KEYNOTE ADDRESS

Treasure hunters, sunken state vessels and the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage

Presenter:
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Two sets of quite related judicial decisions in the US, regarding in rem actions directed at several Spanish State shipwrecks, have completed a new legal framework that must be kept in mind not only for treasure-hunter companies and any other persons trying to gain any right over the wrecks of sunken State vessels, but also for States trying to seek a clear interpretation of the legal status of those vessels in current international law. These decisions might complete the new legal layout given by the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, in particular giving full meaning to the ‘without prejudice’ clause included in its Art. 2(8) relating to sovereign immunities and State vessels; they might also ease future ratification of that Convention by reluctant States like the United Kingdom, France or the United States.

Session 1: Australia’s Indigenous underwater cultural heritage

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Papers were encouraged on inquiries made, and work which has been done, in the field of Indigenous maritime archaeology in Australia. These include investigating methodological, practical and theoretical frameworks for understanding the underwater cultural heritage of Aboriginal and Torres Strait Islander peoples in salt and freshwater environments. It covers occupation, spiritual and resource sites including seascapes, and how archaeological method and analysis have been informed by cross-cultural and multi-disciplinary perspectives. It could also cover the changing scope of what constitutes Indigenous underwater cultural heritage under UNESCO conventions. What are the issues and challenges facing the field today?
Towards an Indigenous Sea Change: Developing Meaningful Heritage Research Partnerships with Indigenous Communities

**Presenter:**
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In this paper, Indigenous Archaeologist Dave Johnston presents his aspirations for an Indigenous Marine Archaeological Discipline. Having worked with many Indigenous coastal Traditional Owner groups around Australia and in the development of Australian and International archaeological codes of ethics, Indigenous consultation guidelines and research ethics guidelines, the author will present his views on how meaningful heritage research partnerships with Indigenous communities can be achieved and his views on the scope of research that could evolve with such exciting partnerships.

Sentient seascapes: Towards a cultural heritage of Indigenous spiritual relationships with the sea

**Presenter:**
PROF. IAN J. McNIVEN
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Seascapes are much more than vistas of the sea. For Indigenous Australians, especially maritime peoples of northern Australia and Torres Strait, the sea is a sentient realm of spiritual forces and entities central to identity. Engagements with the sea for subsistence are underwritten by ritual practices that facilitate social relationships with these spiritual forces and entities of the living and the dead. The sea is also inscribed in tangible and intangible ways that require curatorship and protection in material and non-material ways. Such curatorship lays the foundations for engagements with discourses of cultural heritage. This paper explores what a cultural heritage of Indigenous seascapes may look like. My approach is informed by nearly two decades of researching Torres Strait Islander ritual orchestration of seascapes.

The Indigenous cultural landscape of the Dampier Archipelago

**Presenters:**
ASSISTANT PROF. I. WARD¹, R. CRITCHLEY, J. BOURGET, M. O'LEARY AND DR. PIERS LARCOMBE
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Extensive discussions with representatives from the Murujuga Aboriginal Corporation (MAC) regarding the submerged landscape of the Dampier Archipelago have revealed a mutual desire to document traditional knowledge of this landscape and to link, through modern technology, the unknown architecture of the now drowned continental shelf. At the heart of the project is the opportunity for knowledge exchange and training between a scientific understanding and traditional knowledge of this marine cultural landscape.

This multi-disciplinary project aims to resolve the changing configurations of the post-glacial shoreline environment that was once exploited by past inhabitants, and which may be linked with onshore and offshore archaeological and ethnohistorical records. Extensive marine datasets acquired by the industry for offshore development will be used along with new geophysical survey data to develop a 3D palaeoenvironmental reconstruction of the submerged landscapes of the Dampier Archipelago. Innovative dating of palaeoshoreline sequences will be applied to provide age control for the palaeoenvironmental reconstruction.

This scientific data may be compared with traditional narratives of landscape change and coastal land use through major phases of climate and sea-level change, contributing to an ‘indigenous science’ that can be productively engaged as part of cultural land management. Although focused on the rich-archaeological landscape of the Dampier Archipelago, this research is ground-breaking in its approach and may potentially be applied to other parts of the continental shelf at risk from existing and future development.
Continuity is sustainability: A theoretical perspective on inclusion of Indigenous practices into formal laws concerning the safeguarding of underwater cultural heritage. A case study in Indonesia

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Australia is an island continent with a great cultural diversity. Long before Europeans settled in the area, Indigenous communities occupied the land. The Indigenous peoples’ cultural heritage normally comprises two elements: natural features and traces of human occupation. However, both of these also contain sacred significance that cannot be assessed through scientific enquiry.

This became an issue when non-Indigenous communities wanted to assign values to this heritage on the basis of scientific knowledge or aesthetic consideration. The European viewpoints that often appear in heritage laws have frequently put Indigenous ways of living to the backstage.

Therefore, in this paper, the aim is to suggest ways to incorporate Indigenous practices into heritage laws and the legal system from a theoretical perspective. A case study of shipwreck protection by indigenous practices in Bali (Indonesia) will illustrate this point. It is believed that this preliminary research and the appraisal of the Bali case-study can put forward a useful background for the efficient and inclusive management of indigenous maritime heritage in Australia. As a result, it is expected that tangible and intangible legacies can be successfully guarded. Serving contemporary uses, the sites can, moreover, achieve the goal of sustainable development involving local communities.
Session 2: Ratification of the UNESCO Convention on the Protection of the Underwater Cultural Heritage and States’ positions in that regard

Session chairs:

- **ULRIKE GUÉRIN**
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This session shall serve to illustrate the legal content and practical impact of the UNESCO 2001 Convention. It shall also demonstrate what the positions of States are in regard of this treaty as well as which chances the Convention opens in terms of legal protection, State cooperation and the cohesion of the discipline of underwater archaeology on an international level. The free exchange on the cooperation of the community of underwater archaeologists with UNESCO is encouraged as well as questions on the operational work that has been done or should be done in the region.

The UNESCO 2001 Convention—content, impact, organs and State adhesion

**Presenter:**

**ULRIKE GUÉRIN**
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The United Nations Educational, Scientific and Cultural Organization (UNESCO) is a specialized agency of the United Nations (UN). It has 195 Member States and contributes to preserving cultural heritage. This also encompasses the world’s underwater cultural heritage.

UNESCO’s Convention on the Protection of the Underwater Cultural Heritage was adopted by the UNESCO General Conference in 2001. It is the international community’s response to the destruction of submerged archaeological sites by treasure hunters and industrial activities. It reflects the growing recognition of the need to ensure the same protection to underwater heritage as that already accorded to land-based heritage. It provides legal protection, enables States Parties to adopt common approaches to preservation, and provides effective professional guidelines on how to deal with and research underwater heritage.

The paper will present the content, impact, and organs of the Convention as well as issues of State adhesion to the Convention.

The legal content of the 2001 Convention

**Presenter:**

**PROF. MARIANO J. AZNAR-GÓMEZ**
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The 2001 UNESCO Convention offers a new legal canvas in the protection of UCH. It tries to fill the gaps left by the UN Convention on the Law of the Sea, addressing further (and new) problems envisaging UCH worldwide. It will be discussed as four main issues of the Convention, namely (1) a mechanism of cooperation, (2) a scientific effort, (3) a neutral legal instrument, and (4) a departure point for future protection. The ongoing process of ratification may enhance this new legal regime, particularly once ‘focal States’ (like Australia) ratify the Convention and other States of the region subsequently ratify.
The legal impact, potentials and importance of the 2001 Convention for Australia

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The 2001 Convention is important to Australia for a number of reasons. It will, for example, provide a basis for better protection and management for objects and sites found in a larger geographical area. It also has the potential to facilitate co-operation in the protection and management of underwater cultural heritage and the enhancement of the Convention’s protective regime though supporting ratification of States with which Australia might co-operate, particularly in the Asia-Pacific region. The legal impact of ratification will not only require Australian legislation to evolve to meet the standards of the Convention, but so too will those of the co-operating States, bringing unification to the law across national jurisdiction that protect underwater cultural heritage.

The Netherlands, towards ratification of the UNESCO 2001 Convention: Legal issues

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The Netherlands are studying further steps for ratification of the UNESCO Convention for the protection of the Underwater Cultural Heritage and the implications it will have on its own legislation and policy. Coming originally from a state that abstained during the voting for the convention in 2001, it has been a long process to come as far as it is now in the process. But where do we stand at the moment? What legal issues have to be solved? And as important: can they be solved? The paper will describe the legal process and the issues that have to be solved.

Ratification of the UNESCO Convention on the Protection of the Underwater Cultural Heritage and States’ positions in that regard

**Presenter:**
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The United Kingdom (UK) has not ratified the UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001. However, an Impact Review has recently been carried out by the UK UNESCO 2001 Convention Review Group, an independent group of specialists in maritime archaeology and law, with the purpose of determining how compliant the UK already is with the Convention and what further measures would be required to make it fully compliant. The report includes:

1. A detailed clause-by-clause review to assess the broad administrative, legal and other implications of ratification and re-addresses the main reasons why the UK felt unable to endorse the Convention, and chose to abstain in the vote in 2001.
2. A consideration of the UK’s concern in respect of the question of sovereign immunity for sunken State vessels and aircraft.
3. A desk-based survey known as the Royal Navy Loss List, which quantifies the extent and location of Royal Navy vessel casualties between 1605 and 1945 to give an evidence base concerning the issue of sovereign immunity.
4. A consideration of the second key concern expressed by the UK Government, namely, the perceived requirement to protect all wreck sites in territorial waters adjacent to the UK.

The paper will discuss the findings from the Review and how they impact the UK and other maritime states that have held similar concerns. Finally, conclusions will be drawn as to whether the UK is in a better position to ratify the Convention today than it was in 2001.
On the influence of China's ratification of the 2001 Convention on underwater cultural heritage conservation in China

**Presenter:**

**JING WANG**

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This paper focuses on the effects of ratification of the 2001 *Convention on the Protection of Underwater Cultural Heritage* by China. It first analyses national and international legislation as well as general principles, then assesses the practical experiences of State Parties and non-State Parties, while especially comparing the similarities and differences between the Convention and the current legislation and views in China. The status of preservation of underwater cultural heritage in China will be described; and the pros and cons, rights and duties, and key considerations and necessary steps for China to ratify the Convention will be analysed. Possible problems that might occur in case of non-ratification will also be considered.

As a country, which was from the earliest stages on involved in the drafting of the Convention, China's views on the Convention were always positive, but concerns still exist of foreign affairs and maritime zones issues. However, since the ratification by Spain, Italy, France and other large countries working very actively in the field of underwater archaeology, and given the positive attitude of Australia concerning ratification, China should now rethink its opinion and consider becoming party to the Convention. Ratification of the Convention can improve the ethics, conceptual approach, techniques, management, and overall establishment of the discipline of underwater archaeology in China. It will also provide an improved and internationally recognized working system and mechanism for underwater archaeology for China, since for now cultural heritage protection and research is a relatively un-emphasised field in the country, despite its rapid development in recent years.

China has to review its national legislation for the ratification of the 2001 Convention and with it, key issues such as jurisdiction and enforcement, mapping of heritage and the establishment of an inventory and database, as well as the streamlining of administrative measures.
Session 3: The archaeology of aircraft as underwater cultural heritage

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Aviation heritage sites including crashed aircrafts of World War I and II, air bases and other support structures, represent a significant body of heritage that is poorly understood despite their enormous heritage value. Archaeology of the recent past is just as significant as sites that are thousands of years old. The survival of any archaeological site is precious and finite. Recent media coverage of ‘excavations’ of aircraft crash sites in England and France suggest that ‘smash and grab’ methods are alive and well, as they are in Australia.

In Australia, flying boats make up the largest percentage of the type of aircraft found, with Western Australia being the only state to protect located sites. It is hoped that aviation sites elsewhere will be formally recognised for their significance by heritage managers. Certainly it is hoped the rest of the world will see the value of such sites as the archaeological manifestations of a changing life way: “These sites are now fading from personal memory to collective history, and it is important that the dramatic changes brought to the area ... during this time are not forgotten” (Garrett et al., 2006: 82). From a management perspective, there is very little information available to the public who visit these aviation wrecks. Papers invited for this session hope to cover any aspect of research and/or management of aviation heritage sites located in the marine or freshwater environments including associated structures and air bases, especially considering their inclusion for heritage protection similar to that of historic wreck sites.

“Oceans to fly”: An Introduction to underwater aircraft archaeology

Presenter:  
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Aircraft have been used in a number of different ways since their innovation in the early 1900s. The military potential of aircraft was thoroughly exploited in World War II, becoming pivotal in naval encounters such as the Battle of the Coral Sea. Aircraft have also been used as an efficient means of exploration which received public interest owing to pilots such as Amelia Earhart. In recent times, the largest use of aircraft is as a means of transport by civilians. Aircraft have evolved dramatically, particularly technologically, during the last century, along with a changing society. Despite this, the potential of aircraft wreck sites as an archaeological resource has only just started to be recognised and explored on an international scale.

Underwater aircraft sites have the potential to yield lost information about aircraft construction and repair, the process of wrecking or discard and about site formation processes. Aircraft sites contribute to themes such as war, technology, exploration and loss. Associated infrastructure, including airfields, runways, and hangers, also contribute towards studies of aircraft development and use. This paper provides an introduction to underwater aircraft archaeology and the potential it holds, with international and Australian examples of studies that have started to tap this previously unrecognised resource.

What’s next? A paradigm for the future research and management of northern Australia’s aircraft wreck legacy

Presenter:  
DR. SILVANO JUNG  
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The Pacific war in northern Australia resulted in two significant underwater aircraft wreck loci—one in Darwin, Northern Territory, and the other in Broome, Western Australia. This paper will discuss current research strategies and set the stage for the discovery of a previously unlocated wreck in Broome. Twenty-one flying boat wrecks were sunk during the first air raids at Darwin and Broome. An understanding of the patterning in the archaeological record has helped to locate these sites. For instance, the Darwin ‘Catalina’ flying boats have now been found, in situ, but the patterning of cultural site formation processes in Broome suggests that at least three more flying boats still lie there. The wrecks in Broome represent a diversity of flying boat types: Catalinas, Dorniers and Short Empire flying boats, all of which are rare aircraft. But aside from the aircraft themselves, the wrecks are a poignant reminder of the human tragedy resulting from their loss, which in Broome involved Dutch women and children. The Dutch still commemorate the air raid and yet there is no national recognition of the raids in Australia despite the air raids being described as significant national events, i.e. ‘Australia’s Pearl Harbor’ (Darwin) and ‘Western Australia’s Pearl Harbor’ (Broome). None of the wrecks from those events are listed on the Commonwealth Heritage List. A test case involving three of Darwin’s United States Navy Catalinas has been put together to assess whether aviation archaeological sites can be included on the Commonwealth Heritage List as sites of value to all Australians. If successful, it is hoped that more aviation sites will follow.

**Ex-planeing aviation archaeology in Victoria: A management perspective**

**Presenters:**

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At least 350 aircraft crashes are thought to have occurred in Victoria during WWII. However, there are only 36 aircraft sites listed in the Victorian Heritage Database. It would seem that aircraft sites are amongst the least studied and most poorly recorded archaeological sites in Victoria. In this presentation, we will propose some reasons for this discrepancy and offer some observations and potential direction for a more complete future study of aircraft wrecks in Victoria.

**Immersion into history: Abandoned WWII airfields and aviation sites in the Pacific—Chuuk Lagoon (the ‘Gibraltar of the Pacific’)**

**Presenter:**

**KIM BROWNE**
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Chuuk (Truk) Lagoon, in Micronesia, is home to an impressive array of Second World War naval and aviation heritage. During WWII, the Japanese established their principal military naval base at Chuuk Lagoon. The occupying Japanese forces bulldozed, levelled and transformed the small island of Eten into a military airstrip and used the island as a base for fighter planes. Chuuk also served as a staging point for aircraft ferried from Japan to the South Pacific. However, in February 1944 during ‘Operation Hailstorm’, American forces attacked Chuuk Lagoon and sank over 50 Japanese ships and bombed Eten’s airfield. In addition, a large number of aircraft was lost in the lagoon during the two day Allied bombardment of Chuuk. Today, what was a former warzone of unimaginable destruction and loss of life is now a renowned location of the largest array of unsalvaged WWII artefacts and unsurpassed wreck diving in the world. However, to the local Chuukese people these foreign owned State vessels and aircraft represent a reminder of a dark and painful period in their history and are a constant reminder of colonialism. There is little incentive for locals to protect these sites from looting, theft and vandalism. This paper argues that WWII terrestrial and underwater aviation remains and relics have significant heritage value and deserve legal protection no less than historic wrecks. Chuuk Lagoon is used as a case study to frame the discussion and to illustrate the value of aviation heritage sites.
Session 4: *In situ* preservation and conservation of cultural heritage

**Session chairs:**
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The aim of this session is to broaden discussions with respect to *in situ* stabilisation and management of terrestrial and underwater cultural heritage sites and their associated archaeological finds. Papers discussing this basic theme including the ideology of on-site preservation and conservation; legislative requirements and present directions of *in situ* preservation; assessment of site and artefact deterioration; principles for development and implementation of mitigation and conservation strategies; long-term effects of past stabilisation and conservation techniques; *in situ* monitoring of sites to determine the effectiveness of management and conservation strategies; etc. are encouraged.

**Development of tools and techniques to survey, assess, stabilise, monitor and preserve underwater archaeological sites: SASMAP, a European research project**

**Presenters:**
- **Martijn Manders**
  Dutch Cultural Heritage Agency, The Netherlands
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- **Dr. David Gregory**
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SASMAP’s purpose is to develop new technologies and best practices in order to locate, assess and manage Europe’s underwater cultural heritage in a more effective way than is possible today. SASMAP will take holistic- and process-based approaches to investigate underwater environments and the archaeological sites contained therein. SASMAP will benefit the management of underwater cultural heritage in Europe and in the rest of the world by providing valuable tools to plan the preservation of offshore archaeological sites and their contents in accordance with both the Treaty of Valletta (1992), UNESCO 2001 *Convention on the Protection of the Underwater Cultural Heritage* and research driven investigations.

The need for SASMAP is based on the results from previous and current European Union (EU) initiatives, the networks resulting from these projects and on-going research at the consortium’s institutions. Within SASMAP, a holistic approach will be taken in locating, assessing, monitoring and safeguarding underwater cultural heritage. This will involve developing and utilising tools and technologies to allow “down-scaling” from the large scale regional level, moving on to the local site level and finally to the individual components of a site. Results obtained from the down-scaling approach for the proposed study areas will show the effectiveness of such an approach for locating and detailed mapping of archaeological sites and their preservation potential. The end results of this approach will be used to develop a plan for assessing archaeological sites in European waters. From a management point of view this is an up-scaling approach to planning (bottom up). All information and experiences obtained during the course of the project will be utilised to enhance and develop existing legislation and best practice for mapping and preserving Europe’s underwater and coastal heritage. The project started in September 2012 and the aim of the paper is to present a brief introduction to the project.

**In situ preservation: A strategy on underwater cultural heritage management in Indonesia?**

**Presenter:**
- **Agni Sesaria Mochtar**
Indonesia is often regarded as a country with a long and glorious maritime history. Various past activities relating to maritime culture have provided a significant volume of underwater archaeological remains, much of which await discovery or more detailed study to reflect this maritime past. Unfortunately, in terms of actual practice, these research and reconstruction efforts still face many ongoing challenges. Research methods, conservation methods, artefact security, lack of human resource, and limited equipment are just some of the issues that need to be resolved. In broader terms, some strategies for managing underwater cultural heritage also need to be well planned, along with the application of certain legislative aspects to ensure that such strategies will be implemented correctly. Accounting for the fact that Indonesian underwater cultural heritage not only has national, but also regional and even international significance, it is necessary for stakeholders to share similar points of view in the management of Indonesia’s underwater cultural heritage. This paper presents some suggestions on the implementation of in-situ preservation as one strategy for underwater cultural heritage management in Indonesia.

The Australian Historic Shipwreck Protection Project—reburial of the Clarence (1850) and James Matthews (1841) shipwreck sites

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The Australian Historic Shipwreck Protection Project (AHSSP) is a national collaborative project funded by an ARC (Australian Research Council) Linkage Grant. The project commenced in February 2012 and is the largest multi-government, multi-institutional maritime archaeological project ever initiated in Australia.

The AHSSP aims to investigate and preserve in situ, the Clarence (1850) shipwreck located in Port Phillip Bay, Victoria. This historically significant Australian-built colonial trading vessel is subjected to continuing anchor damage by illegal anglers and is under considerable threat. One of the main aims of the project was to develop a protocol for the excavation, detailed recording and reburial of significant shipwrecks, fostering a strategic national approach for the management of underwater cultural heritage sites at risk. However, since the inception of the AHSSP it was duly noted that to be a truly national research project the in situ preservation of other sites around Australia would ideally be included in this longitudinal study for comparative analysis. Hence, due to careful project management and savings in the first year of the project, an innovative in situ preservation strategy using road ‘crash barriers’ will be implemented on the Western Australian ex-slaver James Matthews (1841) under the aegis of the AHSSP.

The James Matthews site has been the subject of a long-term detailed in situ conservation management research programme with more than 10 years of accumulated data on the efficacy of remediation measures. Subsequent to reburial, on-site monitoring would then proceed as per the Clarence site. In this way, the efficacy of two very different but innovative reburial techniques will be systematically tested providing a comparative analysis of practical protocols for the in situ preservation and management of historic shipwrecks at risk.

The Carpark Whalers of Bunbury—extent of preservation and in situ protection

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At least twelve shipwrecks are buried in the reclaimed foreshore of Koombana Bay, Bunbury, Western Australia. All pre-1900 maritime archaeological sites are protected under the Western Australian Maritime Archaeology Act 1973 and vested in the Western Australian Museum (WAM). In 2009, the City of Bunbury (CoB) announced their intentions to redevelop the foreshore (Lots 881 and 882) and build a Visitor Centre. Discussions then ensued between the WAM and the CoB regarding the conservation, protection and long-term site management of these shipwreck sites. Through a Memorandum of Understanding between the two agencies, the WAM and CoB prepared a project brief and conducted archaeological test excavations of the geophysical anomalies previously identified in these areas to determine if any were maritime archaeological sites and therefore, protected under the state legislation. An integral part of the project was to conduct extensive on-site conservation surveys of the test excavations to determine the extent of deterioration of the exposed remains and the physico-chemical nature of the site conditions. With this information it was possible to identify possible threats and impacts to the sites and estimate their long-term stability. This knowledge was then used to implement the most appropriate and cost-effective mitigation strategy to preserve the sites long-term.

**PUBLIC LECTURE**

**Byzantine shipwrecks discovered on the southwestern coast of Turkey**

**Presenter:**
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Maritime trade developed naturally as seafront island towns began to trade with each other and with the continent, quickly becoming central to the economy of the established Anatolian city states. Since the Aegean Sea connects the Mediterranean, the Marmara, and the Black Sea together, it has always had a central role in the history of maritime trade. Hundreds of safeguarded bays and natural harbors along the shoreline of the Aegean, which contains a great number of islands, provided a favorable environment for ancient seafaring. As the population of metropolitan cities increased, their basic needs required products from other settlements, and the shipment of those products by sea became preferred as the cheaper and faster route.

During this survey of the region, several shipwrecks were discovered. The shipwrecks of the Roman period show a wide distribution area, with a concentration of information to be gleaned from the Central and Northern Aegean regions. The most prevalent of the shipwrecks found to date are those of the Byzantine period. On almost every shoreline, objects from this period can be found. Most of the shipwrecks discovered and re-examined on the coast of the south west of Mediterranean can be dated between the 5th century AD and the 12th century AD, and several shipwrecks were recorded during the five-year survey. The results of this survey indicate that there was a great economical loss during the transportation of cargo in this region. The evidence also serves as an indicator for general trade routes.
Session 5: Australia's overseas underwater cultural heritage

Session chair:

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Australia has a rich and diverse underwater cultural heritage that is not located in our waters or administered under our legislation. This session’s aim is to highlight the geographical range and variety of our overseas underwater cultural heritage; to encourage reports on individual sites located overseas to better understand their significance; to encourage understanding of how particular sites are currently managed by Coastal States; and to seek individual thoughts on potential issues or benefits to our overseas underwater heritage should Australia ratify the 2001 UNESCO Protection of the Underwater Cultural Heritage Convention.

**KEYNOTE ADDRESS**

**HMA Submarine AE2**

**Presenter:**  
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A rare but unique heritage asset of Australian origin in foreign lands is HMA Submarine *AE2*. Lost in combat within the inland Turkish Sea of Marmara in 1915 during the infamous Dardanelles Campaign, the heritage site is subject of intense archaeological surveys by a joint Australian-Turkish team. The underwater heritage site symbolises the ideal of co-investigation of shared heritage sites as identified in the UNESCO Convention, best practice non-disturbance management approaches, and education and learning derived through knowledge. An additional survey operation scheduled for May 2014 will further examine the complexity of the hull and associated internal relics collections through more robust internal data via 3D imaging and video analysis.

This interrogation of the archaeological remains will require an elevated archaeological approvals process due to the need for interference with the site’s only access point—the conning tower hatch. A barrier defence and cathodic protection system is also being considered for the site that requires careful design, approval and implementation, together with Australia-wide education school based resource materials. This paper will examine the complexities of working on this shared heritage site of special importance to the military history of both Turkey and Australia and the complex controls of Turkish approvals processes; initiatives to generate Australian Government support; and the perennial problem of long term management and site protection legacies beyond the short-intermediate project horizon.

**Australian shipwrecks in New Zealand**

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New Zealand and Australia share a lot of common themes, and the maritime history of both countries have always been closely intertwined on account of our geographical position and shared colonial past. Trans-Tasman trade accounted for a large amount of New Zealand's 19th century shipping movements, so it is perhaps not surprising that a significant number of New Zealand's historic shipwrecks were Australian built, or registered to an Australian port at the time of their loss. This paper seeks to outline the extent of the Australian connection associated with historic shipping losses.
in New Zealand, and to review the current state of protection for these shipwrecks with the use of case studies to highlight differences in regional variation.

SS *Papanui*—the wreck and the island

**Presenter:**
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The wreck of the SS *Papanui* (1911) is one of many that have a significant association with Australia and which lie in the waters of the South Atlantic Ocean. Others include the wrecks of William Dampier’s HMS *Roebuck* (1702) located off Ascension Island and, the potential deep water remains of the emigrant ship *Kapunda* (1882).

The SS *Papanui* is internationally significant. Before being chartered to bring emigrants to Western Australia it was associated with the early development of the New Zealand frozen meat trade. Further, historical evidence suggests that it was most likely the last casualty on the emigrant sea trade route between the United Kingdom and Australia.

Today, largely unrecognised and neglected, the wreck lies in the shallow waters of Jamestown Bay at St Helena. Decay and years of private salvage have taken their toll. Despite this, the wreck can be considered as a monument to a part of the early 20th century history of Western Australia and has potential to be managed as a significant international cultural heritage site.

This paper re-examines the history of the *Papanui*, its loss and the fate of the wreck. More particularly the paper considers some of the challenges and opportunities faced by a remote and isolated island community striving to develop its limited economy, while protecting its important heritage assets; and issues that are germane to the debate about the management and protection of historic shipwreck sites in remote and isolated places beyond the Australian shore.

Australia’s overseas sovereign shipwrecks and POW transports

**Presenter:**
**ANDREW VIDUKA**
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Australia’s overseas sovereign shipwrecks and shipwrecks are an important part of our maritime heritage. This paper looks at the location of our overseas sovereign shipwrecks and POW transports where Australia’s servicemen, servicewomen and sometimes civilians lost their lives. The paper also identifies other countries that may share in the story of that heritage or work with Australia in the future to enhance the vessels’ respectful treatment and long term conservation.
**Session 6: General session**

**Session chair:**

- **DR. JENNIFER RODRIGUES**
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**In situ preservation and exhibition in a virtual environment: An initiative to archaeologically document HMCS Protector with structured-light scanning technology**

**Presenters:**

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**EMILY JATEFF**  
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**PROF. ANTON VAN DEN HENGEL**  
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Her Majesty’s Colonial Ship (HMCS) Protector was one of Australia’s first purpose-built warships. It arrived in Port Adelaide in September 1884 and served in the South Australian colonial navy, Commonwealth Naval Force and Royal Australian Navy. Requisitioned by the U.S. Army during the Second World War, it collided with another vessel and was eventually installed as a breakwater at Heron Island on the Great Barrier Reef.

The South Australian Maritime Museum (SAMM) in Port Adelaide is developing a Protector-oriented theme within an exhibition designed to coincide with the 100th anniversary of the start of the First World War. The planned exhibit will also highlight two significant dates in Protector’s history: the 130th anniversary of its arrival in Port Adelaide to commence service as South Australia’s first colonial warship (1884), and the 90th anniversary of its decommissioning from Australian naval service (1924).

SAMM and its partners have developed a collaborative venture in concert with this exhibition, and are exploring ways to ‘virtually’ transport Protector to South Australia from its in situ locale in Queensland. An essential component of this research initiative is to utilise 3D visualisation technologies to present a complete and accurate record of Protector as it currently appears at Heron Island. To this end, it will employ structured-light scan data to construct digital and physical 3D models that will comprise a significant part of the Museum exhibition, answer questions about the vessel’s construction and modification, and promote its future preservation and management.

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**The Australian Historic Shipwreck Preservation Project BiblioBoard anthology: An innovative digital curatorial project for presentation of archaeological in situ preservation and research projects**

**Presenter:**  
CASSANDRA PHILIPPOU  
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Early in 2013, the Australian Historic Shipwreck Preservation Project (AHSSPP) team was approached by the team at BiblioBoard to create a digital anthology of the Clarence in situ preservation project. The concept was to curate a collection of images, documents and multi-media items (including video and audio via web streaming) into an ‘anthology’ as part of BiblioBoard’s new ‘ Artefact of History’ module.

The module is made up of a wide range of historical sources that are focused on historical artefacts and archaeological discoveries. BiblioBoard has an array of anthologies arranged into
modules that are accessible to the public through library database subscriptions, the web and also Apps (Applications) for Apple iPad and android tablets. The Clarence anthology brings together much of the AHSP website content into a curated digital collection, enabling the story of the Clarence to be told through presentation of historical information, previous research expedition results and a significant proportion of images, video and interviews from the current project.

First launched in late 2011, the BiblioBoard platform and its associated BioblioBoard Creator software is in its infancy, but shows great promise for future dissemination of primary source project material. The Clarence BiblioBoard anthology allows for enriched, well-curated content to be accessible to a broader, technologically-progressive audience. It may be an appropriate platform for future presentation of archaeological sites, in particular in situ preservation projects where artefacts are returned to the seabed for conservation and with no plan for future long-term museum curation.

**In situ** preservation of underwater cultural heritage: Context versus management

**Presenter:**
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As recommended by both the 1996 ICOMOS Charter on the Protection and Management of the Underwater Cultural Heritage and the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage, in-situ preservation is considered the 'first option' for managing underwater cultural heritage (UCH)—but interestingly, to date, neither international organisation has provided a definition for in situ preservation. Shifting trends in heritage management provide juxtaposed interpretations of the 'first option'. Some practitioners refer to in situ in accordance with the literal translation of the Latin term—in place—thus, discouraging the removal of UCH from its original context. More recently, however, the accepted implications of in situ preservation have shifted beyond simply deterring anthropogenic interference, to also include active intervention with the purpose of mitigating degradation and destruction from impacting environmental factors. The latter interpretation includes the relocation of artefacts and archaeological structures to an environment more conducive to site protection and stabilisation. Many researchers, thus, suggest that in situ management should aim to re-establish the pre-exposure (in situ) environment during time of reburial, not necessarily requiring in situ materials to remain in place. This paper will therefore discuss these in situ discrepancies—context versus management—to determine if a re-assessment of what constitutes the first option should take place.

The potential for maritime archaeology at missions to reveal the role of Indigenous people in Australia’s maritime activities: An overview from a South Australian perspective

**Presenter:**
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This paper advocates for the archaeological recording of maritime material culture, including vessels and infrastructure, to reinstate Indigenous people into the lacustrine, riverine and coastal waterways of the late 19th and early 20th century Australian landscape. It suggests that missions provide an under-utilised source of data for addressing Indigenous involvement in maritime activities in the post-contact period. An overview of previous archaeological studies at South Australian missions illustrates a lack of maritime focus, while previous post-contact Indigenous maritime archaeology reveals that the maritime emphasis requires substantially more consideration. Through a discussion of four themes—construction of vessels, working on vessels, construction of infrastructure and recreational use—it uses historical information on missions in South Australia to argue for future archaeological research into this interdisciplinary Indigenous, maritime and historical subject areas. While focusing on the potential of this data type, it also stresses Indigenous participation in research through oral histories and collaborative approaches.
Session 7: Commercial exploitation of underwater cultural heritage—issues, consequences and options for control

Session chair:

PROF. PATRICK O’KEEFE
Honorary Professor, University of Queensland
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The 2001 Convention bans commercial exploitation of underwater cultural heritage. What is the meaning of this? Can there be circumstances where threats from deterioration, currents, fishing and other activities make commercial exploitation the only way to protect the heritage? If that path were to be taken, will there be issues of whether the excavator should be allowed a profit and if that profit be part or all of the objects raised. Does the Convention allow the deposition of recovered material in a collection run by a body formed to commercially exploit it?

Commercial exploitation of underwater cultural heritage—issues, consequences and options for control

Presenter:

ROBERT YORKE
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The UK government has a mixed record concerning the commercial exploitation of historic wreck sites with varying attitudes and actions being shown by different departments and agencies. Ten years ago the Ministry of Defence entered into what was apparently a commercial salvage contract for the exploitation of the wreck of HMS Sussex lost off Gibraltar in 1694, although to date this wreck has not been excavated.

More recently the Ministry of Defence gifted the wreck of HMS Victory, the 100-gun flagship of Admiral Sir John Balchen which sank in the English Channel in 1744, to the Maritime Heritage Foundation with the proviso that any future work should be undertaken in accordance with the annex to the UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001. However following correspondence in national newspapers by the Maritime Heritage Foundation and press releases by its contractors there has been speculation that the Foundation might wish to finance the recovery of the wreck by the sale of artefacts.

This paper reviews the issues raised with the wreck of HMS Victory (1744), the potential consequences for the management of historic wrecks in international waters, and lessons that can be learnt for the future.

Shipwrecks as stock for particle physics experiments: New uses of the underwater cultural heritage

Presenters:

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DR. FERNANDO GONZALEZ-ZALBA
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On 14th May 2011, a 2000-year-old shipwreck’s cargo was used as a source for experiments of particle physics. Italy’s new neutrino detector bought 120 archaeological lead bricks from a shipwreck from the National Archaeological Museum of Cagliari in Sardinia, which was built more than 2,000 years ago and recovered from the sea 20 years ago. This “Roman lead”—mainly found in the anchors of sunken ships—was used because of its low radioactivity: being underwater for 2,000 years reduced by approximately 100,000 times the very low original radioactivity represented by one of its radionuclides, lead-210.

This use is ethically questionable. The fact is that underwater heritage, belonging to humanity, and presumably legally, (or not), excavated and recovered by a museum or a company, and afterwards
sold or transferred for its complete destruction for experiments for the benefit of humankind, introduces a whole new legal aspect of the treatment and protection of this heritage. The dilemma is whether there is any justification in using underwater cultural heritage for legitimate but commercial purposes.

New uses of the oceans and their patrimony—development and use of the underwater cultural heritage for different purposes—have been recently invoked by relevant international law of sea actors and their instruments. It is necessary to identify gaps and suggestions in order to analyse whether, and to what extent, the existing rules can be applied or modified to adequately deal with these new values.

**Commercial exploitation**

**Presenter:**
**PROF. PATRICK O’KEEFE**
Honorary Professor, University of Queensland
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Some years ago Robert Grenier said, referring to Rule 2 of the Annex on commercial exploitation: “This is the core of everything: commercial exploitation is the source of all problems”. But what is “commercial exploitation”? What is or is not covered has profound implications. Who decides if an activity is “commercial exploitation”? When can such a decision be made? For example, does the excavator have to actually offer an object for sale before Rule 2 can operate? Rule 2 refers to incompatibility with the protection and proper management of underwater cultural heritage. Does this relate back to Articles 14 to 18 dealing with the enforcement provisions of the Convention? If the Convention can be read this way then, indeed, Rule 2 is one of its most important provisions.
Session 8: The edge of the ocean

Session chairs:
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There is a period prior to British colonisation when European and non-European voyagers encountered the coasts and peoples of Australia and New Zealand. Some of these were voyages of exploration and charting, some accidental encounters, others purposeful engagements. A proportion ended disastrously in shipwrecks, mutiny and the marooning of survivors including conflicts with Indigenous Australians and Maori. Other interactions, such as between the Macassans, the Yolngu, and other Indigenous groups, were enduring and mutually beneficial. These events resulted in different types of sites formed—shipwrecks are one manifestation; shipwreck survivor campsites have also been investigated to varying degrees. Research projects are now in progress or anticipated, to identify such sites or look at pre-existing sites more intensively.

Explorers also left artefacts behind, such as the recovered Hartog plate left in 1616 and the Vlamingh plate in 1697. Two bottles, deposited in 1772 believed to have possibly contained French documents claiming possession of Australia, were recovered on Dirk Hartog Island in 1998. Potentially other such evidence exists. For example, de Surville left relics in New Zealand in 1769, including an anchor from the St. Jean Baptiste. Skeletal material has been recovered on Beacon Island, Western Australia, as a result of the Batavia mutiny in 1629. Potentially, there are similar sites elsewhere such as known killings of coastal Indigenous peoples or, as in New Zealand, of French explorer Marion du Fresne and 24 of his crew, in 1772. In recent years, rock art at an inland site in the Northern Territory has been dated to establish when the Macassans began coming to Australia. These, and other examples, show that the boundaries of maritime discovery, exploration and archaeology extend well beyond the edge of the ocean.

Preliminary investigation into the provenance identification of 17th to 19th century Spanish coins recovered from Western Australian shipwrecks using Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry (LA-ICP-MS)

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Three hundred and six silver coins, or “pieces of eight”, from the collection of the Western Australian Museum were analysed using Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry (LA-ICP-MS). The coins are a selection from the shipwrecks Vergulde Draeck (1656), Zuytdorp (1712), Rapid (1811) and Correio da Azia (c. 1816), all wrecked off the coast of Western Australia. The coins represent four Spanish metropolitan mints and five Spanish American mints, and were minted between 1627 and 1816. LA-ICP-MS facilitated multi-element analysis without causing significant damage to the coins themselves. Thirty-eight elements were determined in triplicate for each coin, providing a unique elemental “fingerprint” for each coin. Data were interpreted using linear discriminant analysis (LDA), principal component analysis (PCA) and an in-house ranking algorithm.
which allowed the coins to be sorted into identifiable subgroups based on their trace and minor elemental composition. Chemical signatures, unique to their mint of origin and the sovereign under whom they were minted were identified in each coin. Differing ratios of elements within coins also reflects known debasements of currency in Spanish history. The search/match procedure has also provided preliminary identification of visually unidentifiable coins.

**Tasman’s abandoned anchor flukes**

**Presenter:**

**GRAHAME ANDERSON**
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On departure from Tasmania in 1642, an anchor used by one of Tasman’s ships arrived at the surface minus the wrought iron flukes previously attached to the lower end of its central shank. Their abandonment is noted in the records of the voyage. While examining them in a copy of the ship’s journal, I realised that the accuracy of the illustrations would enable me to identify their anchorage locations in New Zealand and Tasmanian waters.

In 1994, with the assistance of GPS, a proton magnetometer, a motor-yacht and experienced Tasmanian divers, I established the approximate location of the anchor. I went out again in 1997 but on this occasion, equipment failure and strong winds prevented recovery of the flukes. Similar problems prevented their recovery in early 2005 when Australians Ian Moffat, Stirling Smith and Brad Williams worked with myself and local divers to re-survey an area close to where previous expeditions had indicated magnetic anomalies. But days of extreme weather conditions—gale force southerlies and ice-cold temperatures—made it impossible to keep the dive boat sufficiently steady for diving. The anchor was not located on this occasion but the team recorded naturally occurring magnetic fields in the area, which added additional data to the project.

Two months later, with two Royal Australian Navy Mine Hunter ships, I went out to the anchorage again, this time accompanied by Dutch documentary makers but, after two days and nights at sea, urgent instructions from Navy headquarters in Canberra required us to leave the site for public relations reasons. On the way back to Hobart, having again failed to recover the artefact, the Navy put ashore at Port Arthur, leaving Tasman’s 17th century anchor flukes still on the seabed off North Bay.
Session 9: Capacity building in underwater cultural heritage—training needs, goals and realities

Session chairs:
- **Martijn Manders**
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- **Dr. Hans van Tilburg**
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Underwater archaeology is still executed by a fairly small community of professional archaeologists, a group unequal to meet the larger challenges of cultural resource management and preservation. With the UNESCO *Convention for the Protection of the Underwater Cultural Heritage* and its Annex in place, however, there is a clear need for more archaeologists and cultural heritage managers with knowledge in underwater archaeology to execute these responsibilities. Only then can they fulfill these needs.

What are the current tools and practices for increasing capacity in UCH management? Are there new initiatives? Is there a balance to be achieved between resource management needs and the amount of people trained? Are there any plans to train other stakeholders that also have their place in the management of UCH, such as law enforcement bodies or avocational divers? Is there a level of standardization or minimal requirements for this training? Papers for this session aim to address one or more of these issues and will—together with the other papers—form the basis for discussion about the needs, goals and realities of capacity-building in underwater cultural heritage management and underwater archaeology.

Capacity building in underwater cultural Heritage management: Setting standards with the UNESCO Foundation Course, Chanthaburi, Thailand

**Presenters:**
- **Martijn Manders**
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- **Christopher Underwood**
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Between 2009 and 2011, a venue had been established in Chanthaburi, Thailand, for capacity building in UCH management. This Regional Field Training Centre on UCH was established under the UNESCO regional capacity building programme entitled ‘Safeguarding the UCH in Asia and the Pacific’. This Centre has hosted a fieldschool for training in underwater archaeology and management. The fieldschool’s goals were to:

- Prepare participating countries for the ratification and implementation of the UNESCO 2001 *Convention on the Protection of the UCH*;
- Encourage close collaboration among participating countries and experts;
- Build regional capacity in the protection and management of UCH among participating countries;
- Professionalize maritime archaeology among those who are already involved in maritime archaeology;
- Encourage and assist participating countries in establishing their own maritime archaeology units;
- Promote a multidisciplinary approach to the protection and management of UCH;
- Provide a platform for effective networking among participating countries in the Asia-Pacific Region;
- Disseminate best practices among participating countries; and
- Sustain maritime archaeological programmes in the Asia-Pacific countries.

To fulfill these aims, the Centre provided two levels of training courses: foundation and advanced. Trainers have come from The Netherlands, Thailand, Laos, the Philippines, Australia, USA, UK and Argentina. For the project period, the following deliverables were formulated:

- A minimum of two foundation courses;
A minimum of two advanced courses;
Written curriculum materials for all courses;
A possible category II centre for UCH; and
Active networking and information sharing in the Asian-Pacific Region.

In total more than 70 students from 17 countries have been trained in UCH Management—an enormous achievement. This paper describes the background, delivery and results of this three-year project, and hopes to provoke discussion on the Centre’s future and quality of training in the international field of UCH management.

Underwater cultural heritage management in Kenya: Realities and capacity needs

Presenter: CAESAR BITA
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Kenya is the first sub-Saharan country to initiate an underwater archaeological expedition, thus, formally recognising the value of underwater cultural heritage. Over the years there has been a growing importance of underwater archaeology including management of underwater cultural heritage and cultural tourism in Kenya. With the immense potential of underwater heritage in Kenya, a new research and heritage management perspective was required. Underwater archaeology research and documentation, thus, becomes the way in the management and preservation of this invaluable heritage resource. Though Kenya has a large pool of archaeologists, only two have received training in underwater archaeology. This is compounded by the fact that underwater archaeology is not an established academic discipline in Kenyan universities making it expensive to train underwater archaeologists overseas. The limited number of trained UCH managers versus the larger challenges of UCH management and preservation is a major challenge. To increase capacity in UCH management, the country, through National Museums of Kenya (NMK), is organising stakeholder workshops to educate them on UCH. There is, however, a need for more such workshops to develop policies and legal tools (guided by the UNESCO Convention for the Protection of the Underwater Cultural Heritage and its Annex); train more people including the public; and collaborate with other countries more advanced in UCH management for Kenya’s effective management of such sites. These, however, may not be achieved without adequate training of more people in the field of underwater archaeology and cultural heritage management. This paper explores the realities and UCH capacity needs in the management of underwater cultural heritage in Kenya.

Developing the underwater cultural heritage tourism in Sri Lanka with special reference to the Underwater Cultural Heritage Tourism Project (UCHTP) of the Maritime Archaeology Unit, Galle

Presenters: AMA DAYANANDA
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Tourism is the main economic field of the post-war period in Sri Lanka and underwater cultural tourism is a developing field in this country. Presently, unregulated underwater cultural tourism programmes are conducted in Southern and other regions of Sri Lanka by local divers and diving centres. The Maritime Archaeology Unit (MAU), established in 1992, has been working on underwater archaeological research of the hidden marine heritage. MAU organised an Underwater Cultural Heritage Tourism Project (UCHTP) in 2012 to raise public awareness of the Underwater Cultural Heritage (UCH) in relation with the sustainable economic development. Transferring proper knowledge about UCH by the well-trained maritime archaeologists is the main goal of the project. The project is in collaboration with the Sri Lankan Tourism Promotion Bureau (SLTPB) which is one of the authorities of the tourism field in Sri Lanka. The project uses the expertise of the MAU and the material resource of SLTPB. MAU has trained young graduates with a specific degree in archaeology.
for the project in the skills of diving and in conducting research in underwater archaeology. MAU and SLTPB launched the first underwater cultural tourism programme on the 29th of March 2013 as a pilot project. MAU now plans to develop the human resource aspect with greater diving capabilities, literacy of foreign languages, proper tourism hospitality and knowledge on underwater cultural heritage to be used within the underwater cultural tourism project. MAU also carried out a training programme on cultural heritage with the nonprofit organisation, archaeology.lk and used media interviews, newspaper articles, official websites, and newsletters for getting publicity on underwater cultural project.

**Intangible heritage as a tool for underwater heritage conservation: An interdisciplinary approach to increase capacity for sustainable heritage safeguarding**

**Presenter:**
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This paper presents the possibilities and advantages of incorporating field studies on intangible cultural heritage (ICH) and community-based inventorying of indigenous cultural practices in the management and conservation of underwater heritage and the implementation of the UNESCO Convention on the Protection of Underwater Cultural Heritage (2001). The ICH discipline can be a tool for better capacity-building among UCH managers and can lead to a knowledge pool that involves more people and gives greater meanings to underwater sites.

The paper critically investigates research and field projects related to the promotion of traditional knowledge of seafaring communities in relation to the conservation of their cultural heritage sites. Although most of these undertakings geographically focus on Pacific sub-region, there are indeed good cases in other sub-regions of Asia, Europe, Caribbean, America, or even in landlocked countries with ancient waterways. These successful examples imply that intangible heritage perspective can provide more profound interpretations of value and integrity of tangible heritage, including maritime sites.

Despite that, there have been very few works directly addressing intangible heritage among UCH professionals. Main projects on underwater heritage protection today are still archaeology-heavy and technology-heavy, as the main concern has been to keep pace with looters, environmental change and industrial threats. Managerial professionals have overlooked that understanding the existing community's way of life can gain for them stronger support and channels for conservation against exploitation.

It is time that underwater heritage professionals explore more seriously cross-disciplinary efforts to upscale safeguarding capacity by involving bigger and grass-root communities as heritage stakeholders.

**Capacity building in underwater cultural heritage—training needs, goals and realities**

**Presenter:**
**ELIA NAKORO**
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The Fiji Museum is mandated under legislation to preserve Fiji’s tangible cultural materials for future generations. Although not specifically outlined in the legislation, however, the general clause covers any objects that are of archaeological, anthropological, ethnological, prehistoric or historical interest. As such, the Fiji Museum has collated information and constructed a shipwreck database of all known ships that have sunk in Fijian waters.

The institution is a statutory body of the Fijian government and is dependent on the diminutive government grant that is only adequate to cover staff salary. Thus, it is capable of huge improvements and its endeavors are limited and hindered by a lack of financial support. This is further aggravated by the frequent change in Government as grants received vary, often dwindling.

Fiji comprises more than 300 islands of which approximately 106 are inhabited. Enclosed with a total sea area of about 1,260,000km2 of its Exclusive Economic Zone, the History Archaeology...
Department of the Fiji Museum has already identified resource materials documenting more than 500 shipwrecks, a great number of which wrecked less than 50 years ago. Fiji has by far ratified two UNESCO Conventions on culture and heritage and currently preparing to ratify the Convention on the Protection and Promotion of the Diversity of Cultural Expressions. Administering the need to preserve all cultural and heritage aspects of Fiji, the Department of National Heritage, Culture and Arts (DNCHA) is also aware of the importance of underwater cultural heritage and will again be preparing the platform for the ratification of the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage soon. Prior to the ratification efforts, works are also underway in identifying areas that need to be strengthened in the current legislation on the preservation of cultural heritage and capacity building.

It’s only the world’s largest ocean—building capacity in the Pacific Islands region

Presenter:
DR. HANS VAN TILBURG
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In 2002, the United States National Oceanic and Atmospheric Administration’s (NOAA) Office of National Marine Sanctuaries launched its Maritime Heritage Program, designed to support maritime heritage discovery and preservation across its 14 marine sanctuary sites. Efforts in the Pacific build upon a decade of maritime archaeology field courses conducted by the University of Hawaii’s Marine Option Programme. Majority of projects focus on the Hawaiian archipelago and American Samoa, and significant discoveries has been made regarding historic Pacific whaling vessels, plantation-era steamships, and World War II aircraft and amphibious craft. NOAA’s maritime heritage efforts go beyond site assessments and research, so the related themes of training and information sharing, as well as engaging the public in support of preservation management, are very high priority topics. NOAA continues to lead collaborative field training courses in maritime archaeology surveying techniques (MAST class) with the University of Hawaii. NOAA’s archaeologists also teach Nautical Archaeology Society (NAS) introductory and part one courses to sport divers and dive shop owners, thus, bringing citizen “scientists” into the fold. Responsible heritage tourism, in the form of shipwreck heritage trails, is being discussed for the islands. In addition to this, NOAA supports a local three-day maritime heritage symposium in Hawaii (now in its 25th year), and is assisting in organising the second Asia Pacific Regional Conference on Underwater Cultural Heritage, to be held in Honolulu from 12 to 16 May, 2014.
Session 10: Poster presentations

Session chairs:

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Posters may cover any aspect of maritime archaeological research in Australian waters, however, posters about shipwrecks of significance to Australia, which are located overseas, are especially encouraged.

**Poster 1:**

**Investment for the future: The maritime archaeological explorations at a post-war area, along the east coast of Sri Lanka**

**Presenter:**
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The Maritime Archaeology Unit (MAU) of Central Cultural Fund (CCF) has been actively involved in protecting the UCH of Sri Lanka since it was founded in 1992. During the last few years, essential steps have been taken to develop the infrastructure and the human resources of the Unit. Six archaeology graduates who received special training under the MAU were recruited in 2011.

These new recruits went through a series of training such as swimming, snorkeling, lifesaving, first aid and basic diving. They were also introduced to the fundamentals of underwater archaeology and were encouraged to start their postgraduate studies and to gain their international diving license.

After a year of training they were directed to carry out an underwater archaeological investigation along the East coast of Sri Lanka from 13 June to 26 August, 2012. The exploration was scheduled in a favorable window to test their skills and training. The trainees were under the supervision of four senior maritime archaeologists. The northern and eastern areas of the country were freed after thirty years of terrorism in 2009. Consequently, more than two years were needed to secure the area from post-war hazards such as land mines. For the whole MAU team this was a new experience and an opportunity to search this area after a long period of inaccessibility. The team uncovered over 15 wrecks and four other underwater archaeological sites in the region.

**Poster 2:**

**Capacity building and forming strong relationship with a coastal community**

**Presenter:**
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Human presence in Sri Lanka dates back to some 150,000 years. The number of shipwrecks around the island is conservatively estimated at two hundred. As an island nation, situated at the cross road of the Silk Route of the Sea, Sri Lanka had maritime links with many seafaring nations, absorbed maritime traditions from all, preserved them and had a history of seafaring.

There are sufficient and powerful legal mechanisms to protect archaeological sites in the sea around Sri Lanka. These are afforded protection by the Antiquities Ordinance No.9 of 1940 and Antiquities (Amendment) Act No24 of 1998.

The general public is often the most helpful group for the protection of underwater cultural heritage sites. Forming a good relationship with the public is important both for information gathering and for
the protection of archaeological sites. As a result of good relationships with stakeholders, the institution was handed over 25 objects recovered from the western coastal belt of Sri Lanka. These objects are dated from first century AD to the 19th century. They include significant objects such as a Buddha statue, a stone bench and a bronze Dutch cannon. These reflect local traditions and artistic styles and eastern and western relationships. Through these objects given by the public the unit was able to identify some shipwrecks in this area.

Therefore, a rich underwater heritage exists in Sri Lanka, making the pursuit of maritime archaeology an attractive and exciting prospect in this country. However there is not enough involvement for protection of these recently identified sites on the western coast of Sri Lanka as a result of insufficient technical facilities and financial resources. However, without the good relationship with the coastal communities, it would be impossible to protect sites at all.

Poster 3:
**Changing the tides of legislation for ratification: Poster #1, Western Australia**

**Presenters:**
KURT BENNETT, LAUREN DAVISON, CELESTE JORDAN, CHELSEA COLWELL-PASCH, JOSH RUSS, JEFF SCHAEFFER, VANESSA SULLIVAN, ANDREW WILKINSON

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Australia and New Zealand have yet to ratify the 2001 UNESCO *Convention on the Protection of the Underwater Cultural Heritage*. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The first poster in this series of eight stipulates the required changes in the state legislation of Western Australia (WA). The data presented in this poster results from a review of literature, research into state and national legislation, the Convention itself, and correspondence with the Government of Western Australia’s State Heritage Office. This poster presents suggested legislative changes at a state level, in accordance with the 2001 Convention, which would make national ratification easier.

Poster 4:
**Changing the tides of legislation for ratification: Poster #2, Northern Territory**

**Presenters:**
KURT BENNETT, LAUREN DAVISON, CELESTE JORDAN, CHELSEA COLWELL-PASCH, JOSH RUSS, JEFF SCHAEFFER, VANESSA SULLIVAN, ANDREW WILKINSON

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Australia and New Zealand have yet to ratify the 2001 UNESCO *Convention on the Protection of the Underwater Cultural Heritage*. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The second poster in this series of eight stipulates the required changes in the state legislation of Australia’s Northern Territory (NT). The data presented in this poster results from a review of literature, research into state and national legislation, the Convention itself, and correspondence with the Heritage Branch of Northern Territory Governments Department of Lands, Planning and the Environment. This poster presents suggested legislative changes at a state level, in accordance with the 2001 Convention, which would make national ratification easier.

Poster 5:
**Changing the tides of legislation for ratification: Poster #3, South Australia**

**Presenters:**
KURT BENNETT, LAUREN DAVISON, CELESTE JORDAN, CHELSEA COLWELL-PASCH, JOSH RUSS, JEFF SCHAEFFER, VANESSA SULLIVAN, ANDREW WILKINSON
Australia and New Zealand have yet to ratify the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The third poster in this series of eight stipulates the required changes in the state legislation of South Australia (SA). The data presented in this poster results from a review of literature, research into state and national legislation, the Convention itself, and correspondence with the South Australian Heritage Branch under the Department of Environment, Water, and Natural Resources. This poster presents suggested legislative changes at a state level, in accordance with the 2001 Convention, which would make national ratification easier.

Poster 6:
Changing the tides of legislation for ratification: Poster #4, Queensland & Norfolk Island

Presenters:
KURT BENNETT, LAUREN DAVISON, CELESTE JORDAN, CHELSEA COLWELL-PASCH, JOSH RUSS, JEFF SCHAFFER, VANESSA SULLIVAN, ANDREW WILKINSON
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Australia and New Zealand have yet to ratify the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The fourth poster in this series of eight stipulates the required changes in the state legislation of Queensland (QLD) and the territory of Norfolk Island (NI). It should be noted that NI is a self-governing territory and, for this poster presentation, is placed with QLD because of geographic proximity. The data presented in this poster results from a review of literature, research into state and national legislation, the Convention itself, and correspondence with the Heritage Branch of QLD’s Department of Environment and Heritage Protection. This poster presents suggested legislative changes at a state level, in accordance with the 2001 Convention, which would make national ratification easier.

Poster 7:
Changing the tides of legislation for ratification: Poster #5, New South Wales & Australian Capital Territory

Presenters:
KURT BENNETT, LAUREN DAVISON, CELESTE JORDAN, CHELSEA COLWELL-PASCH, JOSH RUSS, JEFF SCHAFFER, VANESSA SULLIVAN, ANDREW WILKINSON
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Australia and New Zealand have yet to ratify the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The fifth poster in this series of eight stipulates the required changes in the state legislation of New South Wales (NSW) and the Australian Capital Territory (ACT). It should be noted ACT falls under NSW’s cultural heritage legislation. The data presented in this poster results from a review of literature, research into state and national legislation, the Convention itself, and correspondence with the Heritage Branch of NSW’s Department of Environment and Heritage Protection. This poster presents suggested legislative changes at a state level, in accordance with the 2001 Convention, which would make national ratification easier.
Poster 8:
Changing the tides of legislation for ratification: Poster #6, Victoria

Presenters:
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Australia and New Zealand have yet to ratify the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The sixth poster in this series of eight stipulates the required changes in the state legislation of Victoria (VIC). The data presented in this poster results from a review of literature, research into state and national legislation, the Convention itself, and correspondence with Heritage Victoria under the Department of Planning and Community Development. This poster presents suggested legislative changes at a state level, in accordance with the 2001 Convention, which would make national ratification easier.

Poster 9:
Changing the tides of Legislation for ratification: Poster #7, Tasmania & Australian Antarctic Territory

Presenters:
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Australia and New Zealand have yet to ratify the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The seventh poster in this series of eight stipulates the required changes in the state legislation of Tasmania (TAS) and the Australian Antarctic Territory (AAT). It should be noted AAT falls under Commonwealth legislation and is included with TAS due to geographic proximity. The data presented in this poster results from a review of literature, research into state and national legislation, the Convention itself, and correspondence with Heritage Tasmania under the Department of Primary Industries, Parks, Water and Environment. This poster presents suggested legislative changes at a state level, in accordance with the 2001 Convention, which would make national ratification easier.

Poster 10:
Changing the tides of legislation for ratification: Poster #8, New Zealand

Presenters:
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Australia and New Zealand have yet to ratify the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. In order to do so, national and state legislation pertaining to maritime cultural heritage need to be consistent with the aforementioned 2001 Convention. A series of posters titled “Changing the tides of legislation for ratification” discusses the legislative changes needed for Australia, its states and territories specifically, and New Zealand to meet the requirements for ratification. The eighth and final poster in this series stipulates the required changes in the national legislation of New Zealand. The data presented in this poster results from a review of literature, research into national legislation, the Convention itself, and correspondence with both the Heritage Services Branch under the Ministry for Culture and Heritage and the New Zealand Historic Places
Trust. This poster presents suggested legislative changes at a national level, in accordance with the 2001 Convention, which would make ratification possible.

Poster 11:
Project Njord: Survey and protection of a marine heritage site—the 1926–32 Norwegian Whalers’ Base, Rakiura/Stewart Island, a SCHIP cultural heritage project

Presenters:
MATTHEW SCHMIDT, ANDY DODD, MATTHEW CARTER, DAVID DUDFIELD AND JIM WATT
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A survey of the Norwegian Whalers Base in Prices Inlet, Stewart Island, New Zealand, was carried out between 7 and 12 March 2013. The project aims were to identify and report on the archaeological values of the site with the intention of preparing a case to have ‘The Base’ declared an archaeological site by the New Zealand Historic Places Trust. The Base included the remains of a slipway and a deliberately scuttled mid-nineteenth century ex-whaling vessel, the Othello. The survey included terrestrial and underwater recording of the base. This poster briefly outlines the results of that survey.

Poster 12:
Reassessment of the South East Asian shipwreck resources of the Western Australian Museum collection: Scientific analysis on lead ingots from the Ko Shi Chang and Pattaya shipwrecks

Presenters:
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The Western Australian Museum’s Maritime Archaeology Department was engaged in the pioneering underwater archaeological excavations of shipwrecks in Thailand in the 1970—80s. Excavations of the Ko Shi Chang and Pattaya wrecks revealed important results in the study of hull construction of South China Sea ships as well as South East Asian seaborne ceramics. However, methods of scientific material analysis applicable for archaeological artefacts were not as advanced as they are today. Thus, recently, researchers from the Institute for Asian Cultures at Sophia University (Japan), Centre for Forensic Science at University of Western Australia, Murdoch University and the Western Australian Museum conducted XRF (X-ray Fluorescence) and LA-ICP-MS (Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry) analysis on lead ingots from these Thai shipwrecks. The objective was to obtain qualitative and quantitative information on the ingots including their origin. This poster presents the advancement on the study of these artefacts with consideration on applicable methodologies on the South East Asian regional study of shipwreck cargo.

Poster 13:
A medical study of health and hygiene on board the Swan River Colony’s private merchant vessels of the 19th century

Presenter:
This research attempts to provide insights into the medical practices on board 19th century Swan River Colony merchant ships by qualitative analysis of the archaeological artefacts. Three shipwrecks of the James Matthews (1841), Eglinton (1852) and Sepia (1898), all merchant vessels carrying passengers and cargo to the Swan River Colony, are used as case studies.

Most maritime medical practices have explored the experiences of convicts, government-assisted emigrants and their surgeons voyaging to the colonies. However, little work has been done on the private merchant vessels. Furthermore, limited research has been conducted solely on the Swan River Colony and the conditions on board vessels and, in addition, most of these works are attributed to historical studies such as Bateson (1959), Haines (2005) and Foxhall (2012), rather than archaeological investigations.

The health and medical practices of 19th century Britain are considered in this research when investigating the conditions in which passengers and crew faced on voyages to the colonies as well as the advancements of maritime medicine with the advent of long voyages. It is hoped that archaeological examination of these merchant shipwrecks will fill gaps in information about the types of ailment crew and passengers suffered from, the types of treatments prescribed, and the types of medical equipment being imported into the colony.