

Consulting companies as a bridge between maritime spatial planning and underwater cultural heritage stakeholders

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ABSTRACT

Port and harbour developments, marine wind farms or submarine pipelines and cables are all part of an increasing demand for ocean resources with consequences for the preservation of underwater cultural heritage: identifying and assessing potential impacts to minimise risks is essential.

Consulting companies provide services for development of these maritime and marine infrastructures and they are the key link between the constructors constrain budget and time, and cultural heritage stakeholders who want to preserve as much as possible in the best conditions.

This paper will offer the point of view of marine consultancies as advocates of underwater cultural heritage in the Marine Spatial Planning process. These companies have to potential to create synergies between different activities in the seas, protecting the environment but encouraging the investment. It offers new challenges and opportunities for the safeguarding of this heritage, protecting it but opening the door to businesses contribution and people willing to take a financial risk.

Key words: Maritime infrastructure, Maritime Consultancy, Maritime spatial planning

INTRODUCTION

Underwater archaeology is a flourishing field whose focus is understanding and interpreting the past relationships between humans and the rivers, lakes, and oceans that have surrounded us throughout our history. It may include shipwrecks and sunken cities, venerated sites, ancient harbours, plane wrecks, or prehistoric landscapes.

One of the commonly agreed principles of preservation of underwater cultural heritage named by the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage is the preservation *in situ* as the first option (UNESCO 2001, Articles 2.5, 2.10. Rules 1, 7 and 25). The reason for this being mainly because archaeological objects are better preserved under layers of mud and in saline water. However, this preservation option may conflict with other users of the oceans.

The oceans are an integrated space for a variety of human uses and is perceived and used differently by its various actors. Oceans provide not only fish and other food resources for humans, but they also provide migration and transport routes, amongst other things. Dockworkers and artisanal fishers, as well as artists who use the sea as a source of inspiration, are all valid users of the oceans. The oceans contribute to human welfare, including through an economic value estimated to be in the range of US\$1.5 trillion per year (OECD, 2020). Humans have been very successful at exploiting the oceans.

It is difficult to balance the oceans as an open access resource to be exploited by anyone within the limits for sustainability. The ocean shapes and is shaped by social and physical processes, and the uses may conflict. However, the existing conflicts can be controlled -by legislation or just by awareness of other uses/users- and the beneficial interactions between sea actors can surpass the disagreements (Perez-Alvaro, in press).

MARINE SPATIAL PLANNING

Marine Spatial Planning has been created as an essential tool for managing the use and preservation of the marine environment. It requires a process to allocate space for some specific uses so it can avoid other users' conflicts (Maes, 2008). The Marine Spatial Planning is under development in over 66 countries (44% of the nations with marine waters), encompassing six continents and four ocean basins (Santos et al., 2019). It is important to highlight that Marine Spatial Planning is a spatial as well as a temporal distribution of the human uses in the oceans.

The preplanning phase for the areas includes the identification of Marine Spatial Planning spatial and temporal boundaries and the justification for the need for it. This phase can create controversial decisions, since what is important for one of the users may be prejudicial for another user, so there will be a need for a hierarchy. However, there will be an analysis of potential risks in the second phase, which will analyse both present and future conditions with the identification of corresponding conflicts and compatibilities. There may be then the evaluation of different scenarios. If the Marine Spatial Planning goes ahead, there will be an adoption and monitoring process, this last one especially important (Santos, 2019).

The main conflict in Marine Spatial Planning is that evaluating which groups have more urgent needs than others may be based on their power. Marine Spatial Planning can avoid user conflicts, but it can also lead to an increased conflict potential. Planning and assigning these areas means prioritising some uses over others. In addition, it expects that conflicting stakeholders can reach a consensus divesting themselves of their power resources to collaboratively develop 'win-win' outcomes, which seems a naïve approach (Flannery, 2018).

CONSEQUENCES FOR THE UNDERWATER CULTURAL HERITAGE

Marine Spatial Planning faces political, economic, institutional, social, scientific, and environmental challenges (Santos et al, 2019). The least powerful stakeholders, poorly represented and with just few resources, risk to be ignored in the planning process. Underwater cultural heritage managers are assumed to be in this group of stakeholders (Jentoft and Knol, 2014). Leaving cultural heritage stakeholders to fight for space on their own has the potential risk of losing part of this heritage.

Underwater cultural heritage has been poorly -if at all- addressed in most Marine Spatial Planning attempts for a set of physical, economic, social and political reasons (Papageorgiou, 2018) but the recent interest in the possibilities of the development of maritime economic activities threatens underwater cultural heritage in many different ways. Papageorgiou (2018) identifies the activities that have a potential to be directly harmful to the underwater cultural heritage, including all constructions reaching the seabed, all installations making use of the sea bed, certain fishing techniques and military, defence exercises and activities and human interference directed to underwater cultural heritage. There are also others activities that may indirectly affect submerged cultural assets including fossil extraction, maritime transport, all kinds of activities that threaten marine resources in case of technological disasters (e.g. oil spills) or pollution deriving from marine and land-based activities (e.g. marine litter, uncontrolled waste water disposal in the sea).

One of the main goals of Marine Spatial Planning is mitigating the pressures that some uses put on the marine natural -and cultural-environment. As Perez-Alvaro (in press) states, underwater cultural heritage can be seen as part of the natural environment since the seabed and the sand is usually covering the archaeological objects. Also, the non-sedentary fishing species live around artificial reefs made by shipwrecks. Furthermore, in the aspects of facing natural and human disasters such as climate change, underwater cultural heritage has to fight the same battles as the natural heritage in the oceans. The changes that will affect them are the same.

Nature reserves and natural heritage and cultural assets can co-exist harmoniously and enjoy acknowledgement and protection by enhancing scientific research to ensure knowledge and education, and by supporting marine tourism activities such as wildlife watching or scuba diving which are not harmful for either the natural environment or the cultural environment. As a consequence, the same legal and political agendas on the oceans should already include -as coral reefs are included- underwater cultural heritage. If underwater cultural heritage is treated as one more element in the ocean, its protection would be guaranteed (Perez-Alvaro, 2019). This could be of mutual benefit: if underwater cultural heritage is preserved, the natural heritage will also gain.

THE POTENTIAL ROLE OF CONSULTING COMPANIES

Any offshore and coastal development can have direct and indirect effects on known as well as unknown heritage remains. For instance, the creation of offshore wind farms may have an impact not only on underwater cultural heritage on the seabed, but also on the landscape seen from the coast, which also needs to be considered, since it can also affect land heritage.

Marine heritage consultancies provide archaeological advice and guidance to marine industry and developers. They navigate between the relevant legislative, planning and licensing needs, the potential impacts that the planned activities can have on heritage assets and the interests of the industries. They need to offer impartial advice from the first planning of activities to the final point of construction. They also need to examine onshore requirements, for instance as trucks may be delivered material through the coast, creating an impact on the historical as well as natural environment. Consulting companies need to create environmental impact assessments, desk-based appraisals and mitigating strategies, including reporting protocols for archaeological discoveries. They need to include multi-disciplinary teams to reduce the possibility of adverse financial impacts for their clients as well as adverse impacts for the underwater cultural heritage.

However, the work of these consulting companies can be very controversial too. For instance, the dredging of sand and gravel of Goodwind Sands (UK) needed for the extension of Dover Western Docks received green light by a marine heritage consulting company despite being considered a graveyard of dozens of airmen and sailors. The press and the public claimed against the consulting company. However, in the Environmental Impact Assessment of the project done by the consulting company, the potential of encountering maritime and aviation archaeology in the dredge was considered “high”. It was just the government authorities who took the decision despite the high potential of finding archaeological remains.

As a consequence, development and construction activities onshore and offshore can be subject to restrictions due to the protection of marine or land archaeological remains. It requires a process of negotiation between developers and local and national authorities willing to preserve the underwater cultural heritage. If there is a potential of finding archaeological remains on the place where the works are planned to take place, the clients will need to pay for an archaeological survey, taking pictures and photos of the seabed. Where developers are undertaking marine surveys as part of their development, using geo-physical, geo-technical or visual techniques, for instance, it is advantageous for the methodologies and techniques employed to be approved by a heritage consultant as being appropriate for an archaeological investigation. The potential for additional survey cost that this might entail is likely to be offset by reduction in the risk of having to re-survey areas where archaeological potential (Joint Nautical Archaeology Policy Committee, 1999).

If important remains are identified, as said, preservation *in situ*, will be the first option wherever possible. After this, there will be two interesting options for the preservation of underwater cultural heritage:

1. Underwater fieldwork, post-excavation analysis, reporting and conservation of recovered remains need to be properly resourced and can be expensive. According to Ballard (2021) an oceanographic expedition costs around \$35,000 a day. As a result, one month at sea can cost \$1 million. For maritime archaeology, this is prohibitively expensive. Although physical intervention is only required if other options to avoid damage are not possible, if there is archaeological material that is disturbed and recovered, agreements must be put in place. As a consequence, this becomes an archaeological way to find new underwater cultural heritage without needing to be fully funded by an archaeological unit or a local/national authority.

2. Mitigation may involve the introduction of avoidance zones and/or adapting the area or method of development, which may have few or no financial implications for the developer. If the mitigation is dictated by conditions imposed within the consents procedure, then the developer would have to fund (Joint Nautical Archaeology Policy Committee, 1999). At this point is where marine heritage consultancies can become key to highlight the importance of underwater cultural heritage to be included if Marine Spatial Planning is required in the area. And even if it is not required, the discoveries made through consulting companies can become the measuring stick when underwater cultural heritage stakeholders need to be included in the process of Marine Spatial Planning.

Engaging key stakeholders in the development of Marine Spatial Planning is key because this process aims to achieve multiple objectives (social, economic and ecological) and should reflect all the expectations, opportunities or conflicts in the area, including the ones relating to the preservation and management of underwater cultural heritage. Including consulting companies in the process can generate new options and solutions because they can become bridges between the archaeological language talked by archaeologists and the economic language talked by businesses. And all of it with the knowledge of environmental practices such as the Marine Spatial Planning process where underwater cultural heritage needs to be included.

CONCLUSIONS

Marine Spatial Planning creates better chances for the underwater cultural heritage to receive more attention in terms of protection and management. However, it is necessary to find different ways to highly prioritize underwater cultural heritage stakeholders, compared to other marine economic activities and resources, when planning in the sea (Papageorgious, 2018).

Underwater cultural heritage is not a different element to natural heritage. A cross-disciplinary and inter-agency collaboration is necessary. Marine Spatial Planning seeks to prevent conflicts among maritime activities. It is essential that through zoning there are protective measures for small players risking to be displaced (Jentoft and Knol, 2014). The role of consulting companies is dealing with ethical issues in terms of marine cultural heritage management applying legal protocols to create bridges between use and preservation, working across sectors. They can become advocates of underwater cultural heritage in the process since underwater cultural heritage stakeholders are usually poorly represented in the process and with just few resources, risking to be ignored.

By creating a necessity of preserving the heritage for the benefit of all in the Marine Spatial Planning process, there can be solutions that can be beneficial for the businesses and developers and for all the uses of the oceans.

Acknowledgements

I wish to show my appreciation to Prof Boswell for her trust on my work, her guidance and her knowledge. I would also like to thank Alba Prados Pacual for our inspiring conversations while writing this paper.

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Biography

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