

# **Maritime archaeology in New Zealand: trials, tribulations and opportunities**

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## ***Abstract***

New Zealand is an island nation that was initially settled via the sea firstly by Polynesian voyagers and later by a European maritime culture. These two groups traded and traversed in and along the coastline leaving considerable physical evidence of their seafaring ways. Today this maritime past is reflected in more than 2000 shipwrecks as well as numerous canoe landing sites, fish traps, inundated villages and sunken canoes.

Despite this wealth of underwater cultural heritage (UCH) and a strong legislative base for the protection of archaeological sites, maritime archaeology in New Zealand is significantly underdeveloped with no effective program for the management or protection of UCH. As a consequence the public of New Zealand rarely views shipwrecks and other UCH as sites that need to be protected. This lack of perceived value results in limited funding being available for the investigation or management of maritime archaeological sites and as such developmental pressures, commercial salvage and fossicking continue to damage this non-renewable resource.

Although these are major challenges there are still considerable opportunities for underwater archaeology in New Zealand. Increased awareness of underwater cultural heritage can be achieved by engaging the public in various ways such as through Australian Institute of Maritime Archaeology/Nautical Archaeology Society (AIMA/NAS) training courses. In addition, the global nature of New Zealand's maritime trade means that there is enormous scope for international collaboration between researchers at a diverse range of organisations around the world. Such actions would help provide the impetus for capacity building and the eventual establishment of an effective maritime archaeology program in New Zealand.

## ***Introduction***

New Zealand is an island nation that was initially settled via the sea firstly by Polynesian voyagers and later by a European maritime culture. These two groups traded and traversed in and along the coastline leaving considerable physical evidence of their seafaring ways. Notwithstanding this wealth of UCH and a strong legislative framework for the protection of heritage sites, maritime archaeology is significantly underdeveloped within New Zealand. As a result no formal positions exist for the research, protection or management of UCH. Despite this shortcoming, a number of maritime archaeological projects have been undertaken by volunteer groups with considerable success. These projects have shown the potential that the investigation of UCH has to contribute to our understanding of New Zealand's past and the opportunities that exist for maritime archaeology in the future.

## ***New Zealand's Underwater Cultural Heritage***

New Zealand's diverse topography means that UCH is not restricted to the open sea but also includes sites in estuaries, rivers, streams, lakes and swamps. These waterways include both those of natural occurrence and those created or maintained through human intervention. Where they remain in a largely unmodified state, New Zealand's waterways and wetlands have yielded significant archaeological finds. They have potential to preserve significant archaeological information relating to

New Zealand's maritime heritage. The UCH of New Zealand includes both resources of Maori and European origin. The underwater resources of European origin cover the period of the maritime exploration and the colonisation of New Zealand (1769-1900 A.D.) and include around 1500 documented shipwrecks (of which only around 10% have been relocated), military sites, wharves, navigation markers, ballast dumps, slipways and debris (Dodd 2003:151; Churchill 1991:7). Equally important are Maori underwater heritage sites which date from as early as the mid thirteenth century (Higham and Jones 2004:215). These sites include canoe landings, eel weirs, fish traps, inundated villages and sunken canoes (McCarthy 2006:9; Gumbley *et al* 2005; Campbell 1977:139). All of these resources offer significant opportunities for maritime and underwater archaeology as well as the potential for advancement of terrestrial archaeology through the provision of comparative assemblages and material culture that does not survive in a dry environment.

### ***Threats to Underwater Cultural Heritage***

As an island nation many New Zealanders feel a strong connection with the ocean and waterways and as a result an attitude of open availability and equal participation in relation to marine resources is widespread. Perhaps as result of this outlook many divers believe sites such as shipwrecks are available to all and that anyone has the right to take artefacts or items off them (Dodd 2003:151). Unfortunately such unregulated fossicking leads to a fragmentation of the material culture and a loss of context, thus essentially limiting the material's usefulness in scientific inquiry (Green 2004:10). Furthermore, such looted materials are rarely conserved properly and are often lost to all through corrosion or decay (Churchill 1991:8). In addition, coastal and inland underwater sites are also becoming increasingly threatened by the plans of other users of the coastal marine area who place pressure on these sites through the construction of infrastructure such as marinas, port expansion, undersea pipelines and drilling, and carry out activities such as dredging, marine farming and mineral extraction. These developments often disturb the equilibrium of the environment which has preserved the underwater site and may accelerate the processes of site destruction. UCH resources in New Zealand are also threatened by natural post-depositional processes which include sedimentation, currents, corrosion, marine growth, and mechanical disturbances due to wave action and earthquakes (Gould 2000:2). These natural and cultural processes threaten our underwater heritage and as such have significant implications for the protection, preservation and management of UCH in New Zealand.

### ***Heritage Legislation in New Zealand***

The protection of New Zealand's cultural heritage resources (including terrestrial and underwater archaeological sites) is provided for by three main acts: the *Protected Objects Act* (1975), the *Resource Management Act* (1991) and the *Historic Places Act* (1993). These acts combine to create a legislative landscape that is supportive

to the protection and management of historic heritage (Vossler 2000:68). Despite the fact that this legislation provides the basis for the control and sponsoring of both submerged and terrestrial archaeology in New Zealand, its application to underwater cultural resources has yet to be undertaken in a systematic or significant way (Dodd 2003:151; McKinlay 1977:23).

### **Protected Objects Act 1975**

The *Protected Objects Act* provides for the protection of certain objects by regulating the export of protected New Zealand objects and also allows for the ownership of ngataongatuturu (Maori artefacts) to be awarded through the Maori Land Court. The *Protected Objects Act* repealed the *Antiquities Act* 1975 in 2006 and makes it unlawful to export *Protected Objects* without a certificate of permission from the Ministry for Culture and Heritage who administer the Act.

Protected New Zealand objects are objects:

forming part of the movable cultural heritage of New Zealand that - (a) is of importance to New Zealand, or to a part of New Zealand, for aesthetic, archaeological, architectural, artistic, cultural, historical, literary, scientific, social, spiritual, technological, or traditional reasons; and (b) falls within 1 or more of the categories of protected objects set out in Schedule 4 (*Protected Objects Act* 1975: section 2).

Schedule 4 of the Act includes, “New Zealand archaeological objects. This category consists of any objects, assemblages, scientific samples, organic remains derived from a New Zealand archaeological site, as defined by the Historic Places Act 1993” (*Protected Objects Act* 1975: schedule 4). In this way the *Protected Objects Act* can be used to protect artefacts from underwater cultural heritage sites from being exported out of New Zealand.

### **Resource Management Act (1991)**

Although the *Resource Management Act* (RMA) is not primarily concerned with the protection of heritage resources, it provides considerable scope for the management of terrestrial and submerged archaeological sites. The purpose of the act is to ensure the sustainable management of natural and physical resources (RMA section 5). Under this Act archaeological sites are considered ‘physical resources’ and local authorities are required to recognise and provide for the protection of historic heritage as a matter of national importance (RMA section 6). Under the RMA the role of local authorities includes:

The preservation of historic heritage from inappropriate subdivision, use and development. And recognition of the relationship of Maori and their culture and traditions with their ancestral lands, waters, sites, waahi tapu and other taonga. (RMA Section 6)

The influence of the RMA on archaeological practice is twofold. Firstly the RMA requires an assessment of environmental effects when applying for resource

consent. This assessment process includes both terrestrial and underwater archaeological sites and the consent may not be given if such a site is threatened by the intended development (Walton and Keefe 2004:271; Gumbley *et al.* 2005:19). The second influence of the RMA is increased responsibility for councils in identifying and managing historic heritage. Regional councils and local authorities must now have plans, rules, policies and objectives as to how they will manage the matters that the RMA puts within their responsibility (Gumbley *et al.* 2005:18). Regional and local authority plans are reviewed on a ten yearly cycle, however, with the exception of the Auckland Regional Council, few plans adopted policies and schedules specific to the protection of historic heritage in the coastal marine area, but this is becoming more common in second generation plans.

### **Historic Places Act (1993)**

The *Historic Places Act* (HPA) provides the primary legislation for heritage management in New Zealand (Walton and Keefe 2004:273). The purpose of this act is to “promote the identification, protection, preservation, and conservation of the historical and cultural heritage of New Zealand” (HPA section 4). This Act defines archaeological sites as:

...any place in New Zealand that –

Either –

- (a) Was associated with human activity that occurred before 1900; or
- (b) Is the site of the wreck of any vessel where that wreck occurred before 1900; and
- (c) Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand (HPA schedule 2).

In relation to archaeological practice, the HPA established a system for the control of works that could adversely affect an archaeological site (Vossler 2000:62; Barber 2000:25). At the centre of this management system is the New Zealand Historic Places Trust (NZHPT) whose purpose is to promote and preserve the historic and cultural heritage of New Zealand. The NZHPT principal statutory functions are the registration of historic places, advocacy and public education (<http://www.historic.org.nz/>). The NZHPT also exercises statutory power to protect archaeological sites through the HPA which essentially imposes blanket protection for both terrestrial and underwater archaeological sites making it illegal for any person to destroy, damage or modify any part of a site without an authority obtained from the Historic Places Trust (Barber 1998:59). The provisions of the HPA apply to archaeological sites irrespective of whether they are currently registered or recorded (Vossler 2000:64).

## ***History of Underwater Archaeology in New Zealand***

Sports diving in New Zealand began in the 1950s, and a number of diving clubs started up around this time (Gordon 1999). The earliest underwater shipwreck surveys in New Zealand were undertaken in the 1960's by pioneers such as Kelly Tarlton however, the prevailing philosophy of the time was directed towards salvage and exploration rather than preservation and conservation (Sale 1988:182; Dodd 2003:155). In recent years the practice of underwater archaeology in New Zealand has been furthered in three main ways; through the work of volunteer groups, the teaching of AIMA/NAS training courses and the registration of shipwrecks as historic places.

### **Avocational projects**

The need to control and direct maritime archaeology in New Zealand led to the establishment of the Maritime Archaeological Association of New Zealand (MAANZ) in 1989 (Churchill 1991:7). Through this association a number of underwater and maritime heritage sites have been subject to archaeological attention.

### **Mahanga Bay wharf**

A series of coastal military defences were built around New Zealand in the 1880s, in response to a perceived threat from the Russian navy. A small wharf was built in Mahanga Bay on the Miramar Peninsula in Wellington to service the torpedo boats that were stationed there. In 1993-1994 and 2000 MAANZ undertook a survey and investigation of the remnants of the historic wharf. The purpose of this work was to locate and map the remains of the wharf and associated artefacts. The history of the construction, use and demise of the wharf was also researched and a report published (MAANZ 2005).

### **Surveying & condition report on *Hydrabad***

The square rigged sailing ship *Hydrabad* was wrecked on Waitarere Beach (north of Wellington) in 1878. Successive storms and dynamic beach action have left the wreck well above high water mark. The wreck is now inundated with sand, and is periodically uncovered and re-covered through storm and wind action. The Waitarere Residents Association invited MAANZ to undertake an investigation of the wreck to help in decision making on the future of the wreck. This investigation was undertaken in 1997 and involved the mapping and assessment of the wreck site and the taking of samples to assess the composition of the ship. A report was compiled outlining the history of the ship and also the results of the survey (MAANZ 1998) and the site continues to be visited and photographed by MAANZ members. The Horowhenua District Council has recently installed updated interpretative signage at Waitarere and the site was nominated for historic place registration by MAANZ in 2010. It was assessed by NZHPT and awarded category II historic place registration in 2011. This officially recognised the wreck site as a place "of historical or cultural heritage significance or value to New Zealanders" (HPA section 23).

### **Mapping & park proposal for Evans Bay Patent Slip**

A patent slip operated at Evans Bay on the edge of the Wellington Harbour from the 1870s until well into the 20<sup>th</sup> century. The rails of the slipway remain intact, as does buried slipway machinery. MAANZ supervised a geophysical survey of the site to determine the amount of subsurface equipment still extant, and successfully lobbied the city council to extend the extent of the protected heritage area.

### **Inconstant project**

The *Inconstant* was wrecked on Wellington's coast in 1849, and refloated on the coastal edge of the city as a floating warehouse and bond store. The ship was eventually inundated by reclamation and revealed again during refurbishment of the overlying historic buildings in 1996. Archaeologists revealed and recorded the fabric of the ship, some of which remain in situ and on public display. MAANZ members were actively involved in the processing and curating of artefacts from the site (O'Keeffe 1993).

### **On-going conservation of artefacts on the Hikitia**

In 1997 MAANZ had opened their dedicated conservation laboratory aboard the *Hikitia*, one of the two remaining floating cranes in the world. MAANZ converted one of the below decks spaces into a laboratory to conserve objects from maritime archaeological sites. The lab operates on a volunteer basis and is available to conserve objects for the general public and museums. The lab is also a key resource for the association's education and information program. The activities of this avocational body have greatly furthered the development of maritime archaeology in New Zealand.

### **AIMA/NAS courses**

Six AIMA/NAS courses have been run in New Zealand since 2002. These courses are targeted towards providing recreational divers with basic information about underwater archaeology, site recording and conservation. The first AIMA/NAS Training courses in New Zealand were held in February-March 2002 by Mark Staniforth and Cosmos Coroneos who conducted two Part 1 Training courses at the Museum of City and Sea, Wellington.

Three further Part 1 & 2 courses were run in November-December 2008 in Auckland, Wellington and Dunedin. Peter Ross and James Hunter tutored the courses which were facilitated by Department of Conservation and also included input from Otago and Auckland University specialists in underwater photogrammetry and wet wood conservation. In June 2011 a Part 1 course was run in Tauranga by Andy Dodd and Robert Brassey for divers involved in the ss *Taupo* recording project being coordinated by Shane Wasik. These courses have promoted the field of underwater archaeology to a diverse range of interest groups.

## **NZHPT shipwreck registrations**

Shipwreck sites and sites in the coastal marine area have been under represented in New Zealand's Historic Places Trust Register. The first ship wreck to be registered was the ss *Victory* (no.5712), wrecked on the Otago Peninsula in 1861 and registered in 1985. In more recent years new registrations have included the 1881 ss *Tararua* wreck site, cemetery and Waipapa Lighthouse (no.7785) registered 2009, ps<sup>1</sup> *Tasmanian Maid* wrecked off New Plymouth in 1868 (no. 9521) and ss *Alexandra* wrecked off Puke Aruhe in 1865 (no. 9520) both registered in 2010, and the 1878 *Hydrabad* wreck site at Waitarere Beach (no. 9559) registered 2011. By placing these ships on the Historic Places Trust Register they are provided with a greater level of protection and increased public awareness about these unique sites.

## ***Opportunities for the Future***

New Zealand has a small but active number of technical divers who regularly dive shipwrecks at depths of 40-120 metres. Collaboration with these highly skilled and trained individuals offers the opportunity to investigate shipwrecks that have only been minimally impacted by the actions of divers. Such cooperation has the potential to not only gain valuable information from these archaeological sites but also to establish a principle of custodianship which would help protect these wrecks for future archaeological investigation.

Further AIMA/NAS courses for recreational divers in New Zealand could improve diver appreciation of shipwreck conservation and may encourage some people to seek further education in maritime archaeology. It can also be a positive means of promoting a responsible attitude towards wreck diving amongst dive clubs and shops that might see value in promoting the conservation of local shipwreck sites. To date, courses have only been held in a limited number of locations around the country. By ensuring that courses are spread more evenly around New Zealand more divers will be able to attend and become involved in maritime projects. Encouraging archaeology students from Auckland University and the University of Otago with an interest in maritime history and archaeology to attend these courses may also mean more students formally incorporate maritime archaeology into their studies.

New Zealand's rich maritime heritage includes a tradition of Colonial shipbuilding and repair that is represented in the archaeological record in the form of shipwrecks and other maritime infrastructure. In Australia the archaeological study of Colonial shipbuilding has been a major area of research within the field of maritime archaeology (e.g. see Coroneos 1996; Bullers 2006; O'Reilly 2007). This research has provided a great deal of information about the construction of early Australian built wooden sailing vessels and the role of shipbuilding in Colonial society. Like Australia the archaeological investigation of shipwrecks and shipbuilding yards

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<sup>1</sup> paddle steamer

around New Zealand has the potential to significantly increase our understanding of this formative industry and could provide an area for Trans-Tasman research.

A notable component of the maritime archaeological record of New Zealand is the presence of ship's graveyards which are found within a number of the country's harbours. The vessels that make up these graveyards have considerable archaeological value with the potential to offer insights into, not only, propulsion and shipbuilding technologies from the 19th and 20th centuries but also the diversity of craft that plied the waterway of New Zealand. Such archaeological investigations could facilitate the comparison and contrast of abandonment processes in relation to ship's graveyards around New Zealand and also with such work undertaken internationally.

## **Conclusions**

New Zealand has a rich maritime heritage which is evidenced by a range of UCH sites of both Maori and European origin. Unfortunately the underdeveloped nature of maritime archaeology in New Zealand means that this resource suffers from a lack of active management and protection. As such, much of the maritime archaeological work that has taken place in New Zealand has been undertaken by volunteers. It is hoped that by working with such interested parties and collaboration with international researchers will help to provide the impetus for capacity building and the eventual establishment of an effective maritime archaeology program in New Zealand.

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