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RESEARCH ARTICLE

THE REPRESENTATION OF THE TERRITORY AS AN INSTRUMENT OF SURVEY OF THE UNESCO HERITAGE IN MONTENEGRO ON THE ADRIATIC COAST

*Luigi Corniello, Andrea Improta, Gianluca Manna, Enrico Mirra and Francesco Scialla

University of Campania "Luigi Vanvitelli", Department of Architecture and Industrial Design

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ABSTRACT

The research itinerary studies the reading of the graphic documentation of relating the UNESCO territory of Montenegro, and particularly the towns of Kotor, Dobrota, Perast and Herceg Novi, which overlook the Adriatic Sea. The drawing of the territory is, therefore, the result of incessant work of man, an eternal construction site where they collected the history and culture that characterize the contemporaneity of past and present: an eternal construction site, a source of creativity and change.

Key words:

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INTRODUCTION

The research itinerary studies the reading of the graphic documentation of relating the UNESCO territory of Montenegro, and particularly the towns of Kotor, Dobrota, Perast and Herceg Novi, which overlook the Adriatic Sea. The information is taken from the archive documents, from cartography, from topography and from representations of both historical centers and both the landscape. These are some graphics equipment and theorists who they highlight the characters of the design of artists, architects, landscapers in events of various types over time. The overview of the guidelines refer to maps representing the territory and its coastal development, to draw, then, in the Montenegrin landscape descriptions and representations of architecture and urban centers. For data collection and the related cataloging of the sites, have been added of valorization and the protection of territory under examination strategy. This course of study, then, is a harbinger for acquisitions on the history of the places and the scientific surveys of the individual structures and landscape complexes, be illustrated with reference to the reading of cartographic works written in the past centuries. These documents of the territory are valuable references for a comparison with the current urban development of the coastal landscape of Montenegro.

The meshes in the infrastructure, that of urban centers and territorial orography, have been compared with the current territorial identity that includes the city of Kotor, Dobrota, Perast and Herceg Novi, as well as numerous smaller towns, full of architectural and environmental testimonies of ancient times that lead to hope methods and actions whose primary order is to safeguard the Unesco site of the Bay of Kotor, religious structures, public and residential, with the consequent valorization of identity of places, drawn up through the drawing of architectures.

The cartographic representation of the territory

The drawing is placed also as a scientific tool aimed at cartography and cosmology, that is, to the representations of the earth and the cosmos, of necessity carried on paper through a graphic medium. Expected to become indispensable instruments for the traveler, the geographers and the historic, in these representations the practical purpose prevails decisively on the aesthetic purpose. The nautical charts, the harbor handbooks, the globes and the surveys of coasts are made with an accurate and precise drawing, often enriched by cornices, descriptive equipment, legends and the addition of color to the most important elements, such as mountains, seas and forests. The cartography begins to have a great importance since the fourteenth century and is emerging more in the next three centuries: known are the so-called Carta Pisana, on which were drawn the sun coast, the Atlante Catalano of 1375,

*Corresponding author: Luigi Corniello,
University of Campania "Luigi Vanvitelli", Department of
Architecture and Industrial Design.

greatly detailed nautical chart, or the fragmentary Grazioso Benincasa of 1482. We first realized the Mediterranean Sea cards, the only known cosmos and greatly battered by routes to the Holy Land. At the end of the fifteenth century nautical maps are transformed into circular globes, again corrected and revised according to new findings: the first example is the map of the world of Fra Mauro from Murano on parchment, dated before 1460, conserved in the Biblioteca Marciana in Venice. Then, with the geographical discoveries that broaden the horizons of the navigators and as a result the shipping lanes, enhances the demand for nautical and land cards that, from the sixteenth century onwards, extending up to also include the continents of Asia and America. From the second half of the century, throughout the seventeenth and eighteenth centuries, the geographical representation undergoes a major transformation motivated not only by the necessity to update the geographic discoveries of new continents, but also to the changed more objective mapping, realistic and documentary. Answer these requirements of clarity in the representation, the cards used by the great navigators, such as that of George Calapoda in 1552, the great parchment of Giovanni da Verrazzano, representing the known world of that time, with particularly detailed the shores of America, the Charter of the Mediterranean nautical by Giacomo Maggiolo 1558, the cosmological cards such as the Map of the Moon by Hevelius engraved in 1647.

At the end of the fifteenth century there was the rebirth of the topography, promoted especially by Flemish active in Italy, the phenomenon presumably connected to the views and the landscape. Nordic artists and surveyors are dedicated to represent plants and city prospects extremely complex: famous examples are the views of Hendrick van Cleef of Rome, Florence and Jerusalem, even then obligatory destinations of pilgrimage of devotees. These works were made with the characteristic perspective deformation at a typical bird of the Flemish painting of the time. A fundamental document of this type of drawing are the six volumes of the *Cosmographia Universalis* by Sebastian Münster, published in 1550 in Basel, which contain plants and strategic views of the major cities, such as Rome, Florence, Venice and Constantinople. In this area should be placed ideal reconstructions of cities, such as Rome, often reproduced in the press to ensure a greater spread. Over the years this type Cityscapes plays an increasingly objective characterization, with the representation of the floor plan of the sites, accompanied by the names of streets, squares, civil and most significant ecclesiastical monuments. Very wide is the production of these maps or plants, significantly requested by travelers, tourists and the information needs of municipal land registers. In the seventeenth and eighteenth centuries, the wide spread of marine charts, topographic or terrestrial, often combined in atlases, drawn up with a more precise and objective spirit, they add the military cards, also referred to War Theatres, documenting sieges, or providing views of castles, fortresses and cities of useful plants for military strategy, such as those recorded in the *Grosser Atlas* published in 1737 in Nuremberg. A new frontier of digital technologies of cartographic representation of the territory is made up of information systems called GIS, which are considered as one of the most powerful tools that allow you to integrate knowledge from multiple sources and to create an environment of cross-data collaboration. The GIS systems are a fundamental tool to evaluate, to analyze and represent every kind of phenomenon in space. The geographic data has specific characteristics with respect to other data, because the

information it contains is characterized by a specific position in the space and in the time. The geographic data consists of a set of geographical coordinates by the numeric value of the data itself, where it is located in time, attributes, that associating with a simple pair of geographic coordinates a series of numerical values, alphanumeric, statistical, transform geographic data into information. The present GIS technologies offer the opportunity to can represent vast amounts of geographic information, relating them to the territory. The GIS, in fact, constitute a software technology capable of analyzing, for a given space, the characteristics which are described by geographic data, together with other that require alphanumeric data. The information, therefore, is the heart of a GIS system and the creation of the database, the model that handles the information, it is the essential informative base and is the largest part of the work of organization and development of an information system Territorial type. The field of application of GIS today are related to the digitization of historical maps, scanned and then georeferenced, at the interpretation of aerial photos or satellite images, the production of new cards. A fundamental characteristic of a GIS is its geo-reference data capacity, or to attribute to each element its real space coordinates. The scale of representation becomes, at this point, only a parameter to define the degree of accuracy and resolution of the graphics information, and then used for example to define the representation of density: at a smaller scale, elements such as the buildings are not represented and appear isolates or the urbanized areas of the territory.

The heritage of the Baroque period of the Bay of Kotor in Montenegro

The architectural heritage of the Baroque era, in the Bay of Kotor, is a part of the structural development of the country, associated to the current period of arts. The social context of the time showed a collective involved in the effort to find a way out to survive in a time difficult and dangerous. In the importation of Italian origin arts and its influences, especially those derived from the Sicilian architecture, the territorial context tended to a baroque of its origin, of modest scope and adapted to structural and territorial needs and tastes of the local Balkan society. The Baroque Period in the territory the Bay of Kotor, therefore, follows results in the field of architecture, of painting, sculpture, music and literature, for the purpose to emancipate the societal context of the place and with the will not only to live a best historical period and more affluent, but also to make the most consistent and finest architecture, in spite of the difficult social circumstances. It is not about results of exceptional historical and architectural value but overall includes a social culture in the seventeenth and eighteenth centuries a well-developed local Baroque and worthy of being taken into account in the Mediterranean ambience. In order to understand the developments of the arts and the evolution of the territory it is necessary to analyze the historical context: the end of the fifteenth century the Turks invaded from Hercegovina the Montenegro and divided the country both geographically and economically. The coastal strip between New Castle and Risano remained from 1482 to 1687 in Ottoman hands, while the Kotor region shared the fate of the Republic of Venice. The socio-political situation has significantly exasperated after the fall in Turkish hands, the flat territory of Zuppa in 1497 and the Montenegrin coast between Bar and Dulcigno in 1571.

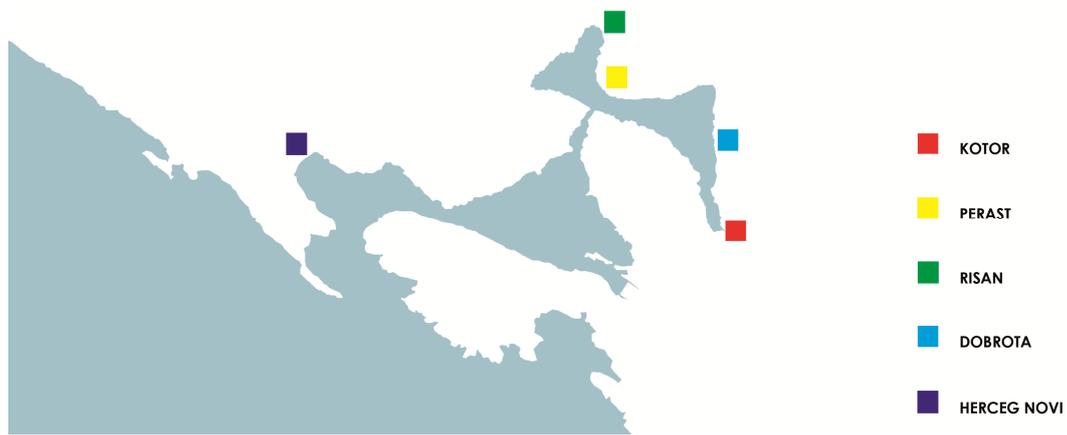


Fig. 1. The Bay of Kotor in Montenegro: planimetric identification of urban centers



Fig. 2. The Bay of Kotor in Montenegro: views to the east and west



Fig. 3. The Bay of Kotor in Montenegro: historical maps

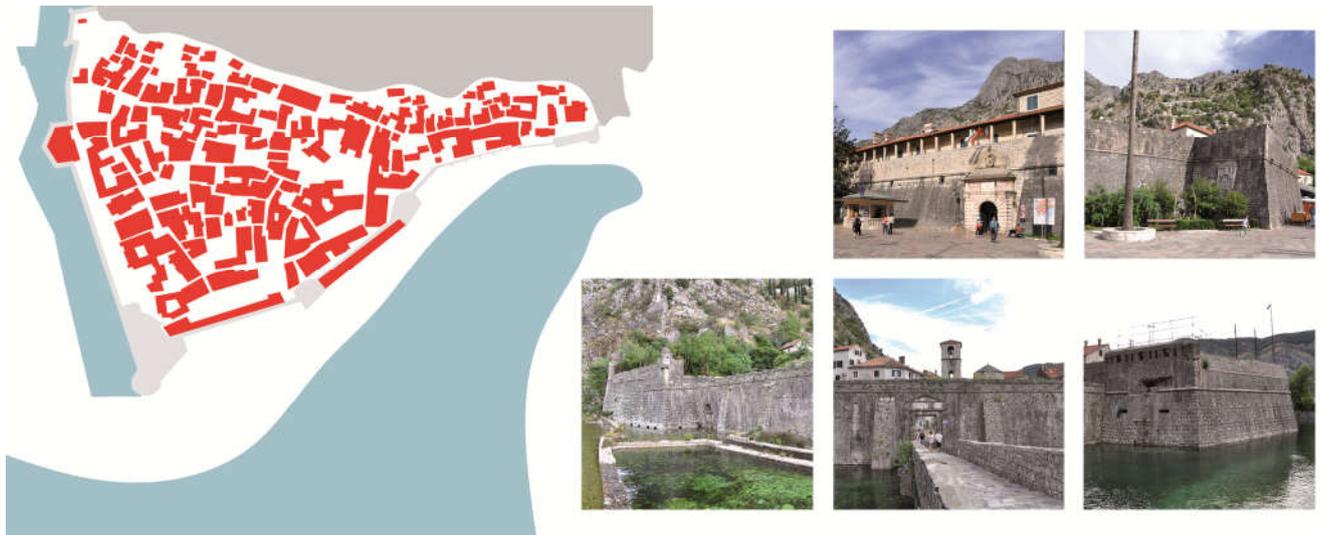


Fig. 4. The town of Kotor in Montenegro



Fig. 5. The town of Kotor in Montenegro



Fig. 6. The Bay of Kotor in Montenegro: views of the urban centers of the bay

To explain, however, economic and social expansion in the Bay of Kotor during the Venetian rule, we need to travel the new maritime routes of the merchants from the surrounding area of Kotor, which, in addition to import precious products showed excellent fighters to defend the territory. Following, therefore, the exchange of wares is of first necessity, both for luxury goods, coming from the markets of Greece, Albania and Montenegro (grains, cheese, smoked meats, leather and more), with Venice, Dalmatia and with different parts of Italy, the merchants of the Bay of Kotor made to the Republic of Venice an invaluable service to economic and cultural value and benefited on duties. The Venetian merchants and nobles of the Bay of Kotor defied the dangers of the Albanian and Greek ports and the growing piracy creating, in effect, a privileged location at the local seamen, with obtaining large economic and customs privileges from the towns of Perasto, Perzagno, Dobrota with the consequent social and economic enhancement. At the end of the seventeenth century, are officially recognized villages and communities of sailors of Perasto, Perzagno, Dobrota and Stoliva. Maritime trade became, therefore, the only concern of many population centers and the only resource to get out of a state of local poverty. In this regional context, the old Roman and Gothic town of Kotor, was changing its landscape profile after numerous earthquakes, following the dictates of the Baroque of the period.

The closures of old arches, windows, doors made to the architectural complex taste Baroque and territorial elegance. As is known, the Baroque, not only conquered the facades and palaces, but also churches and Romanic church towers. The masters from Ragusa worked in Baroque style, then dominant and clearly traceable on the details, turning slender original Romanesque structures in a fairly massive architectural mass. Although most of the town of Kotor has been made according to the Baroque style, the architectural and artistic taste did not represent the typical character of it but, rather, maritime centers close as Perasto, Perzagno, Dobrota and Stolivo, which flourished during the Baroque age. Many buildings designed by architects and the Bay of Kotor masters: particular attention deserves the monastery of Savina, near Castelnuovo, built between 1777 and 1799. According to the original designs of the time, the church had to have a high dome, according to Byzantine tradition but the architectural taste it appeared essentially Romanesque, with some Gothic and Baroque elements. The city of Perasto changed its territorial and cultural point of view in the decorations and the arts. The refined taste of local contacts with foreign countries tended to give to churches and their own homes, the nobility of style, but never exaggerated.

Are very interesting archival sources eighteenth century where you find some references to the architecture and beauty of the landscape. In these sources is emphasized the imposing landmark bell tower of the economic strength of the country but at the same time, historical monument of the liberation of the northern part of the Bay of Kotor from the Ottomans, which took place in 1687. The bell tower bears the inscription: *Christianae Reipublicae triumphanti* placed to symbolize a new maritime-economic and cultural expansion. The Perasto urban center includes 14 churches, 207 private houses of great architectural workmanship and 114 rural buildings that make the core of the city is the most typical and most complete baroque surroundings of the eastern Adriatic coast. Building of considerable interest is the complex of the Madonna of the

Scalpello, located on the artificial island in front of the city of Perast. The monastery church was built in 1452, then completely rebuilt in 1628 and finally completed in appearance today, in 1725. Very interesting is the Benedictine Monastery of San Giorgio, placed solitary island namesake. As for the city of Dobrota, the significant buildings were built more during the eighteenth century. Pre-baroque style is the San Matteo's Church in Dobrota originally built in the thirteenth century and then remodeled in the architecture and in the plasters in 1770. Many buildings that have been damaged by earthquakes in the past centuries: the case of Tripkovic Palace in Dobrota, one of the most beautiful and imposing on the east coast, which suffered the collapse of the upper part of the facade crowned by a baroque ornament.

Conclusion

The design of the territory is, therefore, the result of incessant work of man, an eternal construction site where they collected the history and culture that characterize the contemporaneity of past and present: an eternal construction site, a source of creativity and change. A knowledge based on discretization and measure of the heritage that expands traditional notions of geometry and measure, and allows us a multidimensional representation, in which each component material and immaterial, returns the territory as a dynamic entity. This operating process, constitutes the most effective means, not only to analyze a territory, but also to program the management of interventions for the protection and valorization. In the application for this method it consists of a large and heterogeneous territory, on which knowledge consisted of the reading given to the understanding of all aspects that contribute to determining the form, seen as the bearer of intangible assets, linked to the history, culture and traditions that for centuries have imprinted their natural environment and built signs. Knowing, then, is to review the history of its people and of the urban fabric, acquire social structures, drawing the architectural presence of the present and of the past, to assimilate news and discretize the value of human assets, including the urban and monumental image of a place, its identity.

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