

LIGHTHOUSES AS INTERPRETATIVE FORMS OF CONSPICUOUS COASTAL PLACES

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ABSTRACT

The Lighthouses are elements of orientation in the space of the sea, of measurement of the coastline and, as such, also coastal and territorial centers. They are built in correspondence with conspicuous places on the coast, identifying them as possible destinations for a slow and sustainable tourism, assuming topological and positional value through the correspondence between the forms of architecture and those of nature. The maintenance and re-use of the Lighthouses are part of a new concept of protection and enhancement policies, sometimes no longer restricted to constraint but oriented towards the possibility of offering new life cycles for these monuments as catalysts for the development and renewal of the landscape and the geographical region to which they belong. Words like reuse, recycling, reduction correspond to the need to think projects able to interpret the issues of recovery in a proactive way through the themes of sustainable tourism, naturalistic, cultural, blue growth, slowfood. The objective of the research of which this essay sets out some partial results, has been to identify the constituent elements of the lighthouse and the significant relationships it establishes with the forms of the ground, to understand the grammars of their form in function of the transformations / modifications that can be made without altering the formal and topological value of the lighthouse and the significant relationship that it establishes with the site, to define a protocol of intervention to build the national network of the Cammino dei Fari d'Italia. The case study consists of the lighthouse of San Vito Lo Capo, located at the western end of Sicily in an area strongly characterized by coastal landscape values of absolute importance, punctuated and measured by the presence of other elements such as coastal towers and tuna factories whose recovery combines form of the territory (landscape), cultural stratification, natural and anthropic values, as well as expressing the beginning and the end (measure) of the route of the lighthouses of Sicily

as a constituent part of the wider path of the lighthouses of the Tyrrhenian Sea.

KEYWORDS: Territory, Form, Lighthouse, Sicily, Landscape, Route

INTRODUCTION

Routes are considered as tools that allow to re-activate natural and man-made territories, landscape contexts of significant value, to discover old and new meanings of the places we cross, redesigning ancient corridors of crossing the European landscape and the architectural and environmental cultural, material and immaterial heritage. They are the engines of a deep and non-traumatic renewal that moves from the recognition of the value of cultural heritage, of art, of the landscape, but also of food and wine, of productive traditions, stratified in a sort of palimpsest, usable through new forms of slow mobility that outline trajectories between places and territories in transition. The idea of a Route of the Tyrrhenian lighthouses shares these general assumptions by systematizing Italian lighthouses and highlighting their historical and landscape value but also their territorial centrality. The "Valore Paese-Fari" Project, launched in 2015 and promoted by the Italian Government's State Property Agency, in agreement with the Ministry of Defense and other local authorities, has started the process of disposing of Italian lighthouses in order to reconvert them through actions and heritage recovery, landscape protection and economic development projects. The idea of building a Route of the Italian lighthouses and coastal garrisons combines the assumptions of the two projects of the State Property, Lighthouses and Routes and Paths because it brings together on one hand the unique architectural and landscape value that each lighthouse represents and on the other the narrative dimension and descriptive of the "route" that unites the lighthouses in a federator system of different landscapes, cultures, and heritages. Indeed, the new forms of slow mobility (routes) can play a key role in the strategies of renewal of the territories "in transition".

The aim of the First National Convention on the Path of the Italian Lighthouses, held in Bari on 28th September 2018 and promoted by the Dicar and Dicatech Departments of the Polytechnic University of Bari was to bring together the various competences in the field of research, administrations and the State able to contribute to the construction of a unitary and organic project able to recognize the value of these monuments and to give them new meaning as elements of enhancement of the internal territories. Within this general framework, a complex line of research was developed, of which this essay presents partial results, aimed at defining the disciplinary and methodological tools useful for governing this project by offering a system vision.



Figure 1: The structure of Lighthouse Route on the western coast of Sicily: Cape San Vito

THE LIGHTHOUSES AS INTERPRETATIVE FORMS OF COASTAL SIGNAL PLACES

Lighthouses are elements of orientation in the space of the sea (Schmitt H.,2002), measuring the coastline and, as such, also coastal and territorial centrality.

They are built in correspondence of conspicuous places on the coast of which they often enhance the geographical exceptionality, identifying them as possible destinations for slow and sustainable tourism, assuming topological and positional value through the correspondence of the forms of architecture to those of nature (Settis S., 2010), combining reason technique and aesthetic values with the shapes of the landscape.

The maintenance and re-use of the lighthouses are part of a new concept of protection and enhancement policies, no longer aimed solely at binding action but oriented towards the possibility of offering new life cycles for these monuments as catalysts for the development and

renewal of the landscape and the geographical region of which they are part.

Keywords like reuse, recycling, reduction (La Biennale of Venice, 2012) correspond to the need to think of a broader concept of landscape through projects that can proactively interpret the themes of recovery through the themes of sustainable, naturalistic, cultural, blue-growth, slow food.

The recognition of the architectural and landscape value of lighthouses, of their vocation to bring distances closer, highlights their relational value: "all the objects that exist on the earth's surface interact with each other, but the closer they are to the stronger the interaction the more they are far away the more the interaction is weak." (Tobler W., 1963) Because if "all the phenomena and objects gathered in a given terrestrial space, are mutually connected by some relationship, that is to say, that an explanatory principle is contained in the neighborhood" (Biasutti R., 1962)

From this arises the need to give them a new life cycle together with the inescapable need to establish the criteria and methods of intervention, placing the same beacons within a transnational system, which guided the investigation work on the coastal infrastructural heritage of the Tyrrhenian Sea (lighthouses, coastal towers, abandoned military garrisons), considering it as topos of unpublished regeneration routes capable of intercepting resources of cross-border national governments.

The relationship between the form of architecture and the way in which it establishes meaningful relationships with the geographical elements of the territory (headlands, heads, peaks, bays, lagoons) highlighting the sense that the limit between land and sea assumes from time to time, implies the knowledge of the relationship between the form of architecture and the shape of the ground (Martì Aris C., 2007) the identification of the field of relations that the lighthouse establishes with its surroundings and the definition of the appropriate grammars able to guide the transformation / modification interventions of existing lighthouses without to undermine its original meaning.

The cognitive dimension of the journey, often coinciding with one's own inner journey (Magris C., 2005) finds, in that boundary between land and sea, between the finiteness of the earth and the infinite horizon marked by lighthouses, a possibility both of measurement and discovery of physical space and anthropic of human walking, consistent with the formation of a mental, spatial and anthropological geography (Rumiz P., 2016): the lighthouses, the

coastal towers, the military and civil buildings remind us together of the value of geography and the presence of history that characterizes the identity of ancient places.

APPLIED METHODOLOGY AND DESIGN EXPERIMENTATION

The aim of the research was to identify the constitutive elements of the lighthouse and the significant relationships it establishes with the forms of the ground, defining the appropriate analytical categories that allow understanding the grammars of their form as a function of the transformations / modifications that can be made without altering the formal and topological value of the lighthouse and the significant relationship it establishes with the site.

The research develops in a circular way between analysis and project articulated in two complementary phases, an analytical and cognitive phase aimed at the study of the theme, the definition of the field of investigation, the definition of the appropriate tools and research methods and the definition of objectives, through the survey, the comparative and taxonomic analysis of lighthouses, the identification of appropriate interpretative categories of the significant features of the sites and of the natural morphology; the other synthetic aimed at verifying through the project the knowledge acquired in the first phase, assuming two case studies as models of paradigmatic intervention.

ANALYSIS AND IDENTIFICATION OF THE TYPE- MORPHOLOGICAL CONSTITUTIVE RELATIONS BETWEEN THE ARCHITECTURAL FORM OF THE LIGHTHOUSES AND THE PHYSICAL FORMS OF THE GROUND.

The analytical phase was addressed to the knowledge of the natural form of the foundations of lighthouses, of the constructive and architectural forms, of the technical and historical aspects, to describe and represent architecture and its relationship with natural morphology, starting from the definition of the field of investigation constituted by the central basin of the Tyrrhenian Sea, a unitary spatial entity on the geographical scale, both from the limits of the coast and from the shape of the marine basin, enclosed by the coasts of Sardinia, Sicily, Calabria, Campania, Lazio. Through a complete historical, bibliographical and iconographic research, the corpus of knowledge on the theme of lighthouses was defined, carrying out the census and filing of 135 lighthouses that make up the ideal route of the Tyrrhenian Sea and the

47 lighthouses that make up the ideal route of lighthouses of Sicily. Finally, 7 types of lighthouses have been identified for some specific characteristics such as the architectural and constructive form, the scope and natural and anthropic contexts with which they are compared, identifying 8 conditions (promontory, cape, peak, island, bay or cove, lagoon, beach, city), identifying models and grammars of intervention preparatory to subsequent transformations. A comparative analysis was then carried out highlighting the relationship of the lighthouse with the sea and its bathymetric lines, between its scope and the development of the coastal limit, with the natural shape of the coast, its internal territory and the settlement system. The historical value of some lighthouses has emerged from the reading of the stratification of the routes contained in the cartography, in the main pilot books and / or in the graphic descriptions of travelers and geographers. The study dedicated to the definition of general and paradigmatic models of intervention for the reconversion of lighthouses and their spaces in structures dedicated to reception, the environment, local traditions, events, through the clarification of appropriate "derivation rules" is preparatory to the identification of specific settlement grammars able to build significant relationships between the lighthouses, between the form of the integrations and the geographical forms (the shape of the coast with the points, the coves, the coves and the shafts, the shape of the territory, with the mountains, the chiefs and headlands, the shape of the coastal city with the port, the walls, the riviera) to build places where the legibility of the characters of the landscape and the lighthouses in their relationship with the natural space remains.

THE ROUTE OF THE LIGHTHOUSES OF SICILY: THE LIGHTHOUSE OF SAN VITO LO CAPO AS AN INTERPRETATIVE FORM OF COASTAL LANDSCAPES

The second part of the work was dedicated to the design experimentation based on the recognition of the founding characteristics of the places to reconstruct their identity, starting from the recognition of the founding relationship between lighthouse and site considering the places of dismantling and abandonment as opportunities to build a new syntactic type unit, of which the light represents the polarity, through the ability of architectural forms to interpret the relationship with natural forms, assumed as matrices of landscape and urban value places. The case study is constituted by the lighthouse of San Vito Lo Capo, located at the western end of Sicily in an area strongly characterized by very important coastal landscape

values, dotted and measured by the presence of other elements such as coastal towers and tuna factories, whose recovery makes it possible to offer new life cycles to the lighthouses and places identified, combining the shape of the territory (landscape), cultural stratification, natural and anthropic values, as well as expressing the beginning and the end (extent) of the journey of the lighthouses of Sicily as a constituent part of the wider path of the Tyrrhenian lighthouses. Each is representative of an architectural form and a different relationship with the shape of the ground that requires taking a differentiated approach towards their reuse / recycling / integration. Recognized as values the shape of the architecture, the geographical and physical form of the sites, the "extreme" dimension of the landscape, the objective of the design experimentation is to define a method of intervention, identifying the appropriate categories and the corresponding compositional grammars with which build / reconstruct the identity of these places and the shape of the landscape, in harmony with the settlement's "tradition" of the territory, with the geographical complexity and topographical articulation of the sites. The design choices are aimed at reinforcing and characterizing the landscape and urban value of the case studies identified through diversified construction / reconstruction / integration interventions applied to the lighthouse and to the tuna factory, so as to give shape to individual settlements as part of a unitary system. The individual projects have a paradigm value as they aim to define intervention models starting from the choice of study areas that have a symbolic and physical value of gate, of beginning / end of the route of the lighthouses of Sicily that binds together the urban nucleuses, the territorial principals (such as towers and tuna factories), the conspicuous places of the landscape, the ancient places, giving all these elements a new value as a whole.

DESIGN EXPERIMENTS

The lighthouse on the extreme tip of Sicily. S. Vito lo Capo



Figure 2: S. Vito Cape Lighthouse

The Lighthouse of Capo San Vito identifies an extreme point of flat land that juts out into the Tyrrhenian Sea in a condition of low lands which is a prelude to the articulation of the Trapani coast to the west of Sicily. It is a particular lighthouse, as it is located at the center of a single-storey courtyard, which contains the immediately pertinent space. Geographical location of strategic value underlined by the presence of military bunkers of the Second World War but also urged by natural forces, wind and sea that accentuate isolation and aridity. The lighthouse assumes a formal and plastic value depending on the relationship it establishes with the ground through the forms of the basement and the enclosure, of the topological features (height, orientation and conformation) and topographic (soil type, height above

water) of the site , building a landscape of land in water. The theme of the project is the reconstruction of the significant relationship of the lighthouse with the landscape, its conspicuous points, the natural space of the hinterland along the cross sections that cut the coast towards the internal territories, enhancing the use of natural and anthropic space to allow observation, bathing, walking in the water, fishing and tuna production. Project interventions therefore tend to build a new syntactic unity between the parts through different types of connections and relationships. The places of the project are arranged in sequence by lines and by poles, tracing trajectories and ideal measurement axes that put within a system of triangulations the polar elements such as the lighthouse and the towers that identify peaks, heads and promontories making legible the exceptional nature of the site. The lighthouse is therefore the vertex of a system of individual architectures and geographical elements that regularly unfold along the coast between the “Riserva dello Zingaro” in the East and the Isolidda Tower in the West, establishing visual and topological relationships between the different parts of the head that recombine within a unit of space and a form of collective value. Each architecture represents at the same time its belonging to the point space but also to the entire coastal system.

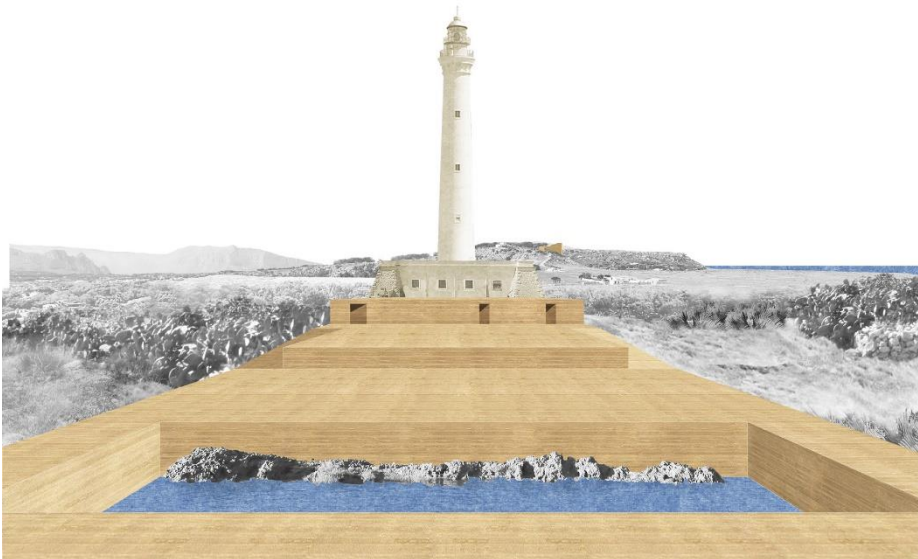


Figure 3: Project for San Vito Lighthouse

The cluster under the mountain: “Tonnara del Secco”



Figure 4: “Tonnara del Secco”

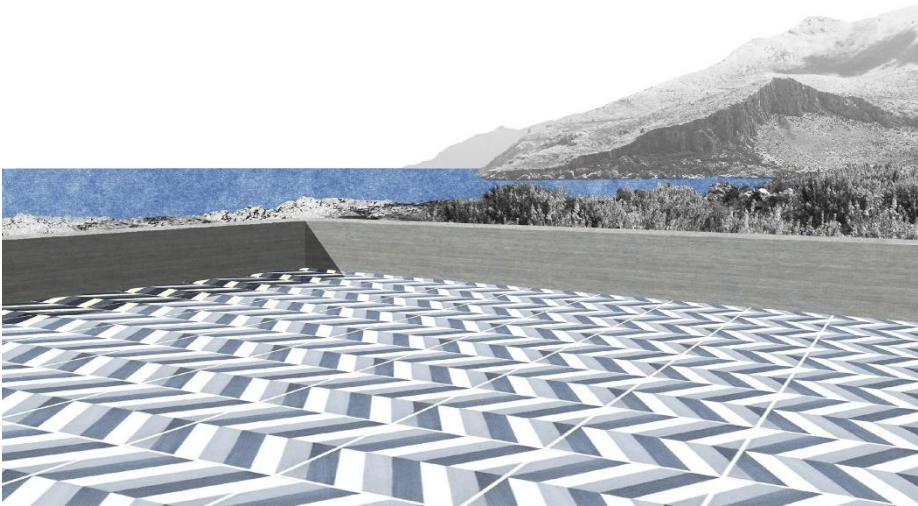


Figure 5: “Tonnara del Secco” terrace towards Mount Cofano

The tuna factories are architecture that characterizes the continental and island coasts of the Tyrrhenian Sea, with a large one mainly in Sicily and Sardinia. They bear witness to the ancient tuna

fishing culture, a sort of sacred rituality, practiced by the Phoenicians, the Greeks and the Romans, then rationalized by the Arabs. In fact, we owe not only the creation of the tuna factory system, unchanged over many centuries, but also the suggestive ritual that accompanies the various stages of fishing. In the sixteenth century there were eight in the Trapani area (Favignana, Formica, San Giuliano, Bonagia, Cofano, San Vito, S. Teodoro and Palazzo, of which in our area we find two, Cofano and Secco, both abandoned. The stratification of the parts over time has given form and evidence to a complex and articulated architecture that is organized around two large empty spaces, clearly expressing a reference to the model of the Carthusian monasteries as units of distinct parts organized around a void enclosed by the volumes for residence and production.

The project redefines the strategic value of the tuna factory as a reference element of the landscape unit of which it is a part and as a polarity of the Route of San Vito Lo Capo lighthouse, aimed at consolidating and representing the material and immaterial culture of the places.

CONCLUSION

The work carried out in the Graduate Laboratories on "Adriatic Lighthouses" "Fari del Tirreno-Sardegna" and "Fari del Tirreno-Sicilia", dedicated to the definition and experimentation of an intervention protocol to build a national network of the Routes of the Lighthouses, constitutes a representative part in the mosaic of research presented by the Polytechnic University of Bari in the first national conference on the Route of the Lighthouses held on 29th September 2018 at the Fiera del Levante. The shared position sees the recovery of the Lighthouses no longer as a mere redevelopment of the existing heritage of great architectural value, but as the polarity of a system of fruition of the territory able to give new meaning to coastal places and to the internal territories of extraordinary geographical value. The research, through the analytical and design outcomes, concludes the work of defining and testing a method for the construction of a Route of the Italian Lighthouses, as a sustainable system of fruition of the natural coastal and inland Italian territory, which places it at the center of its structure is the presence of "sentinels" of the sea such as the Lighthouses, the Towers, the Tuna factories, expression of a strongly identifying living and productive culture and memory of an important transformation process.

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