Legally *in situ*: legislative allowance for the practical application of *in situ* preservation pertaining to marine archaeological materials

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‘The 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’ (2001 Convention: Annex, General Principles, Rule 1).

Abstract
The protection of underwater cultural heritage (UCH) often falls prey to interpretation of, or exclusion from, the law. With the ratification of the 2001 United Nations Educational, Scientific and Cultural Organization’s (UNESCO) Convention on the Protection of the Underwater Cultural Heritage (2001 Convention) encouraging the use of *in situ* preservation as the preferred option for managing these submerged sites, there is a need for a more refined guideline as to what constitutes *in situ* preservation within the 2001 Convention. Cultural heritage managers utilise a number of proactive and reactive *in situ* preservation methods with the intent to establish and maintain a stable environment for submerged cultural material, which can only be employed if the State Party has supporting legislation. Within the Asia Pacific region, the degree of State Party laws pertaining to the protection of UCH ranges from being in compliance with the rules and principles outlined by the 2001 Convention to contradicting the fundamentals within the document outright. Furthermore, terminology found within State Party laws varies from terminology found within the 2001 Convention, which further differs from terminology used by practitioners. With this in mind, it is necessary to try and bridge the gap between written definitions found in international texts and laws with the practitioners’ application of *in situ* preservation in order to strengthen the relationship between language and practice for the purposes of more efficiently supporting the management of underwater sites. This paper will focus on terminology within the Asia Pacific region pertaining to UCH management by examining the differences between legal boundaries and best management strategies. This paper will specifically look at terminology within regional domestic laws, discuss Rule 1 of the Annex, and address how amending terminology within these texts may benefit the region.

Introduction
Heritage, along with the debate surrounding its ownership, has existed as a legal entity in various capacities for over a century. As an all-encompassing term, heritage has been defined as both the tangible and intangible aspects of society that are considered valuable enough to preserve and pass on through the generations (Davison 1991; Schofield 2008; Smith 2006). More specifically, the term can be broken down into individual facets, including cultural heritage (together with underwater cultural heritage), natural heritage, intangible heritage, industrial heritage, and ethnographic heritage (UNESCO.org; Smith 2006; Rössler 2006; UNESCO 1972). Heritage can also

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be considered an aspect of history, a discourse, and a tradition, thus providing a resource to better understand the past (Schofield 2008; Smith 2006). More broadly, it is a useful term to describe what is remembered, practised, continued and evolved throughout the ages.

Laws regarding the protection of cultural heritage within the Asia Pacific region vary in degree of legal definition with regards to what constitutes the term in accordance to age, material, location and ownership. The different definitions have significant implications on the classification of material, and therefore the extent of protection. This paper will focus on identifying key phrases within State Party laws that are associated with heritage found underwater, and how these relate to the General Principles, Rule 1 in the Annex associated with the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. The purpose of this investigation is to consider the need to amend specific terminology or definitions of terms within the 2001 Convention’s Annex in order to provide stronger support for State Parties that have either ratified or agreed to the rules and guidelines provided in the Annex. In order to do this, the discussion will first set out which nations in the region have cultural heritage laws specifically referencing UCH and the terminology applied within these texts. Nations included in this study are based on UNESCO’s parameters for the Asia Pacific region (UNESCO.org). The discussion will then continue by reviewing Rule 1 followed by how the domestic laws relate to the Annex. It is necessary to consider the relationship between domestic law and the 2001 Convention, and whether this relationship can be strengthened.

**Asia Pacific as defined by UNESCO**

UNESCO delineates Asia Pacific as the following countries:

- Afghanistan
- Australia¹,²
- Bangladesh¹
- Bhutan
- Brunei Darussalam
- Cambodia¹
- China¹
- Cook Islands
- Democratic Peoples
- Republic of Korea
- Fiji
- India
- Indonesia
- Islamic Republic of Iran
- Japan
- Kazakhstan
- Kiribati
- Kyrgyzstan
- People’s Democratic Republic of Lao
- Malaysia¹
- Maldives
- Marshall Islands
- Federated States of Micronesia
- Mongolia
- Myanmar
- Nauru
- Nepal
- New Zealand¹
- Niue
- Pakistan¹
- Palau¹
- Papua New Guinea
- Philippines¹
- Republic of Korea
- Russian Federation
- Samoa
- Singapore
- Solomon Islands
- Sri Lanka
- Tajikistan
- Thailand
- Timor-Leste
- Tonga
- Turkey
- Turkmenistan
- Tuvalu
- Uzbekistan
- Vanuatu
- Viet Nam

¹ State Party with laws referencing the protection of underwater cultural heritage within general law.
² State Party with specific laws referring to the protection of underwater cultural heritage.

Within the cultural heritage legislation of these countries, there is a spectrum of protection for UCH. This ranges from specific protection of archaeological material located beneath the surface of the seabed, through to allowing treasure hunting by permit. There are forty-eight Parties listed above
and only two have ratified the 2001 Convention: Cambodia and the Islamic Republic of Iran. Many of the remaining nations listed above have agreed to the Annex but because of political reasons or contradictions with their own domestic laws, have yet to ratify the 2001 Convention. Of the forty-eight countries, no cultural heritage legislation was found for fifteen countries, and an English translation was not available for five countries. As a note, there may be relevant heritage legislation for these fifteen Parties however no mention of UCH laws could be found in English sources. Thirteen of the twenty-eight English translations for the Parties have legislation pertaining to the protection of cultural heritage in regards to water. Of the thirteen nations, Australia is the only country to have specific UCH legislation, and this specific legislation only pertains to shipwrecks (HSA 1976). None of these thirteen nations refer to in situ preservation within their cultural heritage laws.

The most common terminology found within the domestic laws are in regards to the location of heritage material – in internal waters, archipelagic waters, and territorial waters. Of the thirteen Asia Pacific nations with underwater references in their legislation, Malaysia and Sri Lanka reference internal waters. Malaysia, for example, includes antiquities located in, ‘any part of the soil or of the bed of a river or lake or of the sea’ (MAA 1976: Part I.2.a), and includes any undiscovered antiquities, ‘lying on or hidden beneath the surface of the ground or in any river or lake or in the sea’, to be ‘absolute’ property of the Malaysian government (MAA 1976: Part II.3.3). This legislation however, does not reference preservation of these antiquities, merely the location and ownership.

Terminology and phrasing regarding the location of State-specific legally defined cultural heritage ranges from ‘on land and underwater’, to ‘on ground or underwater’, to the Territorial Sea’, and to ‘the Continental Shelf’; however, active management regarding preservation is neither outlined nor referenced. Examples of cultural heritage legislation consisting of these terms include:

Bangladesh – Antiquities Act 1968;
Philippines – Cultural Properties Preservation and Protection Act 1974 and National Cultural Heritage Act 2009 (see Orillena and Ronquillo this volume);
Sri Lanka – Antiquities Ordinance 1956 (Revision);
Turkey – Conservation of Cultural and National Property 1983.

Cambodia has more specific laws stating that it is illegal to, ‘carry out excavations or survey on land or under water, for the purposes of bringing to light cultural property...’, without approval from the appropriate authority (RPCH 1992: Section 8. Article 47; LPCH 1996: Chapter 2. Section 7. Article 40; see Heng Kamsan; Nady Phann this volume). China also extends legislation regarding the preservation of ancient remains and relics out to the, ‘territorial seas within the boundaries of the People’s Republic of China’ (LPRC 1982. Chapter 1. Article 5), as does New Zealand under the Antiquities Act 1975 (see Charter and Dodd this volume) and Viet Nam under the Law on Cultural Heritage 2001. Again, these laws do not address specific methods for managing the preservation of underwater cultural material.

Pakistan’s legislation, in contrast to many others, does provide some framework regarding the survey and excavation of cultural heritage. The Pakistani Archaeological Excavation and Exploration Rules 1978 (AEER)
defines excavation to mean, ‘any research aimed at the discovery of an antiquity, whether such research involves digging of the ground or is carried out on the bed or in the sub-soil of inland or territorial waters of Pakistan’ (AEER 1978:2.1.b). The AEER also defines exploration to mean, ‘investigation, without digging; or surface, aerial or underwater operations aimed at the discovery, survey or recording of an antiquity’ (AEER 1978:2.1.c). Furthermore, no significant archaeological materials found during a survey or excavation can be, ‘destroyed, dismantled, removed or disturbed, save with the previous permission’, nor can individuals, ‘mutilate, discolour, disfigure, remove, dismantle or damage any antiquity found in the course of excavation or exploration’ (AEER 1978:9.d and 9.f). Excavation can be a destructive method of information extraction, and is potentially damaging to the stability of underwater cultural resources. The AEER sets out that practitioners who are surveying and excavating must, ‘take necessary measures for safeguarding and preserving the site under excavation or exploration during and between seasons of work’ (AEER 1978:9.m). This implies in situ preservation without defining the specific parameters of ‘safeguarding and preserving’. This is an example where the integration of the international 2001 Convention with a strengthened definition for in situ preservation could support and encourage more active preservation under domestic law. Of the laws mentioned above, the trend within domestic law focuses on the location and ownership of heritage, not the management and preservation of the sites.

**UNESCO – Background on the 2001 Convention**

One of the first events in initiating the development of the 2001 Convention occurred during discussions leading up to the establishment of the United Nations Convention on the Law of the Sea 1958 (UNCLOS). This was in regards to the conscious omission of, ‘objects such as wrecked ships and their cargoes (including bullion) lying on the seabed or covered by the sand of the subsoil’, within the document (YILC 1957:298). The UNCLOS does however stipulate that, ‘this article is without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature’, (1982: Article 303.4) – a proviso that extends to include the 2001 Convention. As an institution, UNESCO, ‘is the sole intergovernmental organization with near universal membership which has a mandate to help States protect their cultural heritage’ (Engelhardt 2006:7). Although this agency encourages Parties to ratify the 2001 Convention, the process of ratification is long and arduous. More than 100 countries were present during the meetings to create the document, and although these countries helped develop the outline and terminology applied throughout the text, each nation had to sacrifice key points or terms that complied with their domestic laws. With omissions and alterations, many States were no longer able or willing to ratify the 2001 Convention. However, they did often state that, ‘they [would] ensure that the Rules of the Annex are implemented’ (Engelhardt 2006:7). Although ratification of the 2001 Convention is, for some countries, unrealistic in the near future, the
participating bodies agreed that the 2001 Convention helps establish an international standard and regulation specific to the management and preservation of UCH (Englehardt 2006). To date, 40 State Parties have ratified the 2001 Convention (UNESCO.org).

**Part One of the Annex Framework**

The General Principles outlined in the Annex to the 2001 Convention provide rules regarding the protection of UCH. Rule 1 of the General Principles states that *in situ* preservation is to be considered as the first option in managing submerged cultural material. According to UNESCO, this means that objects, ‘should preferably be left on the seabed in their original location’ (UNESCO.org). Although *in situ* preservation is stated as the preferred option, under certain conditions the removal of artefacts from on or beneath the seabed may be acceptable as long as excavation can provide, ‘a significant contribution to protection or knowledge or enhancement of underwater cultural heritage’ (2001 Convention: General Principles, Rule 1).

By the broad UNESCO definition, UCH could be considered preserved if it were left submerged in its current place of rest, either beneath the seabed or resting on the seabed. While practitioners may not argue with this statement, if the site is located in an exposed or dynamic environment, a passive response will do nothing for the long-term protection and preservation of the site. In order to more effectively manage the site, an appropriate proactive *in situ* preservation method suited to the environmental conditions should be applied. In this case, a clearer definition for best management may include actively managing a site in its original location, ‘in order to extend its longevity while maintaining original context and spatial position’ (Ortmann, *et al.* 2010:28). If the material is degrading at a high rate due to exposure from extreme tidal movement, sand movement, coastal erosion, looting, salvage, construction, or marine organisms a proactive preservation measure suited to the environment should be applied. This course of action leaves the site *in situ* - thus falling under the stipulated best management practice – while still allowing for and encouraging active management and preservation of the UCH.

Since the 1950s, practitioners around the world have acknowledged the importance of *in situ* preservation and experimented with a number of different methods regarding the stabilisation of shipwrecks and associated underwater material. These preventative and proactive *in situ* preservation methods include backfilling, sediment dumping, hessian and polypropylene sandbagging, deposition of ballast and stones, and the use of geotextiles, artificial seagrasses, plastics, tyres, toxins, trenches, and iron and plastic fences (Harvey 1996; Hosty 1988; Moran 1997a; Moran 1997b; Oxley 1998; Sledge 1979; Waddell 2007). It may be difficult, however, to obtain support for the application of these methods due to a lack of specific reference within both domestic law and the 2001 Convention. UNESCO’s current definition encourages ethical practices and promotes protection of cultural heritage, however it does not provide specific guidance in methodology for *in situ* site preservation.
Any method of *in situ* preservation, whether proactive or reactive, should reflect the importance of context as well as scientific site formation processes, while helping to re-establish equilibrium at the site after exposure. Research in countries such as Australia, Denmark, Sweden, the Netherlands, and Canada have demonstrated that proactive *in situ* preservation helps slow down the rate of decomposition by increasing the establishment of an anaerobic environment (Bergstrand 2002; Björdal and Nilsson 2008; Curci 2006; Gregory 1998; Grenier 2007; Manders 2006; Manders, *et al.* 2005; Nyström 2002). These various scientific data strengthen the argument for an expansion of the definition of *in situ* preservation, and reinforces the importance for the 2001 Convention to address specific methodological approaches within internationally accepted standards for best practice. With a lack of countries in the Asia Pacific region having domestic cultural heritage laws specifically inclusive of heritage underwater, the broad acceptance of the Annex, with suggested methodology, is a crucial step in more effective preservation in the Region. Furthermore, those Parties with laws regarding UCH will have a more comprehensive document to help support their own laws in regards to more efficient and proactive site protection.

**Parallel Terms between Entities**

The 2001 Convention is a necessary adjunct to the UNCLOS in regards to underwater archaeological material. The 2001 document extends State Party jurisdiction beyond individual Territorial Seas to include waters within the Economic Exclusive Zone (EEZ) and Contiguous Zone, up to the nominal boundary of the Continental Shelf (2001 Convention: Article 8, 10.1, 10.2). Under special circumstances, the jurisdiction of a State Party may extend out into the Area (2001 Convention: Article 11.1). The 2001 Convention establishes a framework that addresses the safeguarding and preservation of UCH with the intent of helping to establish an international standard for the survey, exploration, and management of submerged archaeological sites.

Restrictive economic circumstances that many nations face due to the ongoing global financial crisis have implications on the management of cultural heritage. Decisions around site preservation and protection methods may be limited in this current environment. It is however still the responsibility of individual countries to protect their own UCH by, ‘the best practical means at their disposal and in accordance with their capabilities’ (2001 Convention, Article 2.4). While the capabilities of individual Nations may vary, further developing the definition of *in situ* preservation provided by UNESCO may also introduce a greater onus on governments to consider their duty of care by actively stabilizing sites under internationally accepted rules and principles.

**Conclusion**

One of the most important aspects of the 2001 Convention is that it encourages international co-operation and fosters the exchange of information and methodologies that improve the protection and preservation of significant UCH. This information, in conjunction with domestic law within the Asia Pacific region, helps practitioners better manage UCH at an
internationally accepted standard. Rule 1 from the Annex, General Principles identifies in situ preservation as the first option for managing submerged cultural heritage. It does not, however, outline in situ preservation methodologies acceptable for application. As the specific concept of in situ preservation is not addressed in any domestic laws relating to cultural heritage management within the Asia Pacific region, it is necessary to better integrate UNESCO's definition with methodologies and applied practice to more effectively manage underwater sites.

Amendments to the 2001 Convention and to the Annex can occur in 2014, five years after the January 2009 ratification. In this context, clarifying in situ preservation techniques as best practice in managing UCH sites will enable more cohesion between domestic laws and the international 2001 Convention for the Asia Pacific region. This will be of great benefit to participating governments and to practitioners, leading to better outcomes for the long-term preservation and value of UCH.

**Abbreviations**

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<td>AEER 1978</td>
<td>Pakistan - Archaeological Excavation and Exploration Rules 1978</td>
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<td>Australia - Historic Shipwrecks Act 1976</td>
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