

DANIELA PITTALUGA

FABIO FRATINI

(édité par/by)

CONSERVATION ET MISE EN VALEUR
DU PATRIMOINE ARCHITECTURAL ET PAYSAGÉ
DES SITES CÔTIERS MÉDITERRANÉENS

CONSERVATION AND PROMOTION OF ARCHITECTURAL AND
LANDSCAPE HERITAGE OF THE MEDITERRANEAN COASTAL SITES

ripam

Gênes, 20-22 Septembre 2017

Genoa, September 20th-22nd 2017

FrancoAngeli

OPEN  ACCESS

7



Il presente volume è pubblicato in open access, ossia il file dell'intero lavoro è liberamente scaricabile dalla piattaforma **FrancoAngeli Open Access** (<http://bit.ly/francoangeli-oa>).

FrancoAngeli Open Access è la piattaforma per pubblicare articoli e monografie, rispettando gli standard etici e qualitativi e la messa a disposizione dei contenuti ad accesso aperto. Oltre a garantire il deposito nei maggiori archivi e repository internazionali OA, la sua integrazione con tutto il ricco catalogo di riviste e collane FrancoAngeli massimizza la visibilità, favorisce facilità di ricerca per l'utente e possibilità di impatto per l'autore.

Per saperne di più:

http://www.francoangeli.it/come_publicare/publicare_19.asp

I lettori che desiderano informarsi sui libri e le riviste da noi pubblicati possono consultare il nostro sito Internet: www.francoangeli.it e iscriversi nella home page al servizio "Informatemi" per ricevere via e-mail le segnalazioni delle novità.

DANIELA PITTALUGA

FABIO FRATINI

(édité par/by)

**CONSERVATION ET MISE EN VALEUR
DU PATRIMOINE ARCHITECTURAL ET PAYSAGÉ
DES SITES CÔTIERS MÉDITERRANÉENS**

CONSERVATION AND PROMOTION OF ARCHITECTURAL AND
LANDSCAPE HERITAGE OF THE MEDITERRANEAN COASTAL SITES

FrancoAngeli
OPEN  ACCESS

The Goro Lighthouse and the connected landscape. Reuse, valorization and management project

Francesco AUGELLI¹, Alberta CAZZANI¹, Claudia
COLOMBO², Carlotta M. ZERBI², Matteo RIGAMONTI²

¹Polytechnic University of Milan, Dep. DASTU

²Free-lance Architect

e-mail: francesco.augelli@polimi.it

Summary. The building and the connected landscape presented in this paper are part of the province of Ferrara and are included in the Delta Po Natural Regional Park, located in an isolated place along the shore of the Adriatic Sea, close to the delta of the Po river. The area, looking inland, is characterized by the presence of a lagoon, a thick set of reeds and low Mediterranean vegetation linked to tortuous channels flowing into the sea. The Goro Lighthouse, built in 1950 by the Italian Navy, replaced the 19th century "Old Lantern" that had stood at the sea edge, but due to the progressive fluvial deposits, became 4 km inland, unusable as a functional navy signal facility. The area offers several spectacular views, an exceptional cultural landscape and a pristine natural environment. From the Lighthouse looking East it is possible to enjoy the beauty of the Mediterranean Sea and, looking South, the fascinating view of the meandering channels that unravel between the vegetation is revealed. Considering the context of the area, assuming the historical-architectural character and the environmental values that the Lighthouse embodies, this building can be implicitly seen as the symbol of Goro town itself. From the typological and morphological point of view, the Goro Lighthouse is a typical Italian coastal structure erected between the 19th and 20th centuries. The main aim of the project is the creation of a place to meet, relax and experience wellness, valorizing the awesomeness of the river, the valley and the marine environment. Considering the interiors of the Lighthouse, its conditions and its context, the compatible reuse project suggests a restaurant with guest accommodation, joined with the design of a multifunctional space for events and meetings.

Keywords: lighthouse, preservation, reuse, valorisation, management.

Introduction

This project has been developed for the Bando "Valore Paese - Fari 2016" competition announced by both Agenzia del Demanio dello Stato and Difesa Servizi s.p.a¹. This call for projects included 20 buildings like lighthouses, towers and other maritime Italian Republic properties, in search for the best economic offers and architectural reuse solutions to

¹ <http://www.agenziademanio.it/opencms/it/progetti/valorepaese/fari/> (l.a.: 08/09/2019 n.d.r.).

license these spaces as public concession for a period of fifty years. The idea to present this project comes from La Dolce Riva s.r.l. company founders who decided to involve two Politecnico di Milano - DASTU (Department of Architecture and Urban Studies) professors in architectural and landscape preservation and a few free-lance architects. The project proposal, according to the competition's requests, centred on purposing a space for relaxation and wellness maximizing local marine, fluvial and valley landscape attractiveness, improving docking facilities and their safety, offering traditional food and culture, giving to all users a clear interpretation of local architecture. At the same time, providing features able to satisfy visitors' needs, the project aims to create a social facility, a space to enjoy nature, water sports, trekking and also to notice traditional resources and to discover architectural and landscape heritage. The territory will be preserved and promoted by defining cultural, scenic, educational and sporting trails. The project wants to establish a hospitality facility and a restaurant inside the Lighthouse and few multi-functional spaces to host meetings and foster local engagement. The goal of the management project is to let the Lighthouse become the gateway through which the discovery of the surrounding landscape is made possible, involving and increasing all current social and touristic activities, and also promoting new ways to share and enjoy that area. The focus is to define an interactive model, strictly bound to the local resources, able to relaunch, upgrade and make the area competitive in the international tourism market.

Overview and Analysis: the natural and cultural landscape

The environment - The "Faro di Goro" (= Goro Lighthouse) area has exceptional environmental value, protected by many regional, national and international laws and plans². It is part of the Emilia Romagna Region "Dune ed Isole della Sacca di Gorino" National Reserve (issued by 18/11/1982 Ministerial Decree) and part of the "Volano-Mesola-Goro" macro-area 4 of the Po Delta Regional Park³ (issued by Regional Law n°27 on 02/07/1988, regulated by the Territorial Plan issued with Del.C.P. law

² See: *Piano Strutturale Comunale, Comune di Goro, Provincia di Ferrara – Relazione alla ricognizione dei vincoli, elaborato PSC.00.3, VIVIANI A.R. (by) (2013).*

³ <http://www.parcodeltapo.it/pages/it/home.php>; *Piano Territoriale del Parco Regionale del Delta del Po – Stazione Volano-Mesola-Goro, Norme Tecniche di Attuazione, Tav. P5, (2001), 56 pages, (l.a.: 08/09/2019 n.d.r.).*

n°87/19490 on 26/07/1997 and approved with Del.C.P. law n°1626 on 31/07/2001). The Lighthouse area is part of a protected environmental area also according to article 142 of the Heritage and Landscape National Preservation Law (Legislative Decree 42/2004), as it is included in a 300 meters coastal area from the water's edge line, and it is inside a Regional Park and in a wetland. Its exceptional environmental value has been listed in "Natura 2000" sites network⁴, one of the main European Union tools to protect biodiversity. In detail, this site is recorded as IT4060005 in the SIC (Site of Community Importance) list, mainly focused on natural environment. It has also been titled as "Sacca di Goro, Po di Goro, Dindona, Foce del Po di Volano" Special Protection Zone, mainly focused on fauna protection. Moreover, it has been classified as a "Wetlands of International Importance" according to Ramsar Agreement in 1971. Lastly, the Goro Lighthouse area, as it is located in the Po Delta, is part of the UNESCO World Heritage Site "Ferrara, città del Rinascimento e il suo Delta del Po"⁵ and from 2015 is inserted in the World Biosphere Reserves network in the UNESCO Program "MAB – Man and the Biosphere"⁶, to preserve ecosystems and biological and cultural diversity.



Fig. 01: The Goro lighthouse connected with the sea and the Po River Delta spectacular landscape

⁴ <http://ambiente.regione.emilia-romagna.it/parchi-natura2000/rete-natura-2000/siti/it4060005>, (l.a.: 08/09/2019 n.d.r.).

⁵ <http://www.ferraradeltapo-unesco.it/> (l.a.: 08/09/2019 n.d.r.).

⁶ <http://www.biosferadeltapo.org/> (l.a.: 08/09/2019 n.d.r.).

The presence of exceptionally valuable natural habitats and interesting anthropized and cultural areas like historic centres, monasteries and abbeys, historical roads, canals and networks, lighthouses, ports and docking, reclamation endeavours and water control systems, traditional rural landscapes – characterized by specific building and farming techniques – make this area a place of deep cultural and natural elements linking the long-standing relationship between man and nature⁷. The project, by using minimum intervention strategies and according to 2000 European Landscape Convention, considers the Goro Lighthouse natural and cultural landscape in its exceptional values to be preserved and valorised, and its ordinary character to be recovered and improved. Architectural and material compatibility was accomplished with the surrounding landscape. The project was also focused on engaging local communities and traditional activities in the process. The Lighthouse site - The considered area and building, inserted in the Po Delta Park, are located in an isolated place in close proximity to Adriatic Sea, by the Po River Delta. The area characterized inland by the presence of the lagoon, thick rushes and low Mediterranean vegetation where winding canals flow into the sea. By the S.S. 309 road Romea (E55) it is possible to reach Goro town and then Gorino, a smaller town 3 km away. From there it is possible to follow a road on the Po di Goro river bank, reaching a pontoon bridge by the Bacucco docking, where it is possible to take a five minutes boat trip to the Isola dell'Amore, where the Lighthouse is located. The Goro Lighthouse had activated in 1950 by the Navy, substituting the function of an old lantern called "Lanterna Vecchia", whose position recessed inland 4 km from the sea due to the river sediments and could no longer be functional. A building for the *faro* personnel was also set by the Lighthouse on the island, whose property passed from the Navy to Italian State Property once the lighting system had been automated. The area around the building is relevant from the panoramic point of view: in fact, looking East it is possible to admire the majesty of the Mediterranean Sea, while looking South it is possible to enjoy the fascinating view of the curvy canals that unravel through the vegetation. This area has been recognized as an historical, architectural and natural heritage and the Lighthouse has become the symbol of Goro

⁷ For more details about Goro's cultural and natural landscape, see: *Piano Strutturale Comunale, Comune di Goro, Provincia di Ferrara - Quadro conoscitivo della Sacca, elab. C.O.3., BELTRAMI S. (2011), 73 pages.*

town. From the typological and morphological point of view, the *faro* is similar to maritime structures built on Italian coasts between 19th and 20th century.

The complex is characterized by three brick buildings: the main one is composed of the lighthouse itself, followed by two more distinct facilities smaller buildings. The area is organized around a double courtyard system (the first facing East and the Mediterranean Sea, the second facing the Western lagoon). A boat recovery is also present on the western side of the island. The main building, now abandoned, was formerly a restaurant.

The three exteriors are covered in a rose-colored plaster while the lighthouse tower is white colored. The main building features poor and recent interior finishing, like colored plasters, grès or ceramic tiles, insulated windows and honeycomb wood doors that have totally substituted the original ones. The main building is composed of two floors: on the ground floor there are two halls, three bedrooms, two restrooms and a technical room; on the upper floor, accessible only by two large staircases, there are two offices, a wide hall, a kitchen, two restrooms and a terrace with a wonderful sea view. The heating system is fueled by a gas boiler and is composed by cast iron radiators. The secondary buildings are one-story buildings; the smaller is a storage while the bigger is a changing room with a restroom. The conservation conditions of the three buildings are poor; rising water damage is present in the main building, reaching the first floor. Implants and finishes are in poor condition and need to be repaired or upgraded.



Fig. 02/03 : The Goro Lighthouse today: the buildings are abandoned and in poor conditions

Project Design goals: the reuse of the Goro Lighthouse site

The emerging concepts that guided the reuse project of the Lighthouse are: authenticity, peculiarity, sustainability, cultural and environmental tourism, products-territory relationship, cultural and landscape resources relationship, local identity, Heritage valorisation, traditional food and wine, Intangible Heritage. The focus of the project is also to set a socio-economic and cultural network in order to promote and manage tourism infrastructures, sustainable sporting facilities, educational programs, wellness amenities, locals and visitors' integration, cultural aggregation, involving local associations, public and private bodies and agencies. The Goro Lighthouse reuse project's goal is to conserve the existing buildings, defining formal and functional solutions that will support the natural landscape utilize, offering new experiences for visitors. These experiences will endorse a respectful use of the small fascinating Po delta area of the "Isola dell'Amore" and, at the same time, provide information and insights about the natural, social and cultural aspects of this area.

To reach these objectives, a multi-functional structure composed of a small restaurant, a guesthouse to welcome guests for the evening throughout the year, a bar that may, at the same time, serve beach bathers and other tourists that, during all seasons and for different reasons, spend their time on the island, as well as provide support to venues and events that may take place around and inside the lighthouse. A removable sheltering structure that will protect from sun and wind will be provided to improve the connection between the seaside, the project facilities and the docking, as well as offer the bar a protected area for sitting and meeting. These principal elements, together with the services provided, will build relationships around and in the lighthouse, that will become a stronger landmark, a pivotal point able to better attract local and foreign tourism all year long.

The project strategies, their relationship and the proposed solutions to provide the disclosure of natural, historical and cultural components are presented below.

The restaurant and the hotel will be located in the largest building of the complex, the building close to the lighthouse tower. To correctly manage the functional distribution, the project divides the restaurant and hotel customers and the personnel fluxes. While the restaurant is located on the ground floor, all hotel rooms are set on the first floor.

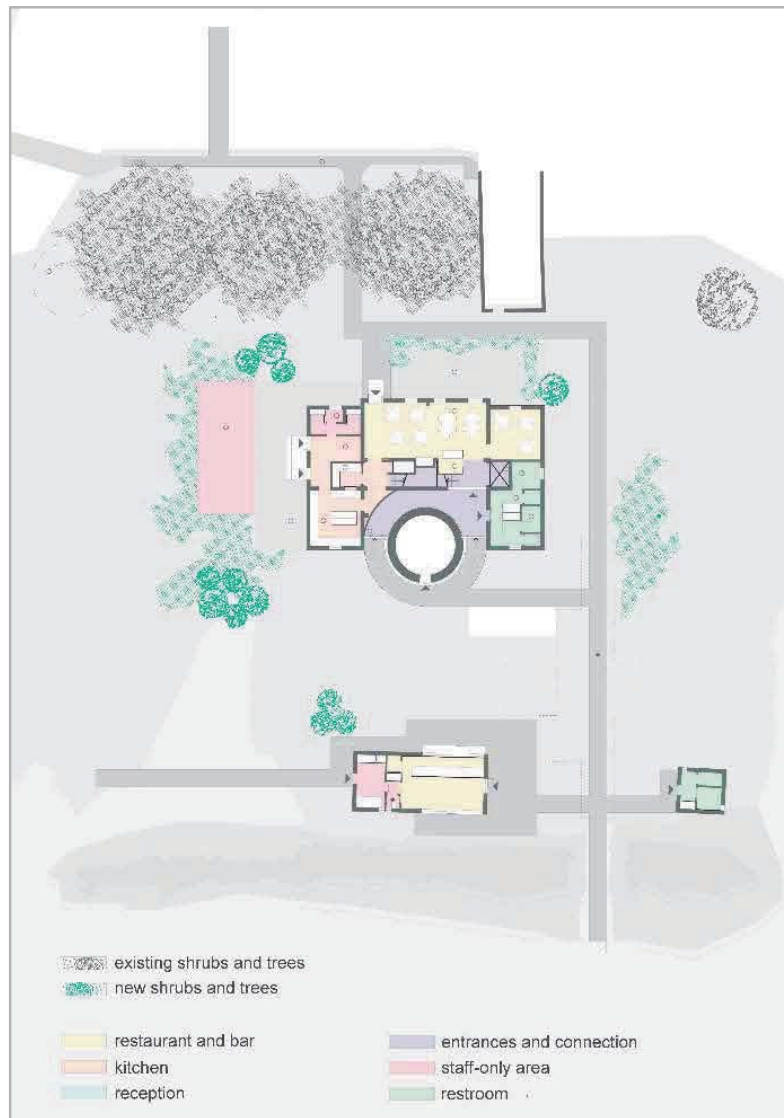


Fig. 04 : Goro Lighthouse: reuse general plan, ground floor

The restaurant has three accesses: the first facing the North-Western pier and the summer season tables area, the others facing the project's central square, where the entrance is enriched by an interactive video installation area presenting the visitors views of the landscape from the top of the lighthouse filmed by cameras. This double entrance will also relieve the fluxes directed to the first floor. The third access will be reserved for personnel only and will manage all kitchen and technical facility directed fluxes.

The South-West area will be dedicated to the kitchen and to all kitchen-related services, directly connected to the main dining room and to a second, smaller, dining room. In the main one, a reception will be present

- located near the stairs to the first floor - to welcome hotel guests at the time.

The bigger dining room may also serve as a conference room: in this case, all tables may be positioned in the storage set underground, in an area where all implants and the heating boiler will be located. A second storage room may be provided for kitchen needs. A garbage recovery may be inserted underground too. This additional area should be approved by the public preservation and planning authorities.

Restrooms will be set on the ground floor, accessible to the mobility impaired.

The two ramps staircase is located in the center of the building and leads to the first floor where ten beds will be distributed in 5 rooms, that will all offer a private bathroom. One of these rooms will be a superior room.

One of the two ramps of the staircase will be for personnel-use only.



Fig. 05/06 : Goro Lighthouse: reuse general plan, first floor. Right: a project rendering: the lighthouse with the proposed removable wooden structure as seen from the seaside

The building facing the shore will become an autonomous bar that will serve bathers during summer and visitors during throughout the year. The project concentrated on offering the best possible visual permeability to the surrounding landscape through large windows on both the sea and the lighthouse side. Removable structures will enhance a second counter with a direct North-Western opening and a cane covering will mitigate the sunbeams on the South-Eastern front. This building will also host a room for the structure watchman, a private entrance will separate this facility from the visitors fluxes. A private restroom and all needed furniture will also be provided.

The small bar will benefit from the court area, especially in the summer season. Two openings will be set in the existing dunes to let bathers and visitors directly access the seaside from the structure and to establish interesting new views of the Adriatic Sea landscape.

One last existing volume - without any historical and architectural value - will be totally demolished and rebuilt to create additional restrooms.

To create shadows, protect visitors from summer heat and highlight the visual connection between the North-Eastern entrance and the seaside, a removable wooden structure will be set during summer season holding cane and textiles, to offer repair from sunrays and wind. These removable structures will also create a relaxing/meeting area to endorse both rest and encounter. The metal supports needed will act as artificial lighting devices when the structures will be absent during winter time. A shelter to park bikes will also be designed in this area. Wi-Fi service will be provided by both the bar and the restaurant, allowing the visitors to access remote data in the whole area: specific multimedia and augmented-reality based content may be offered to visitors as well allowing the creation of an interactive learning experience that will encourage visitors to wander around, enjoy the natural landscape and discover insights in a more engaging way.

All interventions will aim for the maximum degree of sustainability, considering the valuable natural environment, protected by law. All interior transformations will be more oriented to compatible adding than to matter subtraction. In this sense, the whole design process will be oriented to architectural conservation and landscape preservation.

Minimum interventions will be ensured, from both the economic and the natural environment point of view, supporting local and traditional materials. Even the needed implant and energy improvements will be sustainability-oriented. Photovoltaic shingles installation is suggested by the project, but this choice has to be approved and supervised by public preservation and planning authorities.

A rainwater collection system is planned to be installed: this water will mainly be used for restrooms.

Organic materials like wood and local lagoon cane will be preferred and will characterize both the interiors and the removable outdoor furniture. When all expected interventions to prevent decay will be set, the existing plasters will be recovered and integrated or substituted only when needed, as well as the external doors and windows.

All boardwalks will be realized in teak wood, where needed, windshield and visual coverings will be realized using local vegetation species, bushes or trees. The surrounding lighthouse area is distinguished, from the landscape point of view, not just by the seashore dunes but by the wetland too, characterized by natural pioneer vegetation, typical of lagoon contexts. The existing species, bushes and trees, are today concentrated on the West side of the lighthouse building. Herbaceous vegetation is associated with swamp cane. The landscape advice of this project proposal aims to integrate the existing situation, increasing existing vegetation and introducing new vegetation that can totally fit the delicate natural environment. Laws and planning rules have been followed, in particular the Goro Municipality Plan and the directives of the Po Delta Reserve that impose the use of local or naturalized species to obtain maximum compatibility with the local fauna and flora without repercussions on the natural precious ecosystem. The landscape project considers the introduction of a freeform hedge to circumscribe an area next to the restaurant and the access routes, where the terrain will be stabilized: it will consist of *Cornus sanguinea* shrubs, that will be totally compatible and at the same time provide significant decorative value in different seasons with eye-catching florescence, considerable summer blossoming, and vivid autumn colors.



Fig. 07 to 12 : The landscape project promotes the use of local or naturalised species, like, in order: *Salix alba*, *Alnus glutinosa*, *Tamarix* spp., *Phragmites comunis*, *Arundo donax* and *Cornus sanguinea*, to enhance and to be compatible with the pristine natural environment

A single specimen of *Salix alba* will be placed on the Northern corner of the building area. Freeform brush, composed of both bushes and trees will be set to separate and circumscribe the technical and service area outside the kitchen. A group of *Salix viminalis* will be introduced in the Western corner of the building and *Salix* spp. with *Alnus glutinosa* near the bar. Other shrubs will be added, like *Tamarix* spp., paludal cane (*Phragmites comunis* and *Arundo donax*) and *Cornus sanguinea*: these are species characterized by a very good local environment compatibility and a remarkable decorative value as well.

The final management goal is to transform the Goro Lighthouse into a door through which the visitors may discover the historical, artistic and landscape resources, involving all surrounding social activities and tourism-related realities.

The newly designed site will offer the opportunity to enjoy several recreational and sporting activities, like swimming, fishing, biking, sailing, kayaking, bird watching, tasting traditional food (particularly local shellfish) and to benefit from cultural opportunities, like visiting historical sites and trails, exploring natural areas, thanks to educational programs. This project – at the same time – will conserve the historic and architectural values of the Goro Lighthouse and will valorize and preserve the natural and cultural landscape around it.



Fig. 13 to 20 : Examples of recreational and sporting activities possible in the Goro Lighthouse area

Bibliography

- ALBANO MARCARINI A. (2015) - *Goro, ultima terra* in Sentieri d'autore. Il sito per far viaggiare i tuoi desideri, a piedi e in bicicletta in <https://sentieridautore.it/2015/12/01/goro%ADultima%ADterra/1/11>, (l.a.: 08/09/2019).
- BOSCOLO G. (2014) - *Breve storia dei fari*, Mursia, 338 pages.
- CAMPEOL G. (2014) - *Il Delta del Po. Progetti e scenari sostenibili*, Il Poligrafo, 234 pages.
- GULINELLO F., MAUCELLI E., RÖSSL S. (2006) - *La verde costa adriatica. Studi per il parco del delta del Po*, Alinea, 160 pages.
- IALA (2000) - *IALA Lighthouse preservation manual*, 53 pages.
- MAESTRI G., MAESTRI D. (2017) - *Memorie di Goro. Luoghi, personaggi e mestieri di una comunità profondamente radicata nel delta del Po*, MMC Edizioni, 448 pages.
- MARIOTTI A.L. (2013) - *Fari*, White Star, 176 pages.
- MISTRI M. (2012) - *Le lagune del Delta del Po tra conservazione e gestione*, Aracne, 208 pages.
- NATIONAL PARK SERVICE (1997) - *Historic Lighthouse Preservation Handbook*, 318 pages.
- ROBINSON A. et al. (2012) - *Pomham Rocks Lighthouse: Reuse and Rehabilitation Feasibility Report*. Historic Preservation. Paper 1, 28 pages.
- ROMPKEY B., PATTERSON D.G. (2011) - *Report on the implementation of the heritage lighthouse protection act*, 66 pages.
- SIMEONI U. (2000) - *La Sacca di Goro*, Studi costieri - Dinamica dei litorali - Gestione integrata della fascia costiera, 2000, n.2, 242 pages.
- TONI M. (2012) - *Goro, lavoro, natura, Gorino. Salvaguardare l'ambiente, consolidare le opportunità di lavoro*, All'Insegna del Giglio, 47 pages. Progetto "MARIMED" - La pesca come fattore di sviluppo del turismo sostenibile (F.E.S.R. - Programma INTERREG III B MEDOCC).