The International Legal Order: Current Needs and Possible Responses

Essays in Honour of Djamchid Momtaz

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Exporting Environmental Standards to Protect Underwater Cultural Heritage in the Area

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1 Introduction

When our friend Djamchid Momtaz analyzed the 2001 UNESCO Convention for the protection of underwater cultural heritage,[1] he first reviewed the general regime offered for the protection of that heritage by the 1982 UN Law of the Sea Convention.[2] In assessing its Article 149 ('Archaeological and historical objects'), he regretted that

> [c]ette disposition de la Convention manque malheureusement de précision et sa mise en œuvre est laissée à la discrétion des Etats. Elle omet par ailleurs de reconnaître une quelconque responsabilité à l'Autorité internationale du fond des mers pourtant chargée par la Convention des Nations Unies sur le droit de la mer d'organiser et de contrôler les activités menées dans cette partie du fond des mers.[3]

Article 149 LOSC states that '[a]ll objects of an archaeological and historical nature found in the Area shall be preserved or disposed of for the benefit of mankind as a whole, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State

* The author would like to thank Tullio Scovazzi, Gwénaëlle Le Gurun and Ángel Rodrigo for their invaluable comments on an earlier draft of this article. The views expressed, however, are solely those of the author, as are any errors. This article was prepared with funding from Research Grant DER2013-48826-R, awarded by the Spanish Secretary of State for Research, Development and Innovation. All websites were last accessed on 15 July 2016.

1 Adopted 2 November 2001, entered into force 2 January 2009, 2562 UNTS 1 (UNESCO Convention hereinafter).

2 United Nations Convention on the Law of the Sea, adopted and opened for signature 10 December 1982, entered into force 16 November 1994, 1833 UNTS 397 (LOSC hereinafter).

3 D. Momtaz, 'La convention sur la protection du patrimoine culturel subaquatique', in T. M. Ndiaye and R. Wolfrum (eds), Law of the Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah, Martinus Nijhoff, 2007, pp. 443–461, at p. 444 (footnotes omitted).

 | DOI 10.1163/9789004314375_019

of historical and archaeological origin.'[4] It thus establishes a generic duty to preserve underwater cultural heritage (UCH) in the Area, in line with the general obligation for all marine zones established by Article 303(1) LOSC, which provides that 'States have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose.'

The mandate drafted in Article 149 contains so many caveats—how to interpret and apply, for example, the concepts of '*disposal* for the benefit of mankind as a whole', 'preferential rights' or States of 'cultural, historical or archaeological origin'—that the legal regime it creates fails to provide clear answers on how to protect the UCH located in the Area.[5] As Momtaz warned, the International Seabed Authority (ISA or the Authority) has not been given any responsibility for that protection. Yet nor does the UNESCO Convention give the Authority much room in this matter: its Secretary-General must merely be notified by States Parties to the Convention of any discovery or activity directed at UCH located in the Area;[6] but the ISA does not participate in the protection system foreseen for the Area in Article 12 of the UNESCO Convention.[7] In any case, the ISA does not seem to be well equipped either normatively or institutionally to perform such tasks, at least explicitly. As we will see, the ISA regulations include a basic reference to human remains and to historical or archaeological objects and sites only in general terms and more for information purposes (see below, section 2).

However, following the general mandate to protect and preserve the marine environment in the Area, a mandate endorsed in general principles and in the LOSC, the ISA has produced a more complete array of (hard and soft) rules

4 'Area' is defined in Article 1 LOSC as 'the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction'. On the drafting of Article 149, see A. Strati, *The Protection of the Underwater Cultural Heritage: An Emerging Objective of the Contemporary Law of the Sea,* Kluwer, 1995, pp. 297–300.

5 Sarah Dromgoole has called it 'an empty shell'. S. Dromgoole, *Underwater Cultural Heritage and International Law*, Cambridge University Press, 2013, p. 261.

6 Article 11(2) UNESCO Convention. Article 1(6) defines 'activities directed at underwater cultural heritage' as 'activities having underwater cultural heritage as their primary object and which may, directly or indirectly, physically disturb or otherwise damage underwater cultural heritage'. Article 1(7) defines 'activities incidentally affecting underwater cultural heritage' as 'activities which, despite not having underwater cultural heritage as their primary object or one of their objects, may physically disturb or otherwise damage underwater cultural heritage'. Therefore, any mining, commercial or research activities in the Area not initially targeting UCH are not covered by the duty to report in advance.

7 This Article establishes a cooperative system based on notifications, shared information and consultations among the 'interested States'. See below, section 4.1.

protecting the environment in the Area (below, section 3).[8] The question is whether these rules or the principles on which they are founded might also apply to the historical or archaeological objects and sites located in the Area (below, section 4).[9] The remarks concluding this analysis will discuss possible improvements to the current system (below, section 5).

This contribution will thus try to link three areas of research to which Djamchid Momtaz has devoted time and interest: the law of the sea, international environmental law, and cultural heritage law. It will discuss how exploration, prospection and mining activities in the Area, understood as activities that may incidentally affect the UCH located in that Area, might be managed not only keeping in mind existing environmental standards in international law but also—by analogy and through deduction/induction of applicable principles—the archaeological variable into such activities. To this end, it will offer an analysis that moves from general (LOSC) rules to specific (UNESCO Convention) rules. This is because the answer eventually lies not in the latter, which mainly address activities *directed* at UCH in the Area,[10] but rather in general international law, including the law of the sea and international environmental law. This contribution will discuss, as a hypothesis, whether these two overlapping regimes could fill any existing gaps in the protection provided for UCH in the Area, some originated by the still-limited ratification of the UNESCO Convention,[11] by applying the ample, general regime established under the LOSC by the ISA Mining Code.

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8 All ISA documents are available at <https://www.isa.org.jm>. A recent appraisal of the Authority's work can be found in M. Lodge, 'The International Seabed Authority and the Exploration and Exploitation of the Deep Seabed', *Revue belge du droit international,* 2014/1, pp. 129–136.

9 At the very outset, it should be noted that protection of UCH, if any, has historically been addressed by impact reports within the context of the general protection of the marine environment, and sometimes as a simple sub-chapter thereof. One of the ideas underlying this paper is that UCH deserves a specific, distinct methodological approach, notwithstanding its close relationship with the marine environment. This can be achieved through an independent procedure or its integration with other aspects and interests.

10 See supra, note 6.

11 As at July 2016, the UNESCO Convention was in force for the following 55 States: Albania, Algeria, Antigua and Barbuda, Argentina, Bahrain, Barbados, Belgium, Benin, Bosnia and Herzegovina, Bulgaria, Cambodia, Croatia, Cuba, Democratic Republic of the Congo, Ecuador, France, Gabon, Ghana, Grenada, Guatemala, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, Iran, Italy, Jamaica, Jordan, Lebanon, Libya, Lithuania, Madagascar, Mexico, Montenegro, Morocco, Namibia, Nigeria, Palestine, Panama, Paraguay, Portugal, Romania, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Saudi

2 Protection of the Underwater Cultural Heritage through ISA Decisions

The ISA has adopted several instruments that together constitute what the Authority calls the 'Mining Code'. To date, the ISA has issued three different Regulations: the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (as revised),[12] the Regulations on Prospecting and Exploration for Polymetallic Sulphides[13] and the Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts.[14] The Mining Code is supplemented by recommendations by the ISA Legal and Technical Commission (LTC) for the guidance of contractors. In particular, these include the Recommendations for the guidance of contractors for assessing the possible environmental effects of exploration for polymetallic nodules in the Area.[15]

The ISA is also developing regulations for exploiting mineral resources in the Area. Following a Council decision,[16] on 23 March 2015 along with a discussion paper on the financial terms of exploitation contracts, the Authority issued a special consultation document.[17] This was followed on 15 July 2015 by the 'Draft Framework, High level Issues and Action Plan (Version II)',[18] which is expected to initiate a process for a 'zero draft' of the regulations for exploitation in the Area, to be submitted to the ISA Council in July 2016.

Finally, the Authority also concluded in 2000 a memorandum of understanding with the International Oceanographic Commission (IOC) of UNESCO, which—alas!—fails to mention, even tangentially, the protection of UCH. This was mainly due to the lack of IOC archaeological competence.[19]

Arabia, Slovakia, Slovenia, South Africa, Spain, Togo, Trinidad and Tobago, Tunisia and Ukraine.

12 ISBA/19/C/17, 13 July 2000 (revised 22 July 2013) (PNR hereinafter).

13 ISBA/16/A/12/Rev.1, 7 May 2010 (PSR hereinafter).

14 ISBA/18/A/11, 27 July 2012 (CCR hereinafter).

15 ISBA/7/LTC/1/Rev.1, 13 February 2002.

16 ISBA/20/C/31, 23 July 2014, para. 3.

17 ISA, *Report to Members of the Authority and all stakeholders*, available at https://www.isa.org.jm/files/documents/EN/Survey/Report-2015.pdf.

18 Reviewed and revised for stakeholder responses to the *Report* cited in previous note. Available at https://www.isa.org.jm/files/documents/EN/OffDocs/Rev_RegFramework_ActionPlan_14072015.pdf.

19 Available at https://www.isa.org.jm/sites/default/files/documents/EN/Regs/ISA-IOC-MOU.pdf. It likewise does not mention Article 149 LOSC, as the Memorandum refers mainly to 'marine scientific research' and to cooperation 'in the field of ocean services, particularly in the collection of environmental data and information'. On the possible

2.1 *An Overly Generic Regime . . .*

All the Regulations adopted include the same scheme for dealing with UCH: a proviso regarding prospecting and another proviso applicable to exploration and regarding the protection and preservation of the marine environment, all with similar if not identical wording. First, entitled 'Objects of an archaeological or historical nature', Regulation 8 of all the texts states:

> A prospector shall immediately notify the Secretary-General in writing of any finding in the Area of an object of actual or potential archaeological or historical nature and its location. The Secretary-General shall transmit such information to the Director General of the United Nations Educational, Scientific and Cultural Organization.

Secondly, entitled 'Human remains and objects and sites of an archaeological or historical nature', Regulations 35 PNR and 37 PSR/CCR state:

> The contractor shall immediately notify the Secretary-General in writing of any finding in the exploration area of any human remains of an archaeological or historical nature, or any object or site of a similar nature and its location, including the preservation and protection measures taken. The Secretary-General shall [20] transmit such information to the Director-General of the United Nations Educational, Scientific and Cultural Organization and any other competent international organization. Following the finding of any such human remains, object or site in the exploration area, and in order to avoid disturbing such human remains, object or site, no further prospecting or exploration shall take place, within a reasonable radius, until such time as the Council decides otherwise after taking account of the views of the Director-General of the United Nations Educational, Scientific and Cultural Organization or any other competent international organization.[21]

The regime thus created imposes (1) a duty on the prospector/contractor to notify the Authority's Secretary-General, (2) a duty on the Secretary-General

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inclusion of UCH research within marine scientific research, see S. Dromgoole, 'Revisiting the relationship between marine scientific research and the underwater cultural heritage', 25 *The International Journal of Marine and Coastal Law,* 2010, pp. 33–61.

20 Only the CCR includes the term 'immediately' here.

21 This duty is included *expressis verbis* as a standard clause in exploration contracts under Section 7 of Annex 4 of all Regulations.

to transmit this information to the Director General of UNESCO and to any other competent international organizations, and (3) a duty to suspend any prospection or exploration until the ISA Council adopts a decision after taking account of the views of the UNESCO and these other organizations. The duties apply to finding in the Area of any human remains, object or site of an archaeological or historical nature, and their purpose is to prevent the disturbance of such remains, objects or sites and of the surrounding zone within a reasonable radius.

There are some caveats in this process: there is no system for monitoring the findings of the prospector/contractor; the process for identifying other 'competent international organizations' is not clear; the preservation of human remains seems to be required only when they are of an archaeological or historical nature; and there is no clear pattern regarding how to determine the radius of the surrounding area to be temporarily protected. But perhaps the main problem lies in the contrast in the assessments of both archaeological views, those expressed by UNESCO and other competent organizations and those of the prospector/contractor. In a case of conflict, there is no provision specifying which should prevail. This brings us to a dilemma detected early in the doctrine: the regulations had 'to find a balance between the interests of the development of resources and those of environmental protection and they [had] to decide how preventive the regulations should be while scientific uncertainty remains as to the effects of deep sea-bed mining'.[22]

This conflict can also be viewed from the other side: what if any of the measures foreseen in the cooperative process directed at an archaeological site in the Area is decided under Article 12 of the UNESCO Convention and the site is located in an exploration zone already attributed by the ISA to stakeholders with (or without) the nationality of a UNESCO Convention State Party? Article 3 of the latter provides that '[n]othing in this Convention shall prejudice the rights, jurisdiction and duties of States under international law, including the United Nations Convention on the Law of the Sea. This Convention shall be interpreted and applied in the context of and in a manner consistent with international law, including the United Nations Convention on the Law of the Sea.'[23] Does this mean that the archaeological activities must irremediably be

22 A. Nollkaemper, 'Deep sea-bed mining and the protection of the marine environment', 15 *Marine Policy,* 1991, pp. 55–66, at p. 56.

23 Article 311(2) LOSC recalls that '[t]his Convention [LOSC] shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.'

subordinated to the mining activities? Is it conceivable that in such cases of the application of successive treaties—the LOSC and the UNESCO Convention—the former applies only to the extent that its provisions are compatible with those of the latter as between States Parties to both conventions? What place is to be given to the rule *lex specialis derogat generali* notwithstanding the overarching role recognised to the LOSC as the 'Constitution of the Oceans'?

2.2 *. . . Neglected in Practice?*

When discussing the responsibilities of States sponsoring activities in the Area in accordance with Part XI LOSC and its 1994 Implementation Agreement, and notwithstanding the efforts made by UNESCO,[24] in its Advisory Opinion of 1 February 2011, the Seabed Disputes Chamber of the International Tribunal of the Law of the Sea (ITLOS or the Tribunal) did not mention, even tangentially, any obligation or duty of States regarding the general protection of UCH in the Area as provided for under Articles 149 and 303 LOSC.[25] The Chamber envisaged only an environmental responsibility on the part of sponsoring States, basically, 'due diligence', but said not a word on the diligence likewise imposed with regard to UCH found in the Area. It is true that the scope of the question submitted to the Chamber limited its possible answer since the 'activities directed at underwater cultural heritage' are not envisaged among those that may entail the responsibility of States sponsoring activities in the Area. But a reference would have been very welcome.

The general absence of references to UCH has also characterized contractors and ISA practice to date. As we have seen, Section 7 of the Standard clauses for exploration contracts obliges contractors to notify the Secretary-General of any finding in the exploration area of any human remains of an archaeological or historical nature, or any object or site of a similar nature and its

24 The Intergovernmental Oceanographic Commission of the UNESCO appeared before the Tribunal in the oral proceedings and, among other issues, its representative expressly cited Articles 149 and 303 LOSC, as well as the 2001 UNESCO Convention, and reminded the Tribunal that '[t]he oceans are filled with the traces of human existence. This includes some millions of shipwrecks, prehistoric dwellings, ruins and artefacts. Many of them are located in the Area and are of immense importance for the comprehension of the development of humanity. Unfortunately, many cases arise, where such submerged archaeological sites are damaged or destroyed by negatively-impacting activities. These range from pipeline laying, drilling, mineral extraction, trawling and dredging to international treasure hunt.' ITLOS/PV.2010/4/Rev.1, 16 September 2010, p. 12 (all ITLOS documents are available electronically at http://www.itlos.org).

25 *Responsibilities and obligations of States with respect to activities in the Area, Advisory Opinion*, 1 February 2011, *ITLOS Reports 2011*, p. 10, at pp. 74–75, para. 242.

location, including preservation and protection measures taken; and to stop further prospecting or exploration until such time as the ISA Council, having received the opinion of the UNESCO Director General, decides otherwise. But as far as this author knows, there has been no discussion between the ISA and contractors on how mining activities in the Area might affect UCH, in general or particular terms. Indeed, none of the proposed activities seems to be concerned with the duties generally imposed. For example, the 'Environmental Management Plan for the Clarion-Clipperton Zone', submitted on 13 July 2011[26] and approved by the ISA Council on 26 July 2012,[27] makes no mention of UCH, even though it refers to a zone of the Pacific Ocean that was historically subject to transit which may have originated numerous underwater remains of cultural or archaeological nature.

However, the 'Regulatory Framework for Deep Sea Mineral Exploitation in the Area' currently under discussion at the ISA[28] does include within its priority actions that of addressing human remains and objects and sites of an archaeological or historical nature as part of the 'Social impact assessment' (SIA) process. Specifically, '[t]he SIA and action plan should address any specific matters relating to the cultural heritage in the exploitation area(s).'[29] A more precise approach to these aspects is therefore expected in forthcoming ISA decisions.

3 Outlining Applicable General Environmental Obligations

Protection of the marine environment from activities in the Area is governed by the LOSC, the 1994 Agreement Relating to the Implementation of Part XI of the LOSC[30] and the rules, regulations and procedures adopted by the ISA. Some general, customary principles and some soft-law rules likewise apply.[31]

26 ISBA/17/LTC/7, 13 July 2011.

27 ISBA/18/C/22, 26 July 2012. See M. Lodge et al., 'Seabed Mining: International Seabed Authority environmental management plan for the Clarion-Clipperton Zone. A partnership approach' 49 *Marine Policy,* 2014, pp. 66–72.

28 See supra, notes 17 and 18.

29 Supra, note 17, p. 33; supra, note 18 pp. 37, 58.

30 Adopted 28 July 1994, 1836 UNTS 42 (1994 Agreement hereinafter). Under Article 2(1), '[t]he provisions of this Agreement and Part XI shall be interpreted and applied together as a single instrument. In the event of any inconsistency between this Agreement and Part XI, the provisions of this Agreement shall prevail.'

31 See, among others, T. Scovazzi, 'Mining, Protecting the Environment, Scientific Research and Bioprospecting: Some Considerations on the Role of the International Sea-bed Authority', 19 *The International Journal of Marine and Coastal Law,* 2004, pp. 383–410;

The basic protection regime for the Area established under the LOSC begins with Article 192—'States have the obligation to protect and preserve the marine environment'—and continues in Part XII and, particularly, in Article 209. The evolution of the international law of the sea and international environmental law, and consequently that of general international law, have introduced new rules and principles. It has already been said that '[t]he system is based on the application of the precautionary approach and is evolutionary in nature.'[32] This flexibility enables its continuous adaptation to new challenges, mostly when activities in the area are not only increasing quantitatively but are changing qualitatively.[33] These activities may inevitably and negatively affect the seafloor, its substrate and deep sediments, home to both a relatively unknown biodiversity and, often, the embedded remains of cultural or archaeological artefacts. Under Article 147(1) LOSC, '[a]ctivities in the Area shall be carried out with reasonable regard for other activities in the marine environment.'

Under Article 209 LOSC, the ISA is obliged to adopt and adapt the necessary rules, regulations and procedures to prevent, reduce and control pollution of the marine environment caused by activities in the Area.[34] These rules—which oblige the ISA itself, the sponsoring States and the contractors—are based on the *precautionary approach* as reflected in Principle 15 of the Rio Declaration,[35]

M. Lodge, 'Protecting the marine environment of the deep seabed', in R. Rayfuse (ed), *Research Handbook on International Marine Environmental Law,* Elgar, 2015, pp. 151–169. See further in the same book R. Churchill, 'The LOSC regime for the protection of the marine environment—fit for the twenty-first century?', pp. 3–30.

32 Lodge, supra, note 31, p. 152. See further S. Marr, *The Precautionary Principle in the Law of the Sea: Modern Decision Making in International Law,* Martinus Nijhoff, 2003. As at March 2015, the Authority had approved a total of 26 contracts for exploration covering areas of the seabed in the Pacific, Indian and Atlantic oceans in excess of 1.2 million km^2 (Lodge, supra, note 8, p. 133).

33 For a recent appraisal, see 'Chapter 23. Offshore Mining Industries', in L. Inniss & A. Simcock (coordinators), *The First Global Integrated Marine Assessment,* United Nations, 2016, available at http://www.un.org/Depts/los/global_reporting/WOA_RPROC/Chapter_23.pdf.

34 See further Articles 145 and 162(2)(o)(ii) LOSC and Article 17(1)(ix) and (xii) of Annex III LOSC. The 1994 Agreement emphasizes the duties of the Authority with respect to the marine environment in the drafting of regulations and the approval of any plan of work in the Area: see the 1994 Agreement, Annex, Section 1, paragraphs 5(g) and 7, respectively. See also Regulation 31(1) PNR/CCR and Regulation 33(1) PSR. These regulations 'may be supplemented by further rules, regulations and procedures, in particular on the protection and preservation of the marine environment' (Regulation 1(5) PNR/PSR/CCR).

35 '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

which—as ITLOS observed—perhaps has not yet crystallized as a customary principle of environmental international law[36] but is included as a contractual obligation in all ISA regulations.[37] It is a precautionary approach that must be supplemented with an obligation to apply 'best environmental practices', today understood—as ITLOS also reminded—as 'enshrined in the sponsoring States' obligation of due diligence'.[38] The latter comprises, as a by-product, the obligation to conduct a prior environmental impact assessment as required by both Article 206 LOSC and by customary law.[39]

Precaution, in general terms, thus applies *before* and *during* any activity planned or to be performed in the Area:[40] an impact assessment report must be submitted prior to the activity, and best environmental practices must be followed throughout its duration. Technical advances notwithstanding, environmental uncertainty still exists, making it impossible to issue any conclusive risk assessment of the effects of large-scale commercial seabed mining. The precautionary approach tries to cope with this uncertainty through (1) knowledge of the baseline conditions in potential mining areas, the natural variability

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damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.' UN Doc. A/CONF.151/26 (Vol. 1), 12 August 1992.

36 Supra, note 25, p. 47, para. 135. For a recent review, see J. Corti Varela, 'El principio de precaución en la jurisprudencia internacional', 69 *Revista Española de Derecho Internacional*, 2017, pp. 219–243.

37 Regulation 31(2) PNR/CCR and Regulation 33(2) PSR.

38 Supra, note 25, p. 48, para. 136.

39 *Pulp Mills on the River Uruguay* (Argentina v Uruguay), Judgment, *ICJ Reports 2010*, p. 83, para. 204; for ITLOS see supra, note 25, p. 50, para. 145. See G. Le Gurun, 'EIA and the International Seabed Authority', in K. Bastmeier & T. Koivurova (eds), *Theory and Practice of Transboundary Environmental Impact Assessment*, Martinus Nijhoff, 2008, pp. 221–263.

40 For the implementation of these broad principles, the system enables the LTC to issue technical or administrative recommendations for the guidance of contractors and to assist them in the implementation of the rules, regulations and procedures (Article 165(2)(e) LOSC). Contractors with the Authority are required to observe any such recommendations as far as reasonably practicable (Reg. 31(3), 32(1), 39 (1) PNR/CCR and 33(3), 34(1), 41(1) PSR). The LTC has already issued four recommendations: *Recommendations for the guidance of contractors on the content, format and structure of annual reports* (ISBA/21/LTC/15), *Recommendations for the guidance of contractors for the reporting of actual and direct exploration expenditure* (ISBA/21/LTC/11), *Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area* (ISBA/19/LTC/8), and *Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration* (ISBA/19/LTC/14).

of these baseline conditions and their relationship with impacts related to mining, keeping a standardised database provided by contractors and updated by the Authority with independent scientific inputs and recommendations from the LTC; (2) the preparation and submission of the environmental impact assessment, following the recommendation issued by the LTC;[41] and (3) the incorporation of a monitoring system and assurance of compliance during and after the mining activities.

4 Applying Environmental Standards to UCH

As we will see below, the regime provided for under the UNESCO Convention to deal with UCH in the Area is limited.[42] It governs mainly the activities directed at UCH, i.e. those with underwater cultural heritage as their primary object and which may, directly or indirectly, physically disturb or otherwise damage UCH (Article 1(6)). Mining activities in the Area, however, basically fall under the concept of activities that *incidentally* affect UCH, i.e. activities that, despite not having UCH as their primary object or one of their objects, may physically disturb or otherwise damage UCH (Article 1(7)). Could environmental principles, regulations and recommendations provided for under the LOSC, the ISA Mining Code and other rules of general international law be 'exported' to protect UCH during these indirect activities?

4.1 *The UNESCO Convention in the Area*

Articles 11 and 12 of the UNESCO Convention govern the management of UCH in the Area. Article 11 establishes a reporting and notification system: nationals or vessels of a State Party are required by such State to report any discovery or activity directed at UCH to it.[43] That state must then notify the Director-General of UNESCO of these reports (who, in turn, must make any such information

41 Following a workshop held in Fiji, a template was drafted for this environmental impact assessment. It includes several references to UCH. See *Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals*, ISA Technical Study: No. 10, 2011, available electronically at <http://www.isa.org.jm/files/documents/EN/Pubs/TS10/TS10-Final.pdf>.

42 Not to mention the intrinsic limit *ratione personæ*: the UNESCO Convention only obliges its current 55 States Parties (see supra, note 11).

43 The regime refers mainly to private operators. Article 13 provides that State vessels and aircraft, undertaking their normal mode of operations, and not engaged in activities directed at UCH, shall not be obliged to report discoveries of UCH under the UNESCO Convention. States parties shall ensure, however, by the adoption of appropriate measures

available to all States Parties), as well as the Secretary-General of the ISA. Any State Party with a verifiable link to the UCH concerned may declare its interest in being consulted on how to ensure the effective protection thereof to the Director-General and thus become an 'interested State'.[44]

Under Article 12 of the Convention, all interested States Parties are to be invited by the Director-General of UNESCO to hold consultations on how best to protect the heritage and to appoint from among themselves a 'Coordinating State', with the Secretary-General of the ISA also being invited to these consultations. This Coordinating State, always acting for the benefit of humanity as a whole and on behalf of all States Parties, shall normally implement measures of protection that have been agreed by the consulting States[45] and shall normally issue all necessary authorisations for these agreed measures.[46] The Coordinating State may also conduct any necessary preliminary research on the UCH, shall issue all necessary authorisations therefor, and shall promptly inform the Director-General of the results; the Director-General, in turn, shall make such information available to other States Parties.

Interestingly, the system so described, although mainly focused on activities *directed* at UCH, and therefore excluding mining exploration or prospection,[47] also mentions the simple discovery of such heritage, as do the ISA Regulations. The latter require the contractor immediately to notify the ISA Secretary-

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not impairing the operations or operational capabilities of their State vessels and aircraft, that they comply, as far as is reasonable and practicable, with the Convention.

44 Under Article 11(4) of the UNESCO Convention, for assessing that verifiable link, particular regard is paid to the preferential rights of States of cultural, historical or archaeological origin. Jie Huang, 'Chasing provenance: Legal dilemmas for protecting states with a verifiable link to underwater cultural heritage', 84 *Ocean & Coastal Management*, 2013, pp. 220–225.

45 Under Article 12(7), '[n]o State Party shall undertake or authorize activities directed at State vessels and aircraft in the Area without the consent of the flag State.' With regard to the legal status of such vessels and aircraft, see M. J. Aznar, 'Treasure hunters, sunken State vessels and the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage', 25 *The International Journal of Marine and Coastal Law*, 2010, pp. 209–236. See further the Resolution on 'The Legal Regime of Wrecks of Warships and Other State-owned Ships in International Law', adopted by the Institut de droit international on 29 August 2015, Tallinn Session, available at http://www.justitiaetpace.org/idiE/resolutionsE/2015_Tallinn_09_en.pdf.

46 'Normally' because the consulting States, which include the Coordinating State, may agree that another State Party shall implement these measures or issue these authorizations.

47 Such as other activities that may incidentally affect UCH, like the laying of submarine cables. On the latter, see E. Pérez-Álvaro, 'Unconsidered Threats to Underwater Cultural Heritage: Laying Submarine Cables', 14 *Rosetta,* 2013, pp. 54–70, available at http://www.rosetta.bham.ac.uk/issue14/perezalvaro.pdf.

General—who will transmit such information to the UNESCO Director-General and any other competent international organisation—of any finding in the Area 'of an object of actual or potential archaeological or historical nature and its location';[48] and 'of any finding in the exploration area of any human remains of an archaeological or historical nature, or any object or site of a similar nature and its location, including the preservation and protection measures taken'.[49] If the contractor is a national of any UNESCO Convention State party, the latter should stop its prospection or exploration activities and initiate the consultation system provided for under the Convention. If not, and so as not to disturb the human remains, object or site in question, no further prospecting or exploration shall take place, within a reasonable radius, until such time as the ISA Council decides otherwise after taking account of the views of the UNESCO Director-General or any other competent international organisation. Ostensibly, if the UNESCO Convention applies, the views of the Director-General are supposed to be the result of the consultations held by the latter, the interested States under Article 11(4) of the Convention, and the ISA Secretary-General. If not, the ISA Council shall only decide on the views received from the UNESCO Director-General[50] or from any other competent organisation.

4.2 *Completing the System with the Environmental Model*

This system of mere notification and, in case of application of the UNESCO Convention, consultation seems incomplete or, at least, insufficient for the effective protection and management of the UCH located in the Area. As we have seen, it should apply, essentially, to activities *directed* at UCH but not necessarily to activities affecting UCH only incidentally, such as mining.

However, the regime established for environmental protection under the LOSC by the ISA offers other ways to better protect and manage that heritage. Among the possible measures, attention should be called to the following four:

48 Regulation 8 PNR/PSR/CCR.

49 Regulation 35 PNR and Regulation 37 PSR/CCR.

50 Although a Scientific and Technical Advisory Body (STAB) was created under Article 23 of the UNESCO Convention to assist only the Meeting of States parties, its Statutes generically include among its functions that of giving guidance 'in questions directly related to Rules in the framework of the practical application of the State cooperation mechanism contained in the Convention (Articles 8 to 13)' (Article 1(a)(iii)). Nothing would thus prevent the UNESCO Director-General, who is represented in the STAB by the UNESCO Secretariat (Article 6(a)), from receiving such guidance from the STAB on how to address the finding in the Area of an archaeological object by a contractor. See the STAB Statutes at http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/pdf/StatutesAdvisoryBody_Final_EN.pdf.

– The possible application of a similar monitoring system to that foreseen for the marine environment,[51] whereby prospectors would cooperate with the Authority on the establishment and implementation of programmes for monitoring and evaluating the potential impact of mining activities (including prospection and exploration) upon the UCH located in the Area. One unresolved point of this system that deserves a thoughtful analysis is the open-access nature of the data collected[52] with regard to unlawful activities against UCH, including looting.[53]
– The possible establishment of 'preservation reference zones' to protect not only the marine environment but UCH as well. Under ISA regulations, these zones are defined as 'areas in which no mining shall occur to ensure representative and stable biota of the seabed in order to assess any changes in the biodiversity of the marine environment'.[54] This would entail introducing the archaeological variable into that concept. These zones would follow the monitoring and evaluation programmes discussed above and, if required by the ISA Council, might also be established to protect UCH through assessment of changes in the ocean floor and its environment.[55]
– Another possible export from environmental standards to protect UCH could be the use of emergency orders, including those for the suspension or adjustment of operations, as may be reasonably necessary to prevent,

51 As provided for in Regulation 5(2) PNR/PSR/CCR and Regulations 31(6) PNR/CCR and 33(6) PSR. See further, Regulations 32 PNR/CCR and 34 PSR.

52 Regulation 7(1) PNR/PSR/CCR.

53 In this sense, under the ISA Council's Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area, '[c]ontractors shall permit the Authority to send its inspectors on board vessels and installations used by the contractor to carry out exploration activities in the Area to, among other things, monitor the effects of such activities on the marine environment' (ISBA/19/LTC/8, 1 March 2013, para. 12).

54 Regulations 31(6) PNR/CCR and 33(6) PSR. For example, the Plan for the Clarion-Clipperton Zone (see Lodge, above, note 27) includes the designation of an area of about 1.6 million km^2 as being of particular environmental interest.

55 The concept of preserved zones has been developed in various fora (IMO, UNDP, MedPlan) and well analysed by the doctrine, including how they apply to UCH. See for example A. Blanco-Bazán, 'The IMO guidelines on Particular Sensitive Sea Areas', 20 *Marine Policy,* 1996, pp. 343–349; or T. Scovazzi, 'Marine Protected Areas in Waters beyond National Jurisdiction', in M. C. Ribeiro (coordinator), *30 Years after the Signature of the United Nations Convention on the Law of the Sea,* Coimbra Editora, 2014, pp. 209–238.

contain and minimise serious harm or threat of serious harm to the UCH arising as a result of activities in the Area.[56]

– Finally, and inextricably linked to the previous idea, the archaeological variable could be included in the general idea of 'serious harm to the marine environment', understanding the latter as 'any effect from activities in the Area on the marine environment which represents a significant adverse change in the marine environment determined according to the rules, regulations and procedures adopted by the Authority on the basis of internationally recognized standards and practices'.[57] The concept is perfectly adapted to UCH: as already noted, Article 12(3) of the UNESCO Convention provides that States Parties may take all practicable measures in conformity with the Convention to prevent any immediate danger to UCH, whether arising from human activity or any other cause including looting.[58]

Along with these proposals, note that the surrounding principle inspiring them—the precautionary approach—also applies to UCH. It actually underlies the principle of *in situ* protection as the first option embodied in Article 2(5) of the UNESCO Convention and its Annexed Rule 1.[59] As explained

56 Regulations 33(6) PNR/CCR and 35(6) PSR. The ISA Council may adopt these orders, taking into account the recommendations of the LTC, the report of the Secretary-General, any information provided by the contractor and any other relevant information.

57 Regulation 1(3)(f) PNR/PSR/CCR.

58 During the drafting of the Operational Guidelines of the UNESCO Convention, immediate danger was provisionally defined as the existence of conditions that can reasonably be expected to cause damage, destruction or looting to specific UCH within a short period and which can be eliminated with safeguards. However, this definition was not ultimately included in the Guidelines (text on file with the author, who served in the Spanish Delegation in the Working Group that drafted these Guidelines, adopted by Resolution 6/MSP 4 and 8/MSP 5 of the Conference of States Parties to the Convention, UNESCO Doc. CLT/HER/CHP/OG 1/REV, August 2015, available at http://unesdoc.unesco.org/images/0023/002341/234177E.pdf).

59 Under Article 2(5), '[t]he preservation *in situ* of underwater cultural heritage shall be considered as the first option before allowing or engaging in any activities directed at this heritage'. Under Rule 1, '[t]he protection of underwater cultural heritage through in situ preservation shall be considered as the first option. Accordingly, activities directed at underwater cultural heritage shall be authorized in a manner consistent with the protection of that heritage, and subject to that requirement may be authorized for the purpose of making a significant contribution to protection or knowledge or enhancement of underwater cultural heritage'. And under Rule 3 '[a]ctivities directed at underwater cultural heritage shall not adversely affect the underwater cultural heritage more than is necessary for the objectives of the project'. See generally M. R. Manders, 'Unit 9: *In situ*

in the Convention's Operational Guidelines, '[b]efore deciding on preservation measures or activities, an assessment should be made of: (a) the significance of the concerned site; (b) the significance of the expected result of an intervention; (c) the means available; and (d) the entirety of the heritage known in the region.' And '[a]ctivities directed at underwater cultural heritage must use non-destructive techniques and survey methods in preference to the recovery of objects. If excavation or recovery is necessary for the purpose of scientific studies or for the ultimate protection of the underwater cultural heritage, the methods and techniques used must be as non-destructive as possible and contribute to the preservation of the remains.'[60] This sounds like the by-products of the precautionary approach: the need to submit an archaeological impact assessment report and the best archaeological practices to be followed during activity in the Area.[61] Under Rule 14, the preliminary work shall include 'an assessment that evaluates the significance and vulnerability of the underwater cultural heritage and the surrounding natural environment to damage by the proposed project, and the potential to obtain data that would meet the project objectives'.[62] The rest of the best practices are clearly found in the Annex to the UNESCO Convention, which summarizes the internationally accepted archaeological protocols to be followed when dealing with UCH.[63]

Protection', in *Training Manual for the UNESCO Foundation Course on the Protection and Management of Underwater Cultural Heritage in Asia and the Pacific,* UNESCO, 2012, available electronically at http://unesdoc.unesco.org/images/0021/002172/217234e.pdf.

60 UNESCO Convention Operational Guidelines, supra, note 58, paras. 38 and 40.

61 This has already been foreseen by some industrial States with a strong interest in protecting UCH. In the United Kingdom, for example, the UK Offshore Energy Strategic Environmental Assessment (March 2016) explicitly mentions cultural heritage as one of the 'potentially affected receptors'. See the Report available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/504827/OESEA3_Environmental_Report_Final.pdf. Note that, although the UK has decided not to ratify the UNESCO Convention (for now), the British Government accepts its main principles and has adopted the Rules of its Annex as 'best practices for archaeology' (*Hansard Written Answers*, 24 January 2005, Col. 46W). For another 'reluctant State' with regard to the UNESCO Convention- the United States- see the 2003 version of 'Principles and Guidelines for Social Impact Assessment', available at http://www.nmfs.noaa.gov/sfa/reg_svcs/social%20guid&pri.pdf.

62 Under Rule 15, '[t]he assessment shall also include background studies of available historical and archaeological evidence, the archaeological and environmental characteristics of the site, and the consequences of any potential intrusion for the long-term stability of the underwater cultural heritage affected by the activities'.

63 Additionally, in Resolution MSP 4/5 of 2015, the Fifth Session of the Meeting of States Parties to the UNESCO Convention invited these States to provide examples of best

Underwater archaeology is also governed by the principle of minimum impact on the marine environment. The definition of UCH in the UNESCO Convention logically includes the natural context of any cultural, historical or archaeological object,[64] and any archaeological activity must include an environmental policy.[65] The path from underwater archaeology to environmental protection has already been thus firmly traced; now a return route from the environment to archaeology can be expected. Both questions are inextricably linked:[66] most historical wrecks, for example, have become artificial reefs deserving not only archaeological but also environmental protection.[67] Mining activities in the Area should therefore include a comprehensive canvas of rules protecting the fragile cultural and historical heritage located in the Area.

5 Some Concluding Remarks

As in almost every period of sessions, the UN General Assembly once again recently urged 'all States to cooperate, directly or through competent

practices related to UCH. The responses will allow the STAB to draw up an inventory of best practices for use by all States parties.

64 Article 1(1)(a) UNESCO Convention.

65 Under Rule 29 of the Annex, '[a]n environmental policy shall be prepared that is adequate to ensure that the seabed and marine life are not unduly disturbed'. The Convention's Operative Guidelines include the idea that 'any activity directed at underwater cultural heritage must balance the environmental impact or damage to be created, if any' (supra, note 58, para. 41).

66 But without confusing their legal nature: when analysing the concept of 'natural resources' located on the continental shelf, and particularly those to which Article 77(1) LOSC refers, the International Law Commission early affirmed on that '[i]t is clearly understood that the rights of the coastal State do not cover objects such as wrecked ships and their cargoes (including bullion) lying in the seabed or covered by sand in the subsoil' (*Yearbook of the International Law Commission*, vol. II, 1956, p. 289).

67 In the US, for example, the 1953 Submerged Lands Act (67 Stat. 29, 43 U.S.C. Sec. 1301–1315) helped an Admiralty Court protect an historical vessel sunk in Floridian waters, arguing that 'the remains of abandoned, two-hundred-year old shipwrecks, which have lain undisturbed for centuries under an undetermined amount of sand, reasonably can be characterized as natural resources for purposes of the federal Act.' *Subaqueous Exploration and Archaeology, Ltd. And Atlantic Ship Historical Society, Inc., v. The Unidentified, Wrecked and Abandoned Vessel et al.*, 577 F. Sup. 597, 613 (D. Md. 1983), aff' d, 765 F.2d 139 (4th Cir. 1985). See M. J. Aznar, 'Regarding « Les épaves de navires en haute mer et le droit international. Le cas du Mont-Louis » by Guido Starkle (1984/1985-I). 'Sensitive' wrecks: protecting them and protecting from them', *Revue belge de droit international*, 2015, pp. 74–88.

international bodies, in taking measures to protect and preserve objects of an archaeological and historical nature found at sea, in conformity with [LOSC]'.[68] Article 149 LOSC obliges States Parties to protect UCH located in the Area, as does the UNESCO Convention for its States Parties. However, the specific systems provided for by each text still have some gaps and possible inconsistencies that might be solved through a complementary and imaginative reading of their protective standards.

The present contribution to this well-deserved tribute to our friend Djamchid Momtaz has sought to advocate complementary and imaginative reading, connecting the protection of UCH in the Area with the general protection of the marine environment envisaged under the LOSC and in the ISA Mining Code. This Code has already established a notification system for when UCH is discovered during prospection and exploration activities, but it does not clearly deal with the consequences of such a discovery. The UNESCO Convention establishes a consultation process, but logically only for its States Parties. It would be desirable to find a solution under the LOSC and the ISA Mining Code, should conflicting views emerge in the Authority's Council after receiving the views of the UNESCO Director-General or any other competent organization on how to manage the discovery of UCH in a mining zone of the Area.

On the other hand, the LOSC and the ISA Mining Code include an effective enforcement mechanism that the UNESCO Convention lacks. Article 153 LOSC states that the ISA 'shall exercise such control over activities in the Area as is necessary for the purpose of securing compliance' (para. 4), including the adoption at any time of any measures provided for under Part XI LOSC to ensure compliance with its provisions (para. 5). This also implies 'the right to inspect all installations in the Area used in connection with activities in the Area'.[69] The consequences of non-compliance, with the guidance provided by the ITLOS in its Advisory Opinion of 2011, still need to be developed, just as they do in cases affecting not only the marine environment, but also UCH.[70]

Perhaps part of the solution could be found in the adoption of three complementary measures:

(1) The conclusion of a new memorandum of understanding between the ISA and UNESCO, similar to that concluded between the Intergovernmental

68 UN Doc. A/RES/70/235, 23 December 2015, para. 8. For human remains and maritime graveyards, see its para. 314.

69 The contractors are obliged to allow access to these inspections and to assist and cooperate with them under Regulations, Annex 4, Section 14 PNR/PSR/CCR.

70 See Lodge, supra note 31, p. 162.

Oceanographic Commission of UNESCO and the Authority, but dealing with the protection of UCH in the Area and with the expertise of both the LTC at the ISA and the STAB at UNESCO.

(2) The drafting by the ISA Council, with the support of the LTC, of a particular recommendation dealing with the protection of UCH in the Area. As ITLOS implicitly recalled in its Advisory Opinion, recommendations cannot be neglected due to their apparently non-compulsory nature, because they are useful to specify the contents of environmental impact assessments and, consequently, compliance with the due-diligence principle.[71]

(3) The final drafting of the Exploitation Regulations currently under discussion at the ISA, including the incorporation of the archaeological variable into the 'Social impact assessment' as currently foreseen in the process, which includes new consultations among the stakeholders and the ISA and is expected to be completed by mid-2016. This is of the utmost importance since the exploitation stage will be drawing near by the time the exploration programmes reach their final stages.

As solemnly expressed in Article 136 LOSC, the natural resources in the Area are the common heritage of mankind. UCH is an integral part of the cultural heritage of humanity, says the Preamble of the UNESCO Convention. The two concepts—common heritage of mankind and cultural heritage of humanity—are closely related.[72] However, they are not normatively or institutionally equipped with analogous tools; and perhaps they should not be. But some connections can be traced and, indeed, established between them with the ultimate goal of creating the best protection system for both dwindling resources. The well-shaped system for environmental protection in the Area (albeit still under construction) could export some of its mechanisms for the protection of UCH, and the archaeological variable could be more clearly incorporated into the Mining Code drafted by the ISA under the LOSC.

71 Ibid., p. 163. See also Y. Tanaka, 'Obligations and Liability of Sponsoring States Concerning Activities in the Area: Reflections on the ITLOS Advisory Opinion of 1 February 2011', 60 *Netherlands International Law Review,* 2013, pp. 205–230, at p. 213.

72 T. Šošić, 'The common heritage of mankind and the protection of the underwater cultural heritage', in B. Vukas and T. M. Šošić (eds), *International Law: New Actors, New Concepts—Continuing Dilemmas; Liber Amicorum Božidar Bakotić,* Brill, 2010, pp. 319–350. See further A. Strati, 'Deep Seabed Cultural Property and the Common Heritage of Mankind', 40 *International and Comparative Law Quarterly*, 1991, pp. 859–894.