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Underwater cultural heritage facing maritime spatial planning: Legislative and technical issues

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ABSTRACT

Underwater Cultural Heritage (hereinafter UCH) constitutes an invaluable resource that has been poorly – if at all – addressed in most spatial planning attempts, due to the sectorial approach that has prevailed so far when planning in the sea. Lately however, that spatial planning in the marine space (MSP) is being re-launched under a place-based approach, the chances and challenges for UCH are considerably different.

According to the existing international legislation (UNCLOS), coastal states can only interfere with UCH up to their Contiguous Zone (24 nm from the baseline), whilst beyond that limit UCH is left "abandoned" (unless "flag" or "cultural origin" states claim their protection). Of course, this "freezing" of jurisdictions beyond the CZ, means that for the greatest part of the oceans and seas, UCH protection totally depends on the wise regulation of all other human activities that affect directly or indirectly, cultural heritage.

The paper argues that MSP under a place-based approach is a unique opportunity for better protection and wiser management of UCH in greater distances than ever, provided that coastal states proclaim their EEZ (in order to extend as much as possible the area within which they can practice MSP and therefore, tackle conflicts and encourage synergies with UCH). The paper proposes a five-step strategy for considering UCH in MSP. Step 1: Register and evaluate UCH sites and objects, Step 2: Identify ways to upgrade the economic value of UCH, Step 3: Select the most appropriate type of protection zoning, Step 4: Provide regulations and restrictions for activities within the UCH protection zone, Step 5: Ensure integration and cohesion of the planning adopted in the UCH buffer zones with the spatial/sea-use planning adopted in the wider marine area. The paper concludes by highlighting that beyond any strategy, the greater challenge and stake is how to compromise blue growth trend with UCH preservation and promotion.

1. Introduction

In many cases, objects submerged in the water are considered to be "time–capsules" telling stories of distant civilizations, giving the opportunity to make discoveries about distinct periods of the past and world history (Bailey and Flemming, 2008; Dromgoole, 2013). According to estimations made by UNESCO, there are millions of wrecks worldwide spanning thousands of years of history - hundreds of ancient cities that are now lying beneath water surfaces due to natural phenomena (changing sea levels, earthquakes, etc) as well as manmade (or not) disasters (shifting landmasses, building of dams, etc) and many geological formations (caves, etc) that at some point were flooded, hiding prehistoric sites beneath the water surface.

Underwater cultural heritage - hereinafter UCH - is an invaluable resource that requires proper acknowledgement and valorization (Salmons, 2007), otherwise its degradation may result in loss of cultural capital; loss of tourism and recreational opportunities; loss of educational and scientific opportunities and a decline in local ecological knowledge (Khakzad et al., 2015). Despite its importance, however, UCH has been mainly neglected in spatial planning and management implementation for a set of physical, economic, social and political reasons. In fact, although most of the European and other international and regional documents and conventions[1] have theoretically addressed the importance of cultural resource, such asset has been neglected in most spatial planning and coastal management research and practice, which usually focus on other types of resources - such as catches - and

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[1] Such documents and conventions being, for example: a) the UNEP/MAP ICZM Protocol (i.e. Protocol for the Integrated Coastal Zone Management), b) the United Nations UCH Convention (i.e. Convention for the Underwater Cultural Heritage, c) the UNCLOS (United Nations Convention on the Law of the Sea), d) the European Union Directive for Maritime Spatial Planning (MSP Directive 2014/89), etc.

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on other sectoral economic activities and infrastructure, such as ports, oil extraction, tourism and so on (Claesson, 2011).

However, consideration of the UCH resource into Maritime Spatial Planning – hereinafter MSP - and management plans in general is becoming more and more urgent for many reasons. The recent interest (stated in the E.U. Integrated Maritime Policy, etc.) in achieving blue growth has resulted in an ever growing interest in the development of maritime economic activities and infrastructure, threatening UCH in many ways. In fact, apart from activities directed at and incidentally impacting UCH, as in the case of technical constructions (drilling, etc), there are also several maritime economic activities that may indirectly affect and damage UCH, such as technological disasters (oil spills, etc).

So far, existing literature regarding UCH is quite extensive, having addressed UCH by focusing on issues of maritime archaeology and preservation (Bailey and Flemming, 2008; Brodie and Tubb, 2003); on issues of jurisdictions and rights as included in the international or regional legal documents (Dromgoole, 2003, 2013; Allain, 1997; Blake, 1996; Brice, 1996; Carducci, 2002; Blumberg, 2005; Migliorino, 1995; Strati, 1991) on issues of management and promotion (Pinder and Vallega, 2003; Smith and Couper, 2003; Whitehead and Finney, 2003; Claesson, 2009); or in correlation with natural and technological hazards and threats (Daire et al., 2012; McVey and Erlandson, 2012; Durán et al., 2015). On the other hand, literature correlating UCH with maritime spatial planning is still very limited (Khakzad et al., 2015; Vallega, 2003; Agapiou et al., 2017), a fact which comes as no surprise, considering that most policies and implementations related to MSP are quite recent. For example, the E.U. MSP Directive was launched just in 2014 (giving very few statutory plans so far, while the U.N. ICZM Protocol (for the Mediterranean) was launched in 2008 (even if it was already introduced as acquis communautaire, from 2002).

Given the above, the present paper focuses on UCH resource (and especially the submarine cultural heritage, which is being subject to the MSP geographical scope), trying to address its optimal consideration in Maritime Spatial Planning (MSP) implementations. The paper begins with terms and conceptual approaches of UCH and continues with a presentation of the most important international Conventions, as well as issues of jurisdiction over UCH (affecting its protection) as provisioned by international legislation. The second part discusses issues related to MSP, focusing on the role of Marine Protected Areas (MPAs) in protecting UCH and on the compatibilities (and incompatibilities) created between UCH and other activities (aiming at highlighting related conflicts and synergies). The ultimate objective of the paper is to contribute to the ongoing discussion regarding the wise management and planning of the marine space, by proposing a five-step strategy for the consideration of the UCH parameter in MSP, which is an invaluable educational, research and economic asset for coastal communities and states.

2. About underwater cultural heritage (UCH)

2.1. Definitions and conceptual approaches

The terms “culture”, and “heritage” have been the object of a plethora of interpretations - separately or in amalgamation - by many authors worldwide (Forrest, 2002; Graham, 2002; Ahmad, 2006; Vecco, 2010). Underwater Cultural Heritage (UCH) has no actual differences from “cultural heritage”, except for the fact of having a special geographical range and limitation.

According to the Draft European Convention (of 1985), UCH resource may be found entirely or in part in seas, lakes, rivers, canals, artificial reservoirs or other bodies of water; in tidal or other periodically flooded areas; recovered from any such environment, or washed ashore. UCH has been subject to several definitions, deriving from several Bodies having responsibility for developing policies and documents for the protection of such special resources. According to ICOMOS (International Council on Monuments and Sites), which in 1996 launched the Charter on the Protection and Management of Underwater Cultural Heritage, UCH was defined as “*archaeological heritage which is in, or has been removed from, an underwater environment. It includes submerged sites and structures, wreck-sites and wreckage and their archaeological and natural context*”.

In alignment with this definition, a few years later, in 2001, the UCH Convention of UNESCO adopted all the principles of the ICOMOS Charter and also gave the following description: “Underwater Cultural Heritage” is *all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for* ***at least 100 years*** *such as: (i) sites, structures, buildings, artefacts and human remains, together with their archaeological and natural context; (ii) vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural context; and (iii) objects of prehistoric character*. The Convention names a wide range of UCH assets, also introducing a double criterion: time (a 100-year limit) and significance (cultural, historical or archaeological) (Dromgoole, 2003). The Convention excludes from the definition of UCH all types of pipelines, cables, as well as other installations, placed on the seabed.

By its nature and definition, “underwater cultural heritage” is solely associated with tangible assets and resources. In fact, when intangible assets are considered – such as maritime traditions and lifeways of the past and present, trade and fishing, etc. – the term “maritime (or marine) heritage” is used instead (Westerdahl, 1992; Tuddenham, 2010; Pieters et al., 2013). “Coastal cultural heritage” on the other hand, is far broader than all the above, including maritime and underwater assets, as well as terrestrial ones, such as historic waterfront buildings, lighthouses, military fortifications and structures, waterfront residential homes, mill buildings (Claesson, 2011; Khakzad, 2014). Apart from these distinctions (having a strong geographical starting point), other terms used in international documents (e.g. the 1954 Hague Convention) and literature, are “underwater cultural property” and “submerged objects”, due to the emphasis put on the tangible character of UCH and the rights for salvage and rescue of their content (Strati, 1991; Graham, 2002; Frigo, 2004).

Among the above, the present paper focuses on “Underwater Cultural Heritage” and especially that which is found in the marine space, i.e. the geographical area subjected to Maritime Spatial Planning (MSP) initiatives.

2.2. The (economic) value and valuation of UCH

UCH constitutes a special type of resource encompassing critical social, cultural, environmental and economic values. According to several authors (Khakzad et al., 2015; Claesson, 2011; Strati, 1999), identification and evaluation of values associated with UCH – although a difficult task – can be achieved through the use of ecological economics and other economic valuation techniques, despite their limitations (Blaug, 1987; Thorsby, 2001; Navrud and Ready, 2002) due to the intangible (non-extractive) character of most values associated with UCH. Besides, UCH resource presents great similarities with natural heritage: they are both limited assets that once lost, cannot be replaced.

Central focus of economic evaluation techniques is to translate and express tangible and intangible qualities, functions and uses of UCH into economic (monetary) terms, mainly by measuring individuals' willingness to pay for use or accept loss of UCH services and goods (Claesson, 2011; Alcamo and Bennett, 2003). In other words, the focus is to measure the benefits humans receive from goods or services deriving from UCH (“utilitarian” or “use” value) as well as to measure the socio-cultural qualities (“non-utilitarian” or “nonuse” value) embedded in UCH (Alcamo and Bennett, 2003). This task requires a thorough comprehension of such “use” (or “market”) values as well as of “nonuse” (or “nonmarket”) values (also referred to as “extractive” and “non-extractive” uses and values).

Regarding the non-extractive (nonmarket) uses and values, these