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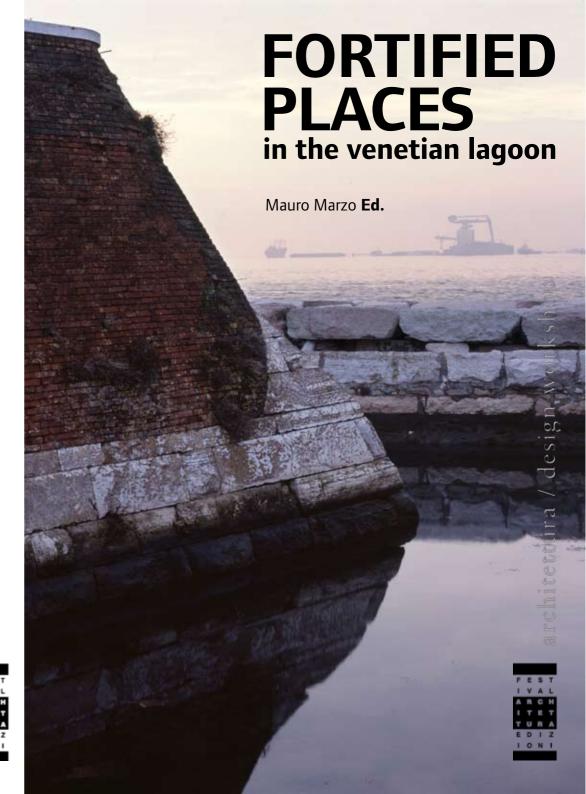
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### **FORTIFIED** PLACE Ξ. the venetian lagoon

# **JOON** Mauro Marzo Ed.



### Festival Architettura Edizioni

Publisher of Festival dell'Architettura di Parma

via Sandro Pertini 10 - 43123 Parma tel. +39 (0)521 905929 - fax +39 (0)521 905912 email: faedizioni@festivalarchitettura.it web site: www.festivalarchitettura.it

editor in chief Carlo Quintelli

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### Fortified Places in the Venetian Lagoon

edited by Mauro Marzo

editorial coordinator Sandro Grispan

First edition, November 2012

ISBN 978-88-89739-19-8

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## FORTIFIED PLACES in the venetian lagoon

Mauro Marzo Ed.





### FORTIFIED PLACES

Lifelong Learning Programme
Erasmus Intensive Programme 2011/2012

funded with the support from the European Commission Lifelong Learning Programme





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### collaboration

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This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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5

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Cartography design by Marco Ballarin: 216-234

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### Acknowledgements

We would like to thank

Gianluca Ballarin, Renata Codello, Ambra Dina, Eugenia Dorè, Cecilia Gualazzini, Alberto Lunardi, Susanna Maistrello, Marina Migliorini, Enrico Prandi, Toni Quagliati, Carlo Quintelli, Catherine Szanto, Silvia Silvestrini, Alessandra Taverna, Monica Zabotto, Martina Zanatta, Federico Zancanaro, Associazione VAS - Venezia. Associazione AGESCI - Venezia.

We would also like to thank

Primož Bizjak for having kindly consented to the publication of his photographs in this volume, as work that was developed over a number of years during his research on the fortified places of the Venetian lagoon and its inland environs; a research project that was made possible through the vital support of Marco Polo System G.e.i.e.

Special thanks go to

Claudia Visser, for the generous and unanimous enthusiasm with which she has followed this university initiative from its very start.

### Contents

### **FOREWORDS**

- 12 Renata Codello
- 13 Alessandra Taverna

### FORTIFIED PLACES, AN INTENSIVE PROGRAMME

- 17 Red Rocks in the Lagoon Alberto Ferlenga
- 21 Side Notes from an International Teaching Experience on the Project of Architecture

  Mauro Marzo

### **ESSAIS**

- 31 A Theme, a Place: Defense of the Lagoon *Mauro Marzo*
- 77 Preserving and Planning
  Themes on the Protection of the Lagoon's Landscape
  Chiara Ferro
- Residual Persistences and Temporary Stability

  Claudia Tessarolo
- 99 The Venetian Fortified Places through the Eye of Photography *Primož Bizjak*

109	Fortified Places and Public Spaces Giulio Testori
115	Forte Mazzorbetto Marco Ballarin
127	San Giacomo in Paludo Alessandro Bonadio
139	Mazzorbetto, the Missing Piece Maria Salerno
145	San Giacomo in Paludo Five Stories about Girding and Circumscribing Lamberto Amistadi
	FORTE MAZZORBETTO PROJECTS
152	Experience of Elements
152 158	Experience of Elements 6 Soggiorni
	·
158	6 Soggiorni
158 164	6 Soggiorni Nova Radiance
158 164 170	6 Soggiorni  Nova Radiance  The Fort of Knowledge
158 164 170	6 Soggiorni  Nova Radiance  The Fort of Knowledge
158 164 170	6 Soggiorni  Nova Radiance  The Fort of Knowledge  Ruba col'Ocio
158 164 170 176	6 Soggiorni  Nova Radiance  The Fort of Knowledge  Ruba col'Ocio  SAN GIACOMO IN PALUDO PROJECTS

202	Fisherman's	Friend
-----	-------------	--------

### 208 The inhabitated Wall

### **APPENDIX**

Maps of the Fortified places in the Venetian lagoon:

- 216 14th century
- 218 15th century
- 220 17th century
- 222 18th century
- 224 1866
- 226 Today
- 228 Republic of Venice
- 230 Austrian and French domination
- 232 From 1866 until today
- 234 Today *Marco Ballarin*
- 236 Essential Glossary *Marco Ballarin, Alessandro Bonadio*
- 238 Essential Bibliography
  Marco Ballarin, Alessandro Bonadio

Marco Ballarin



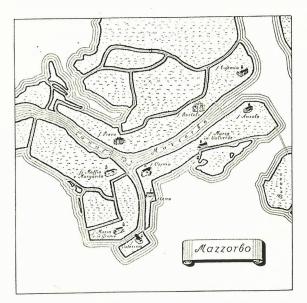
Primož Bizjak, Deposito polveri Santo Spirito n. 1, Island of Santo Spirito, 2008-2009

Along the lagoon's eaves where lies an unstable limit defining uncertain relationships between the Venice Lagoon and its hinterland, the ancient Romans had urbanized many areas that have been inhabited to this day. Several Roman writers describe the town of Altino as one of the most important centers in the north, where one can today see its remains from archaeological excavations in the open countryside. Altino was an interchange point between land roads and waterways, and it was built along the eaves, on the basis of trade that took place there with the exchange of products from the sea with those coming from the inland.

The permanence of the lagoon system's settlements has always depended on its close relationship and exchanges between the people of the lagoon and the hinterland. Moving across the Silone, Siloncello and Dese inland channels, one can easily reach one of the most important human settlements of the Middle Ages, formed by the islands of Torcello, Mazzorbo and Burano.

The three inland channels flow into the Borgognomi canal, which separates the tight network of islands while also putting them into relations. A number of ancient Roman writings attest to the major role that the island of Torcello played as a chief reference for all ecclesiastical and institutional positions, despite the fact that the group of islands in front of Torcello was named *Majurbium'* (*Magna Urbs*, largest city), today's Mazzorbo, which is made up





Aerial view of Burano, Torcello and Mazzorbo Islands today, (Google Earth)

Piva, Mazzorbo

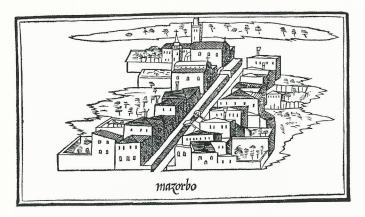
- 1 F. Tironi, *Le isole della Laguna di Venezia dalle incisione del* ′700, Venezia 1987.
- 2 G. Piamonte, *Litorali ed isole*, Venezia 1975, pp. 31-34.
- 3 F. Corner, Notizie delle chiese e monasteri di Venezia, e di Torcello, Padova 1758, p. 595.

of two main islands separated by a canal with the same name. The wealth and importance of the islands has been described by historic documents attesting the presence of five different parishes and a number of monasteries.

Over time these islands would lose importance in favour of the nucleus developing around the *Rivus Altus*, however they continued to be a place of fundamental importance for the passage between *terra firma* to the port. Venice had become the gateway to the East, and to take up this function it could not ignore the existence of the other inhabited islands of the Lagoon. From Altino, one can imagine how people used to reach Murano and then Venice, passing through Mazzorbo and San Giacomo in Paludo, located along the Scomenzera canal, which also hosted one of the most important monasteries for accommodating pilgrims (at hospices) directed to Jerusalem. On the Island of Mazzorbo, closer to Burano, there were in fact three parishes.

There is San Michele Arcangelo, called Sant'Angelo, located in the lagoon's far northeast corner, where today there is only a remaining bell tower.

The Monastery of Santa Maria in Valverde was built in the vicinity during the fourteenth century as a convent of Benedictine nuns, renowned for their amoral behaviour. That convent was later demolished, as was the monastery of Santa Maria delle Grazie, which was built in honour of deliverance from the plague in 1630<sup>2</sup>. The only monastery building left on the island is the church of the monastery of Santa Caterina, of Romanesque origin, which has preserved important artistic evidence of that era. An 18th century engraving by Tironi and Sandi depicting the monastery of Santa Maria in Valverde and Santa Eufemia separated by the Mazzorbo channel with a view from Torcello testifies to the historic vitality of the island and its urban character that is now lost. This monastery is located at the eastern end of the island's most northern, called Mazzorbetto, where there were two parishes and two monasteries. Bernardino Scardeonio, in his history of ancient Padua, reports of a noble woman named Margherita from that city, who, in the year 900, retired in Mazzorbetto with three noble maidens where she later founded the monastery of Santa Eufemia<sup>3</sup>. In 1438 some Benedictine nuns from the monastery of Sant'Angelo of Ammiana moved to that area as well, but there number was reduced to three because of the gradual abandon and dismissal of



Benedetto Bordone, Mazorbo, 1528

Tironi and Sandi, View of the Sant'Angelo tower and the Santa Eufemia monastery, eighteenth century

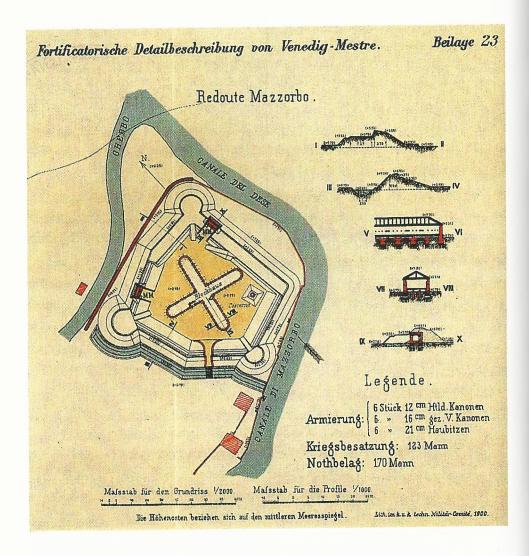


the island. After the decree of September 12th, 1768, the Monastery and the Church were suppressed and the buildings were completely abandoned.

Following the fall of the Republic in 1797 Venice passed under Austrian rule, which began to shape one of the largest military fort strongholds in Europe in order to control its newly occupied territories. This strategy, stemming from the difficulty of controlling very particular terrains consisting mainly of water rather than land, was to grow during the following French and Austrian dominations. Since Venice's occupation, the inhabited system of the lagoon changed meaning completely. In fact, the problem was the inability of the occupying forces to fully understand the Lagoon as a means, as a required distance and as a place of representation. In 1806, with the Treaty of Pressburg, Venice went to France. The control strategy, from the territorial point of view, follows the same intentions of the Austrians, which was an inverted view of the Venetians: to build a myriad of fixed figures to be set up in the lagoon, a landscape of freedom and flexibility of movement. The French destroyed large monasteries and churches which had always been an important part of the Venetian imagination and social structure of the city, constituting the representation of a much larger community. That community not only identified itself with a Patron Saint, but also with all those things that the saint could link: a group of noble families (usually the first commission granters in holy places), the goods that they traded, and the crafts-

The unique characteristic of Venice, based on its ability to defend itself and also attack from both land and water, caused the foreign domination to develop its own defensive plans. One of the first was written in 1806 by engineer Label, director of the fortifications, and his plan regards a first series of works to provide for the sleeping quarters, the garrisons and the depots for ammunition. These functions were set to enable the first occupation of the area of the monastery of Santa Eufemia, or at least what remained of it. In 1814 Austria returned to occupy Venice and develop a new defensive project that started to take form in 1830 with the worsening of the political tensions in Europe. The plan includes the construction of new works in the areas that were most important such as its points of access, bridgeheads, including the renovation of existing ones. Fortifications were built to be small in size

men who worked to obtain the finished product.



Plan and sections of Forte Mazzorbetto, 1900

4 G. B. Stefinlongo, M. De Lazzari, A. Scarpa, Il forte di Mazzorbo e l'area di gronda dell'isola dei laghi, Venezia 1996, pp. 47-57.

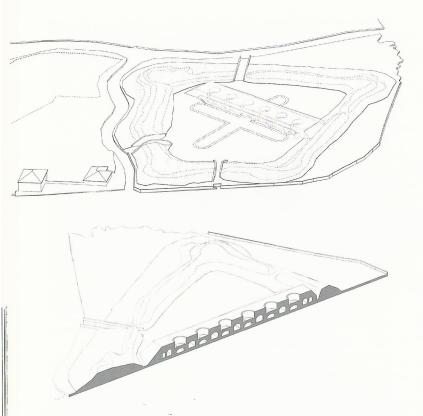
but very strong, as to use only a few men for their action of fire and reduce the shooting targets enemy artillery to a minimum<sup>4</sup>.

The first two projects of 1837 show how the area of the monastery, on the northernmost tip of the island, was considered to be the most suitable for building fortifications. Two other projects soon followed in 1838, and the fifth project of the Austrians was finally built in 1839.

The Forte Mazzorbetto consisted of a cross-formed central block and a cistern tank. Between 1846 and 1847, a series of embankments with three pitches for firearms were subsequently added to the main fortification block. The embankments of what had become an autonomous island were placed along its edges bordering with the water, following the excavation of a small canal that separated it from the rest of the inhabited island. So even during foreign rule, water was considered to be an essential design element of Venice. It first constitutes an important element of defence, and it is also an essential tool for mobility and functionality, which is why it was used as the basis for the construction of all the new fortifications. The island became the center of the defensive system that faces the north-east, east and south-east directions. Its shape is designed to create a position of defence against the possible arrival of enemy troops from the mouth of the Lido portal opening to the lagoon; it therefore constitutes a second line of defence consisting of Treporti and Sant'Erasmo, while also acting as the front line against hinterland enemies arriving through the Dese and Silone inland channels. The close bond with the lagoon side of the island is somehow reinforced by the construction of this fort which was associated with the smaller batteries placed in defence of the island of Torcello. Of these fortifications, there is no memory except that handed down to us and interpreted through their place names, linked to places already inhabited and known prior to the construction of any military artefacts.

Through the comparative analysis of different designs that have survived over time, we can say that the four lobed elements forming the cross form made up a unique and continuous space.

The tiled roofing was supported by trusses with chains that probably worked like the beams of an interior floor of considerable breadth seen in the section drafts of the project. This feature, like the walkable attic floor built for the passage of air, and the substantial thickness of the walls perforated by small windows, recalls





Plan and Axonomteric longitudinal section of Forte Mazzorbetto, drawings by A. Bonadio

North bird's eye view of Forte Mazzorbetto, from Bing Maps

5 P. Moro (edited by), Il piano di attacco austriaco contro Venezia: il territorio, la laguna, i fiumi, i forti e le città nell'anno 1900. Con le schede sulla storia e lo stato attuale delle fortificazioni veneziane, Venezia 2001, p. 66.

the building styles of other structures of the same period, which still exist in other islands of the lagoon such as the gunpowder depot of San Giacomo in Paludo. The drawings and designs describe a structure with features, materials and technology that are similar to the explosion-proof casemates found at San Giacomo in Paludo, and they illustrate how their reinforcement was to be effected by means of a Faraday cage, which can be seen in the section drawings of almost all the projects. The fort's embankment had a single entrance facing the small canal that separates the fortification from the rest of the island. Two of the pitches were positioned to defend the two main channels (Borgognoni and Mazzorbo), while the third, facing west, defended the island from a possible infantry attack coming from the Palude dei Laghi. Almost entirely buried in the embankments were also two small grenade depots.

The Veneto was annexed to the Kingdom of Italy in 1866, and this brought the Austrians to create documentation illustrating the systems of Venetian defences in order to better attack. The documentation produced on that occasion by the Austrian secret services, summarized in a comprehensive report of drawings in the year 1900, is one of the most important documents regarding the state of military architecture in the Venetian lagoon. This documentation describes the condition of Forte Mazzorbetto in a concise and detailed way.

«Irregularly shaped, with six fortified sides made by soil, with three washers or pitches. The front towards the channel of the Dese (Borgognoni) and the eastward one act as the arms depot and the protection of artillery; other fronts serve as the position for the infantry. The maximum height of the embankment is to 5,53 m. The heights of the internal counterscarp where the guns are placed across 2,53 m and 3,79 m. To the west the fort is protected by a wide moat or channel large 7,00 m and deep 1,74 m. On the other sides, to the north, east and south, the ditch is replaced by the lagoon. Inside there is a bunker of explosion-proof masonry with a cross plant, used as a warehouse and a cistern. The fort, with the bastion system controls the channels of the Dese (Borgognoni), Burano and San Giacomo (Mazzorbo). In case of war, the armament consists of six 120 mm firing guns. The garrison consists of 123-170 men of infantry and artillery»<sup>5</sup>.

Between 1895 and 1908, the Italian armed forces elaborated

five other projects to upgrade the defensive position with small changes and additions.

The project was to be realized in 1909, however, it required the complete demolition of the previous structure and the building of a more linear one, 80 meters long and 10 m wide, with six circular artillery positions. The new building did not rise upon the existing fort foundations, but it did connect the east embankment with the west one. Being that the facade faced due north and was completely covered by a new embankment, all accesses to the building were located on the south end, where a large courtyard square was positioned. On the ground floor, two different types of spaces alternated with one another. The larger rooms have a single entrance, and they were probably intended for military purposes, while the narrower spaces could be accessed from both the square and a barrel corridor positioned under the embankment that crossed the entire building from beginning to end. Between the corridor and the narrower rooms for the storage of artillery, there were some shafts through which the ammunition was raised onto the first floor where the gun platforms were positioned. These were accessed through a continuous covered walkway that ran along the structure's south front.

The substantial changes to the fort allow us to recognize how the history of military architecture has always been subject to change by the military-political decisions and weapons technology. In fact, the mentioned plots were equipped with 149 G type guns, where 149 indicates the gun's calibre, and G indicates the cast iron material used to make them. Some say that this equipment allowed the fort to fulfil its role as a bulwark of defence for the north-east which, after the defeat of Caporetto, had been thought to defend the line of the Piave between San Dona` and the port of Cortellazzo. This type of structure was very common among twentieth-century military sites in the Venetian lagoon and several locations were reused as air defence during the Second World War.

Years prior to that, however, the area was used as a summer camp for young Balilla and Piccole Italiane, while, in the first post-war period, before being completely abandoned, it provided shelter and living accommodations for a number of displaced families. It was not until 1982 that the city of Venice at last acquired the fort, bestowing it in concession to the AGESCI association. After

three years of hard work, a group of volunteers were able to finally able to make it publicly accessible again.

Fruition and access to the island was further enhanced by the work of reinforcing of its bordering embankments and the recalibrated revival of the island's surrounding channel, which was completed by the Magistrato alle Acque - Consorzio Venezia Nuova in 1999 and through the restoration work of the island's buildings through funding that was provided by the City of Venice in 2001. During this work project, there was the discovery and documentation of a well-head that originated at the monastery of Santa Eufemia, and it is now located in Santa Caterina.

The management of the island by Boy and Girl Scouts should never again be terminated, as it offers the opportunity of access and enjoyment of such spaces, which benefits society on a whole, and not only in Venice.

Today the reception and hospitality that characterizes this place opens its doors especially to groups for educational activities related to the study of the environment, allowing for observation and enhanced knowledge of the Venetian lagoon's uniquely beautiful landscape.

Again, this island effectively represents the capabilities of this regional area to adapt to the changes of time, while recovering a place where widespread and varied natural systems can still live in coexistence with the inhabited settlements of the lagoon.