

UNDERWATER AND COASTAL CULTURAL HERITAGE

The session “*Underwater and coastal cultural Heritage*”, a “new entry” in the IBE Meetings, aims to study several aspects of the tangible and intangible cultural heritage linked to the coastal districts and related seabeds, focusing on a broad spectrum of archaeological, historical, geographical, landscape issues to be investigated in an interdisciplinary and diachronic perspective.

The papers here published provide relevant insights about various aspects of heritage studies in several coastal districts. As for the subject matters, archaeology, landscape archaeology and architectural heritage are widely represented.

Since it is impossible to sum the complex contents of all the contributions in this short Introduction, I focus only on a few main *insights* from each paper, in order to intrigue the readers' curiosity.

Patrizia Tartara in “*Along the Caeretan coast and forward on*” examines the district north-west of Rome, which was in large part controlled by the Etruscan metropolis Caere. Special attention is paid to the coastal strip from Ostia/Fiumicino to Civitavecchia, which includes the three ancient ports *Punicum* (Santa Marinella), *Pyrgi* (Santa Severa) and *Graviscae* (Porto Clementino). As for the applied methodology, the archeological and topographical study of the ancient sites has been integrated with the study of both historical (1930 glass slides 13x18 by the *Istituto Geografico Militare* –IGM– Florence) and recent aerial photographs. Monitoring flights operated by the Pratica di Mare Carabinieri Helicopter Group in collaboration with the General Headquarter of the Carabinieri, *Nucleo Tutela Patrimonio Culturale* were included. The analysis of old and recent photographs, with additional monitoring flights over areas at risk, is an excellent methodology to get an historical perspective of the studied territory and a tool to enhance the protection of the cultural heritage, in particular of the few preserved areas of historical landscape.

In “*Pyrgi: analysis of possible climatic effects on a coastal archaeological site*” Virginia Coletta, Fernanda Prestileo, Paolo Allasia, Alessandra Bonazza, Alessandro Ciarravano, Stefano Federico, Davide Notti, Rosa Claudia Torcasio, Mattia Crespi and Stefano Dietrich present an interdisciplinary study focused on Pyrgi (Santa Severa, Rome), an Etruscan and Roman harbour site.

Frequent flooding affects the relevant archeological area, limits the accessibility and delays the archaeological excavations. In order to investigate the hazards to which the site is exposed the authors apply an interdisciplinary approach that integrates meteorological datasets, hydrogeological investigations and the study of site images at different scales.

As stressed by the authors, the applied methodology can be extended to any other site at risk of flood damage, permanent submersion, erosion and absorption of saltwater both undermining the fragile balance of the archaeological structures and delaying archaeological research or preservation works. Further important progress of the study is announced.

In “*San Cataldo (Lecce, Italy): the Historical Evolution of the coastal landscape*” Ivan Ferrari and Aurora Quarta analyse the port site San Cataldo and its territory, located

east of Lecce (Puglia), in a multidisciplinary and long term perspective. In antiquity and in the Middle Ages San Cataldo touched by important maritime routes connecting the opposite shores of the Adriatic Sea.

In the frame of the multidisciplinary project “Portus Lupiae” run by the University of Salento Ancient Topography and Photogrammetry Laboratory (LabTAF), the authors study the San Cataldo coastal landscape, heritage, port structures, infrastructures and urbanization process from antiquity to the present. They highlight the close links between the San Cataldo coastal landscape evolution and the economical and social history of Lecce and underline that in the second half of the 20th Century a new tourist vocation replaced the traditional commercial one, causing the overbuilding that characterises the coast today.

In “*Understanding the settlement dynamics of the Ionian coastal area of Salento (Puglia, Southern Italy): the contribution of new archaeological data from the fortified Messapian centre at Li Schiavoni*” Giovanna Cera focuses on the ancient settlement system in the coastal district of South Puglia, from Taranto to Santa Maria di Leuca, between the Archaic and the Hellenistic periods. Thanks to their strategic locations in elevated fortified areas, not far from the coastal strip dotted with landing places (ports and mooring areas), these sites controlled both the access to the sea and the immediate hinterland.

In particular, the fortified small Messapian centre Li Schiavoni developed during the 6th Century BC on a large plateau about four km inland from present Porto Cesareo and dominated a vast segment of the Ionian coastline. New archaeological data from the settlement is being examined, including evidence of the strict connections between this small Messapian centre and the Salento Ionian coast touched by maritime trade networks. The proximity to a series of promontories alternating with naturally protected stretches of coastline suitable for mooring, and the close proximity to the route network linking the coasts of South Puglia with the hinterland are proposed as possible factors for the emergence of the Messapian settlement.

Fabio Fabrizio presents the contribution “*Il Parco archeologico di Saturo (Leporano- TA). Millenni di storia, decenni di incuria*”. The paper focuses on the ancient port site Satyrion, located on the Puglia Ionian Coast in a naturally favorable position and inhabited from antiquity to the Middle Ages. The author *provides an overview* of the significant archaeological evidence and of the actions implemented for the enhancement of the local archaeological park since 1997.

In “*Evolution of the coastal landscape in Eastern Veneto: new data from preventive archaeology*” Alessandro Pellegrini and Alessandro Asta present a recent study of the Caorle area (Province of Venice). Aim of the research to identify the potential archaeological risk connected with the construction of new coastal protection works against erosion processes. The authors assemble legacy and new archaeological data (the latter resulting from the MiBACT information system RAPTOR- www.raptor.beniculturali.it and from the Soprintendenza archives) in a QGIS database, in order to create thematic maps useful for the interpretation of the context. Numerous submerged sites are also taken into account. The study of several historical maps preserved in the Venetian archives and of remote sensing images provides a major contribution to the research. The dataset has been enriched with the aim of protecting the archaeological heritage and, possibly, produce new predictive models applied to archaeological researches and landscape management.

Maria Carla de Francesco, Mauro Zappalorto, Diana de Francesco, Massimo Mangifesta, Angela Faraone, Maurizio Paluzzi, Claudia Minciarelli, Giulio Tatasciore e Andrea R. Natale contributed to the session with the paper “*Archaeological findings of ancient harbor in the pilot site of INTERREG ADRION APPRODI Project in Ortona (CH, Abruzzo), Central Adriatic Sea*”.

Aim of the project is the development of cultural tourism in the Ortona area by enhancing the naturalistic, historical and archaeological resources. An archeological Museum at Ortona is also proposed. Geological and archaeological investigations, including underwater surveys, were conducted in order to map the main geologic, naturalistic, archaeological and cultural sites in the local marine environment and create a descriptive underwater itinerary of the identified areas. Furthermore, the main maritime routes have been reconstructed with the creation of a photographic and video catalog. The work is in progress.

Laura Montioni, Andrea Del Corona, Isabella Palano, Francesca Pichi, Matteo Scamporrino present the contribution “*Evaluation and monitoring of the Livorno’s Fossi system*”.

The authors explain why and how the Livorno system of ditches and canals (“Fossi”) is linked to the history and growth of the city and characterizes the urban landscape. Nowadays the canals are moorings for boats and host nautical circles. The Northern Tyrrhenian Sea AdSP decided to start a project focused on the Livorno's Fossi system in order to collect the most reliable data concerning the extent of the pleasure craft, the status of the canals, the provided services, the general safety, etc. A specific methodology has been created in order to define, support and quantify the displacement of vessels that negatively affect safety, accessibility and the landscape of Livorno's Fossi system through a multi-criteria assessment of scenarios.

In “*Another Sicily, tuna-fishing structures and landscape: a diachronic and contemporary photographic journey along the Sicilian western coast*” Mauro Fontana presents his reflections on the Sicilian western coast landscapes based in large part on a photographic analysis. He focuses on the “tonnare” as architectural heritage and physical expression of the tradition of the tuna fishing. The author compares a photographic reportage taken by Ernesto Scevoli in 1986-1987 and the photos taken by himself in March 2018 and concludes that the examined Sicilian coastal landscape has undergone substantial changes which should be investigated in order to recover the coast characteristics and carry out targeted actions of preservation and enhancement of the architectural and cultural heritage.

The author highlights the importance of photography as an instrument “to discover, know, represent and understand reality”, in a continuous dialogue between natural and built environment.

Ricardo Martín, Víctor Yepes and Alejandro Grindlay present the paper “*Discovering the marina’s cultural heritage and cultural landscape*”. They define marinas as recreational boat facilities serving pleasure craft and reflect on the concepts of landscape, cultural landscape and cultural heritage landscape, port cultural heritage and landscape approach to marinas. Since several marinas are located in old fishing ports or share the port space with fishing or industrial activities, the longtime history of most ports is underlined as well as the complex approach to heritage matters in port areas.

In “*Coastal heritage and territorial signs*” Antonietta Ivona reflects on the coastal districts as “cultural transmission areas”, where people, goods and ideas coming from outside are integrated with the local ones. She focuses on the related cultural heritage, more precisely on the lighthouses and other coastal structures decommissioned by the State and reflects on the conservation path of such buildings. The author underlines that the conservation and reuse of these cultural resources is to be planned with specific attention to the historical-cultural values that shaped them over time, in order to re-include those structures in the economic and social life of the host community. The lighthouses in Croatia, Scotland, Maine, New England recently turned into flagship hotels are taken into account to demonstrate that they suffered no loss of cultural or economic value thanks to the proper evaluation of their cultural characteristics in the coastal landscapes and the strategies applied to the conservation process and subsequent management.

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