

16 DEFENSIVE ARCHITECTURE OF THE MEDITERRANEAN

Gjergji ISLAMI, Denada VEIZAJ (Eds.)



DEFENSIVE ARCHITECTURE OF THE MEDITERRANEAN
Vol. XVI

DEFENSIVE ARCHITECTURE OF THE MEDITERRANEAN
Vol. XVI

Editors
Gjergji Islami, Denada Veizaj
Universiteti Politeknik i Tiranës



UNIVERSITETI
POLITEKNIK
I TIRANËS

CIP Katalogimi në botim BK Tiranë

Universiteti Politeknik i Tiranës
Defensive architecture of the Mediterranean / Universiteti Politeknik i Tiranës;
ed. Gjergji Islami, Denada Veizaj. - Tiranë : Universiteti Politeknik i Tiranës, 2024.

Vol. 16, 352 f. ; 17 x 24 cm
ISBN 978-9928-4735-9-2

1.Arkitectura 2.Konferenca
72 (062)

Series *Defensive Architecture of the Mediterranean*

General editor: Pablo Rodriguez-Navarro

The papers published in this volume have been peer-reviewed by the Scientific Committee of FORTMED2024_Tirana

© editors: Gjergji Islami, Denada Veizaj

© editorial team: Saimira Arapi, Ana Pekmezi, Edmond Pergega

© cover picture: Giorgio Verdiani

© papers: the authors

© publishers: Universiteti Politeknik i Tiranës, edUPV (Universitat Politècnica de València)

Published with the contribution of Universiteti Politeknik i Tiranës

© Copyright 2024

Universiteti Politeknik i Tiranës

Sheshi Nënë Tereza 4, 1001, Tirana, Albania

www.upt.al

ISBN 978-9928-4735-7-8 (electronic version)

ISBN 978-9928-4735-9-2 (vol. 16)

© Copyright edUPV (Universitat Politècnica de València) 2024

ISBN: 978-84-1396-243-6 (two-volume collection)

ISBN: 978-84-1396-244-3 edUPV Ref. 6768 (electronic version)

ISSN: 2792-5633 (Series *Defensive Architecture of the Mediterranean*)

PROCEEDINGS of the International Conference on Fortifications of the Mediterranean Coast FORTMED 2024
Tirana, 18, 19 and 20 April 2024

CC BY-NC-ND 4.0

Legal Code: <https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode.en>



Organization and committees

Organizing Committee

Chairs:

Gjergji Islami, Universiteti Politeknik i Tiranës

Denada Veizaj, Universiteti Politeknik i Tiranës

Members:

Saimira Arapi, Universiteti Politeknik i Tiranës

Edmond Pergega, Universiteti Politeknik i Tiranës

Ana Pekmezi, Universiteti Politeknik i Tiranës

Honor Committee:

Prof. Andrea Maliqari, Rector of the Polytechnic University of Tirana

Prof. Armand Vokshi, Dean of the Faculty of Architecture and Urbanism, Polytechnic University of Tirana

Alessandro Ruggera, Director of the Italian Institute of Culture, Tirana

Scientific Committee

Almagro Gorbea, Antonio. Real Academia de Bellas Artes de San Fernando. Spain Bertocci,

Stefano. Università degli Studi di Firenze. Italy

Bevilacqua, Marco Giorgio. Università di Pisa. Italy

Bragard, Philippe. Université Catholique de Louvain. Belgium

Bouzid, Boutheina. École Nationale d'Architecture. Tunisia

Bru Castro, Miguel Ángel. Instituto de Estudios de las Fortificaciones – AEAC. Spain Cámara

Muñoz, Alicia. UNED. Spain

Camiz, Alessandro. Università “G. d’Annunzio” di Chieti-Pescara. Italy

Campos, João. Centro de Estudos de Arquitectura Militar de Almeida. Portugal Castrorao Barba,

Angelo. The Polish Academy of Sciences, Institute of Archaeology and Ethnology. Poland –

Università degli Studi di Palermo. Italy

Cherradi, Faissal. Ministère de la Culture du Royaume du Maroc. Morocco

Cobos Guerra, Fernando. Arquitecto. Spain

Columbu, Stefano. Università di Cagliari. Italy

Coppola, Giovanni. Università degli Studi Suor Orsola Benincasa di Napoli. Italy Córdoba de la

Llave, Ricardo. Universidad de Córdoba. Spain

Cornell, Per. University of Gothenburg. Sweden

Corniello, Luigi. University of Campania “Luigi Vanvitelli”, Italy

Daci, Entela. Universiteti Politeknik i Tiranës. Albania

Dameri, Annalisa. Politecnico di Torino. Italy

Eppich, Rand. Universidad Politécnica de Madrid. Spain

Fairchild Ruggles, Dorothy. University of Illinois at Urbana-Champaign. USA

Fatta, Francesca. Università Mediterranea di Reggio Calabria. Italy

Faucherre, Nicolas. Aix-Marseille Université – CNRS. France

García Porras, Alberto. Universidad de Granada. Spain

García-Pulido, Luis José. Escuela de Estudios Árabes, CSIC. Spain

Georgopoulos, Andreas. Nat. Tec. University of Athens. Greece

Gil Crespo, Ignacio Javier. Asociación Española de Amigos de los Castillos. Spain

Gil Piqueras, Teresa. Universitat Politècnica de València. Spain

Guarducci, Anna. Università di Siena. Italy

Guidi, Gabriele. Politecnico di Milano. Italy

González Avilés, Ángel Benigno. Universitat d'Alacant. Spain
Hadda, Lamia. Università degli Studi di Firenze. Italy
Harris, John. Fortress Study Group. United Kingdom
Islami, Gjergji. Universiteti Politeknik i Tiranës. Albania
Jiménez Castillo, Pedro. Escuela de Estudios Árabes, CSIC. Spain
León Muñoz, Alberto. Universidad de Córdoba. Spain
López González, Concepción. Universitat Politècnica de València. Spain
Marotta, Anna. Politecnico di Torino. Italy
Martín Civantos, José María. Universidad de Granada. Spain
Martínez Medina, Andrés. Universitat d'Alacant. Spain
Mazzoli-Guintard, Christine. Université de Nantes. France
Mira Rico, Juan Antonio. Universitat Oberta de Catalunya. Spain
Navarro Palazón, Julio. Escuela de Estudios Árabes, CSIC. Spain
Orihuela Uzal, Antonio. Escuela de Estudios Árabes, CSIC. Spain
Parrinello, Sandro. Università di Firenze. Italy
Pirinu, Andrea. Università di Cagliari. Italy
Pompejano, Federica. Università di Genova. Italy
Quesada García, Santiago. Universidad de Sevilla. Spain
Rodríguez Domingo, José Manuel. Universidad de Granada. Spain
Rodríguez-Navarro, Pablo. Universitat Politècnica de València. Spain
Romagnoli, Giuseppe. Università degli Studi della Toscana. Italy
Ruiz-Jaramillo, Jonathan. Universidad de Málaga. Spain
Santiago Zaragoza, Juan Manuel. Universidad de Granada. Spain
Spallone, Roberta. Politecnico di Torino. Italy
Toscano, Maurizio. Universidad de Granada. Spain
Ulivieri, Denise. Università di Pisa. Italy
Veizaj, Denada. Universiteti Politeknik i Tiranës. Albania
Varela Gomes, Rosa. Universidade Nova de Lisboa. Portugal
Verdiani, Giorgio. Università degli Studi di Firenze. Italy
Vitali, Marco. Politecnico di Torino. Italy
Vokshi, Armand. Universiteti Politeknik i Tiranës. Albania
Zaragoza, Catalán Arturo. Generalitat Valenciana. Spain
Zerlenga, Ornella. Università degli Studi della Campania Luigi Vanvitelli. Italy

Advisory Committee

Pablo Rodríguez-Navarro. President of FORTMED. Universitat Politècnica de València
Giorgio Verdiani. Vice-president of FORTMED. Università degli Studi di Firenze
Teresa Gil Piqueras. Secretary of FORTMED. Universitat Politècnica de València
Roberta Spallone. FORTMED advisor. Politecnico di Torino
Marco Giorgio Bevilacqua. FORTMED advisor. Università di Pisa
Denise Ulivieri. FORTMED advisor. Università di Pisa

Organized by:



UNIVERSITETI
POLITEKNIK
I TIRANËS

Partnership:



UNIVERSITÀ
DI PISA



UNIVERSITÀ
DEGLI STUDI
FIRENZE



UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA

With the support of:



Table of contents

Preface	XIII
Contributions	
RESEARCH ON BUILT HERITAGE	
Il rilievo delle tracce: il torrione di Nisida	5
<i>O. Zerlenga, R. Iaderosa, M. Cicala</i>	
L'Arce medievale di Nola. Tecniche difensive per una struttura urbana.....	13
<i>S. Carillo, M. C. Campone</i>	
Il sistema difensivo dello Stato Pontificio sul versante tirrenico. Nuovi aggiornamenti storici e architettonici per una conservazione compatibile	21
<i>M. G. Turco</i>	
I sistemi di difesa degli antichi borghi peninsulari pugliesi.....	29
<i>A. Diceglie</i>	
Il sistema difensivo delle casematte in Calabria negli anni quaranta del Novecento: i silenziosi avamposti del promontorio di Punta Alice.....	37
<i>M. R. Caniglia</i>	
Teorie urbane, ingegneria militare ed utopia nelle città mediterranee del XVI° secolo. I casi di Sabbioneta e della Medina di Tripoli.	45
<i>L. Micara</i>	
Castelli per tutte le stagioni. Castelforte di Puglia e la fortuna del neogotico in Italia.....	51
<i>L. Serafini, V. Schiavano</i>	
La Torre de Martil, Tetuán, Marruecos.....	59
<i>J. Calvo Serrano, C. Malagón Luesma, J. Bezares Batista, J. Rodríguez Bulnes, A. Martín Martín</i>	
La recuperación de los espacios abovedados del Castillo de Petrés (Valencia, España).....	67
<i>C. Mileto, F. Vegas López-Manzanares, S. Tomás Márquez</i>	
Estudio comparado de las garitas esquineras del Castell de Pallejà y Mas Cabanyes en el litoral de Barcelona	75
<i>E. Valdivieso Sánchez</i>	
Un ejemplo conservado de los recintos defensivos medievales representados en la primera mitad del siglo XVII en el manuscrito “Antigüedades del reino de Jaén”.....	83
<i>L. J. García-Pulido</i>	
Kilwa, the first European overseas’ fortification built in the East.....	91
<i>J. Campos</i>	

Fort Oštro and the first defensive line at the entrance to the Bay of Kotor - 19th century Austro-Hungarian military architecture.....	97
<i>D. Bilić, K. Majer Jurišić</i>	
Beyond the walls - The impact of urban sprawl on the fortifications in Albania.....	105
<i>M. Plyku Demaj, J. Mitrojorgji, K. Gjata</i>	
Perspectives on knowledge, conservation and assessment of patrimonial zones in Durres (Venetian Tower).....	113
<i>J. Meniku, D. Kortoçi, L. Çapeli</i>	
I castelli nei periodici illustrati del primo Ottocento in Italia	119
<i>P. Tunzi</i>	
Per un Atlante dell'Architettura Fortificata in Albania. I casi studio di Berat e Tepelene	125
<i>P. Perfido, G. Martines, E. Shehi, E. Caka, R. Ruka, C. S. Fioriello</i>	
Inheriting Tindjellet: nine hidden fortresses in the ancient Timimoun Sebkhaharbour, Gourara (Algerian Sahara).....	131
<i>I. Mahrouf</i>	
Guardians of Heritage: The Fortifications of the Moroccan Amazigh Atlas Region	139
<i>L. Tifawt</i>	
Il castello di Trikala in Grecia: conoscenza, conservazione e strategie di valorizzazione	145
<i>A. Trematerra</i>	
<i>Ortus aquarum</i> : il castello Piccolomini a Ortucchio nella conca del Fucino.....	153
<i>C. Palestini, S. Lolli</i>	
Da indicatori archeologici e del cantiere tracce di vicende costruttive “sconosciute” del Castello di Milano.....	161
<i>G. Pertot</i>	
La Cittadella di Mondovì (Cuneo): testimonianze superstiti e nuovi documenti.....	169
<i>M. V. Cattaneo</i>	
The Montalbano Fortress, an early report about a lost fortification in the Gulf of La Spezia	177
<i>G. Verdiani, L. Marinaro</i>	
Processual design: Torre Rinalda, Lecce, Italy (XVI cent.)	185
<i>A. Camiz, E. TanAtayurt, B. Baybaş, E. Can</i>	
La torre Belforti e il Sistema difensivo di Montecatini Val di Cecina.....	193
<i>R. Castiglia, L. Ceccarelli</i>	
La rocca di Staggia Senese: una metodologia applicata nell’ambito del recupero architettonico e funzionale.....	199
<i>D. Taddei, C. Calvani, A. Taddei, A. Martini</i>	
Il progetto della conoscenza per la conservazione e il restauro del castello aragonese di Piazza Armerina.....	207
<i>A. Versaci, A. Cardaci, L. R. Fauzia</i>	

Protection and Presentation of Cultural Landscape in the Case of Maglič Town	215
<i>M. Nikolić, Jelena Šćekić</i>	
Il castello di San Pio delle Camere	223
<i>L. Vespasiano</i>	
Studi sul castello di Firmum nelle Marche, antica fortezza adriatica	231
<i>E. Petrucci</i>	
Resoconto sul primo cantiere di restauro conservativo delle murature dei bastioni settentrionali del castello dei Paleologi a Casale Monferrato (Alessandria).....	239
<i>G. Gentilini</i>	
Obra en Patrimonio Público Español. Una experiencia profesional.....	247
<i>F. Olmedilla Lacasa, Y. Huertas de Maya, P. Barraca de Ramos</i>	
Livorno città d'acqua e di cultura. Riqualificazione e recupero dell'area del Forte San Pietro d'Alcantara e del Depuratore Rivellino.....	255
<i>E. Princiotta, L. Simonelli, L. Santini, C. Calvani</i>	
The pyramid as a primary form of mediterranean fortification. Symbolic, functional and ideological character. Threats, messages and contents.	263
<i>P. Ponce de León</i>	
CULTURE AND MANAGEMENT	
Analysis of cultural management models in medieval castles in the province of Alicante (Spain) and the Pomeranian voivodeship (Poland).....	273
<i>J. A. Mira Rico, A. Kowalska</i>	
Il contesto pluristratificato di Torre Cintola a Monopoli (BA): dall'approdo lungo la via Appia-Traiana alla torre costiera fortificata	281
<i>C. Annese, G. Cacudi, A. Quartulli</i>	
Il castello di Marmilla (Las Plassas, Sardegna) e il Museo MudA: una proficua esperienza di valorizzazione e le sue criticità	289
<i>G. Serreli</i>	
The Strongoli Castle in Calabria (Italy). An opportunity for cultural tourism and historic center regeneration	297
<i>C. Gattuso, D. Gattuso</i>	
Preserving Cultural Heritage, Enhancing Social Development, and Fostering Sustainable Tourism: The Role of Architecture in Himara's Ancient Castle	307
<i>G. Milio</i>	
Conoscere il passato nella contemporaneità-Riqualificazione della Fortezza di Scutari	315
<i>F. Fabbrizzi, F. Shllaku</i>	
Ports, castles and ruins: A narrative for the cultural landscape of Ulcinj and Shkodra	323
<i>D. Dalladaku, K. Kraja</i>	
The Pentagon as the Constructed Form of the City.....	329
<i>C. Simoncini</i>	

The Montalbano Fortress, an early report about a lost fortification in the Gulf of La Spezia

Giorgio Verdiani ^a, Ludovica Marinaro ^b

University of Florence, Firenze, Italia, ^agiorgio.verdiani@unifi.it, ^bludovica.marinaro@unifi.it

Abstract

The research proposed here is another tile that contributes to the documentation of the rich mosaic of modern fortifications of the Gulf of *La Spezia* counting on an extraordinary heritage of 42 buildings and many more accessory settlements built to defend the Maritime Military Arsenal at the end of the XIXth century. As part of a complex system that sprinkles the entire gulf, the former *Montalbano* fortress represents the central and biggest architecture of the landward front. The proposed contribution will bring to the attention the first report about the architecture and the landscape setup of the *Montalbano* Fortress, investigating its true extension and the articulation of its complex spaces, now hidden by the woods after its abandonment. The very large size, the overall good conditions of most of the buildings, and the wilderness due to a vegetal recolonization, make this settlement very interesting and challenging in terms of documentation, restoration, and reuse strategy as a public space for the city. This contribution will share and present the state of knowledge about this "lost" and neglected structure to prefigure an inclusive and sustainable process of landscape regeneration.

Keywords: Liguria, Military Landscape, Built Heritage, Landscape Project, Reuse.

1. Introduction

The destiny of the fortifications is always extremely linked to the mutation of the military scenario of an area, the introduction of new technologies and solutions in weaponry causes the abandonment or the destruction of what previously was considered a stronghold. At the same time, the construction of very large buildings may illude about their duration and evidence in time. Thus, the military settlements in the Gulf of *La Spezia*, Italy, seem to deny these two assumptions, with large architectures surviving strong attacks but at the same time subject to an abandonment capable of causing the complete disappearance of these structures into the woods and from the perceived landscape in the turn of half a century (Marinaro and Di Grazia, 2017). In the XIX and XX centuries, the Gulf of *La Spezia* played a significant role in all the warfare before and after the two world wars (Faggioni, 2008). The strategic potential of this

Gulf had previously been understood by the French in the Napoleonic period, so much so that the city was declared a military port in 1808 (Ambrosi, 1983). An ambitious project was also drawn up, signed by the architect Tagliafichi, for an arsenal city in the western part of the Gulf towards *Portovenere*, thus, this settlement was never built (Marinaro et al., 2016). The presence of a large Port dedicated to military operations and the articulated system of industries together with the position, controlling both a large span of sea and a wide sector of the inland, made *La Spezia* extremely in need of fortifications both for control and for attack (Danese, 2011). To guarantee the defence of the large military complex, powerful defensive works were built (Marmorì, 1976), both towards the sea and towards the mountain, exploiting the natural morphology and the specific geology of the gulf (Di Grazia and Marinaro,

2015). This system has a significant point of strength in the creation of fortresses and batteries, large buildings merged into the orography (Marinero and Di Grazia, 2016), and equipped with a system of in howitzers, cannons, mortars and gun capable to shoot on long distances covering all the water mirror of the gulf and its surroundings. This system in which architecture, roads, shelters blend with geography has entirely transformed the landscape of the gulf, both on the physical level, making it function like an organic and highly efficient war machine, and on the imaginary level where “aeropaintings” and futurist poems celebrated the birth of the XXth century city.

2. A first modern description of the fortress

The construction of *Forte Montalbano* can be placed between 1880 and 1888 (creation of the detached permanent battery), with a large intervention on the ridge of the homonymous hill at the North of the Gulf to defend Durasca Valley, *Follo*, *Croce* and *Valeriano* mountains and then also the eastern side of the city (Danese et al., 2011). Used the last time during the World War 2, the fortress obtained the attribution of “Cultural Interest” site in 2012. The interest in the *Montalbano* Fort follows the first intervention on the *Valdilocchi* Battery, which was brought to its restoration in 2019-2022 by the Municipality of *La Spezia*. The starting conditions seem similar: large buildings, complete abandon since the end of the Second World War, wilderness reconquering the area, presence of heavy damages from warfare.

For the *Valdilocchi* battery, the utter destruction of some parts caused by a mine detonated by the Nazis army during their retreat was a significant element, which left the building with large missing parts, but also characterized the remaining structures with a robust "sign of the war" which was in its way a fascinating aspect of this military heritage kept by the project. In the case of the *Montalbano* Fortress, the destructions are both attributable to the heavy clashes at the end of the Second World War as well as the demolitions carried out to prevent the use of the ammunition depots under the *Traversone* (Danese et al., 2011). More investigations would be worth for clearly understanding what happened as a consequence of the mining and what may be attributed to war strikes. Unlike the *Valdilocchi* battery that is a single, well-defined building, the *Montalbano* Fort presents a system of different structures (fort and detached battery) and spaces (courtyards and

esplanades), variously organized along the hill and now partially transfigured.

Located at a height of about 358 meters above the sea level and surrounded by a long wall, the complex it is not freely accessible from the main road, where two gates open on "Via Montalbano". Inside, in addition to the main body with its irregular pentagon plan surrounded by a long "diamond" type moat, the space is divided into two large esplanades: the Esplanade *Isola Bassa* and the Esplanade *Isola Alta* which was designed to house the detached permanent battery composed by six reserves. Outside the wall, to the west of the fort in a control position on the road stood the "barracks man's quarters" while a guard's hut was set in the southern wall in front of the entrance courtyard. At present, the fortress appears "invisible" from any distant or aerial point of view, the "*fronte di gola*" appears after a few steps in the wood with a large main entrance in between the walls extending from the section of the hill. It is a deep and high barrel-vaulted space, large enough to allow the passage of vehicles and with a sloppy ground that keeps climbing up the hill until the high courtyard and the main, oldest block of the fort. The structures of the *Montalbano* Fortress appear like a main, gigantic masonry block, characterized by large arches with barrel vaults, all the vaulted rooms open to the exterior on both sides and are connected by passages.

The rooms are connected to underground spaces and the upper part by staircases, placed regularly in each four rooms. The main block is separated by all the other elements of the fortification and at its present state looks like "disappearing" in the woods on both extremities affected by the war strikes. The fall of the main vaults in various rooms and the robust growth of the vegetation increase this impression. Even if the bold walls emerge in between the plants, the visibility of the whole system is almost null from the top view, and walking along the slope of the terrain it manifests itself all at once when arriving at close range.

The interiors of the main structure are organized in a sequence of large barrel-vaulted rooms on two different levels, connected by a long transversal passage. They converge into a central outpost with openings suitable for weapons and facing toward the dry ditch, once about six metres deep and now partially covered. There, the main building presents large openings with arches that look bold and impressive.

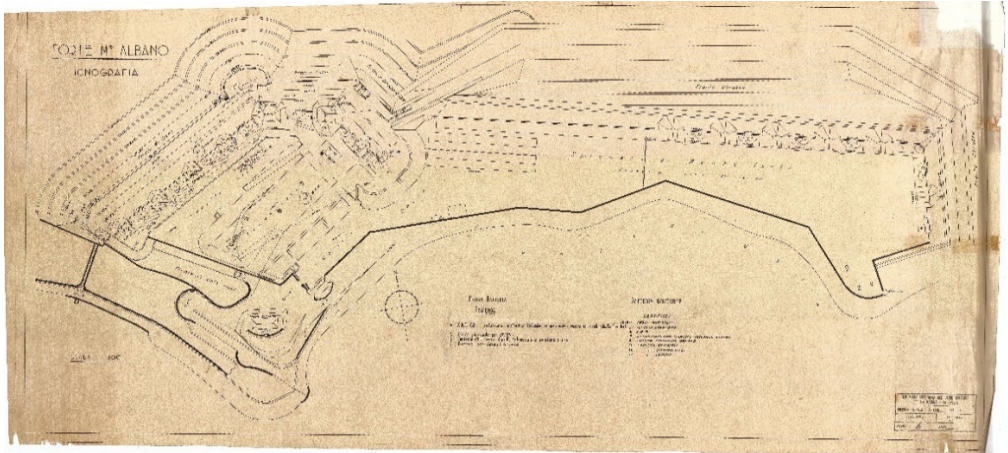


Fig. 1- The fortress area, original project. Courtesy of the Military Archive (2023).



Fig. 2- The entrance passage under the *Traversone*. View of the lower court yard (Marinaro, 2023).

The section of the main structure may be defined as a three levels system connected by staircases, with a principal ground level, mostly closing the just mentioned large inner rooms, one underground level made of smaller spaces and passages, and an upper level, opening to the shooting pitches of the structure, once again defined by a sequence of smaller rooms and staircases.



Fig. 3- The main front of the fort facing the high court yard invaded by the plants (Marinaro, 2023).

The total extension of the main building follows a large, elongated, irregular, polygonal shape, with an East-West orientation, it may be considered of about 160 metres long, with a variable depth between 20 and 40 metres.

Beside the oldest part of the fort, there are the remains of various buildings previously used for technical equipment, the ruins of the “Barracks quarters” on two main floors, now reduced to the remains of the perimetral walls with a suggestive green roof. On the eastern part of the area opens the lower part of the *Spianata di Monte Isola*, a large flat open terrain free from trees. What once served as a connection between the two cores of fire with the abandonment of the structure saw the alternation of a riding school first and then a motocross circuit, activities which, not finding suitable spaces in the city for a period, had found in the generous *Esplanade di Monte Isola* the ideal place. Unmistakable traces of these presences remain now in the disused stables



Fig. 4– The northern front of the fortress with its large arches and barrel vaults (Verdiani, 2023).



Fig. 5- The ditch on the northern front, partially free from plants (Marinaro, 2023).



Fig. 6- One of the staircases inside the fortress connecting the lower passages and rooms with the upper levels (Marinaro, 2023).

(whose roofs are in *Eternit* and therefore require reclamation works) and crumbling, now in the furrows of a soil made barren by the slopes, now recolonized by a prairie of *Hypericum perforatum* and other species *xerophilous*. Although the character of a large open space devoid of trees still remains, from the northern edge advances a young pioneer acacia forest combined with hints of a humid ecosystem where specimens of elderberry have benefited from the shade and water stagnation phenomena. On the higher part of the *Spianata di Monte Isola*, located at 345 m above sea level, where neither horses nor motorbikes grazed, the vegetation recovery sees the formation of a thicket with also large-scale tree specimens, some of which were planted in the years in which the place was variously inhabited and other pioneers. Here are placed the five reserves (six in the original project) that completed the detached battery and the complex system of the fortress, they consist of a series of low buildings, with roofs and quite poor construction. The five bodies of this detached battery in the years following abandonment have undergone various additions, which have completely modified some of them.

From what emerges today, contemporary efforts to relaunch this place have mostly been weak,

even more so because they were not historically informed and generally not oriented towards overall cultural valorisation. There have been attempts at reuse that have stratified a new accumulation of debris and dilapidated structures, handing over to the Municipality in 2018 a place apparently without any vocations or aspirations.

In general, the settlement is strongly characterized by the main structure, with its relevant and massive presence, a bold architecture with its interconnected inner spaces, it appears well reconquered by nature, but at the same time, it's an extremely fascinating building with interesting potential for reuse.



Fig.7- View of the inside towards the southern front (Marinaro, 2023).

3. Triggering the landscape project: where going from this situation:

To deal with this situation, the Municipality of La Spezia, becoming the owner of the Property, has started a new regeneration operation which has taken its first steps through an initial reconnaissance of the sites and a design study aimed at imagine new horizons. The idea is to make this place another important piece of the "Spezia Forte" project, a system of fortifications and artefacts once dedicated to warfare which are converted into public spaces open to the city, mindful of history and therefore bearers of a message of peace and cultural *koinè*. The experience conducted with the recovery and valorisation project of the Valdilocchi Battery in 2022 as well as providing a very important wealth

of knowledge on military architecture, its admirable construction technologies and the refined ways in which these structures related to soil, water and plants, it was an opportunity to experiment with a broader regeneration process that concerns the landscape sphere. This regeneration process referred to here is something that transcends the simple phase of construction of the works - for the Valdilocchi Battery, among other things, only a first section of the works envisaged by the definitive project was carried out - and which fully includes the subsequent management phase, not intended only as maintenance but in a higher sense of care and cultural management. What was clear in the intentions from the very first planning phases of the Battery was less so in reality by disconnecting the cultural programming phase, and the involvement of a large system of local actors in the management of the area, which in fact to this day they are still missing. Based on this awareness, the approach to Montalbano fortress innovate the process as well as the regeneration project. The objective is working in parallel both on the physical transformation of the places and on the imagery in the minds of the people so that: the phase of re-appropriation by the citizens begins immediately, the place comes out of the fog of abandonment and is positively informed by the contribution of a multiplicity of actors, gradually interested and ready to take care of it. This objective is possible by making the cultural management phase one of the first moments of transformation of places instead being the last.

Subsequently a choreography of actions was imagined that mix, direct interventions, documentation activities, calls for interest, conferences and debates to progressively repopulate the place while forming a new and more accurate knowledge of it.

The chronological sequence of these operations is the one shown below, which results in the creation of a strategic project charter which is combined with an elective reference community for its implementation.

After having defined the regeneration strategy in agreement with the municipality, the preparation of the sites does not intend to make a clean sweep of the plant community present today, but to act only on those components that make major operations impossible, instead maintaining the tree population for a prompt effect in a large part of open spaces.

MONTALBANO FORTRESS

The choreography of actions for 2024

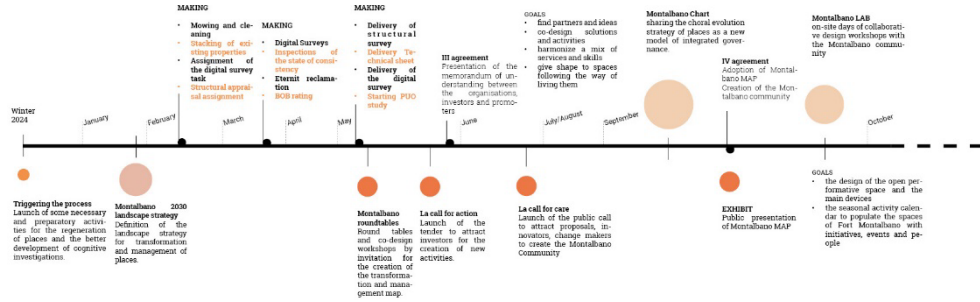


Fig. 8- Choreography of the actions for 2024. Timeline of the landscape regeneration process (Marinaro, 2024).

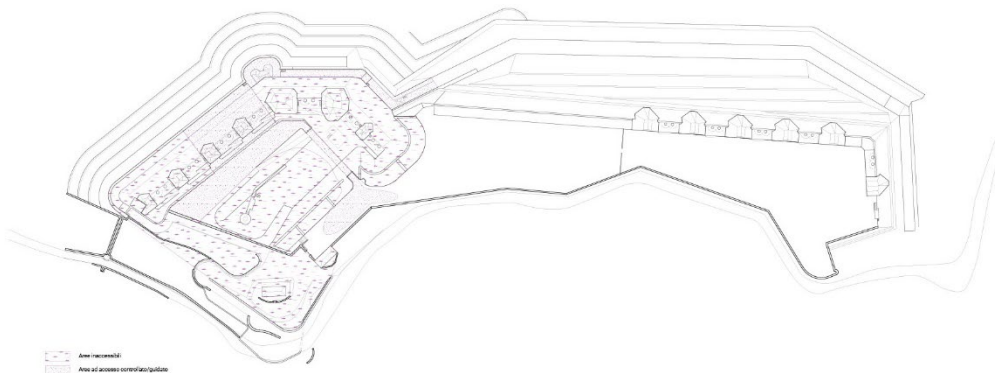


Fig. 9- General scheme of the accessible areas for 2024 (Marinaro, 2024).

A correct strategy for recovering such a complex military heritage should be considered first the cleaning from the lower infestation by smaller plants and the check of the state of safety of the most damaged areas.

At the same time, the bonification from toxic materials is an urgent subject. From this “healthier” condition, a complete and contemporary digital survey of the whole complex may be a first step for understanding the conditions of the whole system and planning proper interventions.

As previously done for the *Validocchi* battery, the complete documentation gathered from a 3D laser scanner unit allows the correct and accurate description of all the architectural parts, and at the same time, it can gather the full shape of the surrounding terrains, with a clear connection between the building and the landscape. The high level of details and the accuracy of each measurement will also allow a proper reading of important pathologies.

On the base of such a survey, the digital twin produced will also allow an extended comprehension of the relationships between inner and outer spaces, with the possibility of interpreting clearly what is worth recovery and which opportunities may come in the reuse of spaces (Biagini and Arslan, 2018; Camiz and Capparelli, 2019). The state of abandonment and the powerful ruins emerging from the wood, play an interesting role in the characterization of the fortress, maybe a project consolidating, but at the same time keeping a balance between the natural appropriation and the original architecture should be an interesting challenge and opportunity for developing a sustainable and suggestive results.

This may correctly compose with the “open space” aspects of many large rooms, which may turn very difficult to be converted into closed spaces.

Proper interaction between the inner and the outer space of this complex is probably one of the main key subjects in planning any further interventions.



Fig. 10- View of the inside towards the northern side on the ditch (Verdiani, 2023).



Fig. 11- View of the inside towards the western side (Verdiani, 2023).

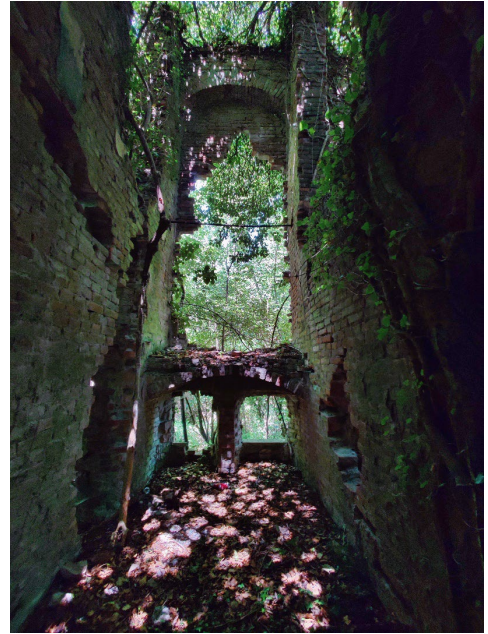


Fig. 12- The ruins of the barracksman' quarters, now in serious decay (Verdiani, 2023).

4. Conclusions

Moving from military heritage to digital heritage and then into a recovered collective patrimony is a virtuous path that may encounter a significant occasion in the *Montalbano* Fortress.

It is a part of the complex fortifications of the *La Spezia* Gulf, but even if it may appear just a larger care than the recently recovered *Valdilocchi* battery, it presents significant differences and is asking for a different approach, not just because of the larger size, but mostly because the different articulation and interaction with the landscape and the meaningful presence of different scales and articulations in the various buildings and in the landscape scenarios that they connotate.

Thus, such a system needs a coordination and a global logic in the interventions, which may bring to an efficient recovery to the community of this important former military landscape (Marinero et al., 2018).

It will be hopefully a progressive new challenge for recovery an important part of the Gulf and a new opening towards the valorisation of built and landscape heritage in this area.

References

- Ambrosi A.C. (1983). *Straviario. tutte le vie grandi e piccole. tutte le piazze belle e brutte della Spezia vecchia e nuova*, Cassa di Risparmio della Spezia, Stabilimento Tipografico Fabbiani.
- Biagini, C.; Arslan, P. (2018). Industrial Heritage in the historical neighbourhood: BIM strategies for urban regeneration, in Giordano, A.; Huffman, K., eds., in *Disegnarecon*, Vol. 11, N. 21, Advanced Technologies for Historical Cities Visualization, University of L'Aquila.
- Camiz, A.; Capparelli, F. (2019). BIM documentation for architecture and archeology: the Shipwreck Museum in the Kyrenia Castle, Cyprus, in Conte, A.; Guida, A., eds., *Re Uso Matera Patrimonio in Divenire conoscere valorizzare abitare*, Proceedings of Reuso VII Convegno Internazionale sulla Documentazione, Conservazione e Recupero del Patrimonio Architettonico e sulla Tutela Paesaggistica, Dipartimento delle Culture Europee e del Mediterraneo Università degli Studi della Basilicata, Matera, Gangemi, pp. 1215-1226.
- Danese, S. (2011). *Difesa di una piazzaforte marittima: fortificazioni e artiglierie nel Golfo della Spezia dal 1860 al 1945*, Autorità portuale della Spezia.
- Di Grazia, S.; Marinaro L. (2015). Fortifications and Landscape System. Geological and geomorphological resilience in the development of the La Spezia Gulf, in Rodriguez Navarro, P., ed., *Fortmed 2015. Defensive Architecture of the Mediterranean. XV to XVIII Centuries*, Editorial Universitat Politècnica de Valencia, Valencia, vol. I.
- Faggioni, G. (2008). *Fortificazioni in provincia della Spezia: 2000 anni di architettura militare*, Ritter.
- Marinaro, L.; Danese, S.; Carassale, S. (2016). Palmaria. Un passato militare, un futuro Paesaggio. Prospettive per la valorizzazione paesaggistica e architettonica del sistema di fortificazioni dell'isola dopo la sdemanializzazione, in Verdiani, G., ed., *Fortmed 2016. Defensive Architecture of the Mediterranean. XV to XVIII Centuries*, Didapress, Firenze, vol. IV, pp. 365-372.
- Marinaro, L.; Di Grazia, S. (2016). La resilienza paesaggistica. Un approccio transdisciplinare alla progettazione, in Verdiani, G., ed., *Fortmed 2016. Defensive Architecture of the Mediterranean. XV to XVIII Centuries*, Didapress, Firenze, Vol. IV, pp. 341-348.
- Marinaro, L.; Di Grazia, S. (2017). Paesaggi Forti. Leggere le forme per riconfigurare i ruoli del sistema di fortificazioni dell'Arsenale Militare del Golfo della Spezia. Il caso di Marola, in Gonzáles Avilés, Á., ed., *Fortmed 2017. Defensive Architecture of the Mediterranean. XV to XVIII Centuries*, Editorial Publicacion Universitat d'Alacant, Alacant, vol. VI, pp. 435-440.
- Marinaro, L.; Reitano, D.; Falqui, E. (2018). Paesaggi sublimi. Un parco per valorizzare il patrimonio paesaggistico militare delle colline del Golfo della Spezia, in Marrotta, A.; Spallone, R., eds., *Fortmed 2018. Defensive Architecture of the Mediterranean*, Politecnico di Torino, vol. IX, pp.1217-1222.
- Marmori, F. (1976). *Fortificazioni nel Golfo della Spezia: "architettura militare spezzina"*, Stringa Editore.



UNIVERSITETI
POLITEKNIK
I TIRANËS