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Integrating Underwater Cultural Heritage into the UN Decade of Ocean Science for Sustainable Development

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The resources that we want to protect and conserve for future generations include both natural and cultural heritage in the ocean. As the United Nations Decade of Ocean Science for Sustainable Development (2021-2030) is to facilitate science-based decision making, it is important to consider underwater cultural heritage (UCH) and the law protecting it. This paper discusses existing law and policy that should be considered with this integration as part of the Ocean Science for Sustainable Development, including recommendations of the recent Report on the UNESCO Evaluation of the 2001 Convention (UNESCO, 2019 and Varmer, 2020) and a panel forum held at the Society for Historical Archaeology 2020 meeting in Boston.

Introduction

This paper discusses what our ocean heritage is, how it is threatened, and some of the laws and organizations that facilitate its conservation. It discusses the importance of integrating underwater cultural heritage (UCH) into the work of the United Nations (UN) Decade of Ocean Science for Sustainable Development (2021-2030) (Decade). Within the UN, this effort is being led by the Intergovernmental Oceanographic Commission (IOC) which is also the lead agency in implementing the Law of the Sea Convention (LOSC) and Marine Scientific Research (MSR).

Our Ocean Heritage (Natural and Cultural Heritage) and Threats

The interest in conservation has existed since the dawn of human civilization and is found in many beliefs and religions. This evolved into a conservation movement in the 1800s - 1900s. The first United States (U.S.) national park was established at Yellowstone in 1872, which addressed threats to our heritage from development. Under the 1906 Antiquities Act (AA), natural and cultural areas were set aside as monuments. (National Park Service. 2020). Threats from war to cultural heritage were first addressed in the U.S. by the Lieber Code during the Civil War which was a precursor to the Convention on the Protection of Cultural Property in the Event of Armed Conflict (known as the “1954 Hague Convention”) - the first treaty under the auspices of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The earliest integration and balancing of economic development with the conservation of our heritage is the 1972 UN

Conference on the Human Environment Stockholm Declaration developed under the auspices of UNESCO.

UNESCO and The International Law Protecting Heritage

The 1954 Hague Convention – Protection of Cultural Property in the Event of Armed Conflict

The first treaty protecting cultural heritage under the auspices of UNESCO was the 1954 Hague Convention. It addresses concerns about the war-time destruction of monuments, art, manuscripts, books, and other objects of artistic, historical, or archaeological interest, as well as scientific collections. While it does not expressly refer to UCH, UNESCO interprets it broadly to include UCH (UNESCO Evaluation of the 2001 UCH Convention 2019). There have been discussions about including UCH in the Blue Shield Program, a non-governmental organization designed to protect heritage sites from disasters using emblems that identify the heritage.

The 1972 World Heritage Convention (natural and cultural)

The 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (1972 Convention) is a merging of two separate movements: the first focusing on the preservation of cultural sites and the other dealing with the conservation of nature (UNESCO #45 2016). A major catalyst was the development of the Aswan Dam in Egypt that threatened nearby cultural sites. The campaign to protect this and other cultural heritage sites led to the establishment of the International Council of Monuments and Sites (ICOMOS) in 1965. Around the same time there were

efforts to protect natural heritage such as those under the UNESCO Man and the Biosphere Programme. In the U.S., the concept of a "World Heritage Trust" involving both natural and cultural heritage was raised at a 1965 international meeting held at the White House under the Johnson Administration (Batisse and Bolla 2005). The idea was to stimulate cooperation in order to identify and develop the most beautiful natural and historical sites in the world for the benefit of present and future generations. The 1972 Convention was subsequently adopted by the General Conference of UNESCO on 16 November 1972. The U.S. was the first to ratify on 12 July 1973 under the Nixon Administration. The 1972 Convention entered into force with 20 nations in 1973 and now includes 193 State parties; it is the most widely accepted of the conservation treaties promoting cooperation for the preservation of natural and cultural heritage.

The initial focus of the World Heritage Committee was, understandably, on monuments and sites found on land in the Americas, Africa, and Eurasia. Among the first sites to be inscribed-in 1978-were the remains of an 11th-century Viking settlement at L'Anse aux Meadows National Historic Park in Newfoundland. L'Anse aux Meadows is a maritime heritage site of perhaps the first Euro-American connection through Viking exploration. The Canadian Nahanni National Park Reserve is also inscribed as a natural site because of the outstanding value of the Nahanni River and the four associated canyons and falls that are closely associated with First Nation people who have occupied the land for the last 9,000-10,000 years. The Galapagos Islands were inscribed on the natural list, but the historical significance of the site because of Charles Darwin and the marine component are also noteworthy. Albania was the first nation to have one site, Lake Ohrid, meet the criteria for both natural and cultural resources. At present, there are only 39 sites on this "Mixed List" of sites recognized for their "outstanding universal value" as natural and cultural resources or properties. The first exclusively marine site to be inscribed on the natural list occurred in 1981 in recognition of Australia's efforts to protect and manage the Great Barrier Reef. It is worth highlighting that the U.S. was a leader in the development of the 1972 Convention and its protection of the U.S. national parks in Mesa Verde (cultural) and Yellowstone (natural) were recognized in the 1978 inscription of its first two nominations.

U.S. Leadership In Developing The World Heritage Convention And The Integration Of The Protection Of Natural And Cultural Heritage

As indicated above, the U.S. was a leader in the development of the 1972 Convention and was the first to ratify it. The U.S. already had a few domestic laws that provided authority and examples for the protection of our natural and cultural heritage through the AA and specific Acts establishing national parks. The AA has recently been extended seaward to protect ocean heritage such as Papahānaumokuākea where it protects both natural heritage and cultural heritage of the native Hawaiian people. The 1966 National Historic Preservation Act was enacted to address threats from federally funded development projects. It was amended in 1980 with a new Section 402 to implement the 1972 Convention for express extraterritorial application in all World Heritage sites and to heritage resources identified by foreign governments in what is the equivalent of the U.S. National Register of Historic Places. Section 402 of the NHPA has a process which is the equivalent of the NHPA Section 106 process that applies in the U.S. Section 402 has been applied by U.S. courts to a federal development project in Okinawa to ensure that there was consideration of impacts on heritage including consultation with Japan which listed the dugong (a marine mammal) as part of its cultural heritage. Other U.S. laws that support integrated protection of our heritage include the 1969 National Environmental Policy Act, the 1972 Marine Protection Research and Sanctuaries Act and the 1972 Coastal Zone Management Act.

The UN Law of the Sea Convention (LOSC)

The public international law of nations involving the sea and private international maritime law involving private activities were part of the earliest development of customary international law that continues to evolve, including the integration of provisions protecting heritage both natural and cultural. The codification of the law of the sea was initially accomplished at the first UN Conference on the Law of the Sea (UNCLOS I) in 1956, which resulted in four conventions regarding the maritime zones of the Territorial Sea, Contiguous Zone, Continental Shelf, and the High Seas. The 1958 Conventions did not address cultural heritage or property, much less a duty to protect it despite the

emerging public interest as reflected in the 1954 Hague Convention. The 1958 Convention on Fishing and Conservation of Living Resources is evidence of the public interest in the natural heritage of fish and other living natural resources in the ocean. The international community, however, recognized the need for more work to address these heritage issues. Accordingly, the UN held a second UN Conference on the Law of the Sea in 1960 (UNCLOS II), but it did not result in any treaty. In 1973, on the heels of the 1972 Stockholm Declaration and 1972 Convention, a third conference was called to address certain unresolved issues (UNCLOS III). It took almost a decade, but it did result in the 1982 LOSC which includes a Part XII on the Protection and Preservation of the Marine Environment and several other provisions regarding the conservation and duty to protect the natural heritage of the ocean (United Nations LOSC, 1982). While Articles 149 and 303 of the LOSC are the only provisions regarding the duty to protect the cultural heritage found at sea, the duty is very similar to the duty to protect the natural heritage in the marine environment.

The parties negotiating the LOSC agreed to the duty to protect UCH and recognized the need for more details as is implied in Article 303(4). In response to the continued threats to UCH from looting and salvage, the vagueness of the duty to protect, and the perceived gap in the protection of UCH on the continental shelf, States came together to the Paris headquarters of UNESCO to develop a more specific agreement to protect UCH.

2001 UNESCO Convention on the Protection of Underwater Cultural Heritage

History of the Development of the Convention

While UNESCO's initial focus was on culture sites on land, in 1956 it suggested the Recommendation on International Principles Applicable to Archaeological Excavations be applied to UCH within territorial waters (Dromgoole 2010). With the advent of technology to access the deep seabed, the need for an international agreement for the continental shelf and high seas became apparent. There were studies in Europe in the 1970s, but no text was adopted. The International Law Association (ILA) developed a draft Convention in 1994 that was transmitted to UNESCO. In 1996, ICOMOS adopted its International Charter on the Protection and Management of the Underwater Cultural Heritage. UNESCO convened several meetings of Government

experts between 1998 and 2001 that used the ILA draft and ICOMOS Charter as starting points. The Convention on the Protection of UCH was adopted in 2001 by the UNESCO General Conference with 88 votes in favor, 5 against and 19 abstentions (UNESCO Evaluation of 2001 UCH Convention 2019).

The Convention, Purpose, Scope, and its General Principles

The 2001 Convention represents an international response to the concern of looting and the destruction of UCH by unscientific salvage. It contains a few general principles that were agreed to by all the negotiating parties, including the U.S.:

the obligation to protect and preserve UCH (similar to the duty to protect under LOSC Art. 303(1); 2) the preferred first policy or option of in situ preservation; 3) an agreement on the international standards and requirements for when recovery or salvage is determined to be in the public interest (i.e., consistent with rest of this Convention); 4) no "commercial exploitation" of UCH; and 5) cooperation among States to protect UCH, particularly for training, education, and outreach (also similar to duty to cooperate in LOSC Article 303, Archaeological and historical objects found at sea). UCH is defined to include "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." (UNESCO 2002).

It expressly references the 1970 UNESCO Convention on illicit trafficking, the 1972 World Heritage Convention and the LOSC. The 2001 Convention entered into force with the ratification of 20 nations in 2009. At that time, none of the self-named maritime powers that had expressed concerns about consistency with LOSC were among those 20 nations. Since then, France has become a party in 2013, and other maritime powers, such as Germany, are exploring joining due to the primary concerns about upsetting the delicate balance of jurisdiction between flag States and coastal States has not materialized in the past two decades. During the 10th year anniversary of its entry into force the UNESCO Evaluation Office assessed the 2001 Convention, its implementation and its

support in order to provide findings, lessons learned and recommendations on its relevance and effectiveness.

UNESCO Evaluation of the 2001 Convention on the Protection of Underwater Cultural Heritage

Methodology

The evaluation involved a desk review, a survey of the 193 UNESCO Member States, to which 93 people from 75 States responded (38% response rate), semi-structured interviews with stakeholders, questionnaires for established partners and observation of three conferences on UCH (UNESCO Evaluation of the 2001 UCH Convention 2019).

Key Findings

The 2001 Convention and the Rules in its Annex have become the world reference for underwater archaeologists. The State Cooperation Mechanism created by the Convention is of interest to States and aspires to become a model for other processes of international cooperation in areas beyond national jurisdiction in a manner consistent with the LOSC. It is relevant in that it complements the existing international framework for the protection of UCH, namely by filling the void left by the LOSC on the continental shelf beyond the 24 nm contiguous zone. However, many viewed the discourse around the 2001 Convention as too narrowly focused on shipwrecks. Some expressed misconceptions on key concepts of the Convention, that *in situ* preservation was a bar to recovery of UCH, creating a museum for recovered artifacts or, even, the removal of human remains from UCH sites. Regarding gender parity, women remain largely underrepresented in this field. The Scientific and Technical Advisory Body to the 2001 Convention (STAB) has been appreciated, but it has focused exclusively on underwater archaeology,

overlooking potential ties with other related subjects, e.g. the environment, ocean, and heritage at large. Existing partnerships have been underutilized and potential ones unexploited. There is great potential for UNESCO to explore synergies among its Culture Conventions and with the Man and the Biosphere Programme, and the work of the IOC, particularly in the framework of the upcoming Decade. UNESCO also has valuable expert networks in UCH (NGOs, UNITWIN,

Category II centre), whose strength lies in skills development, but they have so far not been very involved in capacity-building initiatives. Several additional partnerships also remain unexplored such as with law enforcement organizations, museums, and organizations working on oceans and the environment more broadly. Finally, UNESCO is not sufficiently present in international development fora in which the protection of UCH needs to be promoted (UNESCO Evaluation of the 2001 UCH Convention 2019).

Recommendations in the Report of the Evaluation

There are 15 recommendations in total, six for the UNESCO UCH Unit, including the development of a strategic plan and monitoring to support countries in implementing the 2001 Convention that should be articulated in a results framework and linked to all relevant Sustainable Development Goals (SDGs). Among other things, it recommends the STAB broaden its scope include legal and environmental issues in view of strengthening recipient countries' systems of protection. For the Meeting of the States Parties (MSP), the recommendations include integrating UCH into the Roadmap of the Decade, including cooperation between the UCH Unit and the IOC in the implementation of the Roadmap, invite stakeholders from the UNESCO Secretariat (IOC, units responsible for the 1954, 1970, 1972 and 2003 Conventions), DOALOS, NGOs working on oceans and the environment, law enforcement agencies, etc., to MSP meetings in view of clarifying issues related to the law of the sea and broadening discussions to include the larger issues at stake (UNESCO Evaluation of the 2001 UCH Convention 2019). Recommendation 14 is for UNESCO's Culture Sector to ensure that there is regular representation of the UCH Unit in UN Ocean and any other global coordination mechanisms in ocean-related matters in order to clearly reaffirm the contribution of the protection of UCH to the 2030 Agenda. The Cultural Sector should also integrate the protection of UCH and awareness of the 2001 Convention in the mechanisms of other Culture Conventions and UNESCO programmes (e.g. Man and the Biosphere Programme) such as in their site management and conservation plans, broader safeguarding policies, regional consultations, trainings, and meetings of statutory bodies. Collaborate with the IOC in integrating UCH into initiatives such as marine spatial planning, marine scientific research, and

capacity building (UNESCO Evaluation of the 2001 UCH Convention 2019). As we look to the future of the conservation of our heritage in the ocean, the focus should include cooperating in protecting our natural and cultural heritage found in the high seas such as RMS *Titanic* and the Sargasso Sea which are both currently beyond the geographic scope of consideration under the 1972 Convention (UNESCO #45 2016).

UNESCO's Hangzhou Declaration: Placing Culture at the Heart of Sustainable Development Policies

The Hangzhou Declaration, adopted in Hangzhou, People's Republic of China on May 2013, affirmed the link between culture and the Sustainable Development Goals (SDGs or the 2030 Agenda). The declaration notes that culture can serve as knowledge capital and a sector of activities. It recognizes that different cultural perspectives will result in different paths to development; this allows enhanced opportunities and human capabilities while promoting mutual understanding and exchange. Further, development is particularly effective when a people-centered and place-based approach is taken to ensure that all programs and policies are inclusive and effective (UNESCO Hangzhou Declaration 2013).

Integrating UCH into the UN Decade of Ocean Science for Sustainable Development

The United Nation's Decade of Ocean Science for Sustainable Development (2021-2030) is intended to be the largest campaign in the history of science and seeks "to support efforts to reverse the cycle of decline in ocean health and gather ocean stakeholders worldwide behind a common framework" (UNESCO Accelerating Ocean Science 2019). The vision for the Decade is defined as "The science we need for the ocean we want." The official mission statement is "to generate and use knowledge for the transformational action we need to achieve a healthy, safe, and resilient ocean for sustainable development by 2030 and beyond" (UNESCO Decade Summary Event 2020).

Preparations for the Decade are led by UNESCO's IOC and brings together governments, scientists, NGOs, and industry. The goals were set during the first planning meetings held in May 2019 (UNESCO First Global Planning Meeting 2019). Twelve archaeologists were invited to participate in the meeting and provided guidance on how to integrate cultural heritage into this

effort (Underwood et al. 2020). It was agreed that the focus on heritage should include underwater and coastal heritage which has also been referred to as a maritime cultural landscape approach. During UNESCO's June 2019 meetings in Paris, the Executive Secretary of the UNESCO IOC suggested the group of accredited NGOs develop a workshop highlighting the importance of cultural heritage in the Decade (Underwood et al. 2020). This resulted in the establishment of the Ocean Decade Heritage Network (ODHN 2020).

The Decade hopes to deliver a digital atlas of the ocean, a comprehensive observing system, quantitative understanding of ocean ecosystems, a data portal, an integrated multi-hazard warning system, capacity building and accelerated technology transfer, and an ocean in earth-system observation supported by social and human sciences and economic valuation (UNESCO The Science We Need 2019). Underlying this is the search to increase understanding of the ocean through science-based solutions, achieve the 2030 Agenda and produce the six desired outcomes of the Decade: a clean ocean where sources of pollution are identified and removed, a healthy and resilient ocean where marine ecosystems are mapped and protected, a sustainably harvested and productive ocean ensuring the provision of food supply and sustainable livelihoods, a predictable ocean where society has the capacity to understand current and future ocean conditions, a safe ocean where people are protected from ocean hazards, and a transparent and accessible ocean with open access to data, information and technologies. While none of these specifically mention culture or heritage, one of the Guiding Principles for the Decade calls for "Activities [that] are based on partnerships between many disciplines and sectors. [And which] integrate social and cultural values, and traditional/indigenous/local community knowledge" (UNESCO Ocean Decade Summary Event 2020). According to the IOC Executive Secretary, "we need emotional engagement, as well as a show of how the ocean is part of society's value chain" (Spalding, pers. com. 2020). In framing the case for philanthropic support for the Decade, the IOC wrote:

The world is experiencing a revolution in science and technology. In the coming decade, we have a tremendous opportunity to harness advances in ocean science to achieve a better understanding of the ocean system and deliver science-based solutions to achieve the 2030 Agenda . . . To meet this challenge, the UN General Assembly called for an

acceleration of ocean science and data exchange to reverse declines in the health and functioning of the ocean system and to catalyze new opportunities for sustainable ocean uses. The Decade will bring together scientists and stakeholders from all relevant sectors to generate the scientific knowledge and to develop the partnerships needed for informing policies to support a well-functioning, productive, resilient, and sustainable ocean. The Decade will enable the delivery of timely information about the state of the ocean and articulate development-dependent scenarios and a sustainable pathway into the future (Concept note The Ocean Decade 2020).

Following on the UNESCO *Hangzhou Declaration* consensus, to be successful the Decade must integrate culture, through cultural heritage and creativity, as an enabler of sustainable development while also promoting capacity for science innovation and allowing the world to achieve the benefits contemplated by the SDGs. “Placing culture at the heart of development is the only way to ensure a human-centered, inclusive and equitable development” (Hosagraha 2017). As a result of *The Hangzhou Declaration*, those concerned about culture and heritage are recognized “stakeholders” and are key to the global approach to meet the SDGs. For example, natural and cultural heritage tourism, also known as eco-cultural tourism, is often looked to as a sustainable ocean use when part of a conservation management plan. While the socio-economic benefits of UCH may be relatively less known, historical sites that are responsibly managed, protected, and monitored can be maintained and used to create tourism revenue. For example, the U.S. Florida Keys National Marine Sanctuary plan’s *in situ* conservation of natural and cultural heritage was determined to have a more positive impact on the economy than any short-term benefits of the private exploitation of treasure hunting (NOAA Varmer 1997).

While none of the SDG titles directly address culture, the world’s natural and cultural heritage is expressly referenced in one of the targets under goal 11 see SDG target 11.4: “Strengthen efforts to protect and safeguard the world’s cultural and natural heritage.” As explained in the UNESCO Report on the Evaluation of the 2001 UNESCO UCH Convention, “Underwater cultural heritage research, education and protection is relevant to many Sustainable Development Goals” (UNESCO Evaluation of 2001 UCH Convention 2019:15). For

example, the benefits from UCH conservation activities and associated tourism revenue can help address SDG 1: no poverty. UCH research can contribute to coastal societies sustainable development, while protecting their heritage. UCH may open opportunities for recreation, cultural enrichment, and economic and social development. For instance, it can provide long-term opportunities for eco-cultural tourism, and promote social well-being in support of SDG 3 on Good Health and Well-being. Public access to UCH, in the form of museums, dive trails, 3D visioning or other means, ensures the conservation of the UCH, and a lasting return on the investment of our heritage. The protection, research, and education of UCH is also relevant to SDG 4: Education as it is part of ocean literacy. The SDG Target 4.7 is particularly relevant to education for sustainable development as it can contribute to highlighting the connections between people and building peace and sustainable development through understanding our shared maritime and cultural heritage. UCH and our maritime heritage are also relevant to SDG 5 Gender Equality in that research and education about our maritime heritage and UCH may also contribute to empowering communities through the telling of stories of women and their traditional knowledge of UCH. UCH is also relevant to SDG 8 on Decent Work and Economic Growth as the protection of UCH has the potential of contributing to the Blue Economy, such as through eco-cultural tourism, touched on above. UCH is relevant to SDG 11 Sustainable Cities and Settlements as SDG target 11.4 seeks to strengthen efforts to protect the world’s cultural and natural heritage. Regarding the especially important SDG 13 Climate Change, “UCH can provide vital evidence about how human populations have adapted to, or been affected by, climate changes in the past” (UNESCO Evaluation of the 2001 UCH Convention 2019).

Within the Decade’s goals there is ample area to integrate UCH into the science-based sustainable development decision making and to particularly encourage the conservation of both natural and cultural heritage for the betterment of the ocean and human interaction with it. Culture, nature, and science must be considered holistically to provide the most successful development programs and policies incorporating new developments in science-based solutions and emerging technology with the understanding from cultural considerations needed to protect UCH. Because UCH is part of the heart of UN SDGs, the related science-based solutions support the 2030 Agenda.

Recommendations:

- The mapping of the seabed should be done in a manner that can identify natural and cultural heritage so decisionmakers can balance their conservation with sustainable development.
- Include research of UCH in ocean scientific research and marine scientific research.
- Include UCH as part of the marine environment for environmental assessments, marine spatial planning, and the integrated management of human activities.
- The use of a maritime landscape approach is encouraged. This approach considers how humans have used the ocean and coastal environment for their development and how that environment affected their human use. As such, it is part of the cultural heritage that is fundamental to understanding how many coastal and marine ecosystems achieved their present form and understanding the pressures upon them and the possible lessons learned in how to address for sustainable development.
- Recognize that protecting UCH *in situ* may also serve as artificial reefs of potential use in sustainable development as a site for eco-cultural tourism and a fishery enhancement device for recreational and commercial fishing.
- Recognize that sustainable development may include the recovery and conservation of certain UCH in a museum or other institution of public access.
- Support the research and identification of potentially polluting shipwrecks in a manner that surveys the wreck site prior to activities to remove bunker fuel and hazardous material or other activities to prevent or minimize pollution of the ocean and coastal areas.
- Support integration of cultural heritage into Ocean Literacy as human interaction with the historic environment is essential to understanding our present ocean and to forecasting change and its implications for human well-being and livelihoods.
- Support research of cultural heritage that informs the understanding of coastal inhabitation and intervention in the past and present—including the impact of previous catastrophes—to identify risks, present examples of human adaptations, and to encourage resilience; and

- Recognize cultural heritage as a major contributor to the Blue Economy, especially through recreation and eco-cultural tourism in a manner that does not damage the world's irreplaceable cultural heritage.

Conclusion

This paper discussed ocean heritage, the law developed to conserve it, and recommended next steps particularly integrating UCH into all the work of UNESCO. Additionally, this paper focuses on the work of IOC and the Decade, including marine scientific research, environmental assets, planning and management of human activities in the ocean. The significant precedence for the protection of both natural and cultural ocean heritage exists through the Antiquities Act of 1906, the 1972 World Heritage Convention, the 1982 Law of the Sea Conventions, and the 2013 Hangzhou Declaration. This paper not only reinforces the belief the Decade should prioritize the preservation of both natural and cultural ocean heritage but reaffirms the benefits of mitigating risks to the environment and our communities as well as increasing economic opportunities in the process. In sum, the science we need for the ocean we want, includes sustainable development that conserves natural and cultural heritage for present and future generations.

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