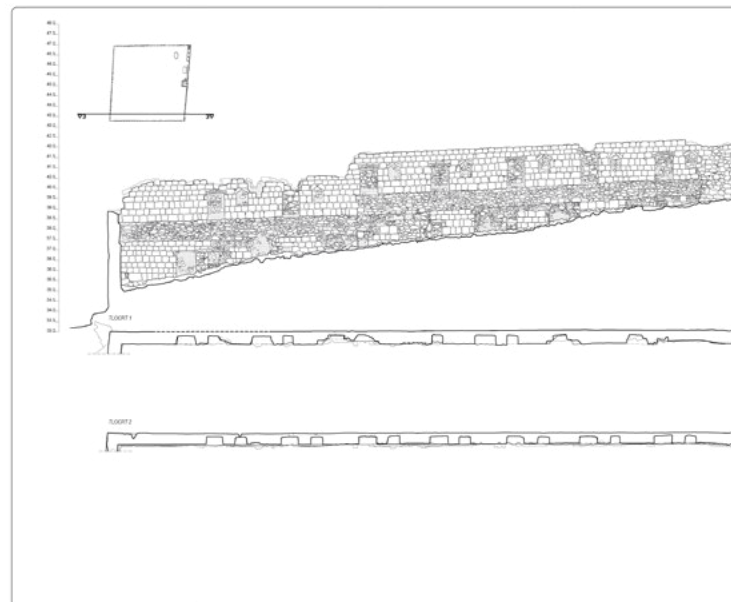
64 Where such an internal division existed, the suspected carriers and survivors spent a week (during the *trentina*) or ten days (during a *quarantina*) in each quadrant before being dismissed. Crawshaw, *Plague Hospitals* (n. 4), p. 69.

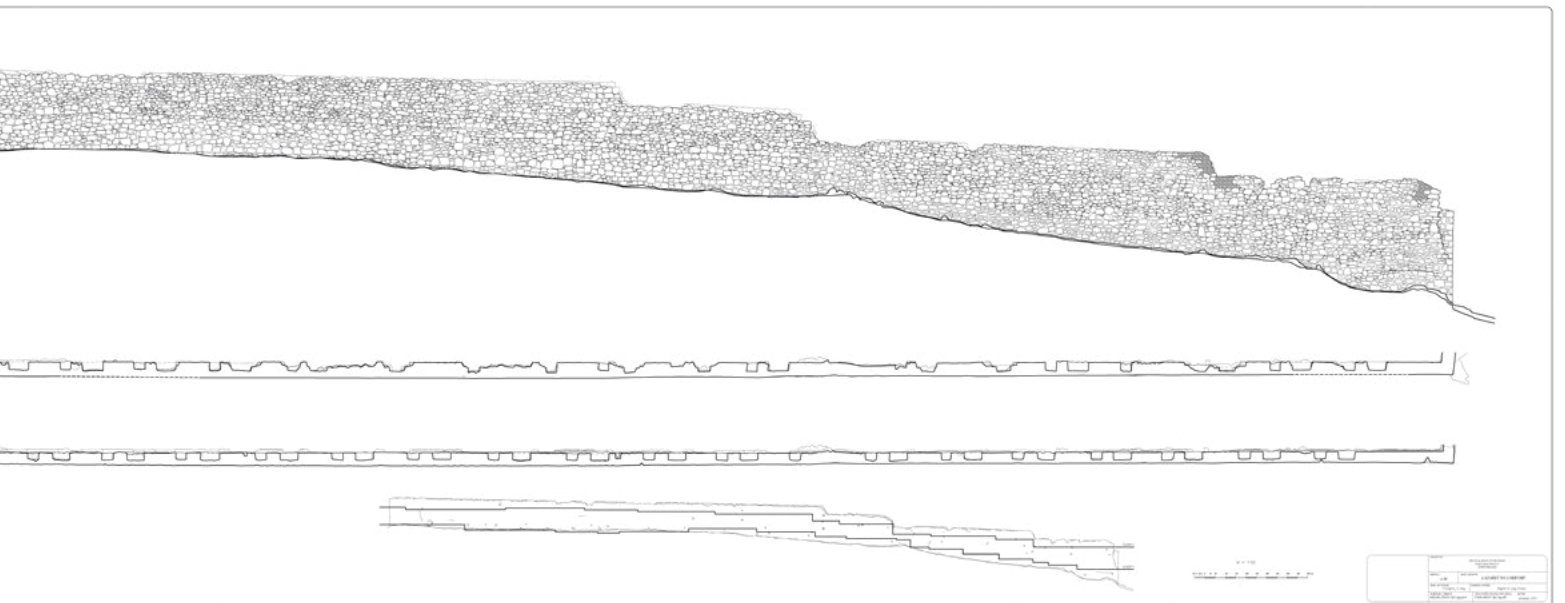
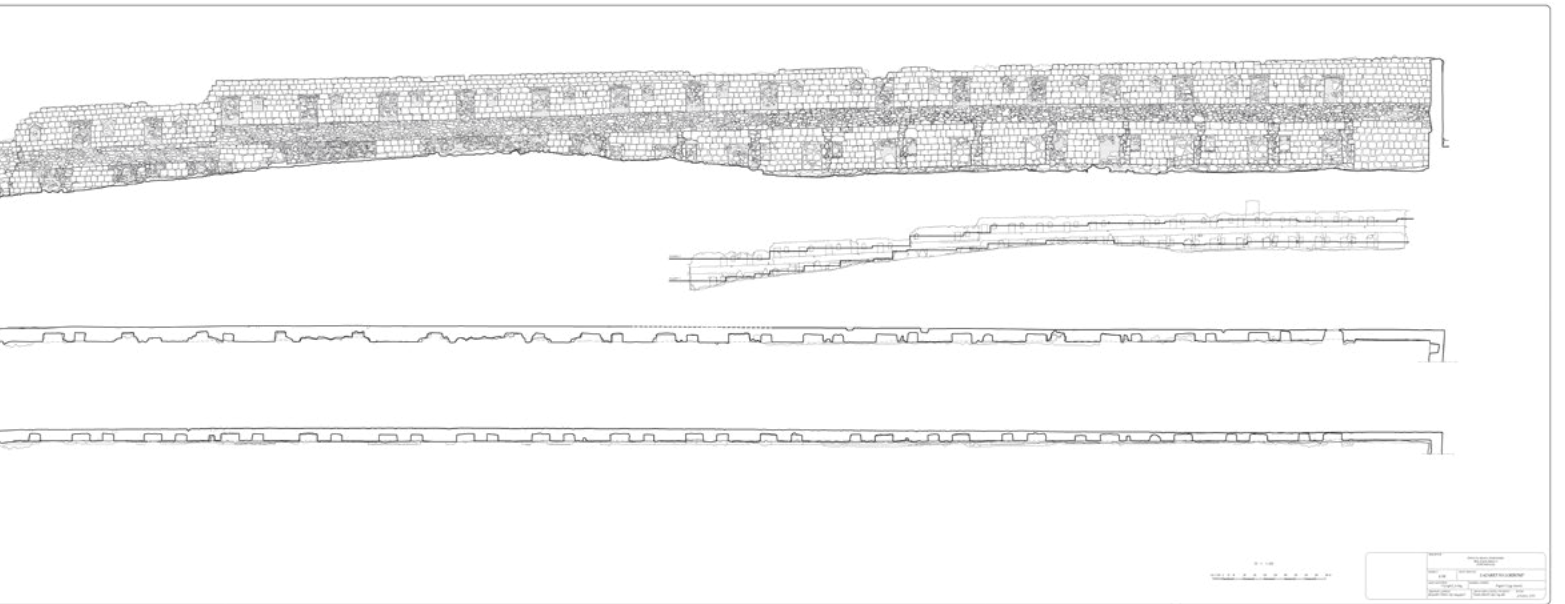
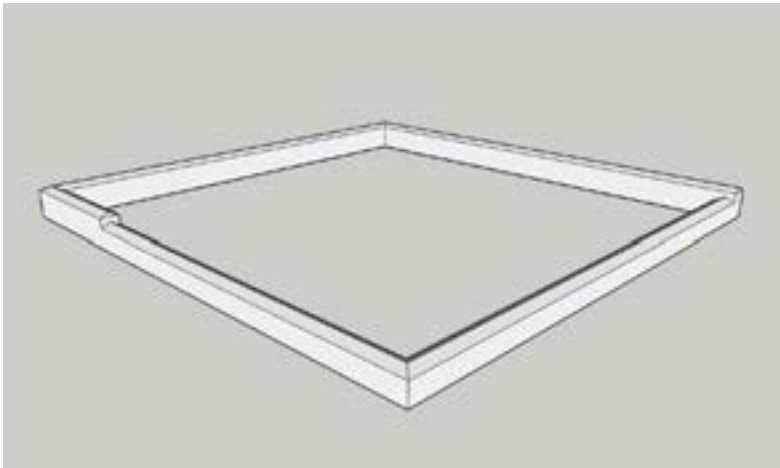
65 Anna Dagnino, "Lazzaretto di Genova", in *Rotte mediterranee*, exhibition catalogue (Venice, Biblioteca Nazionale Marciana 2004), Elena Vanzan Marchini ed., Milan 2004; Giovanni Assereto, *Per La Comune Salvezza dal Morbo Contagioso « I controlli di sanità nella Repubblica di Genova*, Novi Ligure 2011, pp. 68–69. The lazaretto was significantly altered in the 18th century.

8/ Model of the lazaretto on Lokrum according to the physical remains and the 1553 decision

10/ Detail of the map of Dubrovnik showing a part of the Lokrum lazaretto, 18th century

9/ Drawing of the interior and exterior façade of the western perimeter wall of the Lokrum lazaretto





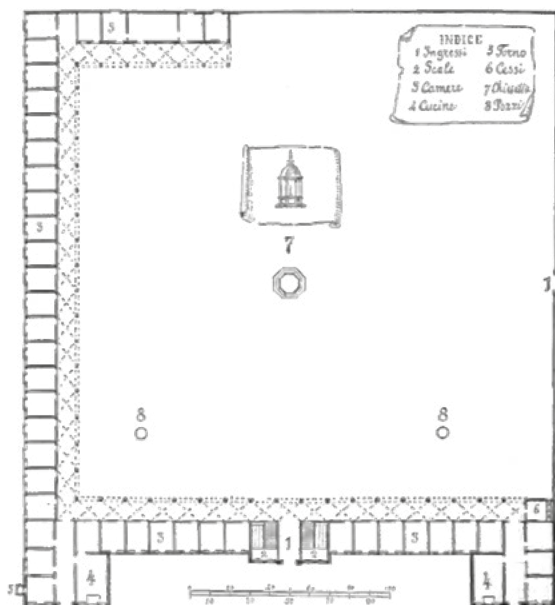
11/ Birds-eye view of the Foce lazaretto (detail), Alessandro Baratta, *La Famosissima e Nobilissima Città di Genova*, 1637



12/ Birds-eye view of the Milan lazaretto, Giovanni Francesco Brunetti, *Vero disegno con le misure giuste del grande lazaretto di S. Gregorio di Milano come si trovava nel tempo della gran peste l'anno 1630*, 1631



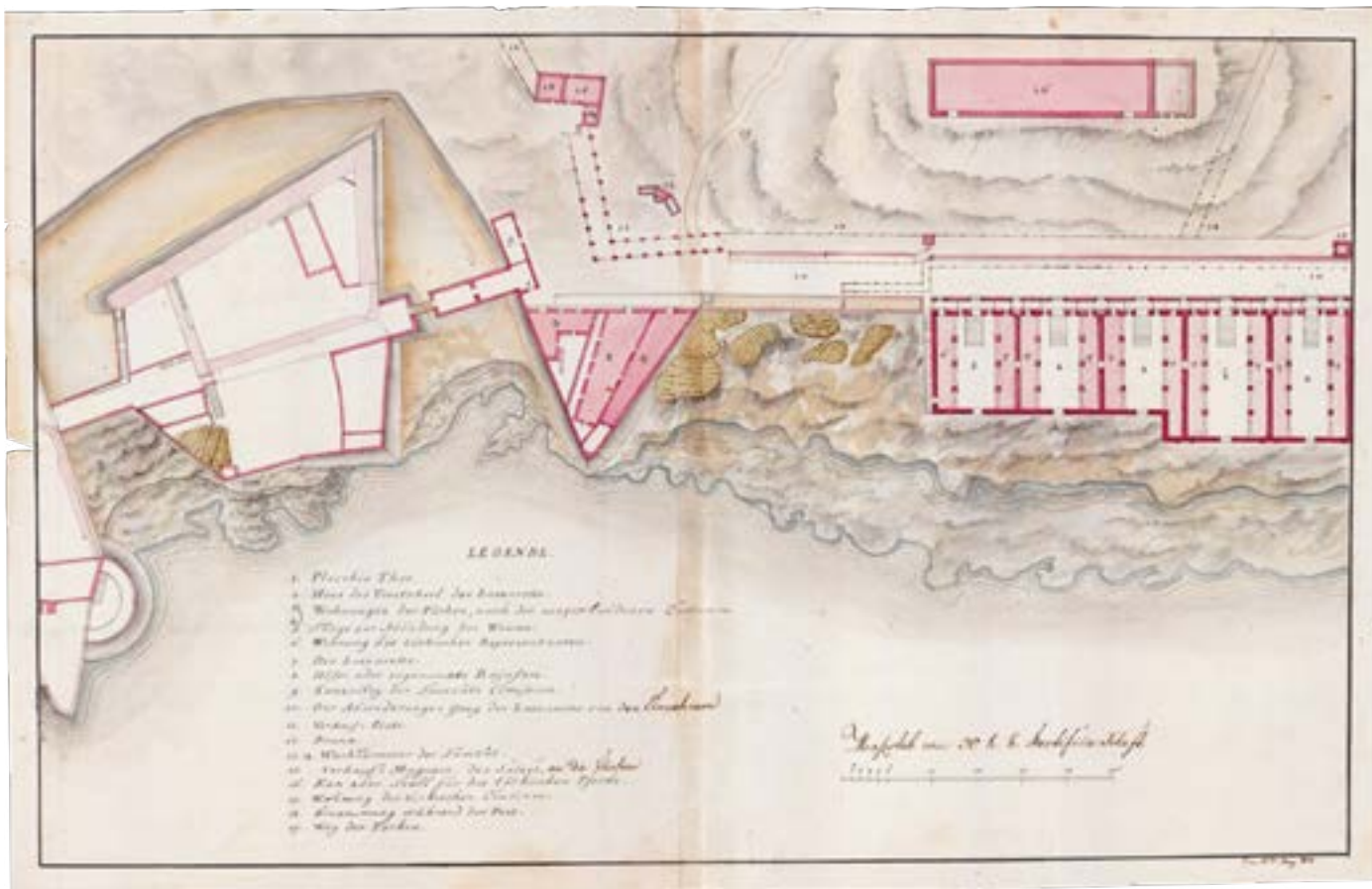
13/ Plan and elevation of the lazaretto of Padua, 1633, from Ciro Ferrari, "Il lazaretto di Padova durante la peste del 1630–31", *Bollettino del Museo Civico di Padova*, VII/5 (1904), pp. 106–115



in its first phase (1549–1551)⁶⁶. In its second phase, the Veronese lazaretto (1591–1628) acquired a rectangular plan divided into quadrants. Its internal division into rooms, equipped with fireplaces and waste chutes resembles the organisation of the realised version of the Lokrum lazaretto. However, the accepted proposal for Lokrum most closely resembles the early monumental lazaretto of Milan (1488–1513) [Fig. 12] and Bergamo (1504–1583). The multi-floor design was applied in the Paduan lazaretto at Brusegana (1533–1555) [Fig. 13], although it partially previously appeared in Genoa, Bergamo and Salò near Brescia (1484–1551)⁶⁷. Seen the typological similarity and chronological proximity of the mentioned examples to the lazaretto of Lokrum, the inspiration for the accepted model of the Ragusan new complex plausibly arrived from North Italy.

Ploče

The last Ragusan lazaretto, built at the end of the caravan route to Constantinople in front of the eastern city gates, is a fine example of an exclusively mercantile lazaretto in the extension of the historical port [Fig. 14]. The decision to construct yet another monumental lazaretto, less than half a century after the Lokrum complex, reflected – as discussed above – the changed economic and epidemic circumstances. The first proposal for a mercantile lazaretto for the Ottoman caravan trade at Ploče was made in 1590, but its design was defined only in 1627, whereas construction work lasted until the 1640s⁶⁸. Although the building complex and the documents pertaining to its history have been exhaustively studied, the typological models for the Ploče lazaretto – clearly distinct from the previous Ragusan lazaretto – have not yet been determined. The Ploče complex consists of five longitudinal bays with lateral warehouses, and small dwellings in the transversal upper courtyard, surrounded by a wall. This solution corresponds to the late-sixteenth-century Venetian maritime lazaretto in Split [Fig. 15], Corfu and Zakynthos, featuring longitudinal bays with lateral warehouses adequate for the quarantine of trade goods⁶⁹. It is therefore plausible that the design for the Ploče lazaretto was directly derived

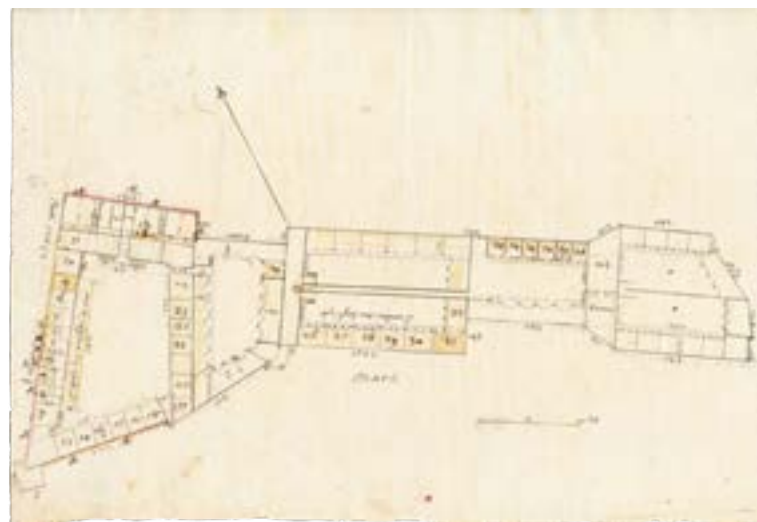


66 Lia Camerlengo, "Il lazaretto a San Pancrazio e l'ospedale della Misericordia in Bra: le forme dell'architettura", in *L'ospedale e la città: cinquecento anni d'arte a Verona*, Alessandro Pastore et al. eds, Verona 1996, pp. 179–191; Crawshaw, *Plague Hospitals* (n. 4), pp. 73–75. For attribution to Michele Sanmicheli (1484–1559), see Giorgio Vasari, *Lives of the painters, sculptors and architects*, vol. II, London 1996, p. 406; Lionello Puppi, *Michele Sanmicheli: architetto di Verona*, Padua 1971, pp. 102–106; Paul Davies, David Hemsoll, *Michele Sanmicheli*, Milan 2004, pp. 51, 114–125.

67 On the lazaretto of Padua see Ciro Ferrari, "Il lazaretto di Padova durante la peste del 1630–31", *Bollettino del Museo Civico di Padova*, VII/5 (1904), pp. 106–115; Claudio Grandis, *Il quartiere Brentella: la città di Padova oltre le mura occidentali*, Sommacampagna 1999.

68 Among the vast literature on the Ploče lazaretto, the most important are: Jeremić/Tadić, *Prilozi* (n. 2); Bazala, "Pomorski lazareti" (n. 39); Slavomir Benić, "Konzervatorsko-urbanistički problemi Dubrovnika: Dubrovački Lazareti" [Conservation-Urban Problems of Dubrovnik: Dubrovnik Lazarets], *Zbornik zaštite spomenika culture*, XII (1961), pp. 105–114, sp. p. 108; the recent *Lazareti u Dubrovniku* (n. 37), Ante Milošević ed., Dubrovnik 2018; and Vesna Miović, *Dubrovački ples s kugom: vrijeme Lazareta na Pločama* [Dubrovnik's Dance with the Plague: The Time of the Lazaret in Ploče], Zagreb/Dubrovnik 2022. All the pertaining documents are published in Šundrica, *Tajna kutija* (n. 41).

69 See Katerina Konstantinidou, *Lazaretti veneziani in Grecia*, Padua 2015; Petar Strunje, *Splitski lazaret i trgovačka skala* [Split Infirmary and Trading Scale], Zagreb 2022.



14/ Lazaretto complex at Ploče, Walter Raughmann, 1814 / State Archives in Zadar – DAZD, Miscellanea, sv. 1, poz. D, l. 107

15/ Plan of the lazaretto of Split, Giovanni Battista Camozzini, 1728 / Muzej hvarske baštine, Fond Bučić, 1 [18. st.] Spisi mletačkog inženjera G. B. Camozzinija, 43

from the practice in the Venetian *Stato da Mar*, probably inspired by the contemporary lazaretto in Split, also conceived as *scala di mercanzia*.

Conclusion

The dynamics of use and reuse, as well as the choice of location for the newly established lazaretto complexes, depended on the rhythm and intensity of plague outbreaks. Consequently, it also depended on their use as the quarantine for isolation of the local sick and their contacts during the pandemics on the one hand, and the permanent quarantine for the merchants and their goods on the other. The functional dichotomy resulted in a variety of architectural and topographical solutions. Namely, the earliest quarantine practice was conducted on remote islets on state borders since 1377. In the 1460s a new complex was constructed in the Ragusan suburbs of Danče, reflecting the new practice of confining the sick and suspected local inhabitants during plague outbreaks. In the 1530s, the Senate decided to construct a monumental lazaretto on the island of Lokrum facing the city port, in proximity to the starting point of the increasingly important caravan route. The intensified continental trade resulted in the government's decision of 1590 to construct a modern lazaretto complex in the Ploče suburbs. Additionally, during pandemics, quarantine was sporadically carried out in the Benedictine monasteries (or its hospitals) on the isles of Lokrum, Sveti Andrija, Mljet, and possibly Mrkan. The Benedictine involvement opens a future research line, that is, the coexistence and/or synergy of the monastic communities and the lazarettos, as well as the impact of the "cloistered" architectural model. Future systematizations of lazaretto typology could

also draw a comparison with other architectures of control and spaces of isolation, such as prison complexes, fondacos, and fortifications.

The shift in the location of the quarantine was influenced by both the success of the anti-epidemic measures and the developments in the organisation of the increasingly intensifying trade with the continent. The architectural shape and location of the buildings also strictly followed the practical purpose, defined by the actual medical knowledge and practice. Namely, the architecture was designed to separate the sick from the suspected contacts, which reflected the concept of transmission of contagious diseases and incubation. All the above factors were equally decisive in the formulation of the Ragusan quarantine practice, which in its outcomes (regulative and spatial) was often pioneering.

In this interplay of isolation and vicinity, opening and closing of the city, the Ragusan lazarettos stand out for their adaptive architectural design: the first one on Supetar, conceived as a bipartite complex for separation of the sick from the incubating occupants; the second lazaretto at Danče with an elaborate urban-like infrastructure for the local population; the lazaretto on Lokrum as one of the first monumental quarantine complexes in the wider Adriatic basin, featuring individual accommodation; and, finally, the Ploče lazaretto intended exclusively for the Ottoman caravan trade. A more detailed analysis of the architectural projects based on archival sources and field surveys should result in case studies of individual lazarettos. Such a case-oriented approach will add to the comparative study of early quarantine practices in general as well as discern possible impacts of the Ragusan system and policies on the wider Adriatic and Mediterranean areas.

APPENDIX

I. 14 Oct 1429

The Senate's provision for construction of lazaretti on the islets of Supetar and Bobara, for the sick and the suspect respectively

M: pro confinibus dandis venientibus de partibus morboris et domibus construendis

Prima pars est de firmando provedimentum allatum presenti consilio per officiales ordinatos ad hec super confinibus habendis et dandis pro venientibus de partibus morboris et domibus per ipso confine construendis. Captum per xxvi contra x.

Quod provedimentum hic infra sequitur videlicet

Perche, a voler conservar la cita nostra, da mo avanti, in quel bon stato de sanita che fin qua, per gratia del bon Yhesu, e risalvata, non puo esser com mancho che confini non siano dati a quelli che vegneno di parte morbose. Et per che lo confin lo qual se dava a Marchana avegna che fosse per ben e conservamento di tutta la cita, et tanto de eclesiastici quanto de layci, pur niente mancho, non era senza algun danno delle cose de la chiesa, et anche agravamento di messer lo vescovo di Merchana, di rason del vescovado il quale, e quella isola, donda die trare il suo vivere. Pero desiderando quanto sia possibile il danno et dispiazer deli eclesiastici e di cose di chiesa schivar et fugere, sicomo devoti et fideli della santa matre eclesia, a la qual sempre ne abiamo sforzi di compiacere, e lo ben acresimento et conservamento de la qual, tuttavia, secondo fo nostro costume com ogni studio abiamo zerchato e piu che mai volemo e cerchemo. Et anche per dar destro quanto se possa a quelli vicii confinati. Che subito com presteza et solitudine se debia far, a spese dil nostro comun, nella isola del San Piero di mezo mar una casa per terra di muro senza pavimento in volta e coverta com cuppi, longa passa dodexe dentro li muri et larga passa duo entro li muri, con tramezadura per mezo e duo porte e fenestre quante serano de bisogno, alta de muri braza cinque. Et la zisterna gresescha, la qual e in essa isola, riconzare et riparare con meglio se potera. La qual

casa sia et debia esser per confini de quelli viene dele parte morbose.

Et completa questa casa, di tutto come detto, subseguente se debia far nella isola de Bobara, una altra casa de simile qualita in tutto come sera la detta, e com zisterna gresescha in volta, sella zisterna abelmente cadere glie pora. La qual casa in isola di Bobara pur debia ancora esser per essi confinati. Et specialmente acio che se de quelli i quali vegnerano confinadi, algun se infirmasse, li sani se possino separare dali infermi et redurse in una casa. Et li infermi da per se romagnire nel altra.

Et acio che queste due case piu sollicitamente et com magior presteza se fazino, che ellegere et far se debia tre ufficiali i quali subito debiano attendere e provedere e ordenare che le dette duo case quanto piu presto si puo siano fatte.

Et fato che sia e complito la prima casa nella isola de san Piero come detto, che subito sia libera e francha da confini la detta isola de Merchana al detto messer lo veschovo. E che in esso caso piu confinati non siano mandati alla detta isola di Marchana, salvo e riservato per che anche cusi de bona volonta se oferse ala signoria nostra il detto messer lo vescovo. Che se caso di morbo intervenesse in questa cita, dal qual il buon Yhesu per sua pieta, cusi per lo avvenire come a fatto per lo passato, la conservi, che in lora sia licito e possa la nostra Signoria over suo(!) ufficiali cazamorti mandar et dare li confini a quelli della cita nostra nella detta isola de Merchana, al suo bon piasis, come vorano e come per lo passado e fatto.

HR-DADU, Cons. Rog. 4, ff. 120v–121r [unpublished]

II. 20 Jan 1431

The Senate decides on an altered design for the lazaretto on the islet of Supetar

Captum fuit quod domus fienda ad scopulum sancti Petri pro habitatione confinandorum fieri et esse debeat de brachiis xxviii in longitudine et brachiis viii in latitudine. Et habere debeat tramezaturam de muro. Et in qualibet parte tramezature fieri debeat una porta. Et fieri debeant a lateribus duobus due gambe. Et quelibet gamba esse debeat de brachiis xii in longitudine

et brachiis VIII in latitudine, et qualibet gamba habere debeat portam et in eis omnibus habitationibus fieri debeant fenestre balisterie quantum sufficiant pro lumine et caminate.

HR-DADU, Cons. Min. 5, f. 91v [unpublished]

III. 5 Dec 1457

The Senate's provision for construction of a church with a cemetery at Danč

M: pro una ecclesia fabricanda ad Danzas

Prima pars est de dando libertatem domini rectori et suo minori consilio faciendi tres officiales qui vadant ad Danzas extra portam Pillarum, qui videant oculatim et deputent locum ibi ad Danzas in quo fabricari debeat una ecclesiola brachiorum octo longa intus vel circa et brachiorum sex larga intus vel circa, cum cimiterio opportuno. Expensis eorum qui volent in id conferre elemosinas cum dote ippperperorum quinque annuatim solvendum in perpetuum per comune nostrum sacerdoti deputando ad officium dictam ecclesiolam. Et hoc ut pauperes qui tempore pestis moriuntur ibi ad Danzas non veniant mori uti pecora, sed sicut Christicole sepeliantur in loco sacro. Et pro eorum animabus fiat aliqua memoria. Que ecclesiola sit fondata sub vocabulo sancte Marie de Gratia. Per omnes contra I.

HR-DADU, Cons. Rog. 15, f. 182r [unpublished]

IV. post 20 May 1466

Regulation on the plague. The Major Council decides on the design of the lazaretto at Danč

Ordo super peste. Cap. xxv

[...] Che alle Danze si debbia fabricar la casa la quale è comenciata a fabricarsi per Mihoc petraro, la quale si debbia fare alla longhezza de braccia XI, et alla larghezza di braccia XII, et habbia die porte, nella qual casa si debbiano mandar quelli li quali si amalaranno di peste, et altri infetti, et habbiase fare etiam una cisterna grande la quale sia capace per tenir, e dar aqua alli detti che saranno amalati, et alli altri che saranno infetti li alle Danze, e

debbiase fare con sabbione in locho dove è la calcarà ò vero altrove dove meglio parerà alli officiali.

Item oltre la casa soprascritta si debbiano fare altre diverse casette pur alle Danze dall' altra banda, cioè su alla costiera verso la marina di braccia otto al quadro ò vero incirca, e questo per il ridotto delle fameglie, e persone le quali saranno mandate al detto locho per sospetto, e non haveranno segno della peste, et etiam per quelli li quali havendo havuto il segno della peste saranno guariti che si possano separar dalli altri amalati li quai saranno in detta casa grande.

Item acciòche quelli li quali saranno mandati alle Danze come è detto non habbiano caggione di partirsi dal detto locho et andar per le contrade nostre, et infettarle, che si debbia fare un muro longo passa LXX. alto braccia v. ò li incirca, il quale andarà dalla punta delle Danze la qual guarda verso S. Lorenzo a una spelonca sopra la marina il qual muro separa il detto locho per modo che li infetti, et amalati li quali saranno mandati alle Danze come è detto non potranno andar, ne partirsi dal detto locho, e nel detto muro si debbia far una porta con la chiave, alla quale si debbiano poner guardiani; e questa spesa si debbia fare delli danari, che si assumeranno per questo ordine.

HR-DADU, Liber croceus, f. 26r [fragmentarily published in Gelcich (1882); Jeremić, Tadić (1940); omitted in Nedeljković (1997)]

V. 25 Apr 1495

Note on distribution of the testament of Hieronymus de Gradis regarding the second hospital building at Danč

Cum aliis autem ypperperis sexcentis pro resto dictorum ypperperorum mille fieri et fabricari debeat ad Danzas una domus cum solario pro commoditate eorum qui tempore epidemie transmittuntur ad dictum locum Danzarum.

HR-DADU, Test. Not. 27, f. 55r [unpublished]

VI. 25 Feb 1496

Agreement on the construction of the upper floor of the Danč hospital

Ser Christophorus Nicole de Caboga, ser Vlachus Blasii de Sörgo et ser Antonius Marci de Menze tamquam officiales Danzarum ex una parte, et Ruschus Zubrovich et Bartholus, Maroe et Bogue Nicolichi muratores ex alia parte, pro fabrica quam dicti officiales intendunt fieri facere ad Danzas in elevando unum palmentum domum sive hospitale <vocatam lazaret> quod est apud ecclesiam Danzarum [...]

HR-DADU, Div. Not. 76, f. 5r [unpublished]

vii. 9 Feb 1498

Agreement on the construction of the second hospital building of the Danče lazaretto

Marcus Stanichnich murator obligando se et omnia bona sua promisit et convenit ser Stephano Junii de / Gradi solo fratri, et executori ordinationis testamentarie olim ser Hieronymi Junii de Gradis quantum pro / ypperperis mille dimissis pro conscientia et convertendis in edificio ad Danzas iuxta tenorem dicti / testamenti de quo constat in libro testamentorum notarie 1494 a carta 54, presenti et et(!) dicto nomine / stipulanti et acceptanti de construendo, et fabricando ad Danzas pro executione dicti testamenti unam / domum que erit pro infectis tempore pestis longam intra muros brachiis 38, et latam intra muros / brachiis undecim cum dimidio cum uno palmento eundo in altum quantum opus erit et videbitur dicto / ser Stephano, cuius domus muri habeant grossiciem usque ad palmentum brachium unum cum quatuor / digitis. Et a palmento supra unum brachium. Et dictos muros debet facere dictus Marcus cum petris / smaratis de bona, et pulchra smaratura et cum bona calce, et bene savornatos, et livellatos ac / bene laboratos ad laudem boni muratoris expensis omnibus dicti Marci, excepto scarpello necessario / quod dictus ser Stephanus dare debet in terra ad littus maris, et inde portari debeat ad locum fabriche / per dictum Marcum et expensis cuiusdam Marci. Item dictus ser Stephanus debet dare ibidem ad littus / maris mattones necesarios pro caminatis, et tuffum pro arcubus portarum et fenestrarum, reliqua / autem omnia et singula necessaria de petris, calce, savorna, sablono, creta, arganis, argatis, manipulis, / aqua dulci,

et omnibus aliis necessariis debet ponere dictus Marcus, et debet incipere de presenti, et / prosequi cum laborerio sine intermissione usque ad complementum.

HR-DADU, Div. Canc. 92b, f. 68v–69r [unpublished]

viii. 14 Jan 1534

The Senate plans the location of the new lazaretto hospital on Lokrum, provided that the permission is obtained from the Congregation of S. Giustina or the pope. Three officials are commissioned to create a model of the Danče lazaretto and another model for Lokrum.

Prima pars est de deliberando in presenti Consilio super loco in quo debeat edificari <hospitale> Nazareth pro commoditate infectorum et suspectorum peste, quos Deus non det per sua misericordia. Per xxxii contra v.

Prima pars est de eligendo locum pro fabrica hospitalis Nazarethi pro suspectis peste in insula Cromae cum consensu habito a Sanctissimo Domino Nostro Papa casu quo locum in dicta insula non poterit inpetrare a superioribus congregationis Sanctae Justinae. Et postea dicitur in qua parte dicte insulae debeat eligi locus pro fabrica dicti hospitalis. Per omnes contra ii.

Prima pars est de creando in presenti consilio tres officiales qui debeant resarcire seu repizare locum et domos Dantiarum pro infectis peste et debeant facere modellum dicti loci Dantiarum, et hospitalis fabricandi in insula Cromae. Et casu quo concedetur locus pro dicta fabrica, debeant procedere ad fabricam dicti Nazarethi, reportando in presenti consilio modellos dictorum hospitalium. Per omnes contra ii.

HR-DADU, Cons. Rog. 41, f. 261v–262r [unpublished]

ix. 19 Nov 1534

The Senate is deliberating on two models of the lazaretto on Lokrum

Prima pars est de acceptando primum modellum factum pro fabrica Nazarethi facienda in insula Lacromae. Per xxv contra x. Secunda pars est de acceptando secundum modellum presentatum

per dominos officiales deputatos super dicta fabrica, et si capietur hoc secunda pars non debeat dare principium fabricae donech impetrabatur consensus a Reverendis patribus Congregationis Sanctae Justinae. [cancell.]

HR-DADU, Cons. Rog. 42, f. 102v [unpublished]

x. 12 Dec 1534

The Senate urges the start of the construction of Lokrum lazaretto and decides on its exact location

Prima pars est de imponendo penam ducatorum centum cuilibet Dominorum officialium deputatorum super fabrica Nazaretti quod in termino dies octo proxime futurorum debeant dare principium dicte fabricae incepti a portachio Lachromae eundo versus linguam quae se extendit [ex adverso] e regione sancti Jacobi secundum formam modelli primi acceptati in presenti consilio. Per xxxi contra iiii. Secunda pars est de indusiando [cancell.]

HR-DADU, Cons. Rog. 42, f. 110v [unpublished]

xi. 16 Nov 1553

The Senate deliberates on three models of the lazaretto on Lokrum

Prima pars est de acceptando primum modellum Nazaretti in quartatum cum muris duplicibus iuxta cuius formam Nazarettus fabricari debeat in scopulo Locrumae. Per xxii contra xiii. Secunda pars est de non acceptando [cancell.]

Prima pars est de acceptando secundum modellum in quartatum cum muris simplicibus et iuxta illius formam Nazarettus fabricari debeat. Per xxviii contra vii. Secunda pars est de non acceptando [cancell.]

Prima pars est de acceptando tertium modellum. In quo sunt tantum duo campi et iuxta illius formam Nazarettus fabricari debeat. [cancell.] Secunda pars est de non acceptando. Per xxxi contra iiii

Prima pars est de ordinando quod in secundo modello deregii debeat una linea muri que incipiens ab utroque latere fabricae in angulis ortis extendatur usque ad mare. Per omnes contra ii. Secunda pars est de non ordinari [cancell.]

HR-DADU, Cons. Rog. 52, ff. 12v–13v [unpublished]

Mor a obchod

Topografie a typologie námořních lazaretů v Dubrovniku

Dubrovnik byl prvním městem, které v roce 1377 zavedlo karanténu a měsíční izolaci pro všechny cestující, kteří přicházeli z oblastí zasažených morem. Po další tři století protimorový systém města nejen reflektoval, ale i zaváděl nové trendy v boji proti nemoci, přičemž hlavní prioritou bylo zachování obchodních aktivit. Místní vláda vypracovala několik řešení k potlačení epidemií, spočívajících v kontrole pohybu a omezení prostoru. Autoři tohoto článku – na základě písemných, obrazových a hmotných pramenů – analyzují řadu karanténních míst a budov v Dubrovniku od čtrnáctého do sedmnáctého století, a to po stránce topografické i typologické.

Pro účely karantény vláda využívala především množství ostrůvků u pobřeží. V roce 1429 bylo rozhodnuto o stavbě nových komplexů pro nakažené či z nákazy podezřelé na ostrůvcích Supetar a Bobara na jižní hranici města. Zpočátku se vláda zaměřila pouze na příchozí z oblastí postižených morem, brzy však vyčlenila několik ostrovů i pro místní obyvatele. S výstavbou lazaretu na poloostrově Danče v polovině patnáctého století byla zařízení pro vnitřní prevenci

a léčbu modernizována a soustředěna na předměstí. Autoři se domnívají, že rozhodnutí postavit monumentální víceúčelové lazaretto na ostrově Lokrum naproti městskému přístavu odráží záměr sjednotit dříve oddělené funkce – zadržování lidí a obchodního zboží, místních obyvatel a příchozích cestujících – v bezprostřední blízkosti města.

Ačkoli lazarety na poloostrově Danče a na ostrově Lokrum formálně existovaly až do konce republiky (1808), stávaly se stále více nadbytečnými. Již koncem šestnáctého století se systém opět obrátil k vnější prevenci, téměř výhradně spojené s obchodem s Osmanskou říší. Autoři článku ukazují, že realizovaný projekt, koncipovaný jako řada podélných zálivů, vychází ze soudobých obchodních lazaretů Stato da Mar, v nichž byla hlavní náplní dekontaminace dováženého zboží. Rozbor umístění a architektonických forem včetně informací o jejich využití pak autorům umožňuje rekonstrukci komplexního dynamického systému prevence/péče o cizince/občany v obdobích epidemií. Výsledkem je na rozdíl od předchozí, spíše lineární interpretace, zdůraznění paralelního využívání areálů podle různých funkčních kategorií a potřeb.