

The Duty to Protect Our Ocean Heritage from Potentially Polluting Wrecks

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ABSTRACT

The importance of conserving our ocean heritage is well recognised and was codified in international law in the 1972 World Heritage Convention. The 1982 Law of the Sea Convention (LOSC) recognises a duty to protect ‘objects of an archaeological or historical nature’ but is devoid of details for implementation. The 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage provides sorely needed details in the various maritime zones in accordance with the LOSC and well accepted international standards of archaeology and conservation. This paper summarises the relevant international law to help address the major threats to UCH from Potentially Polluting Wrecks (PPWs).

Keywords: Underwater Cultural Heritage; Natural Heritage, Law of the Sea; 2001 Convention

List of abbreviations

Continental Shelf (CS)

Exclusive Economic Zone (EEZ)

International Union for the Conservation of Nature (IUCN)

Law of the Sea Convention (LOSC)

1979 Convention on Long-Range Transboundary Air Pollution (LRTAP)

Potentially Polluting Wrecks (PPWs)

Underwater Cultural Heritage (UCH)

United Nations Educational, Scientific and Cultural Organization (UNESCO)

INTRODUCTION

The topic of this paper fits best within Session 13 Major Threats to Underwater Cultural Heritage (UCH) because it summarises the relevant international law and provides the context and legal foundation for the development of measures to address the threats and conserve our ocean heritage as discussed in other papers in this session. The paper starts with an overview of the international law relevant to these threats and the measures to address them. This will also provide examples addressing the major threats to UCH, the resources available to tackle these threats under the law, the framework or approach to address these threats, and the result that we seek: a moratorium on activities that are major threats to UCH until the ocean science has been conducted to ensure that these activities are truly sustainable developments. In the context of the UN Decade of Ocean Science for Sustainable Development that means if it is not safe for life, property, the marine environment, and UCH, then it is not sustainable development.

The case studies under consideration in this session include major threats to UCH from Potentially Polluting Wrecks (PPWs), fishing, mining, energy development, climate change and the related threat from sea level rise. This paper looks at the legal duty to protect our ocean heritage from the threats presented by PPWs, however, the duty is relevant to all the threats particularly those involving activities that directly affect UCH, such as salvage, and those that may indirectly affect UCH, such as fishing and mining.

CASE STUDIES

The case under consideration is the law related to the threat to our ocean heritage (natural and cultural) from PPWs. According to the International Union for the Conservation of Nature (IUCN), ‘marine pollution from sunken vessels is predicted to reach its highest level this decade, with over 8,500 shipwrecks at risk of leaking approximately 6 billion gallons of oil’ (IUCN 2023). The vast

majority of PPWs are from World War I and II (WWI and WWII). They contain hazardous materials including chemicals, unexploded ordinances, and an estimated six billion gallons of heavy fuel oil. ‘This is 545 times more oil than the Exxon Valdez leak in 1989 and 30 times that of the Deepwater Horizon spill in 2010, both of which had severe and long-lasting environmental consequences’ (IUCN 2023).

There are several legal questions that may arise under international and domestic law in addressing the threats presented by a sunken vessel that is a potential threat to the marine environment. This paper briefly summarises those international laws and discusses the legal issues and context that are of particular interest in not only addressing the threats to the marine environment but also in the preservation and conservation of PPWs which may be objects of an archaeological or historical nature under the 1982 UN Law of the Sea Convention (LOSC) if not UCH under the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage (henceforth 2001 Convention). As many PPWs are sunken state craft, there are also issues of ownership, sovereign immunity, and the fact that many sites are also wartime graves. This paper is not intended to be a comprehensive analysis and a case-by-case basis analysis will be necessary and will often include the flag State, coastal State, and other States with an interest in the ship, cargo, or personnel.

RESOURCES

The resources needed to address the threats from PPWs are surveys to identify their location, document heritage information and environmental assessments on how to sustainably develop and manage to conserve the heritage and livelihood dependent upon a healthy ocean. There are some legal resources relevant to address the threats from PPWs including the 1982 LOSC, and the duties to protect the marine environment and objects of an archaeological and historical nature. This will be followed by discussion of the 2001 Convention that was developed to address the very brief and vague LOSC articles 149 and 303 but in a manner consistent with the balance of interests of coastal States and flag States. The evolution of the international duty to protect and conserve our ocean heritage can be traced to the Stockholm Declaration and the 1972 World Heritage Convention—where the wisdom of integrating the conservation of both natural and cultural heritage became international law.

The international law to protect marine life can be traced to agreements trying to address the over exploitation that arose from technological advances in the industrial revolution as discussed by Charlotte Jarvis’ paper on bottom trawling in the same session and volume as this paper. The environmental movement that followed WWII sparked the development of laws to address the threats to our natural and cultural heritage for present and future generations. For example, the 1946 Convention for the Regulation of Whaling to conserve these overexploited creatures and the founding of the International Union for the Conservation of Nature and Natural Resources (IUCN) in 1948.

1972 Stockholm Declaration

The United Nations Conference on the Human Environment met in Stockholm, Sweden and resulted in the Stockholm Declaration. It codified the customary practice of nations in balancing of development and protecting the environment so that it may be inherited by future generations in a healthy state (heritage). It contains principles that document and delineate the duty to protect and to cooperate for that purpose under customary international law, including that we bear ‘a solemn responsibility to protect and improve the environment for present and future generations’ (Principle 1). A ‘special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat, which are now gravely imperilled by a combination of adverse factors. Nature conservation, including wildlife, must therefore receive importance in planning for economic development’ (Principle 4). ‘States should adopt an integrated and coordinated approach to their development planning to ensure that development is compatible with the need to protect and improve environment for the benefit of their population (Principle 13)’. ‘In exercising the sovereign right to exploit their own resources, there

is the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction' (Principle 21). While there is no express reference to cultural heritage, the duty to protect the environment should be interpreted to include cultural heritage as well as natural. This view is also supported using 'integrated and coordinated approach' to development planning in Principle 4. This is reinforced by the integration of natural and cultural resources to be conserved in UNESCO's 1972 World Heritage Convention.

1972 World Heritage Convention: Integrating the conservation of natural and cultural heritage

While the focus in Stockholm was on the environment and sustainable development; at UNESCO headquarters in Paris the focus was an agreement to protect natural and cultural heritage. With 193 State parties, it remains one of the most widely accepted treaties. While it started with recognising terrestrial sites and traditional cultural structures, it has evolved to recognise heritage in the marine environment beyond the territorial sea into the EEZ/CS. For example, the Papahānaumokuākea Marine National Monument in Hawai'i was inscribed on the World Heritage 'mixed list' for its 'outstanding universal value' as both a natural and cultural heritage site. Of note, is that some of the natural heritage, like coral, were also recognised as cultural heritage of the native Hawaiian people and some of their practices were recognised as intangible cultural heritage. This move seaward continues as there are now calls for recognition of heritage in the high seas (UNESCO 2016), including wreck sites such as *Titanic*. The challenges involve ensuring consistency with the LOSC, more specifically, implementing the duty to protect and cooperate through reliance of flag State jurisdiction, and Port State jurisdiction for enforcement of activities directed at cultural heritage under the high seas. The legal context for all activities in the ocean starts with the international legal framework of the LOSC including potentially polluting wrecks.

The 1982 Law of the Sea Convention (the legal framework for activities at sea)

The LOSC is well recognised as a codification and progressive development of the law of the sea. It provides the legal framework for the use and protection of the marine environment, including natural and cultural heritage resources. It balances the flag State rights of navigation, fishing and other uses with the coastal State jurisdiction and authority in various maritime zones including a 12 nm territorial sea, a 24 nm contiguous zone, a 200 nm EEZ, the continental shelf, the high seas and Area beyond national jurisdiction.

Under Article 303(1), applicable to archaeological and historical objects found in any part of the sea, recalls the general obligation whereby 'States have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose.' Specifically, regarding the Area, under Article 149, '[a]ll objects of an archaeological and historical nature found in the Area shall be preserved or disposed of for the benefit of mankind, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State of historical and archaeological origin.' While it is not always clear which nations have preferential rights, it would include the flag States of the sunken ship and nation from which the cargo came. While it is expressly limited to the Area, the consideration of preferential rights provides some guidance for cooperation on UCH found in other maritime zones, particularly the portion of the continental shelf beyond the 24-mile limit of coastal State jurisdiction under Article 303(2). The LOSC is now recognised as customary international law, and it may therefore be argued that its duty to cooperate to protect objects of an archaeological or historical nature should also be recognised as customary international law, as evidence by the practice of nations including non-parties like the USA. While there is little guidance or detail on how to fulfil the duty to protect under this Article, other Articles and laws are helpful in guiding parties as they fulfil the duty to protect including the duty to protect natural heritage and the marine environment to which it is inextricably linked.

Under Articles 192 and 194 there is the general obligation of States to protect and preserve the marine environment. This general principle may be applied both to wrecks that become artificial reefs,

deserving protection as part of the marine environment, and to wrecks that are potentially (or actually) endangering this environment because of their deteriorating structure or polluting cargo still aboard. Specifically, Art. 194(3)(b) deals with the measures to be taken by States, including those designed to fully minimise ‘pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation, and manning of vessels’ (Aznar 2015). Note how this duty to protect the marine environment is like the very general duty to protect cultural heritage under Articles 303 and 149. Thus, the obligation under Part XII may provide guidance on how to implement the duties under Articles 303 and 149, as the 2001 Convention does. The LOSC does not explicitly address the issue of the protection of maritime graves in international waters (Aznar 2015).

The 1992 Rio Declaration

Ten years after the LOSC and twenty years after the Stockholm conference, the United Nations convened another Conference on Environment and Development in Rio de Janeiro, Brazil. This 1992 Rio Conference resulted in the Rio Declaration on Environment and Development, including Agenda 21, which provides that there is a duty to protect the marine environment and to cooperate for that purpose—expressly flowing from the 1982 LOSC. Chapter 17.1 highlights how the LOSC ‘sets forth rights and obligations of States and provides the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources.’ It then identifies approaches to implement this duty and specifically calls for integrated management and a precautionary approach in the sustainable development and protection of the marine environment.

Precautionary approach

A precautionary approach to addressing threats to the environment can be traced back to domestic German law in the 1970s. It was first used in an international agreement in the 1980 regarding the Conservation of Antarctic Marine Living Resources. However, it was the Rio Declaration that is received wide international recognition.

‘In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall be not used as a reason for postponing cost-effective measures to prevent environmental degradation’
Principle 15, Rio Declaration.

It has been incorporated into several international treaties including: 1992 Convention on Biological Diversity, the 1992 United Nations Framework Convention on Climate Change, the 1995 WTO Agreement on the Application of Sanitary and Phytosanitary Measures, the 1995 Fish Stocks Agreement, the 1996 Protocol to the 1972 London Convention on the Dumping of Wastes and Other Matter, the 1997 Protocol to the International Convention for the Prevention of Pollution From Ships, the 1998 Agreement on the International Dolphin Conservation Program, the 1998 Long-Range Transboundary Air Pollution (LRTAP) Persistent Organic Pollutants Protocol, the 1998 LRTAP Heavy Metals Protocol, the 1999 LRTAP Acidification Protocol, the 2000 Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, the 2001 International Convention on the Control of Harmful Anti-Fouling Systems, and the 2001 Agreement on the Conservation of Albatrosses. It should be applied to PPWs particularly those that are historic or UCH. The precautionary approach is particularly appropriate in the management of PPWs because they are ticking time bombs and if historic, are also time capsules of our heritage. If so, the 2001 Convention is particularly relevant.

2001 Convention

To address the threat of looting and unwanted salvage, and the details sorely needed to implement the LOSC, UNESCO convened a meeting to negotiate an agreement to protect UCH. Consensus was reached quickly on a clear definition of UCH, and a ban against the law of finds and salvage. There was also consensus on four principles: 1) to protect and preserve UCH; 2) the preferred first policy option of *in situ* preservation, and adherence to the Annex Rules when a party decides not to preserve *in situ* and recovery is in the public interest ; 3) no ‘commercial exploitation’ of UCH; and 4) cooperation among States to protect UCH, particularly for training, education, and outreach. Consensus was not reached on the regime for cooperation in the protection of UCH in the EEZ/CS as some delegations had concerns about ‘creeping jurisdiction’ of coastal States and the treatment of foreign sunken craft within the territorial sea (Dromgoole 2013). That many PPWs are historic heritage resources calls for a precautionary approach. The fact that most PPWs are wrecks from the World Wars and are thus maritime graves also calls for a precautionary approach through a temporary moratorium against salvage (Varmer 1999). ‘This precaution is even stronger when there are human remains in the sunken wreck, which, according to Article 2(9) of the 2001 Convention, must be given proper respect’ (Aznar 2018).

FRAMEWORK

The legal duties to protect our ocean heritage under international law, and the goals of the UN Decade of Ocean Science for Sustainable Development, show that the best way to address the threats from PPWs is a precautionary approach including a moratorium against activities that may trigger these ticking time bombs until the proper science and assessments are done to make sure such activities are truly sustainable. A temporary moratorium could be, and limited to, activities directed at PPWs such as salvage and certain indirect activities that could result in irreparable harm and destruction to UCH and marine life such as bottom trawling, or Deep Seabed Mining until after surveys have been conducted to ensure that no PPWs are in planned exploitation areas, proper Environmental Impact Assessments have been conducted, and significant natural and cultural heritage are Marine Protected Areas.

RESULTS

The IUCN has called for the development of international standards to determine the best practices for addressing this threat including the classification of PPWs according to potential environmental, social, and economic impacts (IUCN 2023). If this precautionary approach is respected, and the standards are developed and followed, the results would be a healthier ocean which is so important for those lives and livelihoods dependent upon a healthy ocean. The duties for protection would be addressed, and the economic development would clearly be sustainable.

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Bibliography

(Aznar 2015) Aznar, M. J.” Sensitive Wrecks, Protecting Them and Protecting from Them.” *Revue Belge de Droit International* 1-2. Bruxelles: Éditions Bruyant, 2015.

(Aznar 2018) Aznar, Mariano, “In Situ Preservation of Underwater Cultural Heritage as an International Legal Principle.” *Journal of Maritime Archaeology* 13, no. 1 (2018): 67-81. DOI: 10.1007/s11457-018-9192-4, Available at SSRN: <https://ssrn.com/abstract=3164159>

(2001 Convention) UNESCO Convention on the Protection of Underwater Cultural Heritage, Adopted 2 November 2001, entered into force 2 January 2009 (2562 UNTS 1)

(Dromgoole 2013) Dromgoole, S. “Reflections on the Position of the Major Maritime Powers with Respect to the UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001.”, *Marine Policy* 38, (2013): 116-123.

(IUCN2023) [IUCN Issues Brief, Marine Pollution From Sunken Vessels \(2023\)](https://www.iucn.org/resources/issues-brief/marine-pollution-sunken-vessels#:~:text=There%20are%20an%20estimated%203,as%20potentially%20polluting%20wrecks) see <https://www.iucn.org/resources/issues-brief/marine-pollution-sunken-vessels#:~:text=There%20are%20an%20estimated%203,as%20potentially%20polluting%20wrecks>. see also <https://majorprojects.org.au/ppw/>

(IUCN 2020) [IUCN Resolution on Sunken Vessels](#) WCC-2020-Res-026-EN
International cooperation on marine pollution from sunken vessels

(LOSC) Law of the Sea Convention, Adopted 10 December 1982, entered into force 16 November 1994 (1833 UNTS 397)

(NOAA 2013) National Oceanic and Atmospheric Administration. 2013. Risk Assessment for Potentially Polluting Wrecks in U.S. Waters.

Stockholm Declaration of the United Nations Conference on the Human Environment, Report of the United Nations Conference on the Human Environment, U.N. Doc. A/ CONF.48/14/Rev.1 (1973), p. 3; U.N. Doc. A/CONF.48/14 (1972), pp. 2-65. and Corr. 1 available at <http://www.un-documents.net/unchedec.htm>

(UNESCO 2016) Freestone, D. Laffoley, D., Douvère, F. and Badman, T., World Heritage in the High Seas: An Idea Whose Time Has Come, See also World Heritage Centre World Heritage Marine Program at: <http://whc.unesco.org/en/marine-programme.Hampi+World+Heritage+Site+KarnatakaHampi>

(Varmer 1999) Varmer, Ole. “The Case Against the ‘Salvage’ of the Cultural Heritage.” *Journal of Maritime Law, and Commerce* 30, no. 2 (1999): 279-302.