Cartographic Heritage in the Historical Study of Public Health: 
The Case of Mediterranean Lazzarettos

**Summary:** The study presents an aspect of Cartographic Heritage associated with the historical development of Public Health in the central and eastern Mediterranean. The study covers the period 15th-19th century, a time when the Lazzarettos (Pest-houses) and quarantine were the only defence against serious infectious diseases and epidemics. The Lazzarettos identified on maps and topographic plans of towns in different forms as: a) miniatures of buildings with or without the name “Lazzaretto”, b) names of localities in map legends and c) imaging of islands used as Lazzarettos. The appearance of Lazzarettos on maps and topographic drawings helps in the study of quarantine in historical, epidemiological, social and economic level. Illustrations of Lazzarettos can promote a spatiotemporal identification of the historical sources. The study highlighted a particular aspect of Cartographic Heritage, in the context of the study of disease as a cultural phenomenon, setting the need of deeper cartographic research.

**Introduction**

The Lazzarettos (Pest-houses) had been a landmark in the development of Public Health. During the year 1347, Europe was struck by the the Second Pandemic of plague (Black Death). In the coming centuries, the disease would continue with local outbreaks. This ongoing attack led to the need for preventive and control measures against the infectious diseases and the epidemic outbreaks. First, the Venetian Republic realized the political, economic and military importance of the infectious diseases and the epidemic outbreaks. Moreover, the geographical position of Venetian possessions in the Mediterranean Sea, on the border between East and West, made them a major gate of entrance for many infectious diseases through the trade and the military campaigns (Konstantinidou 2009:39-43), (Anoyatis-Pelé 2005:16). In this frame, Venice showed a great interest in preventive medicine and the protection of public health (construction of lazarettos-pesthouses, establishment of welfare institutions and hospitals) (Lotter 1979:99-102).

The Lazzarettos were a quarantine station for maritime travelers. Every Lazaretto had its director (Priore), Dottori (physicians) and a sanitary armed garrison (Tiepolo 1979:11-14), (Selmi 1979:28-50). Furthermore, several monasteries, hospitals and charitable institutions assisted the efforts to limit and combat epidemics (Papadia-Lala 1996: 137-169). Maritime quarantine was pioneered by the authorities of the Venetian Republic with the establishment of a Lazaretto on the island of Santa Maria di Nazareth in 1403 (or 1423) (Cliff 2013: 9-10). In a long period without medical knowledge on the nature of the infectious diseases, the Lazzarettos and the quarantine system all over the world would be the only preventive measures. Except the historical, demographical and epidemiological data an alternative way of study can be a useful scientific
tool. The evolution of Lazzarettos over time is reflected in a series of maps and topographic plans of towns. This fact highlights the importance of Cartographic heritage of historical, medical and social study of quarantine in the development of Preventive Medicine and Public Health.

**Historical Sources**

Our research has been based on the Archive of Venice (Archivio di Stato di Venezia), the British Statistical Reports (On the sickness, mortality and invaliding among the troops serving in the Mediterranean Sea) and a collection of maps and topographic plans of Mediterranean islands and cities.

**Some examples of the Mediterranean Lazzarettos**

The old Mediterranean Lazzarettos identified on maps and topographic plans of towns in different centuries. The history of the local Lazzarettos follows the regional history. We can divide the data in three groups: a) miniatures of buildings with or without the name “Lazzaretto”, b) names of localities in map legends and c) imaging of islands used as Lazzarettos.

*The Lazaretto of Saint Lazarus (San Lazzaro), Crete, Greece*

The pest-houses of the Venetian Candia (Crete, Greece) were the Lazaretto of Saint Lazarus and the Lazaretto of Cape Saint George. The institution is found in Venetian documents under the names Monasterium Sancti Lazzari, Monasterium infermorum Sancti Lazzari, Ospedal delli infermi de San Lazzaro, or more broadly San Lazzaro. Located outside the city, in the west of the gate “Chanioporta” and the bastion of “Pantokrator”, the lazaretto has been connected with the monastery of Saint Lazarus and the Catholic doctrine. According to the geographer Buondelmonti: “Dum sic loquimur ad Sanctum Lazarum extra Civitatem accedimus, respice inguid versus Occidentem...” (Gerola 1917:77-79). The building was depicted for the first time in the drawing of Domenico di Este, in 1567 (Stergiotou 2004:141-149). The same building was depicted again in 1573, in another drawing by di Este. Moreover, the building was depicted in Emanuele Mormori’s map, “Atlante Mormori”, in 1602, as well as in the map by Giorgio Corner, La città di Candia in Il Regno di Candia, Candia 1625. (Figure 1)
However, the building was not depicted in the Ottoman plans of siege (1648-1669), thus advocating the theory that the building had been destroyed by the start of the siege. By contrast, Ottoman artillery is depicted in place of the Lazaretto, which had been bombarding the bastion of Pantokrator in the map of Francesco Collignon, Pianta della città di Candia assediata da Turchi, 1668. (Figure 2)

Figure 1. Giorgio Corner La città di Candia in Il Regno di Candia, Candia 1625, dis.n.2, cc. 6v-7r).

Figure 2. Francesco Collignon, Pianta della città di Candia assediata da Turchi, 1668. Raccolta di cinque piante topografiche della città di Candia durante l’assedio dei Turchi, Roma 1668.
The Lazaretto of Cape St. George (San Zorzi della Punta), Crete, Greece

The Lazaretto is mentioned in the Venetian documents under the names Lazaretto, Lazzaretto di San Zorzi della Ponta, Chiesa et hospidale del Lazzaretto di San Zorzi della Ponta, Hospedal di San Zorzi Acrotiri sive della Ponta di questa città ((Papadia- Lala 1996: 189-199). The lazaretto of St. George is believed to have been destroyed in the siege of 1648. Typical cases where the lazaretto is probably depicted are the drawings Buondelmonti and Dutch Nicolaus Baumann, “Candiae urbis a turca 1647”, along with the drawings of the French Francois Chemitte and Pier Mallet, in 1652. (Figures 3 & 4)

Figure 3. Cristoforo Buondelmonti. Isola di Candia.

Figure 4. Nicolaus Baumann, “Candiae urbis a turca 1647”.
Memoranda and blueprints from the time of the siege, where Ottoman artillery positions and trenches are illustrated, bear the word Lazzaretto, whereas a building complex is also displayed. A battery was installed in the region around the lazzaretto, whose range included the northeastern bastion of Sabionnera, as well as the eastern jetty of the port and the dockyards. Moreover, in maps dating back to 1645 (Marco Boschini, Il Regno di Candia), 1660, 1666 and 1668-1669, we may trace the same building, which supports the view that the lazaretto might not have been destroyed after all (Papadia-Lala 1996: 301-307. (Figure 5)

Figure 5. Marco Boschini, Il Regno di Candia, 1645.

Lazzaretto di Corfu (Greece)

During the Venetian era, in Corfu founded the Lazzaretto in the tiny island Saint Demetrius at the entrance of the harbor. The Venetian model of health management, even the scientific problems, was based on stringent but rational rules which had and still have a diachronic value. When the Venetians lost the Ionian Islands (1797), the next rulers, i.e. the French Republicans (1797-1799), the Russians (1800), the Imperial French (1809-1815) and the British (1815-1864), adopted the same health model (Tsiamis et al 2013: 247-254). The foundation year is not determined exactly. The information about the Lazzaretto of Corfu is derived by André Grasse de Saint Sauveur, the French Consul in the Ionian Islands (Saint Sauveur 1807:34). Diachronically, the Lazzaretto is depicted in different sources such as the maps of Gerard van Keulen (Nieuwe en seer Naaukeurige
Kaart van’t Eylant Corfu 1710–1714), Johann Baptist Homann (Plan du Siege de Corfu Terra et Par Mer 1716), Joachim Ottens (Nova et accurate Geographica Tabula Insulae Corfu Seu Corcyrae cum confiniis suis. ~1716). (Figures 6 & 7)
Lazzaretto di Cephalonia (Greece)

The Lazzaretto of Cephalonia was founded in 1705 in the capital of the island, Argostoli. The Lazzaretto rebuilt in 1791 and renovated at the time of the British Protection of the Ionian Islands in 1841. The location and the facilities of the Lazzaretto are depicted in British maps and drafts of the Public Record Office (1854). (Figures 8 & 9)

Figure 8. The Lazzaretto of Argostoli in British map. The Lazzaretto is depicted with a small building with the toponym Lazareto
Other examples of Mediterranea Lazzarettos

Lazzaretto San Manoel (Valletta, Malta)

In 1592, the Lazzaretto was built by the Grand Master of the Order of Malta Knights, Hugues Loubenx de Verdalle. The Lazzaretto is depicted in a series of maps of the Gulf of Valletta. Indicative we mention the map of J. Debrett in the edition of A. Anderson (Journal of a secret expedition, 1802). (Figures 10 & 11)
The terrestrial Lazzaretto of Milan was built in 1456 after a wave of plague epidemics in the region. The first Lazzaretto was known as Ospedale Maggiore and is depicted in many topographic plans of the city such as the plan of Giardini (1820). (Figures 12 & 13)
Vecchio Lazzaretto di Santa Maria di Nazareth (Venice, Italy)

The first Lazzaretto was built in the small island of Santa Maria di Nazareth after the deadly plague outbreaks in the city of Venice. One of the most informative depictions belongs to the Isolario di Benedetto Bordone, with the old and the new Lazzaretto in the Venetian lagoon. (Figures 14 & 15)
Figure 15. Detail from the map of Bordone with the toponym of Lazzaretto.

*Lazzaretto di Ancona (Italy)*

The impressive pentagonal Lazzaretto designed by the Italian architect Luigi Vanvitelli on an artificial island in 1733. The lazaretto is depicted in topographic plans. (Figure 16)

Figure 16. The Lazzaretto of Ancona. According to the occultic sciences of the 18th century, the five corners of the building were in the axis of five stars for better therapeutic “cosmic influence”.

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Conclusions

Before the Golden Era of Microbiology, the medical science was prisoner of the old miasmatic theories. The history of the Lazarettos seems to be rather controversial. In the large scale epidemic outbreaks the lazarettos did not manage to contribute by any means to the health defense of a city. Despite the existence of the Lazarettos, the lack of medical knowledge would determine the development and the outcome of the epidemic or a disease. Also, this lack of medical knowledge eventually stigmatized the role of lazarettos and caused the distrust of the ordinary people.

The appearance of Lazzarettos on maps and topographic drawings helps in the study of quarantine in historical, epidemiological, social and economic level. Illustrations of Lazzarettos can promote a spatiotemporal identification of the historical sources. The study highlighted a particular aspect of Cartographic Heritage, in the context of the study of disease as a cultural phenomenon, setting the need of deeper cartographic research. It seems that the geographical approach of the Lazzarettos and the quarantine in an open scientific field for further multidisciplinary studies.

References