

Feasibility Study

for the valorisation of the fortified systems in the Verona area















Workgroup coordination: Ing. Elisabetta Pellegrini manager of development and territory planning, Province of Verona

Index

Introductiuon	
Elisabetta Pellegrini, Marco Ambrosini	5
A. FORTIFIED SYSTEMS IN THE REGIONAL PLANNING A.1 Regional Territorial Coordination Plan with environmental provisions: recognition and protection of fortified systems in the Veneto Region	7
Fiorenzo Meneghelli - Marco Polo System	7
A.2 Park of rangefinder towers and forts of Cavallino, Venice Fiorenzo Meneghelli	10
B. FORTIFIED SYSTEMS IN THE PROVINCE OF VERONA Province of Verona (Planning and TIS Dep.)	15
C. THE FORTIFIED STRUCTURES IN THE VERONA REGION: AREAS OF INTERVENTION AND HISTORICAL-TOURIST ITINERARIES	
Fiorenzo Meneghelli	
C.1 TERRITORIAL CONTEXT - VERONA - The fortress and the entrenched camp	
C.2 TERRITORIAL CONTEXT - LESSINIA - The Italian forts	
C.3 TERRITORIAL CONTEXT - MONTE BALDO-ADIGE VALLEY - The land of the forts	39
C.4 TERRITORIAL CONTEXT - LAKE GARDA	
The Scaliger castles and the fortress of Peschiera	49
C.5 TERRITORIAL CONTEXT - WEST PLAIN	
The Scaliger Serraglio: the fortifications along the rivers Mincio, Tione, Tartaro5	59
C.6 TERRITORIAL CONTEXT - THE PLAIN - The Scaliger castles and the fortress of Legnago	65
C.7 TERRITORIAL CONTEXT - EAST PLAIN	
The Scaliger castles between the river Adige and the Pre-Alps	71
D. VALORIZATION OF THE DEFENSIVE SYSTEM IN THE VERONA AREA	77
D.1 THE CITY OF VERONA: DOCUMENTATION CENTRE ON MILITARY ARCHITECTURE Domenico Zugliani (UNESCO Office - City of Verona)	77
D.2 FROM THE ADIGE VALLEY TO THE GARDA LAKE: SUSTAINABLE TOURISM AND THEMAT ITINERARIES	ΊC
Province of Verona (Planning and TIS Dep.)	80
D.3 PRELIMINARY STEPS TOWARDS A MASTERPLAN FOR THE "LAND OF THE FORTS" Province of Verona (Planning and TIS Dep.) - Fiorenzo Meneghelli	93
D.4 THE FORTIFICATION OF THE VERONA AREA IN THE NETWORK OF EUROPEAN FORTRESSES Fiorenzo Meneghelli	97







Introduction

Elisabetta Pellegrini, Marco Ambrosini

DEVELOPMENT FUND

The Province of Verona from several years promotes, develops and ensures its support to initiatives and projects to protect and enhance the historic heritage of the fortified systems present within the territory of Verona. For this reason, since the beginning, we expressed a full commitment to the project "Forte Cultura", implemented in the frame of the Central Europe Programme.

In this context, we present this study for the valorization of the fortified system of the Verona area, elaborated to implement the research and knowledge related to a historical and cultural heritage of double value: on one side a characteristic element of the territory, on the other that of real identity element for the community. Among the primary objectives of the Province there is a real desire to enhance, through a specific and targeted action, the invaluable historical and architectural heritage of military origin on which we are today fortunate custodians and witnesses. The fortified systems have marked in an unmistakable way the places where we live, not only from a physical and geo-political point of view but also, and above all, from the cultural and human perspective, assuming the extraordinary value of cultural and environmental heritage that today we undoubtedly recognize.

The biggest challenge that we face now is to find a new way to use of this heritage, with the aim of creating an effective project for the recovery of abandoned fortifications. To successfully obtain this result it is necessary, first of all, to identify the essential tools for implementing actions capable to facilitate a real transformation of this resource for the region, and therefore in favor of its development and promotion, not only from an historical-cultural point of view but also for a tourist, economic, social and productive enhancement. It is therefore in this context that this new study identifies the possible involvement and contribution provided by other public bodies, such as the municipalities involved, as the real possibility of reaching the development of new and interesting projects for the restoration of the defensive sites.

It should be mentioned that Verona and its territory represent the most important fortified ensemble in Europe. It is therefore our duty to exploit such a great and unique heritage, that stands as witness to a fundamental part of our history, in favor of a more fruitful cultural and social growth of our land.

Elisabetta Pellegrini

Dirigente Coordinatore Area Programmazione e Sviluppo del Territorio Provincia di Verona

Marco Ambrosini

Vicepresidente Assessore alla Cultura e Beni Ambientali Provincia di Verona







A. FORTIFIED SYSTEMS IN THE REGIONAL PLANNING

DEVELOPMENT FUND

General framework

At regional level, the only walled towns have been mentioned in the regulatory and financial instruments: for a long time, the defensive systems built between 1800s and'1900s have been missing any adequate legislative recognition and financial contributions.

For these reasons, it was widely supported the need that the defensive system of Veneto - so large and spread over vast regions - become a single "special" project of regional level.

Starting from this plan, it is desirable to involve the municipalities in the development of recovery projects for the defensive structures, particularly those abandoned or awaiting disposal from the State Property.

A.1 REGIONAL TERRITORIAL COORDINATION PLAN WITH ENVIRONMENTAL PROVISIONS: RECOGNITION AND PROTECTION OF FORTIFIED SYSTEMS IN THE VENETO REGION

Fiorenzo Meneghelli - Marco Polo System

The Regional Territorial Coordination Plan (Piano Territoriale Regionale di Coordinamento, P.T.R.C) adopted in 2009 (DGR 372/2009) and reviewed it in 2013 to include landscape provisions (see Technical Annex B4, DGR 427/2014) - with the expert advice of Marco Polo System and Arch. F.Meneghelli - has launched what have been above hoped.

The pivotal point of this document is - for the purposes of the present study - the Article 60: territorial cultural systems, in which, for the first time and explicitly, not only the architectural and archaeological heritage (villas, parks, archaeological sites, etc.) but also the following elements are recognized by the regional planning law:

c) Walled Towns. The Region promotes the establishment of a widespread cultural system represented by the network of Medieval and Renaissance walled towns of Veneto and encourages the development of joint strategies aimed at identifying the potential of cultural resources, the recovery of characteristic building structures in poor conditions, the redevelopment of meaningful contexts for the perception of the place, the promotion of activities related to the enhancement and enjoyment of cultural heritage and development of subjects related to the its restoration. The municipalities, with their planning tools, shall identify appropriate initiatives to promote the integration or consolidation of functions, also excellent functions, with reference to the feature of the









walled towns and shal preparel, on the basis of such information, the feasibility studies indicated by the LR n. 15/2003, with the purpose of developing "coherent policy frameworks" shared between the Region and local authorities.

With reference to the panoramic hill view of the crenelleted towns of Asolo, Lazise, Soave, Marostica, except for activities and/or operations authorized at the date of adoption of this plan, incongruous interventions affecting the hill panoramic view are prohibited within 1.5 kilometers from the perimeter of the city walls.

c ter) forts and defensive structures. The Region, also with the assistance of other organizations ..., promotes processes of restoration and enhancement of the forts and defensive structures of historical interest, as referred in the Document prepared for the landscape planning, by actions aimed to promote the knowledge and use and to safeguard the main territorial contexts concerned.

d) Landmark places of the Homeland and the Great War. Territorial and urban planning instruments identify the locations of historically significant events for the Italian collective memory, from the Renaissance to the birth of the Republic, they protect the context and define appropriate mode of use, even considering the information contained in the planning tools. The Region promotes the identification of such sites, the restoration and enhancement of related historical, architectural and cultural heritage, as well as related environmental contexts. The Region, reflecting the wealth of human and civil values expressed in the course of World Wa, promotes the identification, census, cataloging, restoration and enhancement of historical, architectural and cultural heritage related to this event, as well as the environmental contexts with special landscape value. The Region also encourages the reading of the signs of the war by giving impetus to common initiatives to all affected sites aimed at deepening the knowledge of the events, the preservation of historical memory, and the culturaltourist enhancement of the places.

Of particular relevance is also the inclusion of forts and and defensive structures in the themes of the Regional Landscape Plans of Contexts (PPRA, art.71 bis). These are divided into 14 landscape contexts, which provide in short:

- Development of specific regulations fort the landscape contexts;
- Identification of additional areas beyond those already protected by landscape costraints having



EUROPEAN REGIONAL DEVELOPMENT FUND



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA

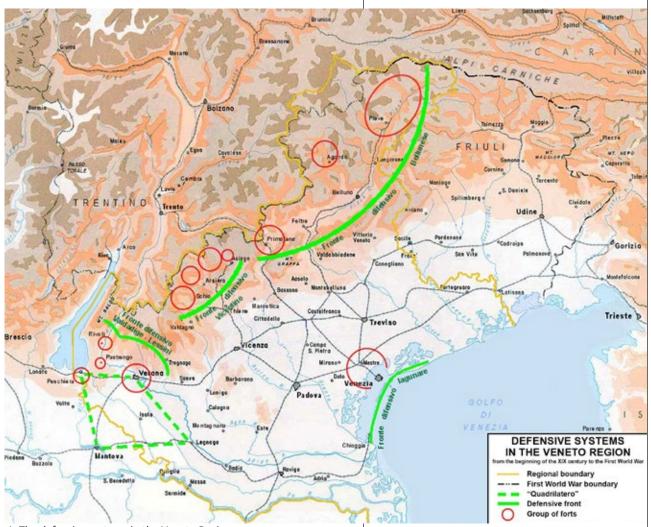


particular historical, architectural, archaeological, environmental, landscape value;

- Establish rules for coordination with local urban plans.

The Veneto Region has therefore taken the "guide" role to involve other public institutions resposnsible for the protection of historical, architectural and environmental heritage, as well as local authorities, public and private bodies in a large project for the protection and enhancement of the fortified heritage. This valorization process should be implemented for homogenous territorial context, with the involvement of local-scale public and private actors mentioned above.

The recovery of fortified systems is therefore to be considered an integral part of the process of cultural and economic development of the territory.









A.2 PARK OF RANGEFINDER TOWERS AND FORTS OF CAVALLINO, VENICE

Fiorenzo Meneghelli

The Veneto Region, in the context of what above explained, involved the Municipality of Cavallino-Treporti and Marco Polo System GEIE in the preparation of a pilot project

The preparation of the project, located in the suggestive landscape of the Venetian lagoon, has been by the architect Fiorenzo Meneghelli, for the historical and architectural issues, and by the lanndscape architect Joao Nunes, for the environmental and landscape aspects.

All along its coast, the peninsula of Cavallino-Treporti hosts numerous camping sites and receives millions of tourists every year. Right at the edge of this tourism flow, the remaining areas of the hinterland and of the lagoon are an important historical and environmental heritage still not exploited.

Overview of the situation

The territory of Cavallino is characterized by the presence of numerous artifacts of military architecture: rangefinder towers, forts, batteries, barracks and bunkers. All these structures have come so far in a state of neglect and poorly recognizable.

They should be seen not as individual elements in isolation, but in an organic way within a territorial system: their identification is the starting point of a development program to establish a close relationship between the historical element and the different

Project "Park of rangefinder towers and forts". Cognitive framework

RATTERV

- 1. Battery San Marco
- 2. Battery Radaelli
- 3. Battery Vettor Pisani
- 4. Powder magazine and Battery Amalfi
- 5. Battery Amalfi
- 6. Battery Treporti

BARRACI

- 1. Barrack Cà Pasquali
- 2. Barrack Mandracio

UNKER

- Bunker Punta Sabbioni
- 2. Bunker Cavallino

LIGHTHOUSE Lighthouse Punta Sabbioni

TELEMETRY TOWER

- 1. Rangefinder tower Vignotto
- 2. Rangefinder tower Crepaldo
- 3. Rangefinder tower Cà Padovan
- 4. Rangefinder tower Cà Bodi
- 5. Rangefinder tower for the Battery Radaelli
- 6. Rangefinder tower San Marco
- 7. Rangefinder tower Cà Sassonio
- 8. Rangefinder tower Cà Scarpa9. Rangefinder tower Lio Grando
- 10. Rangefinder tower for the Battery Pisani





DEVELOPMENT FUND







types of landscape that characterize the peninsula of Cavallino-Treporti.

The rangefinder towers, built in the early twentieth century, are characteristic features of the lagoon system. They performed functions of "control" of the shore batteries: they were equipped with instrumentation (rangefinder), which allowed to spot the enemy ships and to effectively direct the shooting of the coastal batteries.

These towers - largely located in the lagoon area in order to be hidden in case of naval attacks - had external appearance of "civilian" architecture to make themselves less visible to the enemy.

These structures, currently abandoned and in ruins, characterize the skyline of the peninsula: their recovery, together with the other fortified elements, may represent an opportunity for historical-environmental and landscape redevelopment of the area of Cavallino-Treporti.

Barracks, forts and batteries (XIX and XX century) are widespread elements of a defensive system which, although located in the peninsula, is part of a larger fortified system linked to other structures present all along the Venetian coast.

3. Project "Park of rangefinder towers and forts". Areas of intervention. ----- Railway line Main traffic stream Secondary traffic stream Provincial road SP22 "via Fausta" Waterway Interconnection Sandy shore Coastal tourist area with dunes and pinewoods Drained area Area of environmental interest and landscape Fort (end of XIX- beginning of XX century) Battery (end of XIX- beginning of XX century) Telemetry tower (end of XIX- beginning of XX century) Barrack (end of XIX- beginning of XX century)

Bunker (1943-1945)





provincia U



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



The environmental system

The examination of the main historical, environmental and landscape characters is essential to proceed to the next phase of proposals.

In order to analyze the settlement system, the structural elements of the area are highlighted: the mobility system of the peninsula, of the lagoon, and the relationships with the main and urban tourism lines.

Nodes: the recent settlement, infrustructure and rural development produced a particularly fragmented territorial asset, in which the central road still plays an important function of reference axis for all those elements mentioned above. The widespread defensive works system is connected through vertical paths accros the whole area. They allow to recognize the various landscape systems that characterize the area of Cavallino-Treporti: the coastal strip, the areas of environmental and landscape interest such as the stone pine forests or the Venetian lagoon, the inland agricultural areas.

The landscape and naturalistic contexts, the set of paths and courses and the system of defensive works, they all contribute together to highlight the structure of the territory, providing opportunities and prospects for an overall enhancement of the whole peninsula. In this framework homogeneous areas of intervention were identified and integrated into a uniform territorial vision.

AREAS OF INTERVENTION

The rangefinder towers - the most visible elements of the defenisive systems - can be tested for new models of virtual communication.

The historical and architectural recovery of the batteries can launch an overall rehabilitation process of the tourist areas; while the recovery of environmental and landscape values (sandy shore, stone pine forests, etc.) can allow the development of sustainable tourism use models.

The forts represent the connecting system between the seashore and the lagoon side towards Venice. The Treporti Fort and the Amalfi battery can become two main elements of cross connection betweeen lagoon and seashore. They can host integration activiites and services for the tourist area, thus bringing it to have a more meaningful relationship with the inland zones.

The barracks can perform service functions for cultural and/or tourist activities. The mobility in the area can be enhanced and better integrated in relation to the housing settlements and to the potential activities of historical-ciultural-tourist interest in the inland lagoon area.



4. Fort Treporti



5. Rangefinder tower Crepaldo



6. Battery Amalfi









VISION

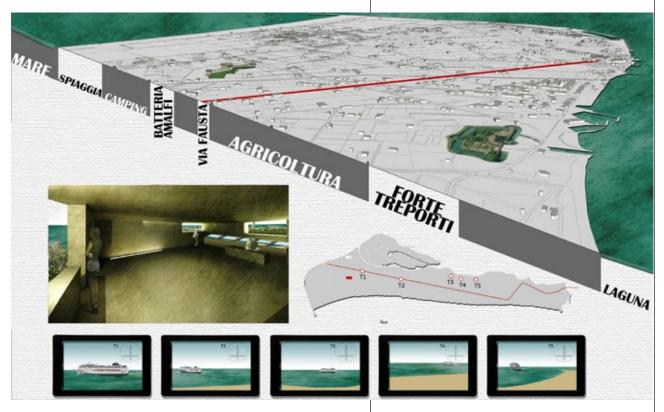
The defensive system of the coast was articulated into different location and functions, all coordinated with each other in order to get the most information for defensive purposes.

The battery, for instance, was "blind", waiting for orders coming from the towers.

This "blindness" was overcome using a lot of points of view, with different angles and positions: the normal vision was overtaken by a virtual reality, a sort of augmented reality.

The defensive system can therefore tell the story of the natural, historical, urban structure through this kind of special view. The proposal includes the installation of webcams on the observation points -the military structures. Their videos should be projected inside the fort and the battery, following a logical sequence. The mosaic of images - similar, but taken from different angles - will allow the perception of details that would otherwise not be observed: a real contemporary observatory of the territory.

> 7. Project "Park of rangefinder towers and forts". Vision - Valorization of the defensive system.



Source: Veneto Region, Municipality of Cavallino-Treporti

Images: Fiorenzo Meneghelli n. 1,4,5,6.

Graphic design: project illustrations, F. Meneghelli and J. Nunes n.







B. FORTIFIED SYSTEMS IN THE PROVINCE OF VERONA

DEVELOPMENT FUND

Province of Verona - Planning and Territorial Information System Department

The Province of Verona recently adopted, by resolution of the Provincial Council n. 52 of 27 June 2013, the Provincial Territorial Coordination Plan (P.T.C.P.).

It is a vast areas planning tool for territorial management, in which strategic actions aimed at the environmental, economic and social sustainability are outlined.

The PTCP has the function of guidance and coordination of the municipal planning instruments, as well as functions of governing land use when it is aimed at meeting a supra-local public interests, related to planning or to the environmental protection.

The Provincial Plan of Verona, in consistency with the regional plan PTRC adopted in 2009 (D.G.R.V. 372/2009) and reviewed it in 2013 to include landscape provisions (D.G.R.V. 427/2014), has taken steps to identify, assess, map and geo-reference the main sites and artifacts related to the defensive systems, including military architectures of great historical value.

The provincial territory hosts one of the three main fortified systems of the Venetian landscape, together with the Venice defensive system and the mountains one

In Table 5 of the PTCP titled "Landscape Systems" are identified all the historic elements that uniquely characterize the Verona area including "elements of military character". The main fortified structures were mapped with great attention. The work was accompanied by an analysis of the data collected, which have been cataloged according to several criteria: the municipal area, location, age, name, type of defensive system.

Among the sites identified there is a large number of great permanent defensive structures, forts and other works.

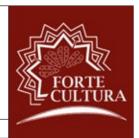
A description of the historical military structures surveyed in Table 5 of the PTCP can be explained by three defensive systems linked to three historical periods:

- the Scaligers-Visconti defensive system (XIII-XIV century);
- the 19th century defensive system (1818-1866 and 1866-1885);
- the Italian defence system (1880-1913)

The set of forts, reduits, barracks, rangefinder towers, batteries, powder magazines, and all the elements surveyed has a value not only from the historical point of view, but also for the landscape value,







especially considering the close relationship between these objects and the territory: relations of strategic and functional origin, which now deserve to be rediscovered and reinterpreted also in relation to the opportunity to reuse them.

In addition, all the work of analysis has allowed a clear awareness of the presence on the territory of a large amount of sites of historical and military value, connected together by a complex network of military roads

All these structures represent a set of well defined and connected elements in the Verona area that today, if properly preserved and enhanced, can constitute an extraordinary historical and cultural itinerary

The analysis on the state of conservation of the artefacts have generally shown critical conditions, due to the fact that many of them have suffered decades of almost total abandonment.

Many of the defensive works of the Verona region, with a few exceptions, all have the need for restoration safety interventions.

Moreover, the dominant position in the area, designed originally for a tactical and strategic purpose, today provides the opportunity to enhance these structures as important viewpoints, emphasizing the landscape values of the surrounding area.

Many sites are within the jurisdiction area of small municipalities with scarce resources: these entities are not able to adequately address the necessary actions to protect and enhance the heritage with their own efforts.

The Province decided to involve its Municipalities asking them to include in their territorial planning processes the identification of such artifacts and the specific features of the landscape to be placed under protection.

Therefore, the municipalities concerned complete through precise analyses the historical elements of military character shown in Table 5 of the Plan and enhance them through:

- the search for solutions for the protection of the landscape by encouraging the best use of the historical- military elements to preserve and restore for uses consistent with modern life;
- the preservation of optical and visual cones wherever possible.

To intervene on these structures requires on the one hand high historical and technical-scientific expertise, and on the other hand a good overview of the entire defence system widespread on the territory, in









order to ensure the proper contextualization of the interventions: their context is much wider than the specific area surrounding the single element.

In recent years the attention from the public and the administrations to the military heritage has grown significantly. The initiatives, however, are often extemporary and are implemented by a wide spectrum of actors, leveraging heterogeneous resources and expertise - thus demonstrating cultural vitality and attention to the local heritage-, but in most case they are not coordinated.

The task of the Province and of the PTCP is to coordinate these efforts.

Definition of valorization criteria

The detailed evaluation of material characteristics, state of conservation, cultural and touristic values of the main sites included in the feasibility study will allow the selection of certain elements as models for a more detailed study. This will be aimed at creating a rigorous basis, from an historical and technical-scientific perspective, for the preparation of protection and enhancement pilot projects.

Secondly - but nevertheless very important - the study will also define criteria to establish a common language to apply to all the valorization tools: from the integration and homogenization of historical and technical data , to the definition of standards for the public information systems - same signs for thematic areas, creation a network of routes to visit the heritage throughout the territory, uniformity of content and graphics in the communication tools both traditional and multimedia, integration of databases and communication tools through the geo-referencing of data and the availability of WebGis, etc.

From the census to the spatial planning and the integrated cultural tourism

The set of geo-referenced data collected during the preparation of the provincial plan, integrated with the extensive data base already established in the context of other studies on fortifications, may thus constitute the starting point for the creation of a system of thematic maps useful both for land use planning and as tool for cultural and touristic purpouses.

This cartography, already prepared with the drafting and adoption of the PTCP (DCP 52 of 27 June 2013) should be linked to protection rules as partly outlined in Section V of the PTCP technical standards. This shall be be further defined by each municipality in their







plans, considering not only the individual artifacts, but also the whole historical- military existing sites and their clearance areas.

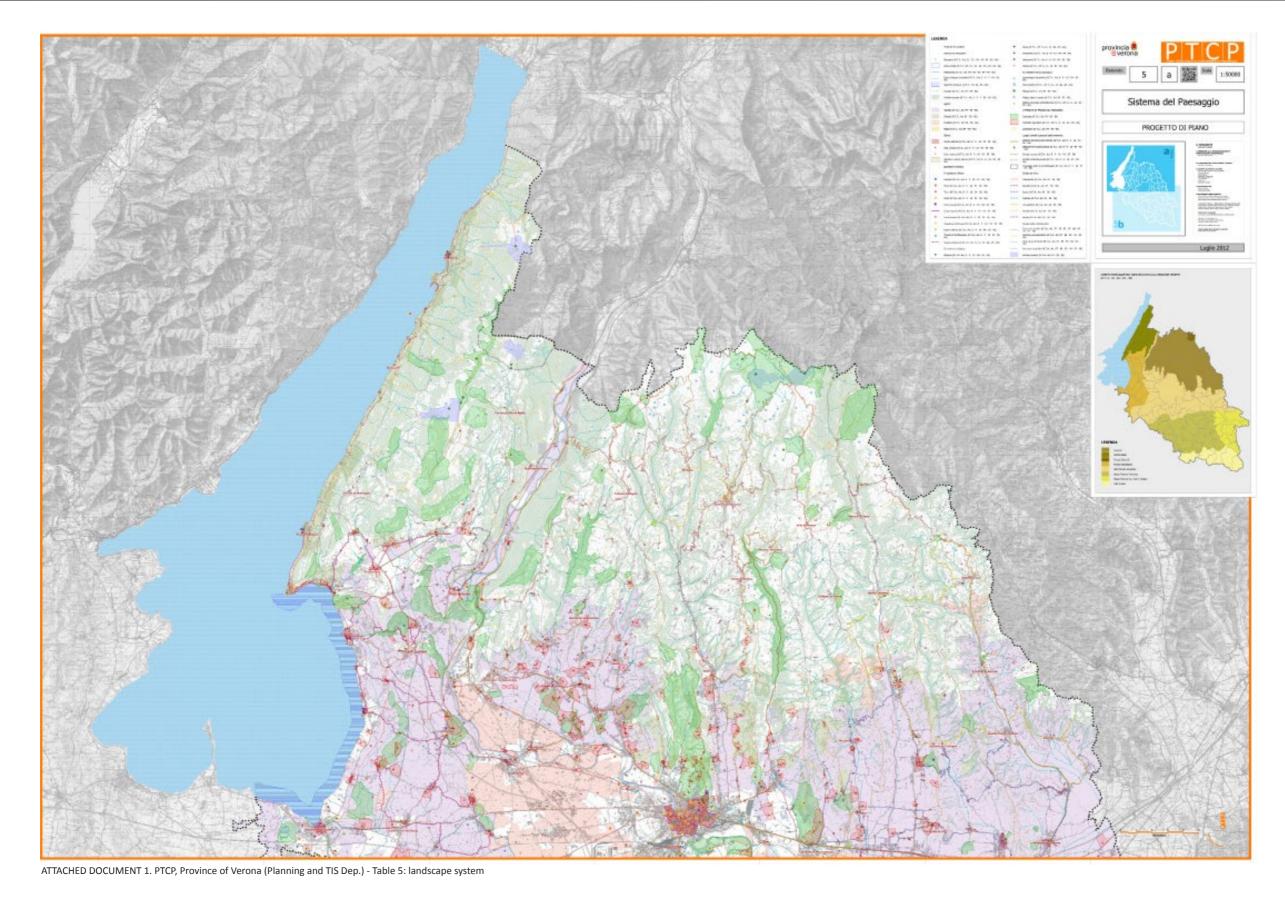
At the same time, using the same data in a different way, it will be possible to draw up maps and other thematic publications intended for a quality cultural tourism willing to discover a new ways to enjoy responsibly the leisure time, and to discover aspects of our history still not adequately known and understood in their own cultural values and landscape.

The concurrence of institutions on the objectives of the project will allow the activation of an integrated program of conventions between the Veneto Region, State, local authorities and private entities, to guarantee the long-term maintenance of restoration works carried out and especially to promote the historical-military heritage as a unique cultural tourism offer at the regional level.





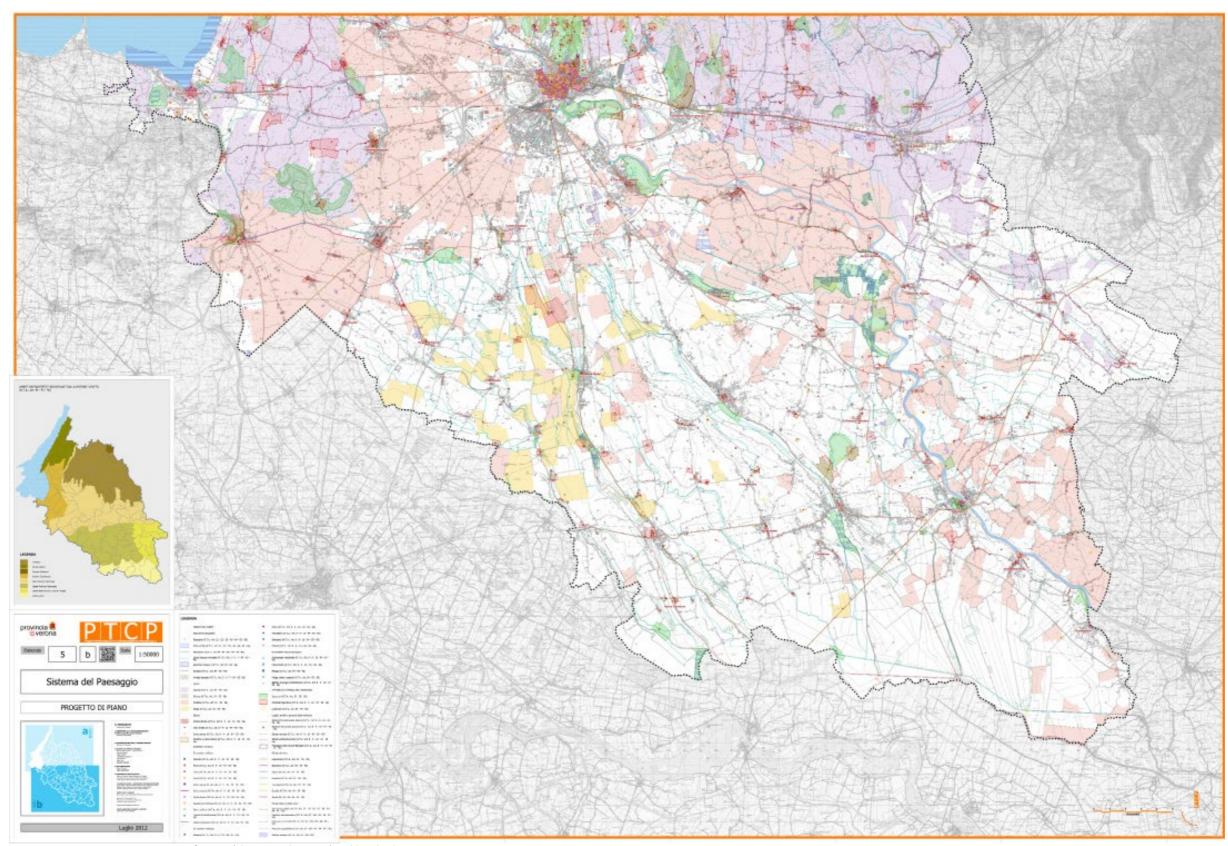










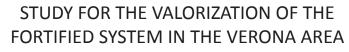


ATTACHED DOCUMENT 2. PTCP, Province of Verona (Planning and TIS Dep.) - Table 5: landscape system



DEVELOPMENT FUND







C. THE FORTIFIED STRUCTURES IN THE VERONA REGION: AREAS OF INTERVENTION AND HISTORICAL-TOURIST ITINERARIES

Fiorenzo Meneghelli

In the Veneto Region, because of geo-political and historical reasons, numerous fortifications were built from the Roman Age to the XXI century, and Verona has certainly the biggest fortified ensemble.

It is necessary to consider that the fortress of Verona, with its walls, barracks and forts, is the center of a diffuse system which is expanding in the territory and follows the natural characters of the sites: the forts built to defend the Adige Valley; the Scaliger castles of the Garda Lake and the fortress of Peschiera; the Scaliger Serraglio between the rivers Mincio and Tartaro; the castles and the fortress of Legnago, over the river Adige; the castles of the Eastern of Verona and the foothills areas; the modern armored forts of the Lessini Mountains.

In this territorial framework, 7 areas of intervention have been individuated, which have one or more characters in common: defensive functions of historical origin, uniform environmental contexts.

For each area will be presented a synthetic historical framework and the environmental characteristics linking the fortified structures to the peculiarities of the area in which they are inserted. Moreover, a proposal for an historical-tourist itinerary will be introduced.

This work is preliminary to a wider and deepened study, but is adequate to define synthetically the specific characteristics and the potentialities that each area represents for the development of the territory. In each area of intervention, the nodes of a possible network of the fortifications in the Verona region have been identified. They have been chosen on the bases of accessibility and connections, and in function of the identifying marks of the site in which they are inserted.

The essential points to develop a valorization plan of the fortified system of the Verona area, are:

- Completing the knowledge framework of the fortified system of Verona, cataloguing and monitoring the existent heritage, the promotion of studies and researches, etc.
- Looking at the fortified system like a coordinated set in which the single defensive elements are connected to the territory.
- Inserting the defensive system in the historical, cultural and environmental heritage of the territory.
- Inserting the defensive system in a valorization plan of the defensive systems of the Veneto area.
- Elaborating a general plan that define the intended uses, the economic plan and the managing body.







This plan will be the result of a single process shared between public and private entities.

Inserting the defensive system of the Verona area in a cultural and tourist network of the European fortresses.

Two examples that can represent the possible continuation of this study will be presented in the next chapter: the documentation centre on military architecture in the city of Verona and the historicalcultural itineraries in the Adige Valley.

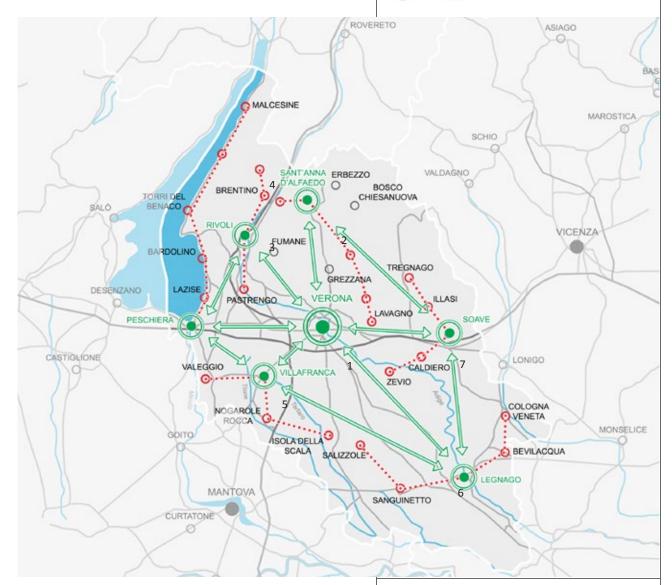
1. The defensive system in the Verona area: geographical areas and interaction between them

⊙ · · · · O · · · · O Geographical area

- 1. Verona
- 3. Adige Valley
- 4. Garda-Baldo
- 5. West Plain
- 6. Plan
- 7. East Plain



Interaction between the geographical areas





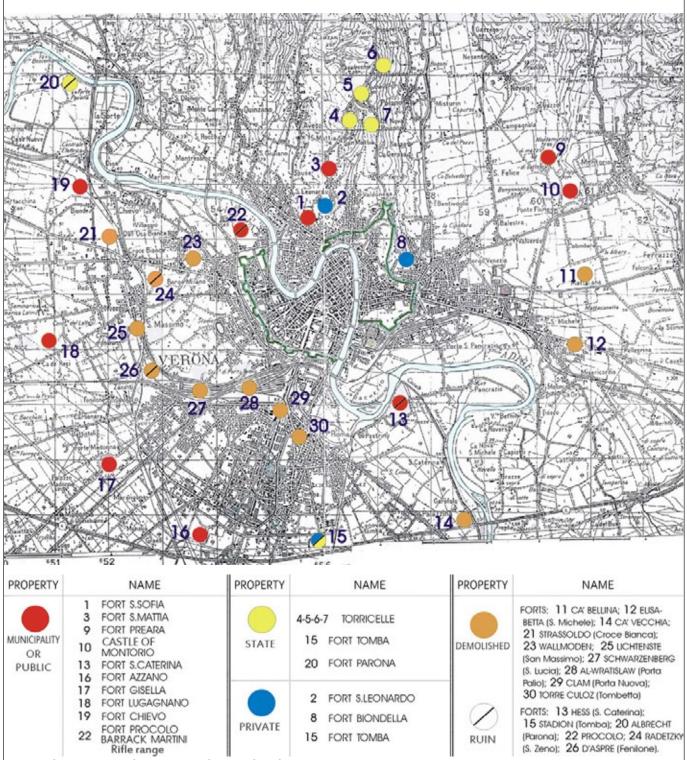
DEVELOPMENT FUND







C.1 TERRITORIAL CONTEXT - VERONA The fortress and the entrenched camp

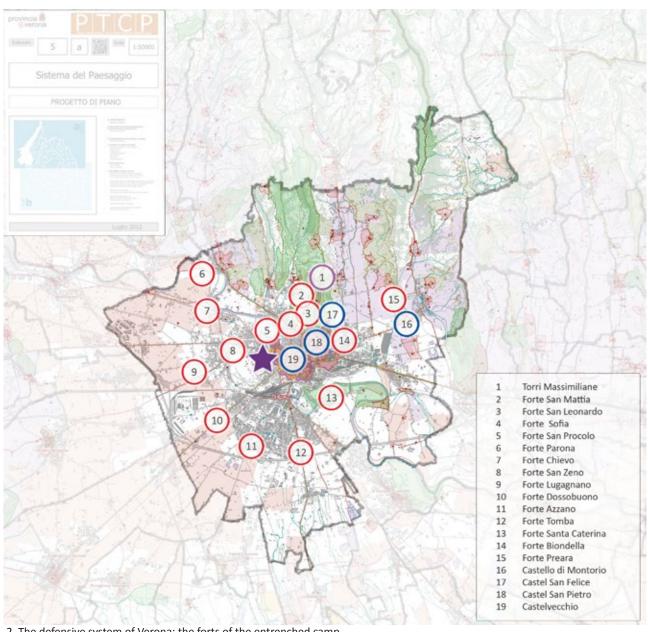




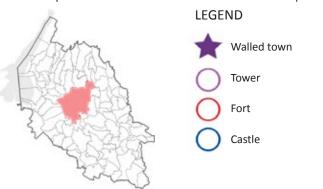




TERRITORIAL CONTEXT - VERONA The fortress and the entrenched camp



2. The defensive system of Verona: the forts of the entrenched camp.



MUNICIPALITIES

Verona







provincia Uverona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



THE FORTRESS AND THE ENTRENCHED CAMP

Historical background

Verona, from the second century BC, became the crossroads of the connections of the Roman Empire. The city was set on a grid structure based on orthogonal axes, in which the gates were placed at the Cardo Maximus (*Porta Leoni*) and at the Decumanus Maximus (Porta Borsari). The part of the city within the meander of the Adige was protected by the river itself, a good natural defence, and had a 940 meters long defensive wall.

As a consequence of the first barbarian invasions, Verona was fortified (265 AD) by the Emperor Gallienus, incorporating the Roman amphitheater.

During the age of medieval communes (XII-XIII century), the new defensive wall was built near the river Adigetto (from Castelvecchio to the Aleardi bridge). Between 1113 and 1130, the villages on the left side of the Adige were incorporated within the wall.

The Scaliger Signoria (1277-1387) and the Visconti domination (1387-1402).

The walls, started by Albert I (1277-1301) in 1287 and completed by Cangrande I della Scala (1311-1329) in 1325, were intended to widen the perimeter of the city to incorporate the monasteries and villages outside. The new walls defined the new urban limit of the city, and was later confirmed by the Venetians and Austrians. Between 1354 and 1376, the castel and the new Scaliger palace (Castelvecchio) were built. Verona was occupied in 1387 by Gian Galeazzo Visconti, Duke of Milan, who realized a "hill citadel" on the north side (Castel S. Felice and Castel San Pietro) and an "urban citadel" on the south part, home of the Visconti militia, and connected to Castelvecchio through the walls of via Pallone. The castles of the hill in the north and of the Citadel in the south, dominated the city center, forming a tremendous military establishment.

The Republic of Venice (1405-1797)

In 1405 began the Venetian domination of the city, which lasted for four centuries. Venice, started the renovation of the defence system of Verona, which continued until 1520 with the renovation of the walls in the southern front and on the hills, the construction of the gates Porta Vescovo and San Giorgio, and the construction of the bastions Maddalene and Campus Martius.

Michele Sanmicheli (1530/31 - 1559) made the front with the southern bastions of St. Francis of the Holy Trinity, of the Reformed, rondelle Santo Spirito, San



3. Gate Porta Leoni



4. Gate Porta Borsari





provincia 🧓 overona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



Bernardino, San Zeno, rondelle San Procolo and Spain.

On the bastion he inserted the monumental city gates that opened the city to the countryside and finalized the new urban road layout. The doors of Verona, in their classically inspired architecture, combining the memory of the Roman monuments with Renaissance art, show both the city's culture, the role of military town, cornerstone of the defense of Venice.

Venice in fact, committed to contain expansionism turkish, will leave the defense system Veronese unchanged for two centuries.

The Habsburg epoch (1814-1866)

The subsequent French domination (1797-1814) came to dismantle the Sanmichelian defence system (walls and ramparts), depriving the city of its own defence. The defensive plan - prepared by Franz von Scholl, general of the Habsburg military engineers corp - was not limited to the urban area, but to all the surrounding territory. It provided the creation of the "entrenched camp" - i.e. a series of forts detached from the walls - and then the establishment of a "fortified region" connecting Verona to the three fortresses of Peschiera, Mantua and Legnago (Quadrilatero).

The urban defence system was renovated in the period 1832-44. with the new bastions of Santa Trinità, Riformati, Santo Spirito, San Bernardino, San Zeno and San Procolo, and the strengthening of the hill walls. On the ridge of the hills, between 1837-42, the *four towers "Massimiliane"* or "torricelle" were built, as well as the *forts Sofia, San Leonardo and San Mattia*. In 1839 the *fort von Scholl* (destroyed) and the *fort San Procolo* were built.

The entrenched camp was constituted by a first belt of forts (1848-59) - composed of 12 new defence structures (including 3 existing) - and by a second belt (1860-66), equipped with 9 forts (of which 6 existing). Verona became a big "barracks" providing all the civil and military services necessary to maintain within the fortress a garrison that could reach 15.000 soldiers; but it was also the logistics center (barracks, arsenal, hospital, bakery, etc..) of the whole fortified region of the "Quadrilatero".

Environmental characteristics

In 1866, when Veneto became part of the Kingdom of Italy, Verona lost part of its strategic and military importance.

The military constraints were maintained until 1892, and only since 1896 they were gradually disappearing, saving it from the demolition of the walls, as happened



5. Walls of Via Pallone



6. Gate Porta Palio



7. Gate Porta Nuova



DEVELOPMENT FUND



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



in other cities. In the different urban plans, the landscape protection constraint established for the hills area in 1924, was followed by a general green zone constraint for the entire area of the city walls.

The municipality is now acquiring walls and barracks from the State Property.

The walls appear to be an outstanding set of defensive works from different periods (from Roman to modern times), integrated in an urban center rich in history and monuments, and in a remarkable landscape. This is one of the reasons that have allowed Verona to be recognized as a World Heritage Site by UNESCO. In cities like Verona, with an important historical and architectural heritage, the recovery of the walls can become an opportunity to find a new urban model capable of establishing a different relationship between the city and the surrounding area.

The fortified wall "recovered" with its formal and environmental values should represent the ring connecting the old town with the outskirt areas and hills, through a renewed symbiosis between city, river and environmental context.

8. Verona - Cinta Magistrale

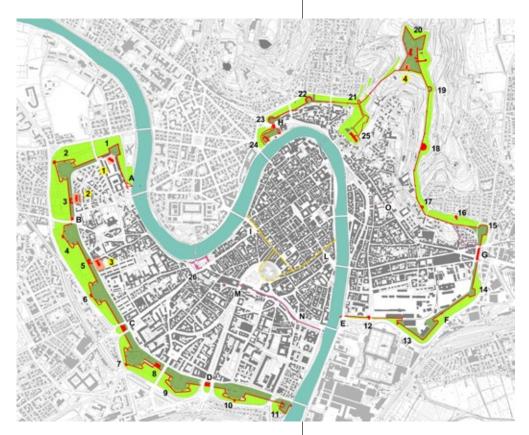
- 1. Bastion of Spagna
- 2. Bastion San Procolo
- 3. Cavalier of San Zeno
- 4. Bastion San Zeno
- 5. Cavalier di San Giuseppe
- 6. Bastion San Bernardino 7. Bastion Santo Spirito
- 8. Cavalier of Santo Spirito
- 9 Bastion of the Reformed
- 10. Bastion of the Holy Trinity
- 11. Bastion of St. Francis
- 12. Batteri Pellegrini
- 13. Bastion Campo Marzio
- 14 Bastion delle Maddalene
- 15 Bastion Santa Toscana
- 16. Counterscarp Battery
- 17. Scarp Battery of San Zeno
- 18. Rondelle San Zeno
- 19 Rondelle Grotta 20 Castle San Felice
- 21. Rondelle Bacola
- 22. Rondelle Boccare
- 23. Rondelle San Giorgio
- 24. Defensive system of San Giorgio
- 25. Castle San Pietro

POWDER MAGAZINE

- 1. Spagna
- 2 San Procolo
- 3 San Zeno
- 4. San Felice

GATE

- A. Porta Fura e Catena
- B. Porta San Zeno
- C. Porta Palio
- D. Porta Nuova
- E. Porta Vittoria
- F. Porta Campo Marzio
- G. Porta Vescovo
- H. Porta San Giorgio





provincia 🧶

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



HISTORICAL-TOURIST ITINERARY

DEVELOPMENT FUND

THE CITY WALLS Southern front on the right bank of the river Adiae

The gate *Porta Fura* is part of the ancient "communal" enclosure of the San Zeno monastery. The access is by a first courtyard separated from the second by the austrian "Blockhaus" (1840); then you arrive at the gate Porta Catena on the Scaliger walls. An iron "chain", located upstream of the city, held up in the middle of the river by a tower, barred the navigation of the river Adige. The bastion of Spagna (1548) has a pentagonal structure, with two low courts for the artillery and the external face made of bricks with stone inserts in the corners. The Austrians renovated its defenses in 1839-40. The nearby barrack caserma Catena, was built during the Venetian time and later expanded by the Austrians (1838-40).

Fort Procolo is the first fort built on the right bank of the river Adige (1840-42) between the bastion of Spagna and San Procolo with the function of enhance the defence of the city walls in the area next to the Adige.

In 1542, the Scaliger gate of San Massimo was closed, and the gate of San Zeno was realized according to Sanmicheli's design, well protected from the ramparts and the homonymous knight. The two facades, with similar stylistic feautures, are made of brick walls with white stone inserts in the corners and gates profiles.

Continuing along the walls you can find the Venetian *cavalier of San Giuseppe* (1546).

The **bastion of San Bernardino** has, like the other bastions, a Carnot wall at the base of the ditch at the foot of the terreplein, a two-story caponier placed at the top and two large side "ears" where the doors for sallies (originally equipped with drawbridge) are still visible.

Porta Palio, built between 1542 and 1557 according to Sanmicheli's project, has the front towards the countryside and is characterized by paired doric columns on



9. Gate Porta Fura



10. Gate Porta San Zeno



11. Bastion San Bernardino









a masonry wall, a central carriage gate and two symmetrical pedestrian doors. The front towards the city is spectacularly divided into five large triumphal arches; Tuscan paired of giant order are placed on the masonry wall supporting a frieze architrave and the attic, now devoid of the wooden roof.

In the *bastion of Santo Spirito* you can still see the remains of the Scaliger wall that closes up to the city and sections of the brick wall belonging to the Venetian bastion demolished in 1801 by the French. In the Venetian wall, close to the homonymous cavalier and in the direction of the bastion of Riformati, a large breach was opened for road connection with the railway station of Porta Nuova.

After the bastion of Riformati you can find Porta Nuova (1533-1540), expression of the Renaissance architecture of Sanmicheli. In 1854 the Austrians realized on the external front two new openings. The new barrel vaults had the same height and the same materials of the central one, in order to stylistically adapt to the Sanmichelian design. The southern bastion front ends with the bastion of Trinità, which stood with the bastion of San Francesco nearby the river Adige. Behind these bastions, the Austrians built the complex of Campone with the infantry barracks (1844-51 - nowdays seat of the Tribunal) and the cavalry barracks (1844-53 - former prison).

Hill front on the left bank of the river Adige

On the left side of the Adige, the walls begin from the *Scaliger embattled tower* (1227-1301), next to the river, and continue until *Porta Vittoria* (1838). In order to defend the area between the bastion of Campus Martius and the left bank of the Adige, *Fort Von Scholl* (nowadays demolished) was built in 1839.

Within *Campus Martius* the Austrians realized the military bakery, connected to the rail network (station of Porta Vescovo) in order to ensure the supply of the army



12. Gate Porta Palio



13. Bastion Santo Spirito



14. Gate Porta Nuova









operating inthe area of Lombardia and Veneto. On the edge of the Campus Martius - an area dedicated to quartering the ranks during the Venetian period -, there are the bastions of Campus Martius (1565) and Maddalene (1572), renovated in 1840 by the Austrians.

Porta Vescovo (1520), built by the Venetians on the main road to Vicenza and modified by the Austrians in the years 1862-1863, was connected with the Venetian curtain wall at the **bastion of Santa Toscana** (1520). Climbing up the hill one can meet the fourteen Scaliger towers characterized by C-shaped walls - although, this was the result of the Austrian intervention (1840-41).

The hill path has a great landscape value and can be walked inside and outside the city walls. At San Zeno in Monte, the external route come accross the Austrian counterscarp battery, while further down is located the scarp battery (1840). Continuing, one can see the chemin de ronde *Rondelle of San Zeno in Monte* (1523) and *Rondelle of Grotta*, built by the Venetians, then rebuilt by the Austrians (1840).

Castel San Felice, built on the ridge of the hill, was started in 1390 by the Visconti, near the Scaliger walls. The Venetians strengthened the walling (1517-1575), built a circular tower, later incorporated in the strut so-called Ponton Nuovo on the east side (1543-46), and realized (1528) the strut Ponton Vecchio (northwest side), overlooking the Valdonega. After being partially demolished by the French in 1801, Castel San Felice was rebuilt in 1836.

During Theodoricepoch, the area of San Pietro hill was fortified and later the Scaligeri and the Visconti realized the castle overlooking the city. The Austrians demolished part of the walls and built (1852-58) a barracks called *Castel San Pietro*. Going down the road, in the direction of Valdonega, one can find the bastion *baluardo della Baccola* (1520-27) connected by a covered road to Castel San Pietro. Continuing down one can see the Scaliger walls and the "*Terraglio*", a



15. Bastion Campus Martius



16. Gate Porta Vescovo



17. Castle San Felice



EUROPEAN REGIONAL DEVELOPMENT FUND



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



large rampart realized during the Venetian time to strengthen the Scaliger walls and to place the artillery on top of the wall.

The chemin de ronde *Rondelle of Boccare* (1518-1520) includes a large circular room with a diameter of 35 meters and a large central pillar in tuff. This sustains the annular bricks vault. The air exchange for the embrasures placed inside the chemin de ronde was guaranteed by four large elliptical openings.

The fortified complex around *Porta di San Giorgio* - built in 1525 - was realized in 1840, as well as the renovation of the chemin de ronde, , the completion of the inner facade of the gate and its connection with bank of the Adige through half a bastion.

THE HILL FORTS

The plan of von Scholl for the fortress of Verona included - in addition to strengthening the city walls - the construction of a series of forts detached from the walls, only partially realized from 1833 and 1844.

Thanks to their artillery, the forts could have control on the valleys, on the ridges of the hills and on the area and moat in front of the walls. Moreover, they could eventually fight from above any popular insurrection. The outer parts of the fort have masonry in opus incertum; the main building is realized with ashlar stones with a rectangular base and regular cut, while the coverage is made with stone slabs placed on a floor waterproofed with bitumen.

Fort Sofia, built in 1838, is dedicated to the Grand Duchess Sofia of Habsburg. The round tower in the center, is on three levels: on the first floor, there were the lodgings of the troops; on the second floor, the casemate artillery; on the covering floor, the artillery was placed on a special wooden gun carriage, capable to rotate a full 360 degrees and to shot all the surrounding area.

A double helix staircase allowed the connection between the levels. At the base, an annular tunnel for musketry allowed close defence. Detached from the central tower



18. Castle San Pietro



19. Gate Porta San Giorgio









was a large terreplein for open air artillery and a wall fence with caponier and two tambours for musketry. The fort was armed with 14 cannons and with a garrison of 174 men.

Fort San Leonardo (1838), due to its location overlooking the city and with only 6 artillery, could pound a broad range extending from the city center - including the way to Trento and the river Adige - to the whole north side of the hill. In the 50s it was partially demolished and turned into a sanctuary.

Fort San Mattia (1838), with its broad and planimetric development, fits very well in the natural shape of the hill.

The access to the fort is from the south, will defended in the gorge by a wall provided with numerous embrasures for riflemen. The entrance gate has a casemate battery on its right side and allows you to enter the inner courtyard of the reduit. This is structured on three levels and hosted the garrison quarters, the casemate artillery and the musketry stations. It was equipped with a garrison of 350 soldiers.

In 1838, **Fort Biondella** was built on the eastern side of the hill, well placed on the slope and at a short distance from the city walls, that could therefore protect. Currently the fort is home to the Foundation Medaglia d'oro Carlo Ederle.

Between 1837-42, the *four* "Massimiliane" - called "torricelle" for their cylindrical shape - were built on the ridge of the hills to protect the north-east side of the city. The towers are structured on three levels: the first, larger and surrounded by a dry moat, is made up of the main gateway and an annular tunnel for musketry; the second hosted 12 guns in the casemate; on the third level, a roof terrace, was placed the artillery which allowed a full 360 degrees defence of the fort. At the center of the tower is a double helix staircase and a cistern to collect rainwater. On the ground floor there are rooms and warehouses used by the garrison and a powder magazine.



20. Fort Sofia



21. Fort *Sofia*



22. Fort San Leonardo



EUROPEAN REGIONAL DEVELOPMENT FUND



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



THE ENTRENCHED CAMP

The objective of the entrenched camp was to protect the city in the event of an enemy bombing thanks to the realization of defensive structures in an advanced position from the city walls.

The forts of the first belt (1848-1859), located 1 to 2,4 km from the city fortress, have a double name: the Austrian, with the names of army commanders or prominent persons of the imperial court; and the Italian, according to the village where they are located. Therefore: Fort Kaiser Franz Joseph - Chievo (1850-52); Fort Strassoldo - Croce Bianca and Wallmoden - Spianà (1851); Fort Radetzky - San Zeno (1848-50); Fort Schwarzenberg - Santa Lucia, D'Aspre - Fenilone, Liechtenstein - San Massimo and Alt-Wratislaw - Palio (1848-50); Fort Clam - Porta Nuova (1848-59); Fort Culoz -Tombetta (1849); Fort Hess - Santa Caterina (1850-52); Fort Kaiserin Elisabeth - San Michele (1854-57).

The forts of the second belt (1860-66) are located 3-4 km form the fortress: Fort Erzherzog Albrecht - Parona (1860); Fort Prinz Rudolph - Lugagnano (1860-61); Fort Erzherzogin - Gisella Dossobuono (1860-61); Fort NeuWratislaw - Azzano (1860-61); Fort Stadion - Tomba (1860-61). On the hills on the right side of river Adige they realized between 1860 and 1866 an artillery battery in the castel of Montorio, the fort Preara (1866), the semi-permanent fortifications of Ca' Bellina and Ca' Vecchia.

Fort Chievo (1850-1852) has a pentagonal structure and two external caponiers. It is constituted by a arrow shaped central reduit and a rampart with artillery barbette. The central reduit, connected with a defensive tambour on the gorge, forms an inner courtyard from which are visible the cylindrical stairwell and the two external wells. Inside there are rooms that were used as dormitories, warehouses and stables. Along the outside moat is the Carnot wall with two caponiers. The fort was equipped with 27 cannons, and a garrison of 360 men.



23. Fort San Mattia



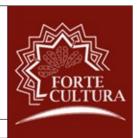
24. Fort Biondella



25. Tower Massimiliana







Currently it is owned by the city.

The *forts Lugagnano, Gisella, Azzano and Tomba*, built between 1860 and 1861 at a distance of 2000 to 2700 meters, are characterized by the same structure. The gorge, placed on the north side towards the city, is characterized by a semi-circular tambour, which, together with the cannon and rifle embrasures, defended the two entrance bridges. In the C-shaped central reduit, were located the garrison quarters (kitchens, housing, warehouses, etc.).

The two casemate caponiers, symmetrically placed two sides, kept the moat at gunpoint; a tunnel under the rampart connected them with the inner courtyard of the fort. On the rampart were placed the artillery barbette with ready locker rooms. The gorge, the reduit and the caponiers were covered with a green embankment about 2,1 m thick and bombproof. The walls are made with polygonal tuff ashlars. The fort was operating with about 450 soldiers and 32 cannons.

Fort Santa Caterina (1850-1852) is located south-east, on the right side of the Adige, surrounded by the last meander of the river. Typologically, the fort was constituted by external structures: a ditch, terreplain walls with a caponier on the southern end and hornworks on the northern front. At the center is the central reduit with curtains and terreplains. The garrison was composed by 660 men and armed with 31 guns.

The fort, today partially destroyed, is owned by the city.



26. Fort Chievo



27. Fort Gisella



28. Fort Azzano

Source: Un territorio fortificato by F. Meneghelli, Terraferma ed., 2011.

Images: archive UNESCO office of VERONA - Domenico Zugliani n. 4,5,7,10,12,16,20,28; Fiorenzo Meneghelli photo n. 3,6,9,11,13,14,15,17,18,19,2 1,22,23,24,25,26,27.

Graphic design: Fiorenzo Meneghelli n. 1,2,8.









C.2 TERRITORIAL CONTEXT - LESSINIA The Italian forts



1. Fort Santa Viola

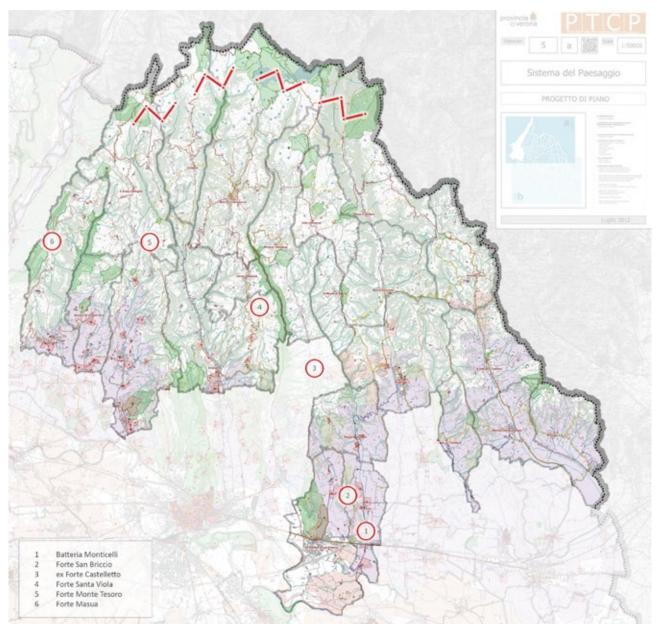




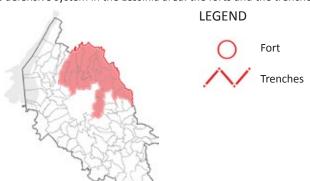




TERRITORIAL CONTEXT - LESSINIA The Italian forts



3. The defensive system in the Lessinia area: the forts and the trenches



MUNICIPALITIES

Badia Calavena Bosco Chiesanuova Cazzano di Tramigna Cerro Veronese Erbezzo **Fumane** Sant'Anna d'Alfaedo Grezzana Lavagno Marano

Mezzane di Sotto

Montecchia Negrar Roncà Roverè

San Giovanni Ilarione San Martino Buon Albergo San Mauro di Saline Selva di Progno

Velo

Vestenanova

Source: PTCP, Province of Verona (Planning and TIS Dep.) Table 5: landscape system







THE ITALIAN FORTS

EUROPEAN REGIONAL DEVELOPMENT FUND

Historical background

In 1866 the Veneto was ceded to the Kingdom of Italy and the border with Austria was at the time corresponding to the current border between Veneto and Trentino Alto Adige. The Italian defence strategy envisaged the "closing" of the many roads leading down from the Alps with a forts barrier, so as to guarantee freedom of movement to the troops in the Po' valley between the two banks of the river. The Italian Military Engineers Corp modified (1880-85) the Austrian defensive works in Rivoli closing the Adige Valley and built - between 1883 and the first decade of the '900 - the new fort of San Marco, the low battery of Fort Rivoli, the structure "Tagliata di incanal" and the armoured batteries of Cimo Grande and Noale. On the north-east of Verona, on the foothills of the Lessini mountains, they build Fort Castelletto (1885 - '900), Fort San Briccio (1885), the battery Monticelli (1888), Fort Masua (1880/85-1910) and between 1908 and 1910 the armoured forts of Monte Tesoro and Santa

The militarization of the pre-Alpine territory led to deep changes, which affected the the whole agropastoral with large infrastructural interventions. These interventions can be summarized in the creation of an infrastructure network (new roads, bridges, aqueducts and fountains, cableways, telephone lines, equipment for light signaling, etc.) and logistics structures for the troops (barracks, quarters, hospitals , bakeries, warehouses, stables, powder magazines, etc.). The fortified system consisted of barrier-forts controlling the valleys and the network of trenches.

Environmental characteristics

From what above explained, it is evident how the area of the Lessini mountains - until the early '900 sparsely inhabited and without any roads - has suffered a profound and rapid transformation whose impacts are still readable in the settlement and infrastructure layout of the region. These fortifications are still little known and valorized, although recently, thanks to new historical research and publications on the subject, there is a growing interest by local people.

The recognition of the value of fortified heritage of the First World War must be included in the enhancement process of historic, architectural, environmental and landscape heritage of the whole Lessinia.

For this purpose, the first recovery projects have been launched, promoted by some municipalities in agreement with the Comunità Montana and the Parco Regionale of Lessinia. Such heritage will therefore be valorized and included in a broader vision on a regional scale.



4. Fort Santa Viola



5. Fort Masua





provincia Uverona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



HISTORICAL-TOURIST ITINERARY











The battery Monticelli built was simultaneously with the forts Castelletto and San Briccio, and was finished in 1888. The fort, which today is in ruins, is privately owned.

The Fort San Briccio (1885) constitutes the link between the forts of the Austrian entrenched camp of Verona and the new Italian forts of Lessinia. It has a trapezoidal shape, based on Austro-Prussian style. The main front and the gorge front are straight and parallel and the artillery is placed on the perimeter rampart. Inside there are the troop rooms, warehouses, artillery laboratories, infirmaries, etc.. The fort is now property of the City of Lavagno.

The Fort Castelletto, built in 1885, with a pentagonal irregular shape, was transformed already in 1908 into an armoured fort. The few remaining ruins are now privately owned.

Fort Santa Viola. The access to the fort is from a caponier located in the moat. The ground floor rooms were intended to: electric generator, warehouses, laboratories, kitchen, infirmary, etc. An internal staircase leads to an underground tunnel and this to the powder magazine. At the center of the building there is a stone staircase leading to the upper levels: the first floor hosted the dormitories for the garrison and artillery warehouses; on the second floor there were the four armoured batteries with guns that could rotate 360 degrees, and the observatory. The gun tube in the armooured Armstrong cupola housed the 149A cannon, made of steel and capable of firing a projectile weighing 40 kg at a distance of over 11 km. The municipality of Grezzana -owner of forttogether with the Comunità Montana of Lessinia, is implementing a recovery action to make the fort available for a center for youth tourism and a museum of Lessinia.

Fort Monte Tesoro (1905-11) is structured on several levels: a ground floor and two more floors surrounded by a moat, which gives access to an armoured gallery that runs along



6. Fort San Briccio



7. Fort Santa Viola



8. Fort Santa Viola







provincia 💆

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



infirmary, preparation and loading bullets, etc. Two symmetrical staircases lead to the upper levels: on the first floor were the dormitories and artillery warehouses, while the second hosted six batteries with 149A cannons, ready lockers rooms, the observatory, the headquarter. A tunnel dug into the rock connects the fort to a powder magazine. The barracks, situated along the access road, are two-storey buildings with a block for the toilets placed between them. On the ground floor there were warehouses, while the first floor housed officers and troops quarters. The fort, already owned by

the public domain, became now property of the municipality of Sant'Anna d'Alfaedo.

the southeast side of the fort. The entrance is from a caponier leading to the rooms inteded for electricity generator, warehouse, kitchen, dormitories for officers and troops,

The Fort Masua (1883-84), built on a dominant position on the slope of Monte Pastello in order to overlook the Adige Valley, was the connection between the defensive works of the Adige Valley and those of the Lessinia area within the Italian front. The fort has a polygonal plant. It was surrounded by a moat defended by two caponiers and a tambour on the gorge. Inside there were cisterns for drinking water and all the logistical infrastructure necessary for the life of a garrison of about 840 men. In 1904 it was planned to insert a modern concrete battery - realized in 1910: it consisted of 6 wll installations armed with 149A cannons in a armoured cupola. The structure is located on the gorge front and appears as a huge concrete block placed crosswise to the other elements. The result is a fortified complex in which there is a perfect integration between structures realized in different times, with different typological characteristics and materials. The fort is now private property.



9. Fort Monte Tesoro



10. Fort Monte Tesoro. Barracks.



11. Fort Masua

Source: Un territorio fortificato by F. Meneghelli, Terraferma ed., 2011. Images: Fiorenzo Meneghelli photo n. 1,4,5,6,7,8,9,10,11. Graphic design: Fiorenzo Meneghelli n. 2,3.





DEVELOPMENT FUND







C.3 TERRITORIAL CONTEXT - BALDO-ADIGE VALLEY The land of the forts



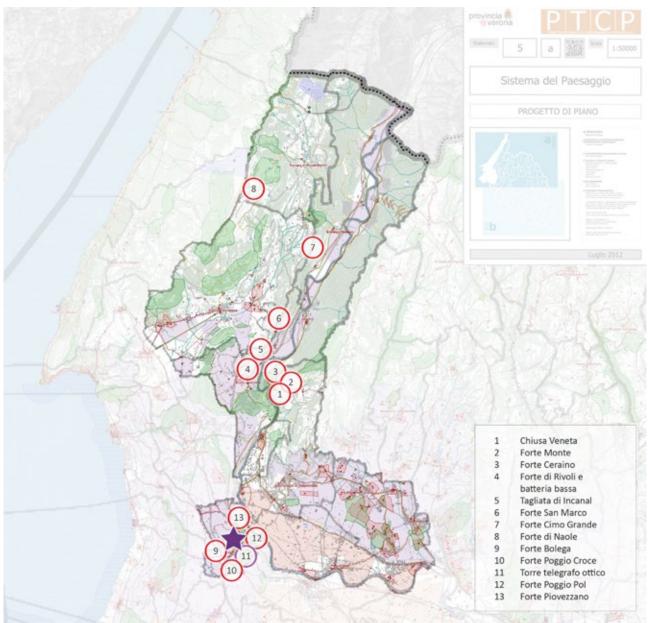
MALCESINE SCHIO VALDAGNO SANT'ANNA **ERBEZZO** BRENTINO BOSCO ALFAEDO CHIESANUOVA TORRI DEL SALÒ BENACO RIVOL **FUMANE** BARDOLINO GREZZANA SGIA TREGNAGO LAZISE DESENZANO ILLASI PASTRENGO VERONA LAVAGNO PESCHIERA SOAVE 0 CALDIERO CASTIGLIONE VALEGGIO VILLAFRANCA 2. The defensive system in the Adige Valley







TERRITORIAL CONTEXT - MONTE BALDO-ADIGE VALLEY The land of the forts



3. The defensive system of the Adige Valley: the fortifications



MUNICIPALITIES

Brentino
Caprino Veronese
Dolcè
Ferrara di Monte Baldo
Pastrengo
Pescantina
Rivoli Veronese
San Pietro in Cariano
Sant'Ambrogio di Valpolicella









THE LAND OF THE FORTS

Historical background

The landscape of the Adige Valley is characterized by a series of bends of the river Adige, deeply carved in the pre-Alps foothills, which flows in the reservoir of the morainic amphitheater and thus in the Po Valley. In this environment were first built the Austrian forts, and after 1866 those of the Kingdom of Italy.

The road through the Adige Valley had a strategic importance already in the Venetian time; but it was during the Italian campaign of Napoleon, that came the decision to fortify the valley.

The battle of Rivoli and Napoleon's victory in 1797, led the Austrians to fortify those places, considered strategic for the control of the connection between the north and Verona and the Venetian plain.

As part of the defensive fortress of Verona, in addition to the defensive barrier of the Adige Valley, the Austrians fortified the hills of Pastrengo, to defend the line of the Adige that was connected to the vast entrenched camp and to the fortress of Peschiera, strategic position to control the lake Garda and the river Mincio. The result was a single fortified system based on those three defensive poles, closely linked to the wider fortified region of the Quadrilatero. This defensive system, from the Kingdom of Italy (1866), was development on the slopes of Monte Baldo, which was the border with the Austro-Hungarian Empire. Before the beginning of the First World War, trenches, tunnels, artillery posts, but also roads and other infrastructure of military nature were built in this area.

Environmental characteristics

The Adige Valley has always represented the connecting corridor between Northern Europe and Italy and for this reason road infrastructure (road, highway, railway) in the valley were developed, leaving the surrounding historical and economic settlement in the background. Interpretating the Adige Valley as "land of the forts" means enhancing the "identity" of a territory characterized on the one hand by historical memories of the Napoleonic epic battles, by Habsburg fortresses and italian forts, and on the other hand by peculiar and excellent agricultural and wine production. A programme for the territorial "rebalancing" of the Adige Valley should consider the historical and cultural heritage and the related features of the area (environment, artisanship, agriculture) as a driving force for its sustainable development.

THE LAND OF THE FORTS may be the proposal for a



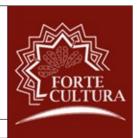
4. The forts in the Adige Valley.

- 1. Fort of Chiusa Veneta
- 2. Fort Monte
- 3. Fort Ceraino
- 4. Fort Rivoli e lower Battery
- 5. Barrage of Incanal
- 6. Fort San Marco
- 7. Fort Cimo Grande
- 8. Fort Naole









"cultural infrastructure" of the Adige Valley in which the enhancement of the defense system, which is the peculiar historical and environmental heritage of the valley, become the engine of the productive excellence of the valley itself.

(See chapter D.3 for the themes of the valorization of the Adige Valley).



5. Historical Map with the access routes to the forts.

Adige Valley

The fortified Austrian complex of the Adige Valley, which is constituted by the forts of Chiusa Veneta, Ceraino (Hlawaty), Monte (Mollinary) on the right bank of the river Adige, and by the Fort Rivoli on the right bank, was built between 1848 and 1852. Its duty was to control the railway line, the road to Tirolo, the fords on the river Adige and the Garda.

In 1866, when the Veneto Region was ceded to Italy, the Italian Army Engineers updated the forts (1880-1885) to the new devensive needs: the artillery positions assumed a different disposition, due to the inversion of the offensive front from the South side to the North side (forts Rivoli and Ceraino), and Fort San Marco, the lower Battery of Rivoli and the Barrage of Incanal were built.

The development and the higher fire power of the enemy's artilleries, connected to the new explosive materials, are the reason for which these fortse became quickly obsolete. Between 1904 and 1913, in the escarpments of the Mount Baldo, the new forts of Naole and Cimo Grande, were built to defend the Adige Valley. They had concrete walls and artilleries 42 placed in steel revolving domes.



6. The trenches of Cavallo di Novezza



7. Fort Rivoli





provincia U

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



HISTORIC- TOURIST ITINERARY



The *Chiusa Veneta* is a natural bottleneck historically used to control the road connecting the north (Valdadige-Brennero) to the south (Verona-Po Valley). The Austrian fortification "Etschklause", located on the left side of the Adige towards Verona, was built between 1849 and 1851 and was meant to be a defensive barrier controlling the road and the railway.

The fort, surrounded by a moat, was crossed by the road: this entered through two gates with drawbridge; the railway as well passed through the second courtyard of the fort, at a higher altitude.

The widening of the modern road has caused the destruction of part of the "blockhaus" and the moving of the the railway on a higher location, in a gallery.

Today the fort is mostly privately owned.

The *Fort Monte*, located on the slopes of Monte Pastello and overlooking the valley, was connected to Fort Ceraino through a military road, suited to transport artillery. It was built by the Austrians between 1849 and 1852, and was dedicated to General Anton von Mullinary. It was built with very thinck walls made of large Rosso Ammonitico ashlars, while the barrel vaults were built in bricks.

On the gorge front, a drawbridge gave access to the fort: this was of irregular plant and on three levels. The gorge front itself was formed by a high fence with a reduit on the firing line, and on the other side it was integrated by three casemate batteries. A wide and deep moat, hollowed out in the rock, surrounded the wall, detached from the mountain for the whole perimeter. Equipped with twenty guns it could house a hundred men, who could double in wartime. In 1866, the fort was ceded to Italy, and it was planned - but never realized - to move the offensive front from south to north.

It was blown up by the Germans in 1945 and, later, it was used as a quarry by individuals who bought it.



8. Dolcè - Fort of Chiusa Veneta



9. Sant'Ambrogio di Valpolicella - Fort Monte



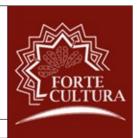
10. Sant'Ambrogio di Valpolicella - Fort Monte













The **Fort Ceraino** was built by the Austrians between 1841 and 1842 and was named after Lieutenant Field Marshal Johann von Hlavaty, military architect who directed various fortifications in Verona. Its walls were built with large square blocks of local stone. It is located halfway between the dam of Chiusa Veneta and Fort Monte. The original project of the fort included an irregular fence within which were placed two defensive elements of heights with the function of barracks. In its perimeter there were also placed casemate artillery. After the annexation to the Kingdom of Italy, the fort kept its armament and in 1884 was modernized by changing the fire direction to the north. A ditch hollowed in the rock surrounded the fort and the access was possible through a drawbridge on the gorge front. During the Austrian period, the garrison consisted of 180 men with 16 artillery pieces. After being used as a weapons depot of the Italian army, it is now abandoned.



Fort Rivoli and lower Battery

On the place where, in 1797, Napoleon defeated the Habsburgs, the Austrians realized - between 1850 and 1851 - the Fort Rivoli, entitling it to General Wohlgemunth. On the right bank of the Adige, the fort was connected with a road to the village of Ceraino - headquarters of the forts and to the road barrier of Chiusa Veneta. It consisted of a main building, an open cylinder-shaped tower on two levels with on the ground floor and rifle stations casemate artillery on the upper floor and on the roof. Following the annexation to Italy, the Austrian fort was modified in 1881 with the reversal of the artillery fire, and the construction of the Batteria Bassa between 1884 and 1885. Further changes included the insertion of a rectangular defensive wing connected with the original cylindrical body, the reconfiguration of the courtyard and the displacement of the entrance gateway. In this way that the new casemate guns could effectively hit from the lock of Ceraino to



11. Dolcè - Fort Ceraino



12. Dolcè - Fort Ceraino



13. Rivoli Veronese - Outdoor view of the Fort





provincia U

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



the river Adige. The whole structure could accommodate about 130 people.

Until the 80s, the fort was used by the Italian army as a powder house and later the military ownership has granted its use to the municipality of Rivoli. Today, the building is open to public and the inside rooms host a museum of the First World War.

As mentioned above, the Batteria Bassa was built by the Italians in 1884-85 on a large plain area north of the Fort Rivoli, with the aim of controlling with the artillery the the mouth of the Adige Valley. The large interior courtyard, the "piazza d'armi", is bordered by masonry buildings covered with earth, that housed dormitories for 120 men, utility rooms, warehouses, bunkers, a water tank and the powder magazine. On the covering embankment were placed the artillery positions in barbettes. Today, the structure in use by the City of Rivoli is run by a voluntary association that support its preservation and the public fruition.

The Barrage of Incanal, built from 1884 along the rocky wall of the mountain, had the role of "barrier" of the right bank of the Adige. The defensive work was divided into two parts: an armed roadblock and a high battery, connected to each other. The block, consisting of a transversal fortification on the road that connects Incanal with Rivoli, on the one hand is attached to the rocky wall and on the other reaches the river Adige, through a long rampart. The fortification, today privately owned, was partially demolished due to the enlargement of the road; due to the construction of the motorway, the defensive embankment connecting with the river Adige is completely missing.

The *Fort San Marco*, located on Monte Cordespino (451 m above sea level), was built by the Italians between 1888 and 1913, as a defense outpost for the lower Adige Valley against the Austrians part of Trentino. The plant and the profile of this vast fortifications have a long and narrow shape, well set on the rocky spur overlooking the Adige and



14. Rivoli Veronese - Internal view of the Fort



15. Rivoli Veronese - Lower Battery



16. Caprino Veronese - Barrage of Incanal

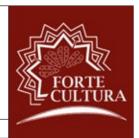












Caprino

perfectly integrated in the orography of the site. The defense complex is divided into two courtyards bordered by walls of stone and brick, onto which several rooms used as barracks, halls, ammunition depots and service areas overlooked. artillery positions in barbettes were distributed on the various external stands, while the casemate batteries were placed at the lower levels. The entrance was by a drawbridge protected by tambour on the gorge. Overlooking the Adige Valley, the fort is reachable by the road from Caprino as well as from the military road (1883) coming from Tagliata Incanal. Privately owned, it is currently abandoned.

The *Fort Cimo Grande* was built to the south of Spiazzi, on a rocky outcrop overlooking the Valdadige. Realized between 1905 and 1914, it is the most technically advanced fortification of the whole the defensive front of he Adige Valley. It was armed with four guns placed in armored turnable turrets. These were located in a large concrete structure, protected to the north by a large ditch hollowed in the rock and connected by a tunnel to an underlying barracks. Publicly owned, it preserves the walls of the fort and the barracks.

Fort Bocchetta di Naole was built by the Italians, between 1905 and 1914, on the foothills of Monte Baldo (1675 meters above sea level), in the village of Bocchette di Naole. Its function was to oppose a possible Austrian attack from the nearby border. Built on two levels placed on natural terraces, it was equipped with four 149/35 cannons placed in armored turnable turrets. A barracks to house the troops was located further downstream. The property is privately owned.



17. Caprino Veronese - Fort San Marco



18. Caprino Veronese - Fort Cimo Grande



19. Caprino Veronese - Fort Bocchetta di Naole







provincia U

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA





The decision by the Austrian Military Engineers Corp to build in Pastrengo an entrenched camp of four forts, had a dual purpose: to prevent the circumvention of the fortress of Verona defending it from possible attacks from the west, and to protect any Austrian retreat towards north and the Tyrol along the Adige Valley.

The forts of Pastrengo were all built in a short time, between 1859 and 1861, and these defense works, integrated with those of Rivoli, helped to complete the network of fortifications related to territorial unitary conception of the Quadrilatero: this was seen as a military strategic hub for the control of Lombardy and Veneto.

The entrenched camp, built by the Austrian General Radetzky, was composed of a first fort (Deghenfeld) situated on a hill to the north, between Piovezzano and Pastrengo, and three other forts (Benedek, Nugent, Leopold) and the optical telegraph, all located on the heights south of Pastrengo. Each fort were provided with all the necessary services for a long use by the garrison and was armed with around fifteen guns.

Features of these structures are: the full building in exposed masonry made with local bare stone in large blocks well squared, and only with only few parts built in brick; the special attention to design detail and elegance; the accuracy in the execution; the provision of large and well ventilated rooms; the dominant position allowing a defence almost entirely based on a thick wall on which the artillery was placed; and the considerable distance from the body of the square.

After 1866, with the annexation of Veneto to Italy and the consequent reversal of the front towards the north, the defensive role of the forts was again considered important, this time against the Austrians.



20. Fort Poggio Croce



21. Fort Piovezzano



22. Fort Poggio Pol

Source: Un territorio fortificato by F. Meneghelli, Terraferma ed., 2011.

Images: Ph. F. Dall'Aglio. Archivio Provincia di Verona Turismo. www. tourism.verona.it n. 7; photo Fiorenzo Meneghelli n. 1,5,6,8,9,10,11,12, 13,14,15,16,17,18,19,20,21,22.

Graphic design: Fiorenzo Meneghelli n. 2,3,4.



DEVELOPMENT FUND



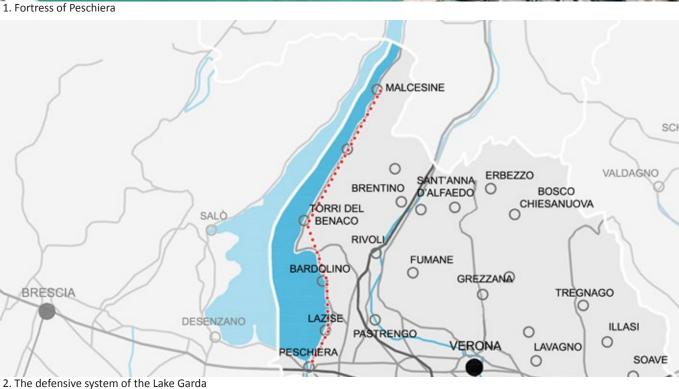
STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



49

C.4 TERRITORIAL CONTEXT - LAKE GARDA The Scaliger castles and the fortress of Peschiera











TERRITORIAL CONTEXT - LAKE GARDA

The Scaliger castles and the fortress of Peschiera



LEGEND



Fort



Castle



Walled town

MUNICIPALITIES

Affi

Bardolino

Brenzone

Bussolengo

Castelnuovo del Garda

Cavaion

Costermano

Garda

Lazise

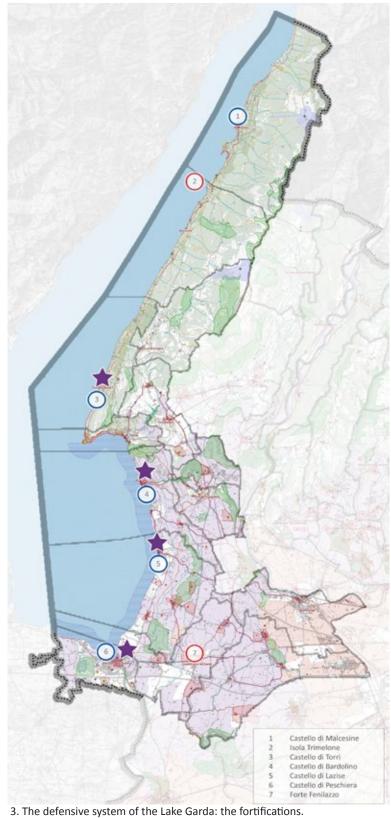
Malcesine

Peschiera del Garda

San Zeno

Sona

Torri del Benaco











THE SCALIGER CASTLES AND PESCHIERA

Historical background

The northwest border of the Scaliger Seignory followed the west bank of Lake Garda, considered a strategic area for trade routes with Trentino, the Brescia area and the Po valley. Starting from Riva del Garda, on the shores of the lake, they realized the forts of Malcesine, Torri, Garda, Lazise, ending in Peschiera and Sirmione, in the low Garda. The crossing of the river Mincio, controlled by Peschiera, was controlled by the outposts of Ponti, Monzambano and Borghetto-Valeggio, from where the Serraglio started . The castle of Calstenuovo (built by the Visconti in 1387) represented later a further defence post on the route to Verona.

The Republic of Venice confirmed the importance of this defensive structure of the regiona and concentrated its interventions in the strategic hub of Peschiera, where trade routes from Lombardy linked up. It was considered strategic also by Napoleon and the Austrians: the town was connected to the fortress of Mantua, following the river Mincio, and then to the for tress of Verona. The great battles of the Risorgimento were fought primarily around this strategic area (in particular the battles of San Martino and Solferino, 1859). During World War I, many defensive works in the trenches were built in the area of Monte Baldo next to the lake shore; an Italian fort for navigation control was realized opposite to Brenzone in the island of Trimelone. In the Palazzina Storica of Peschiera, on 8 November 1917, Vittorio Emanuele III proclaimed with the Allies the resistance on the river Piave.

Environmental characteristics

The Lake Garda has always been the "natural" border between the regions of Veneto, Lombardy and Trentino. It was also the site of commercial and cultural exchange between these regions. The Scaliger castles - also those outsied the Verona area - represent a combination of history, architecture and environment that express a single territorial vision of the area stretching from Monte Baldo to the river Mincio. The landscape value of this territory has its most significant identity in the insertion of castles and fortified villages on the lake shore. The fortifications, located at constant intervals, emerge as dominant architectures on the water level and surrounded by the mountain background characterized by the green of olive trees and woods. The fortress of Peschiera, with its historical fortified plant, is an incredible work in which nature (lake and river) and man-made work (architecture) integrate into the urban design of the city. The number of tourists in this area is among the highest in Italy.



4. Malcesine



5. Lazise - Tower of the castle





provincia 😃 🙃 verona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



HISTORICAL-TOURIST ITINERARY



Castel of Malcesine

The Castle - started in the XI century and completed in the XIV century by the Scaligers, with subsequent modification in the XVII and XIX century - is located along a steep hill at the foot of Monte Baldo. Strategic observation post, it was joined to the walls - no longer existing - that surrounded the village. The castle, with three levels of walls on terraces, has a spiral path. Inside there is a first and a second yard (10 meters from the first) and a third (6 meters higher from the other) with the high pentagonal tower (33 meters high). It house today the museum of the lake.



6. Malcesine - Panoramic view with the castle





Island Trimelone

Castle of Torri del Benaco

Connected to the ancient fortified town, it has a wall parallel to the lake, and ends with tower on the north side. The east side, where the walls are lower and squat, might be traced back to the X century, while the south (from the Scaliger time, 1383) is flanked by three towers and the curtain that protects the dock. In the eighteenth century, with the demolition of the outer walls, a greenhouse for citrus was built. Today it is a museum.



7. Torri del Benaco - Main tower of the castle





Castle and fortified village of Bardolino

.....

Castle and fortified village of Lazise

At the foot of the morainic hills of Garda, Lazise had always strategic importance both for the fortifications and the commercial port and the military dock. The defensive complex consisted of the walls, which surrounded the village in a quadrangle perimeter with the port at the center, and the rocca and the dock on the south side. The Rocca Scaligera (1375-81) had two wall fences (dock and "piazza d'armi") defended by six towers and a moat full of water. Two ravelins equipped with drawbridges guaranteed access to the village and the countryside.



8. Lazise - Castle











The city-fortress

The site of Peschiera became, from Roman times, a strategic and commercial place along the east-west connection between the cities of the Po Valley.

Since 1270 the Scaliger family took control of the city and realized a castle, strengthened in 1387 following the occupation of the Visconti of Milan.

With the annexation of Peschiera to the Republic of Venice, in 1440, the city became a strategic junction between the Venetian and Lombard possessions of the Serenissima. Between the XVI and XVIII century, a fortress with ramparts and regular pentagonal plant. It had bastions placed on the edges, connected by curtain walls surrounded by a moat of water and a vast open space towards the countryside.

The flow of the river Mincio, whose middle channel split the city into two parts, is managed thanks to the building of large vaults ("voltoni") under the curtain wall.

The first siege of the fortress of Peschiera began in December of 1800 by Napoleon's troops and it led in 1801 to the surrender of the city.

The French (1801-1814), designed the renovation and defensive enhancement of the obsolete fortifications, though they could not realize it.

In 1814, after the end of the Napoleonic time, Peschiera became part of the Kingdom of Lombardy-Venetia.

The city surrended after the Piedmont siege of 1848 and was later taken by the Austrians, who renewed its defensive plan.

The project, commissioned by Radetzky and conducted by Franz von Scholl, led to the construction of an entrenched camp that made Peschiera one of the most important strongholds of the Quadrilatero.

In 1866, the city was annexed to the Kingdom of Italy.



9. Peschiera - Gate Porta Verona



10. Peschiera - Bastion San Marco



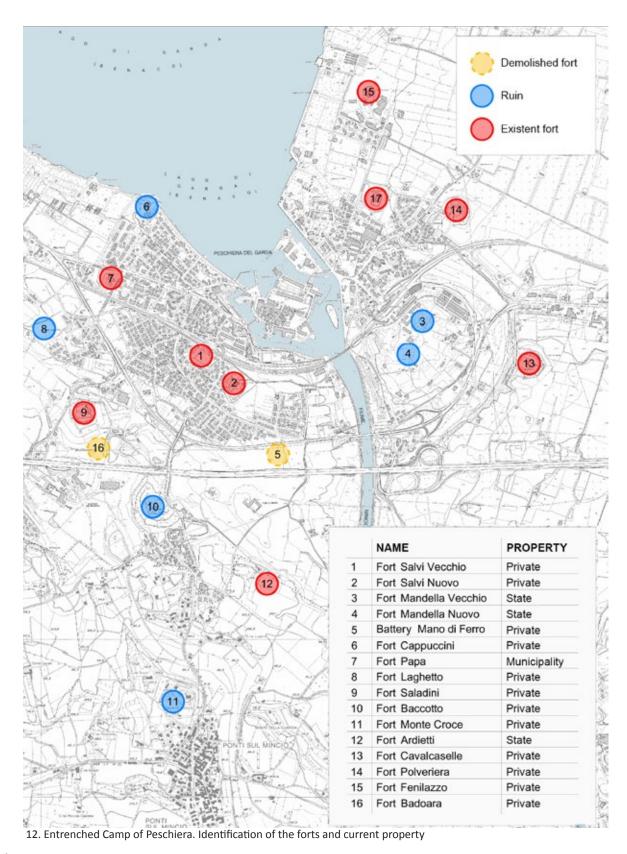
11. Peschiera - Bastion *Tognon*





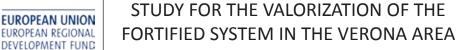














The barracks

EUROPEAN REGIONAL

The Austrian Army Engineers Corps, since 1814, began an extensive program of military construction, with great attention to the architecture and well-rooted in the historic urban fabric. Next to Porta Verona they built the infantry barracks (Franciscus I, 1821-1822), which could accommodate more than 900 people; the artillery barracks (1854-57), which housed up to 465 people; and the Palleria (1856), where powder was processed and cannon balls stored.

In front of the "canale di mezzo" was located the Hall of the Great Officers (1856), a large residence in neoclassic style in which the officers' families were hosted in 29 apartments; the "Palazzina Commando", headquarters of the military command; the Arsenal Marino (1851-52), realized outside Porta Verona, and that contained the military flotilla in its dock.

On the right bank of the "canale di mezzo", there was the "Piazza d'Armi", bounded from the barracks "La Rocca" and from the military hospital. In '500, the "Rocca", original core of the Scaliger castle, was incorporated by the Venetians in the bastion of Cantarane.

In 1837 they realized a warehouses building for flour, furnaces for the production of bread and housing for staff. The military hospital (1864), which could accommodate more than 600 soldiers, was converted in 1866 into barracks and then into military prison until its final disposal in 2001.



13. Peschiera - Hall of the Great Officers



14. Peschiera - Military hospital



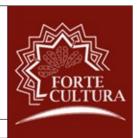
15. Peschiera - Palazzina Comando



DEVELOPMENT FUND



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



The entrenched camp

The expansion of the defensive system of the fortress of Peschiera in the surrounding area, already partly developed by the French, was realized between 1850 and 1852 by Austrian Army Engineers Corps with the first entrenched camp. In the right bank they built the forts Cappuccini, Papa, Laghetto, Saladini, Badoara, Mano di Ferro; while from 1858 until 1861, the second generation of forts was built: Baccotto, Ardietti, Cavalcaselle, Polveriera and Fenilazzo.

These works have a polygonal plant with a rigid geometric design: an octagonal shape with front gorge with hornwork and circular or oval- shaped reduit.

After the Second War of Independence, between 1861 and 1862, the third phase of construction and modernization of the forts started. In 1864 the last fort, Monte Croce, was built - and later destroyed. The structures remaining today, and located in the towns of Peschiera , Castelnuovo and Ponti sul Mincio, are are the following.

The *Fort Salvi "Vecchio"* (1803-12), part of the French entrenched camp, housed a garrison of 120 men and was equipped with an armament of ten guns - similarly to Forte Mandella Vecchio. The fort, today private property, has almost lost any trace of its original polygonal plant.

Fort Salvi Nuovo (1854-55), of French origin, was adapted to the polygonal system by the Austrians. It housed a garrison composed of 64 men and was equipped with an armament of ten guns. The building is today private.

The *fort Papa* (1850) was defended by 10 artillery pieces and housed a garrison of 106 men. The structure, made with masonry stones and vaults in brick, belongs to the polygonal system. The building is public property.

The Fort Saladini (1850-51), with polygonal



16. Peschiera - Fort Salvi



17. Peschiera - Fort Papa



18. Peschiera - Fort Saldini



EUROPEAN REGIONAL DEVELOPMENT FUND



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



plant, was armed with cannons and housed a garrison formed by 192 men.

The building is today private property.

Fort Ardietti (1856-61), has a symmetrical octagonal shape, a recessed gorge and a rounded shape reduit. It has two floors with vaults, an inner courtyard, a moat and three large caponiers. It was equipped with an armament of 22 guns and a garrison of 612 men. The fort was owned by the military until 2006; it is today managed by an association that guarantees its protection and the public access.

Fort Fenilazzo (1861-62) belongs to the third generation of Austrian forts of Peschiera.

The work featured a armament of 18 guns with a garrison of 314 men.

The fort, built with stone ashlars and vaults in brick, belongs to the polygonal system and presents a symmetrical octagonal shape with a recessed gorge with hornwork of about 100 degrees. In the early twentieth century, the area was bought by private investors. It still keeps the central redoubt, while the earth works were leveled to the ground as well as the the Carnot perimeter wall.

Fort Polveriera (1861-62) was equipped with 16 guns and a garrison of 314 men. The work belongs to the polygonal system, it has an octagonal layout with a central one-storey reduit.

The structure, made of stone ashlars masonry, has a perimeter moat and three caponiers. The fort, privately owned, was partially destroyed.

In 1861-62, to serve the forts Fenilazzo and Polveriera, the powder house Ronchi was realized.



19. Peschiera - Fort Ardietti



20. Peschiera - Fort Ardietti



21. Peschiera - Fort Polveriera

Graphic design: Fiorenzo Meneghelli n. 2,3,12

Source: Guida ai Castelli del veronese by G. Perbellini, F. Meneghelli, M. Gragnato, Cierre ed., 2000; Un territorio fortificato by F. Meneghelli, Terraferma ed., 2011. Images: Archivio Provincia di Verona Turismo. www.tourism.verona.it

Images: Archivio Provincia di Verona Turismo. www.tourism.verona.it n. 7; Ph. F. Dall'Aglio. Archivio Provincia di Verona Turismo. www. tourism.verona.it n. 4; Ph. A. Zanetti. Archivio Provincia di Verona Turismo. www.tourism.verona.it n. 1; Ph. T. Weimar. Archivio Provincia di Verona Turismo. www.tourism.verona.it n. 6,8; photo Fiorenzo Meneghelli n. 5,9,10,11,13,14,15,16,17,18,19,20,21.



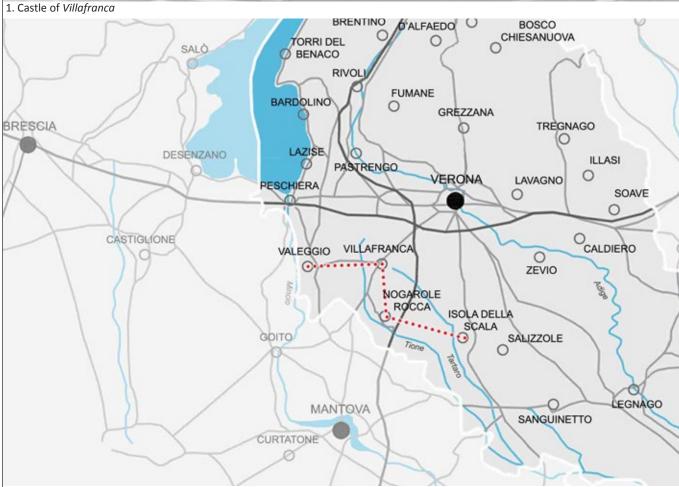




C.5 TERRITORIAL CONTEXT - WEST PLAIN

The Scaliger Serraglio: the fortifications along the rivers Mincio, Tione, Tartaro





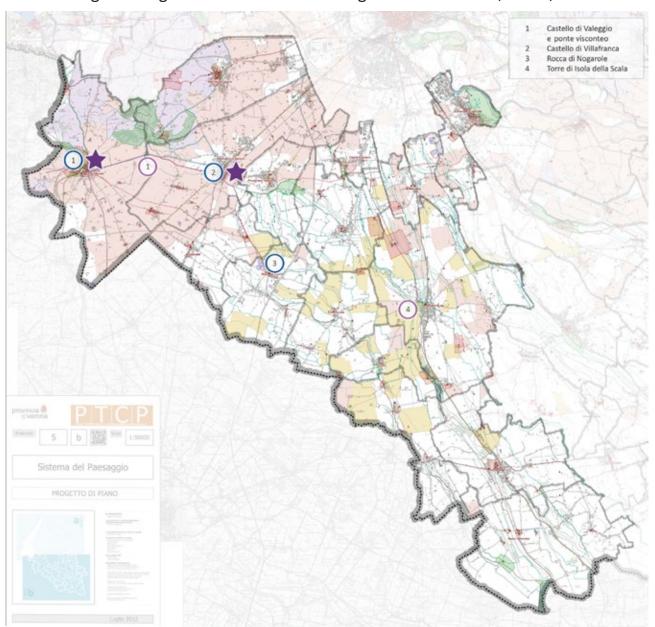




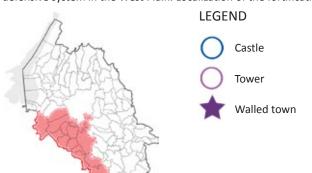


TERRITORIAL CONTEXT - WEST PLAIN

The Scaliger Serraglio: the fortifications along the rivers Mincio, Tione, Tartaro



3. The defensive system in the West Plain. Localization of the fortifications.



MUNICIPALITIES

Buttapietra
Castel d'Azzano
Erbè
Gazzo Veronese
Isola della Scala
Mozzecane
Nogara
Nogarole Rocca
Povegliano
San Giovanni Lupatoto
Sommacampagna

Sorgà Trevenzuolo Valeggio Vigasio Villafranca









THE SCALIGER SERRAGLIO: THE FORTIFICATIONS ALONG THE RIVERS MINCIO, TIONE, TARTARO

Historical background

The Serraglio, started in 1348 and completed in 1359, was built by the Scaligeri to defend the territories located south and southwest of the city of Verona, along the border with the Gonzaga lords of Mantua. The Serraglio was a defensive system that integrated the natural defenses, formed by the rivers Mincio, Tione, Tartaro and the vast marsh area on the south, with curtain walls and castles. It was a system that integrated water and walls, allowing to the Scaligers to defend themselves against the Mantuans using a limited number of soldiers placed on well established defenses. From the west, the curtain wall of the Serraglio started from the fortified village of Borghetto sul Mincio, intercepted the Castle and the village of Valeggio, and stretched to the east for about 13 kilometers, until the Castle of Villafranca. A great defensive tower, the "Gherla", was located approximately in the middle of its path. From Villafranca, the Serraglio - without the curtain wall - followed the river Tione up to Nogarole Rocca, where a castle was built., Defended by the marshland between the rivers Tione and Tartaro, it then reached the Scaliger Tower of Isola della Scala. Along this path there were other castles, now disappeared, in Vigasio, Erbè, Trevenzuolo, Gazzo Veronese, Nogara, Ponte Molino.

The Serraglio, since the Venetian Republic domination, lost its defensive function and the curtain wall was gradually demolished.

Environmental characteristics

The Scaliger Serraglio, with his remaining strongholds, castles and towers, can still be considered a landmark in the plain landscape of the Verona area, as these elements interact with the surrounding environment. In Valeggio, the Visconti Bridge and the castle are placed in the landscape defined by the valley of the river Mincio and the foothills of the moraine hills; the ruins of the the Gherla tower mark the transition from the hills of Custoza and Sommacampagna to the Mantua plain; the castle of Villafranca, which intercepts the Roman road of Postumia, is "symbolically" the gateway to the Verona area; the castle of Nogarole and the Scaliger tower are still a significant presence in the vast plain full of springs and streams. This is an area that, extending from the hills to the plain, is characterized by the widespread presence of villas and rural courts, and by the agricultural productions of excellence wine and rice, as well as food products such as tortellini.



4. Valeggio sul Mincio - Castle

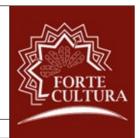


5. Villafranca - Castle









HISTORICAL-TOURIST ITINERARY





Valeggio, Visconti Bridge

The fortified bridge placed on the river Mincio (about 600 meters long, 24 meters wide and 12 meters high) was built by the Visconti in 1393.

Valeggio, Castle and historic village

The castle, started in the tenth century and rebuilt by the Scaliger family (1277-1355), is divided into two distinct defensive areas: the "piazza d'armi" - connected to the curtain of Serraglio - which was accessed through a gateway from the village, and the castle courtyard with the Mastio tower, on the north, separated from the first area by a deep moat. Each area was flanked by corner and intermediate towers. The castle is situated on a ridge of the hill overlooking the village and the river Mincio. From the tower you can admire the surrounding landscape: the moraine hills, the park-garden Sigurtà, the valley of the river Mincio, the vast plain towards Mantova and the historic village. The great watchtower of the Serraglio, located in the village, became bell tower in the 1800s. In 1977 it suddenly collapsed.

The Gherla

The "Gherla" tower, today in ruins, was a polygonal tower that served as connecting structure with the Serraglio walls that linked Villafranca to Valeggio. The Serraglio curtain wall (today lost) was 16 meters high and interspersed with towers. Made from river stones and bricks, it was protected by an external fortification.

Castello di Villafranca

In Roman times, Villafranca was a station along the Via Postumia connecting Verona to Cremona. In 1185, the City of Verona started the construction of the castle, then placed on an island in the middle of the river Tione. The castle is the result of various interventions the Scaliger from 1345 to 1359 - and now occupies an elevated platform of about 2,2 meters high, 150 meters on each side. It has a square shape with corner towers, rotated 45 degrees, and intermediate towers, 45



6. Valeggio - Castle and Visconti Bridge



7. Valeggio sul Mincio - Castle



8. Tower of Gherla





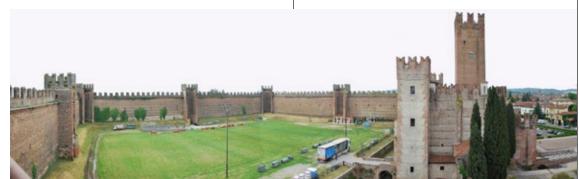


EUROPEAN REGIONAL DEVELOPMENT FUND

provincia U

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA





9. Villafranca - Castle

meters high on average. In the middle, on the side facing the city, there is the "Rocchetta", with corner towers and a moat, which forms the original core of the castle, recently restorated.

The village was set on three main axes with comb-shaped lots.

Castle of Nogarole Rocca

The castle, located near the river Tione and probably from early Middle Ages, was the bulwark of the eastern boundary of the Serraglio built by the Scaligers (1345). It was a castle-enclosure, bordered by thick walls (80 and 60 meters per side) with four towers at the corners and two intermediate towers, a drawbridge and the access to the opposite fortification protected by an isolated tower. Transformed into a noble residence and partly for agricultural use, is now in a derelict state. It was recently purchased by the city and is awaiting to be recovered.

Scaliger tower of Isola della Scala

The tower, with ravelin and two drawbridges, represented the gate to one of the few fords on the river Tartaro. The massive tower protected a small parade ground, a sort of revelin with embattled chemin de ronde.



10. Nogarole Rocca - Castle



11. Scaliger tower of Isola della Scala

Source: Comune di Villafranca; Guida ai Castelli del veronese by G. Perbellini, F. Meneghelli, M. Gragnato, Cierre ed., 2000.

Images: Ph. A. Zanetti. Archivio foto Provincia di Verona Turismo. www. tourism.verona.it n. 4,6; Comune di Villafranca n. 1,9; photo Fiorenzo Meneahelli n. 5,7.8,10.11.

Graphic design: Fiorenzo Meneghelli n. 2,3







DEVELOPMENT FUND

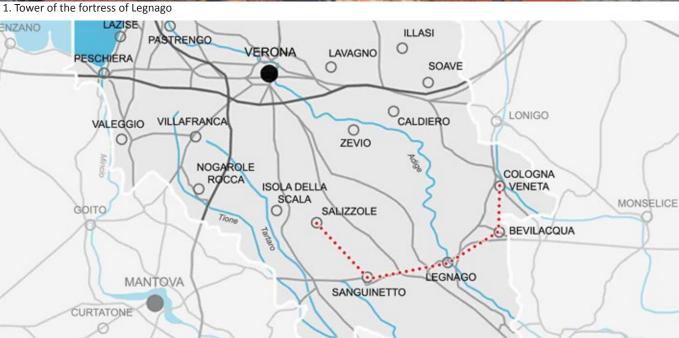


STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



C.6 TERRITORIAL CONTEXT - THE PLAIN The Scaliger castles and the fortress of Legnago



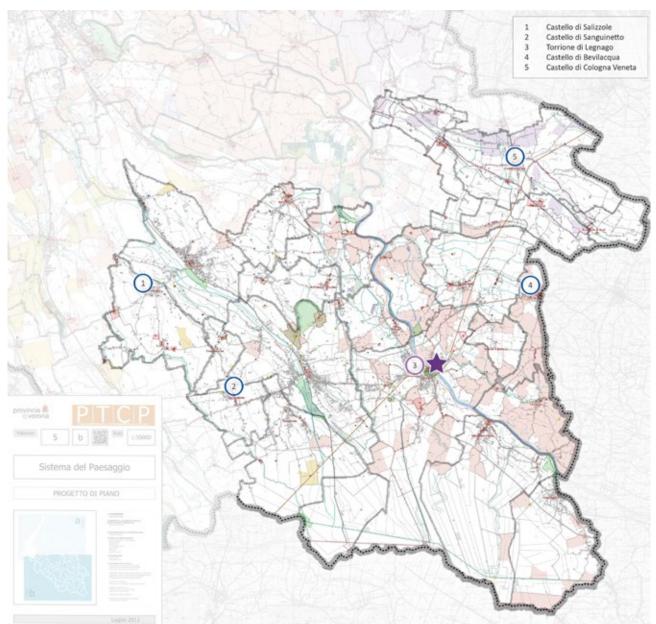




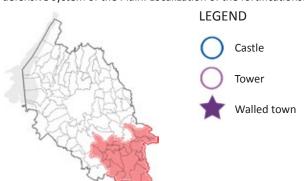




TERRITORIAL CONTEXT - THE PLAIN The Scaliger castles and the fortress of Legnago



3. The defensive system of the Plain. Localization of the fortifications.



Source: PTCP, Province of Verona (Planning and TIS Dep.) Table 5: landscape system

MUNICIPALITIES

Angiari Legnago Bevilacqua Minerbe Bonavigo Pressana Boschi Sant'Anna Roverchiara Roveredo di Guà Bovolone Casaleone Salizzole Sanguinetto Castagnaro Cerea San Pietro di Morubio

Cologna Veneta Terrazzo
Concamarise Veronella
Isola Rizza Villa Bartolomea







THE SCALIGER CASTLES AND THE FORTRESS OF LEGNAGO

Historical background

EUROPEAN REGIONAL DEVELOPMENT FUND

The fortifications of this area of the Verona plain can divided in two major phases of construction: the communes-Scaliger (X-XIV century) and the one that goes from the Venetian to the Austrian period (XIV-XX century). We might consider that the continuation of the Seraglio for the defense of the area south of the city of Verona, was built by the Scaligers always taking into account the river system, represented here in particular by the Menago and Adige.

Starting from the west, on the edge of a vast marsh area, they built the castle of Salizzole and, further south, the castle of Sanguinetto, to the east the castle of Cerea not existing anymore - until Legnago and Porto. All of them had its own tower. Over the river Adige, in the east, there is the castle of Bevilacqua (rebuilt in the XV sec.), and then the castle of Cologna Veneta, that closes the Scaliger border towards Padua. In this way the Scaliger family secured a strategic domination over the Verona plain through control presidiums on roads and waterways that led to Verona.

In fact, since the beginning of its domination, the Republic of Venice brought no significant changes in this defensive system, paying special attention only in the fortification of Legnago, identified as a fundamental cornerstone of the defense.

The Austrians (1815-1866) adopted a similar approach, but in a broader regional vision: developing the Quadrilatero, they assigned to Legnago the role of main stronghold.

Environmental characteristics

The plain of Verona located in castles the main aggregation of urban villages which have been consolidated, and together with the rural courts and religious architecture, represent the historical heritage of this area. The vast horizon of the plains or in their integration into the urban fabric, the castles stand out for the verticality of their towers, for visually dominate the territory. Around their piers have gradually developed the villages and, with the passage of time, they have assumed the value of civic towers. They are now, in fact, public or municipal offices (except Bevilacqua), demonstrating how, over time, have taken to the population an identity value.

The landscape of the plain is characterized by vast cultivated areas crossed by numerous rivers, which are preserved natural areas and wetlands of interest both flora and fauna.



4. Bevilacqua - Castle

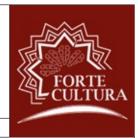


5. Tower of the fortress of Legnago









HISTORICAL-TOURIST ITINERARY



Castle of Salizzole

The castle (XIII sec.), appears today with a central rectangular building connceting two square towers. The highest (35 meters) was intended for defense and sighting; the second (27 meters high) was intended for lodging. Transformed from '500, in home farm, it was recently recovered as the town library.



Castle of Sanguinetto

The Castle (XIII sec.), with a square plaint (55 m. on each side), had high curtains with corner intermediate towers, an entrance tower (today lost) preceded by a reveling with a drawbridge.

The castle lost its military function to become a residence, and the "piazza d'armi" became an inner courtyard with architectural influences Scaliger-Viscontee and later Lombard, in the fifteenth century.

Today it is the town hall.



The fortress of Legnago

Legnago, located on both side of the Adige, was always considered a strategic fortified complex. Today we have left only the "Torrione del Soccorso" which belongs to the defenses of the '400.

The Venetian fortress of the city (1451-1475) consisted of the fortress with four corner towers and a central one, house of the lord, while the Porto one was formed by a wall with four towers.

After the war of Cambrai (1508-1510), the Sanmicheli created a fortress with hexagonal plant, divided by the river Adige into two almost equal parts, each one shaped by three pentagonal bastions.

Of the three entrances to the city, Mantua, Ferrara and Verona, we have traces only of the latter.

The French, during their occcupation, demolished part of the Venetian bastion (1801), rebuilt in later on (1805-1814).

During the Austrian domination (1815-66) the city was equipped with an arsenal, a



6. Salizzole - Castle



7. Sanguinetto - Castle



8. Tower of the fortress of Legnago



EUROPEAN REGIONAL DEVELOPMENT FUND

provincia Urverona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA





Cologna

Veneta Castle

hospital, and only renovation works on the external walls were implemented.

In 1882, the flooding of the river Adige led to the destruction of much of the fortified complex, which in 1888 was finally demolished.

Castle of Bevilacqua

The castle stands out from others because it was founded in 1336 as a fortified residence of Guglielmo Bevilacqua, merchant in close relationship with the Scaliger Seignory, and, in 1532, based on the work of Michele Sanmicheli, was finally transformed into a noble residence.

The castle suffered numerous devastations and transformations over time, until, in 1990, was bought by a private who restored.

Castle of Cologna Veneta

In the plain area, equally distanced between the centers of Verona, Vicenza and Padua, and lapped by the river Guà, the walled village of Cologna Veneta was the key point for the territorial control. The rocca formed on two side the top of the city walls and overlooked the river, from which the water was taken for the moat.

It was equipped with four corner towers and four intermediate, and included buildings with military functions and the residence of

The walled city, in the shape of an irregular polygon and built during the Scaliger time, was flanked by 12 towers and had two entrance doors. In 1665, after the collapse of one of these, they realized the square gate, the only one left today. Only a corner tower, the bottom of another - on which rests the bell tower - two towers and a section of the curtain wall are left today from the original building of the rocca.

The city walls are missing or incorporated into the buildings of the old town.



9. Tower of the fortress of Legnago



10. Bevilacqua - Castle

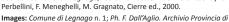


11. Cologna Veneta - Castle

Source: Comune di Legnago; Guida ai Castelli del veronese by G. Perbellini, F. Meneghelli, M. Gragnato, Cierre ed., 2000.

Verona Turismo. www.tourism.verona.it n. 4,5,7,8,9,10; Ph. F. Zanetti. Archivio Provincia di Verona Turismo, www.tourism.verona.it n. 11; Archivio Consorzio Pro Loco Basso Veronese n. 6.

Graphic layout: Fiorenzo Meneghelli n. 2,3











C.7 TERRITORIAL CONTEXT - EAST PLAIN

The Scaliger castles between the river Adige and the Pre-Alps





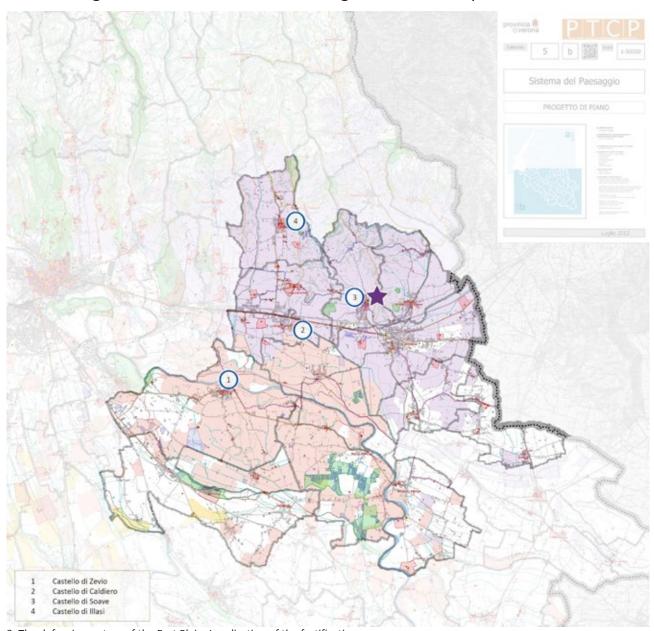




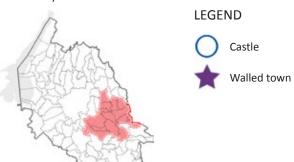


TERRITORIAL CONTEXT - EAST PLAIN

The Scaliger castles between the river Adige and the Pre-Alps



3. The defensive system of the East Plain. Localization of the fortifications.



MUNICIPALITIES

Albaredo d'Adige
Arcole
Belfiore
Caldiero
Colognola
Illasi
Monteforte d'Alpone
Oppeano
Palù
Ronco all'Adige

San Bonifacio Soave Tregnago Zevio Zimella

72 Source: PTCP, Province of Verona (Planning and TIS Dep.) Table 5: landscape system







provincia Uverona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



THE SCALIGER CASTLES BETWEEN THE RIVER ADIGE AND THE PRE-ALPS

Historical background

On the Eastern border of the Scaliger Signoria, the castle of Zevio is combined with the fortress of Legnago, which finds its strength in the river Adige. Leaving the plain, the ancient Route Postumia, well defended by the castles of Caldiero, San Bonifacio (destroyed in 1243) and Soave, connects Verona to Vicenza. The roman land division (centuriation), which develops to the plain, is defined on the East-West axis by the Route Postumia and, on the North-South axis, by the Mount Rocca and the road which arrives from the Illasi Vallev.

In this territorial framework, the foundation of Soave plays a strategic role not only from a military point of view, but also for the control of the most important commercial routes. Between the 1297, with the arrival of the Scaliger Signoria in Vicenza, and 1299, with the conquest of Feltre, Cividale and Belluno, the system of the castles ensures to the Scaliger troops a corridor, which links the city of Verona to the new territories conquered in the East.

In the North side of the territory, the castles of Illasi, Tregnago and Monteforte were built to close the valleys of the Lessini Mountains, which come down to the plain. The North-East sector was strategically and economically indispensable for the city of Verona. In the Verona area, the factories needed wool from the high pastures, the city needed timber from the forests, and for these reasons, in 1287, new populations (the Cimbrian) were called to populate the Lessinia area.

Environmental characteristics

This territory of transition from the Padan Plain to the Pre-Alps, the Lessini Mountains, finds its significant elements in the skylines of the Scaliger castles, built on the green hills.

Starting from the imposing castle of Zevio, surrounded by a moat, you arrive to the Mount Rocca, which rises up from the flat territory of Caldiero, and to the castles built on the top of the hills. The embattled wall of the city of Soave, which finishes with the castle, surrounded by the vineyards, permits not only to identify the site, but also the typical product of this area: the wine. Continuing to the Illasi Valley, you can find historic villages and the creek that, coming down from the Mount Carega, gives the name to the Valley. The castle of Illasi, connected to Villa Perez Pompei by a vast park, surrounded by trees and vineyards, is built on the top of the hill. Inside the Valley, along the road, there are many olive and cherry trees, and you get to the castle of Tregnago. Continuing to North, you arrive to Giazza, the Cimbrian's land.



4. Soave - Castle and city walls



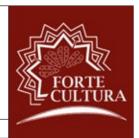
5. Bird's eye view of the city of Soave





provincia 🗓

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



HISTORICAL-TOURIST ITINERARY



Castle of Zevio

The castle, located on a ford, sheltered by one of the bends of the rive Adige, was built in the late Middle Ages. It is surrounded by an elliptic wall with a squat main tower, positioned in the southern corner. Since 1453 it assumes the form of a typical Villa Veneta, with masonry bridges which go outside, and today it is the town hall.



Castle of Caldiero

On the top of the Mount Rocca, 81 meters high, many defensive works (castles, roman and scaliger defense buildings) were realized, but they changed their form over time.

Actually, the castle derives from a modification of a previous home, as well as the edifice called Rocca located on the top of the hill.



Castle of Soave and historic village

The walled village that culminates in an imposing castle, is one of the identifying elements of the Lessini landscape.

The foundation of Soave goes back to the X century, but its defensive drawing is due to the Scaliger intervention in the XIV century. The walls, punctuated by towers (defined on South and West sides by the creek Tramigna, which becomes the peripheral moat), conserve nowadays their original structure and surround the entire village. The scaliger walls, 12-18 meters high, exceed a climb of 60 meters, and they are punctuated by 24 towers distant 80 meters. On the three flat sides of the village there were three doors sheltered by a drawbridge.

Inside the masonry fence, you can find gothic palaces, the Scaliger palace (headquarter of the Governors and the Captains), and palace Sanbonifacio; there is Palazzo dei Cavalli, In Venetian-gothic style, and the palaces dei Moscardo and delle Pullici, in Renaissance style.

The Scaliger castle is organized in more fences, with the soldiers divided from the nobles. In 1413, the Venetians added a new



6. Caldiero - Castle



7. Soave - Castle









Illasi 4

Tregnago

Castle

Castle of Illasi

edifice.

On the top of the hill, above the Illasi Valley and the Tramigna, probably built on an existing roman ruin, the imposing castle has a main tower of 32 meters high with a rectangular basement (20x35 meters). The surrounding defense walls were built with well worked blocks of stone thick 3 meters. The building is discretely conserved.

curtain wall, by realizing a new Place of Arms, which gave an independent access to the castle and village, through the gate of San Giorgio. In 1696, the fortification was acquired by the noble venetian family of Gritti and was used like a farm and cellar. The castle we see today is the result of a restauration work made by Camozzini in the end of '800. The work followed the building criteria of the age of the realization of the

Castle of Tregnago

The castle-fence is built in the upper part of the Illasi Valley, to defend the access to the plain, with the fortresses of Marcemigo and Cogollo. Built during the Middle Ages on a roman ruin, the defense walls, punctuated by towers, followed the rock on which they were built and they defined a vast Place of Arms.

In 1891, the castle was damaged by the heartquake, which demolished the main tower and some parts of the defense wall.



8. Illasi - Castle



9. Tregnago - Castle

F. Meneghelli, M. Gragnato, Cierre edizioni, 2000.

Images: Ph. F. Dall'Aglio. Archivio Provincia di Verona Turismo. www. tourism.verona.it n. 7; Ph. F. Zanetti. Archivio Provincia di Verona Turismo. www.tourism.verona.it n. 8; foto Fiorenzo Meneghelli n. 6; Comune di Soave n. 1,4,5; Comune di Tregnago n. 9.









D. VALORIZATION OF THE DEFENSIVE SYSTEM IN THE VERONA AREA

D.1 THE CITY OF VERONA: DOCUMENTATION CENTRE ON MILITARY ARCHITECTURE

Domenico Zugliani (UNESCO Office - City of Verona)

The creation of a Documentation Centre is a very significant step in the process of valorization of the "Cinta Magistrale" in Verona. The Centre was established as the first organised point to spread knowledge about the historical-monumental military architecture of Verona, thanks to which UNESCO has included the city in the WHL.

The chosen site is located within an area subject to redevelopment that include the former barracks of Passalacqua and Santa Marta. This site will have a public use and will definitely gain an high cultural and touristic interest: the promotion of thematic itninerary of military architecture will add a great value to the cultural offer of the city.

It should be stressed that the Centre is not meant to be a museum in the narrow sense: it shall be the ideal place - located inside one of the most impressive Venetian-Habsburg fortified structures - from which to discover the history of the fortifications of the Verona area, through an original historic-didactic itinerary. There will also be information materials and documentation, visit programmes for school groups and tourists on the walls, the doors and the forts of the city.

The tasks of the Documentation Centre will be to create an archive and collect and catalog the materials arriving from different sources. It will also make proposals for reasearch projects, it will promote the collection of geo-morphological documentation on fortresses and the drafting of projects to be financed under the Law 77/06 "Special measures of protection and exploitation of Italian sites of cultural, landscape and environmental interest, included in the World Heritage List, placed under the protection of UNESCO". The University of Verona will be involved in the management of the Centre, providing a scientific and research partnership and promoting with the Centre tutoring activities for students on specific projects. Moreover, scientific collaborations will be launched with other national and international institutions dealing with the same issues.

An exhibition section will be realized in the Bastion of Maddalene, occupying the entire lower level. It will be formed by three rooms connected by a postern for an area of 380 square meters, a multipurpose room of



DEVELOPMENT FUND



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



87 square meters and two bathrooms located in the former powder magazines (about 65 square meters); at the top level, in the left casemate, there will be two spaces (approx 79 sq.m.) intended for office / warehouse / storage as reported in the attached plans. In order to take into account the structural and environmental conditions of the Bastion, the exhibition design will be respectful of the place, using for example: interactive screens, original finds, reproductions of military structures and architectures, etc. and other elements able to describe and adequately document the concept of the fortified city during the different historical stages of Verona and the Veneto region. The multipurpose room will be used as educational workshop or for conferences, meetings, presentations, etc. The center will be open to the public with a daily schedule. Guided tours will be organised for schools focusing on the UNESCO values, as well as tourist itineraries.

The Scientific Committee will be in charge of coordinating and programming. It will find financial resources and select personnel with the appropriate competences for the management of the Centre.

The project of the Documentation Centre is implemented by the Regional Operational Programme POR CRO ERDF 20017-2013 "Interventions for cultural heritage enhancement": project ERDF_R_89 "Cinta Magistrale of Verona: restoration project for the creation of a Documentation Centre" (total amount Euro 1.500.000,00).



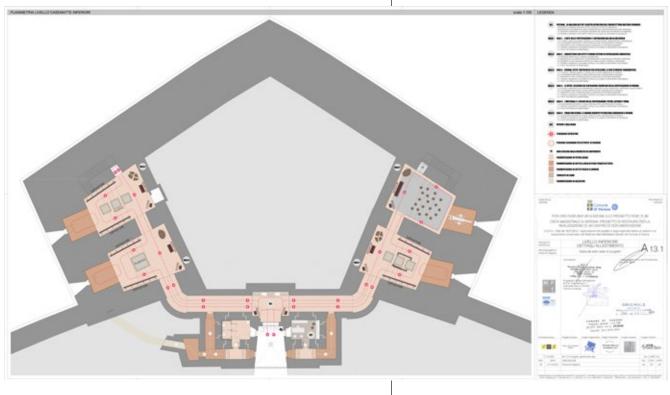
1. Bastion of Maddalene













2-3. Project tables

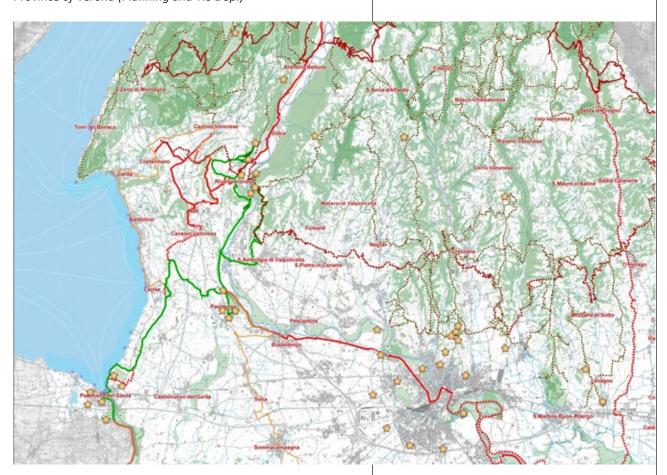






D.2 FROM THE ADIGE VALLEY TO THE GARDA LAKE: SUSTAINABLE TOURISM AND THEMATIC ITINERARIES

Province of Verona (Planning and TIS Dep.)



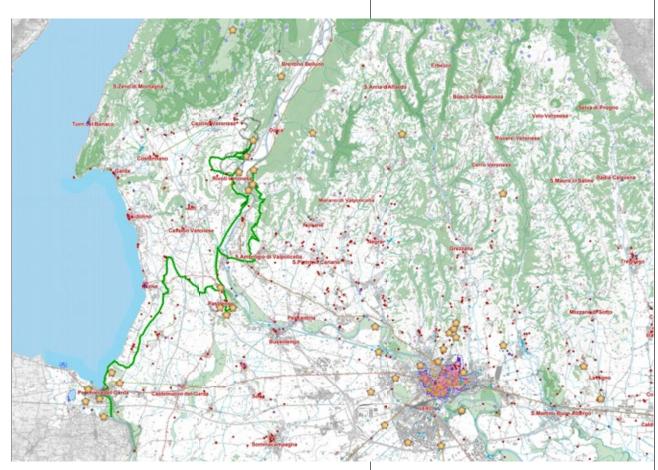












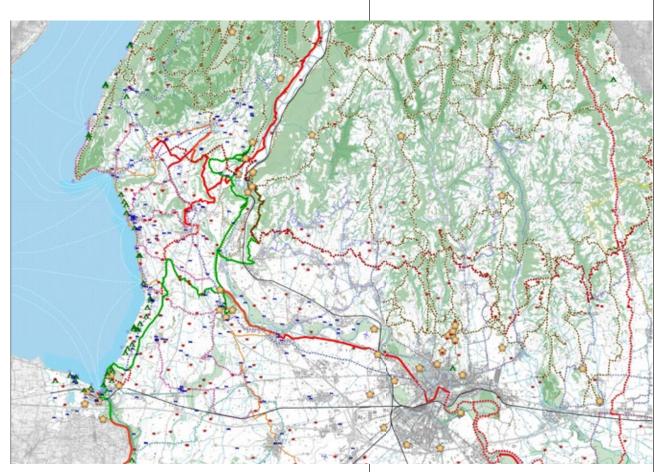
Legen	d			
0	Fort		Proposal for the itinerary of the forts	
0	Remains of fortifications	0	Fortified residency	
0	Military work	•	Castle	
0	Tower		Gate	
	Monument	a	Historic bridge	
[]	Landscape of "Grandi Battaglie"			
+	Abbey	+	Monastery	
+	Shrine	+	Parish	
+	Church			
۰	Alp, chalet	•	Mountain retreat	
	Historic centre		Historic court	
100000	Garden or historic park			
	Unesco Site		Villa veneta	
	Edifice of architectural interest		Industrial archeology	
_	City walls		Defensive system	
	Roman route		Route lombardoveneta	



















THE DEFENSE SYSTEM OF RIVOLI VERONESE - "STRATEGIC" PANORAMA Itinerary 1

Practicability

The panoramic tour can be traveled by bicycle or on foot.

Description of the itinerary

Due to its unique geographical position, at the outfall of the Adige Valley and defending the Chiusa Veneta, Rivoli Veronese was since ancient times a center of fundamental importance for the strategic control of land and river traffic connecting Central Europe with the Mediterranean Sea, and in particular the Danubian plains with the fertile Po valley regions.

Here the Austrians built the fort in 1850-51, named after General Wohlgemuth, who had distinguished himself in the Campaign of 1848.

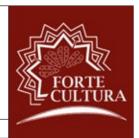
The route starts from the center of Rivoli Veronese, from which you can easily reach



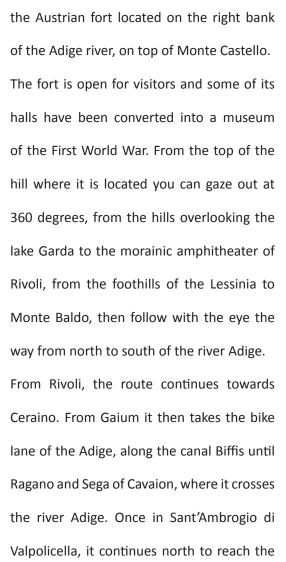
4. Itinerary 1











Fort Mollinary - also called Forte Monte - and

then more north until Fort Hlawaty, known

as Forte Ceraino in the municipality of Dolcè.



5. Fort San Marco



6. Barrage of Incanal



7. Fort Wohlgemut



Ø₹Ð

Closure of



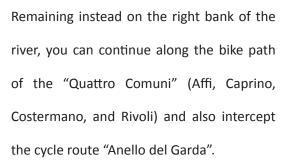


provincia 🗓

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA





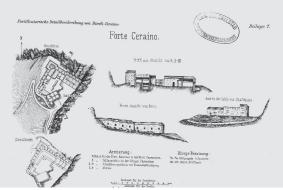


The latter is a 105 km long bike path in the Garda hinterland. It crosses and connects the territory of eighteen municipalities, partly separeted and partly shared, mostly on local roads or on roads with low volume of traffic. Then continuing towards the town of Zuane di Caprino Veronese, you can reach the Fort San Marco.

This fort, privately owned and abandoned, preserves the original structure. Located on a dominant position overlooking the Adige Valley, it can be reached using the old military road starting from Osteria Zuane.



8. Fort Mollinary or Fort Monte



9. Fort Ceraino



Closure of Ceraino





10. Fort of Chiusa Veneta







Characteristics

The forts System of Rivoli Veronese is part of an area of the Garda hinterland rich in slow type of connections, which promote the use of bicycles and the so-called "alternative" mobility. The area offers a landscape characterized by small districts, a great attraction for mountain bike and horse riding lovers.

The defense system is easily accessible through the bicycle network. This mainly consists of separeted cycle tracks, for example: the "ciclovia dell'Adige", an exclusively Italian interregional route, which runs alongside the river Adige; the bike path of "Quattro Comuni" - between the vallages of Affi, Caprino, Costermano, and Rivoli - and other cycle routes such as the "Anello del Garda", currently under construction.

The area can also be visited using the many paths of the Italian Alpine Club and, for horse lovers, various bridleways.

In this area, from the top of the moraine amphitheater, one can also see the signs of the trenches that Italians built during the First World War.

From the cultural offer point of view, the area is also characterized by the presence of numerous archaeological sites, Venetian villas and industrial archeology.

There are numerous hospitality facilities, such as farms, hotels and bed&breakfasts, as well as a number of initiatives for the promotion of local products.

The whole area is served by the main connecting infrastructures.







THE DEFENSE SYSTEMS OF RIVOLI VERONESE AND PASTRENGO

Itinerary 2

Practicability

DEVELOPMENT FUND

The panoramic tour can be traveled by bicycle or on foot.

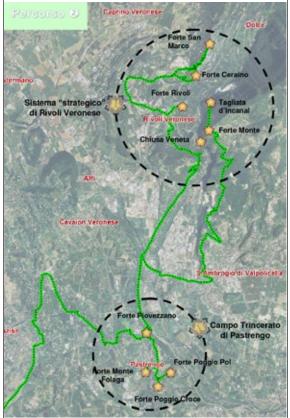
Description of the itinerary

It is a panoramic tour between the forts of the "strategic" system of Rivoli Veronese and Pastrengo.

The defense system of Rivoli is composed by the following forts:

- Fort Wohlgemuth, in the municipality of Rivoli Veronese, located on top of the Monte Castello (227 m. above sea level);
- Fort Hlawaty, in the hamlet of Ceraino, in the municipality of Dolcè, at 236 m.;
- Fort Mollinary, in the village of Monte in the municipality of Sant'Ambrogio di Valpolicella, at 410 m;
- Fort of Chiusa, in Ceraino, located on the lowland with the function of control over the road and railway in the direction of Brennero. The near Fort San Marco, on the right bank of the Adige, can not be considered part of the group, as constructed afterwards (between 1888 and 1813) by the Italian Army.

The forts belonging to the Pastrengo system are a group of four other forts, almost next to each other and are among the last fortifications, in chronological order, built by



11. Itinerary 2



provincia Uverona



STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA

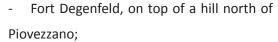




Ø₹0

Folaga

the Austrians in the area, dating between 1859 and 1861. All these buildings have many elements in common. For example, all have large courts overlooked by the structures used as casemates or offices and warehouses. Being positioned far enough away from the city, the forts had to be able to ensure a certain autonomy for relatively long periods to the garrison. There were in fact large and ventilated dormitories, warehouses, kitchens and headquarters chambers. The group includes the following four forts:



- Fort Benedek;
- Fort Nugent;
- Fort Leopold.

defenses The built Pastrengo, complemented by those in Rivoli, completed the network of fortifications connected in a unified territorial vision of the "Quadrilatero". All are located south of Pastrengo.

The route proposed consists of the combination of the Itineray 1) - "Defense System of Rivoli", above described - with a route accross the "Defense System of Pastrengo".

Leaving the center of Rivoli and taking the cycle route "ciclovia dell'Adige", the itinerary continues south towards Pastrengo. At the



12. Fort Degenfeld or Piovezzano



13. Fort Benedeck or Folaga



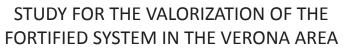
14. Fort Benedeck or Folaga





EUROPEAN REGIONAL DEVELOPMENT FUND







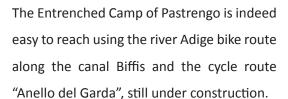


hamlet of Pol in Piovezzano it cross the canal Biffis and reaches the fort of Piovezzano (or Fort Degenfeld).

Continuing south to Pastrengo, one can also reach the other three forts that complete the Entrenched Camp of Pastrengo.

Characteristics

As the system of the forts of Rivoli Veronese, also the Entrenched Camp of Pastrengo is part of an area in the Garda hinterland rich in slow type of connections, which allow the use of bicycles and the so-called "alternative" mobility.



From the cultural offer point of view, the area is characterized by the presence of some Venetian villas.

There are numerous hospitality facilities, such as farms, hotels and bed&breakfasts, as well as a number of initiatives for the promotion of local products.

The whole area is served by the main connecting infrastructures.



15. Telegraph of the Entrenched Camp of Pastrengo



16. Fort Nugent or Poggio Pol



17. Fort Leopold or Poggio Croce















THE THREE FORTIFIED SYSTEMS FROM RIVOLI VERONESE **TO PESCHIERA DEL GARDA Itinerary 3**

Practicability

The panoramic tour can be traveled by bicycle or on foot, or partly by bicycle and partly by public transport.

Description of the itinerary

It is a panoramic tour between the main fortified systems of Rivoli Veronese, Pastrengo and Peschiera del Garda.

The forts of Rivoli are four: Fort Wohlgemuth, Fort Hlawaty, Forte Mollinary and Fort of Chiusa, together with the near Fort San Marco, located further north.

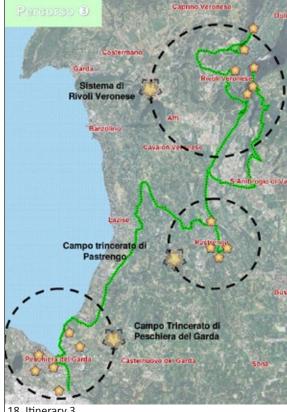
The system of Pastrengo consists of four other forts: Fort Degenfeld, Fort Benedek, Fort Nugent and Fort Leopold.

These two "systems" can be connected to each other by the route which takes place mainly along the river Adige bike lane.

From Pastrengo, leaving the ciycling route at the hamlet of Pol di Piovezzano, you can reach further south the system of Peschiera del Garda, continuing by bike on municipal level roads.

After visiting the Fort Degenfeld in Piovezzano, the itinerary reaches the provincial road 27 and after few meters it takes on the right the road leading to the hamlet of Cornè.

After crossing the A22 motorway towards



18. Itinerary 3





provincia verona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA





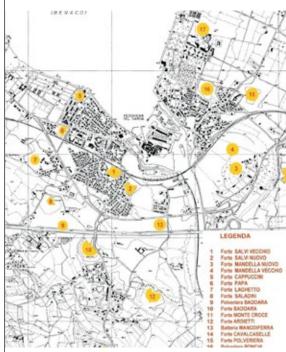
Lazise, it intercepts the cycle path "Anello del Garda". For a tourist route, you can also choose to travel to Calmasino and enjoy the landscape and the view through the villages of Valesana, Pissarole, Mondragon di Sopra and Mondragon di Sotto, Palù dei Mori, Gasco near Pacengo di Lazise, until Ronchi near the theme park Gardaland and then Peschiera del Garda.

Here you can visit the Entrenched Camp of Peschiera del Garda, originally consisting of a belt of twenty isolated structures, placed as a crown in the surrounding countryside, many of which are still present.



As the fortified systems of Rivoli Veronese and Pastrengo, also Peschiera del Garda is part of an area rich in slow type of connections, especially favoring the use of bicycles.

From the cultural point of view, the area around Peschiera is characterized by the presence of some Venetian villas, archaeological sites of great interest. Some sites were declared in 2011 UNESCO heritage, such as the pile-dwelling sites of Belvedere and of Frassino.



19. Entrenched Camp of Peschiera del Garda



20. Fort Salvi



21. Fort Mandella







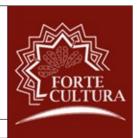


Fort Mandella



provincia 💆

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA





There are many hospitality facilities in the area such as farms, hotels, bed&breakfasts and campgrounds, as well as a number of initiatives for the promotion of local products.

The whole area is served by the main connecting infrastructures.



22. Fort Papa











23. Fort Ardietti



24. Fort Cappuccini

Source:

Images: Archivio G. Scamperle n. 5,7,8,10,12,13,15,16,17; Archivio Consorzio di Bonifica Veronese n. 6,20,22,23; Archivio F. Meneghelli n. 9,19; Archivio Fondazione Fioroni n. 14,21,24.

Graphic design: Province of Verona (Planning and TIS Dep.) n. 1,2,3,4,11,18





provincia 🗓

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA



D.3 PRELIMINARY STEPS TOWARDS A MASTERPLAN FOR THE "LAND OF THE FORTS"

Province of Verona (Planning and TIS Dep.) - Fiorenzo Meneghelli

Preamble

A balanced economic and social development of the area can be through:

- the enhancement of its historical, cultural and environmental heritage;
- the development of local production and, in particular, of the wine and food excellences;
- the promotion of "sustainable" tourism able to grasp the characteristics of the areas indicated in the preceding two points.

The Province of Verona host the largest part of the fortified heritage in the Veneto region. A project aiming at the territorial development of the Adige Valley has therefore a strategic value for the entire Province of Verona.

The Adige Valley has always constituted the connecting corridor between Northern Europe and Italy, and for this reason road infrastructures (road, highway, railway) were built in the valley, leaving the adjacent historical and economic settlement out.

Interpretating the Adige Valley as "land of the forts" means enhancing the "identity" of a territory characterized on the one hand by historical memories of the Napoleonic epic battles, by Habsburg fortresses and italian forts, and on the other hand by peculiar and excellent agricultural and wine production.

A programme for the territorial "rebalancing" of the Adige Valley should consider the historical and cultural heritage and the related features of the area (environment, artisanship, agriculture) as a driving force for its sustainable development.

Preliminary steps towards a masterplan for the "land of the forts"

The objectives of the MASTERPLAN can be briefly described as follows:

Environmental: protection and recovery of the environment and landscape;

Historical and Memorial: protection and recovery of historical and architectural heritage.

Touristic and educational: increase of the tourist attractivity with itineraries and cultural and environmental services, with routes connected to the interregional and European networks.

Local Development: conservation and development of productive activities, promotion of the peculiarities of the area, improvement of accommodation and







cultural services.

The restoration of military structures must be guided by criteria of "compatibility and sustainability" in accordance with the context of intervention, in order to protect the heritage as a whole, from the historical point of view, as well as from the environmental and landscape one.

Nevertheless, this approach should not exclude "contemporary" interventions, if these aim at a greater enjoyment of the fortifications and allow the use for educational purposes and for service and support for cultural and tourist activities.

For this reason, a reference project should be drafted, in which to define the historical-architectural and landscape values of this great heritage and to specify the protection and intervention principles and therefore the possible uses.

Any intervention for protection, preservation and valorization of this heritage should be structured into three main areas:

A- KNOWLEDGE - Historical research: documentary; cartography; memorial, etc.

Investigations and surveys: territorial analysis, critical examination of historical and current maps, identification of the typology: forts; trenches; roads, bridges; galleries; depots, barracks, service facilities; etc.

B- PRESERVATION - Examination of the state of conservation and assessment of the most suitable level of intervention should, to be agreed with the Commission for the Architectural and Landscape Heritage. Definition of intervention methods and techniques to be used; identification and coordination of the operators.

C- COMMUNICATION - Communicating the memory through documents and information: books, thematic maps, posters, website, conferences, exhibitions, etc.; historical-naturalistic itineraries; guided tours; historical reenactments; etc

The development of a masterplan of the Land of the forts" can be a strategic tool for Adige Valley, in which the enhancement of the defensive system can become the engine for the promotion of excellences in manufacturing and in cultural and environmental tourism.

The attached schemes are purely meant to be proposals to discuss with all the actors, both public and private, operating in the Adige Valley.

1. Preliminary steps towards a masterplan for the "Land of the forts"

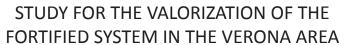
"Land of the forts" Legend Cycle path (PTCP) Hiking trail (PTCP) Historical itineraries to be recovered Intersection between the cycle paths and the historical itineraries.

Connection between Rivoli and Ceraino

- Fortifications
 1. Fort of Chiusa Veneta
 - Fort Monte
 Fort Rivoli
 - 4. Fort Ceraino
 - 5. Closure of Incanal
 - 6. Fort San Marco
 - 7. Fort Cimo Grande
 - 8. Fort Masua

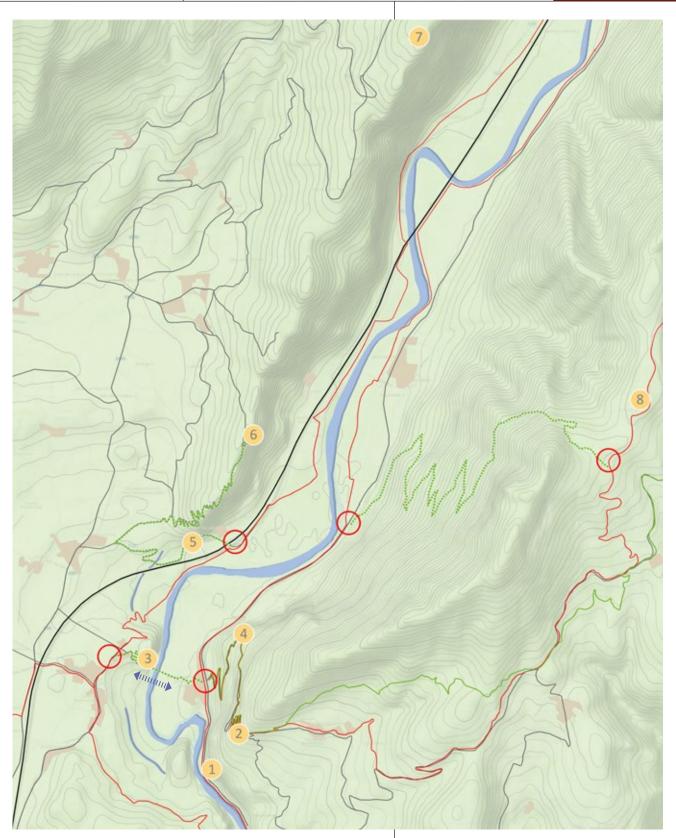
















provincia 💆 -verona

STUDY FOR THE VALORIZATION OF THE FORTIFIED SYSTEM IN THE VERONA AREA





2. Fort of Chiusa Veneta



3. Fort Monte



4. Fort Rivoli



5. Fort Ceraino



6. Closure of Incanal





8. Fort Cimo Grande



9. Fort Masua

FORT	Property	museum exhibition	agricultural environmental	tourist food and wine	accommodation	promotion of the territory Economic and social
CIMO GRANDE	State					
SAN MARCO	private					-
INCANAL	private		0 1			
RIVOLI FORTE	State					
RIVOLI BATT. BASSA	State					
CASERMA MASSENA	State					
RIVOLI POLVERIERA	municipality					
CERAINO	State					
MONTE	private					
CHIUSA VENETA	State		18			

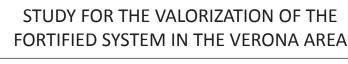
^{10.} Identification of the properties and activities of the forts

Source: Un territorio fortificato, F. Meneghelli, Terraferma ed., 2011 Images: Ph. F. Dall'Aglio. Archive of Provincia di Verona Turismo. www.tourism.verona.it n. 4; photo Fiorenzo Meneghelli n. 2,3,5,6,7,8,9 Graphic design: Fiorenzo Meneghelli n. 1, 10



DEVELOPMENT FUND







D.4 THE FORTIFICATION OF THE VERONA AREA IN THE NETWORK OF EUROPEAN FORTRESSES

Fiorenzo Meneghelli

The fortifications are the memory of a past when Europe was divided between nations in conflict with each other, and now it can be an opportunity for cultural and social growth for many countries.

In this framework of European cooperation, the development of historical-cultural routes is one of the fundamental means for the knowledge and enhancement of the huge fortified heritage.

The creation of the culture route of fortified heritage in the Baltic Sea Region (Baltic Fort Route project) represented a first effective form of cooperation between Germany, Poland, Ukraine and Russia. In that case 15 cities worked together to create an historical and touristic itinerary connecting fortifications built between the sixteenth and the twentieth century. The route were exploited not only for its historical aspects,



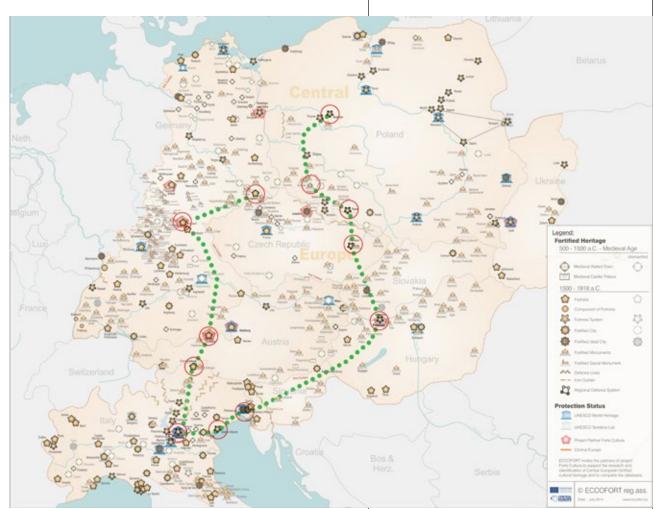






but also for the cultural and leisure activities hosted in the different forts.

The European project FORTE CULTURA, with the strong cooperation of the project partners - Austrian State Archive, Salzburg's Castles and Palaces Management, Jaromer Municipality, Homboldt-University at Berlin, City of Kronach, TIAW- Thuringian Institute for Studies and advaced Education, ECCOFORT-European Cooperation Centre of Fortified Heritage, Fort Monostor-Military Cultural Centre Komarom, Province of Verona, Institute for the Protection of Cultural Heritage of Slovenia, L'viv Regional State Administration, Top-City-Kufstein - aims to creat a wider network of European fortresses called European Culture Route Fortified Monuments "Forte Cultura", which ideally connects the fortresses in Europe from



2. European Culture Route Fortified Monuments. Historical-tuorist itinerary - Proposal







the Baltic to the Adriatic Sea.

DEVELOPMENT FUND

A second phase after the project foresees the implementation of agreements between cities and Eurpean fortified sites to identify and plan possible historical-cultural itineraries and to organize visits and other initiative for a common valorization of such heritage.

ECCOFORT has already developed an advanced plan for possible European and national routes suitable to show visitors the historical, cultural but also attractive peculiarities of fortifications.

The figures here showns illustrate the different proposal of the Route at European, national or regional level. Within such framework, the fortified system of the Verona area represents the main point of interest for the whole northern Italy, and it offers potential for local and inter-regional development.

The importance of the defense system of the Verona area, which has as its center the city of Verona, is determined by various aspects: historical - as a place of war in the history of Italy; architectural - for the typological and technical evolution of defenses from Roman times to the twenty-first century; urban - for the urban transformation in relation to the development of the city defense system; landscaping - for the integration of fortifications into different environmental contexts such as lake, river, mountains. In chapter C) "Fortified works in the Verona area: historical-tourist contexts and itineraries", different contexts were identified, and some cultural-historical itineraries were proposed. These can be further exploited from the regional route into local level itineraries. Some examples are given in this chapter.

There is therefore the need to operate on different spatial scales, but always integrated with each other, passing from the scope of large territorial scale to the provincial one, in which each defensive work is no longer seen as an element of local interest, but rather as part of a wider system of relations and of historical-cultural routes at the European level.



3. Northern Italy - Proposal for an historical-tuorist itinerary



4. Northern Italy - Proposal for an historical-tuorist itinerary



5. Northern Italy - Proposal for an historical-tuorist itinerary

Source: Eccofort
Images: Eccofort n.1,2,3,4,5.
Graphic design: Fiorenzo Meneghelli n.2