The Fiji Museum’s efforts towards the Preservation of Underwater Cultural Heritage Sites in Fiji

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Abstract
Fiji’s 300 isles are enclosed within a total sea area of about 1,260,000km$^2$ of its Exclusive Economic Zone and to date very little work has been carried out on underwater and maritime archaeology. Resource materials documented by the Archaeology Department of the Fiji Museum have identified more than 500 shipwrecks, a great number of which were wrecked less than 50 years ago. The establishment of an Underwater Unit at the Fiji Museum is needed to safeguard the nation’s underwater historic sites and raise awareness towards understanding the untold sunken mysteries that connect Fiji to the world; however there are several issues that need to be addressed in order for this Unit to be established and run effectively. This paper discusses the need for further capacity building and training in Underwater Cultural Heritage (UCH) studies to successfully document, survey and protect Fiji’s underwater cultural sites. Furthermore, the area of developing policy papers, funding proposals and the documentation of findings will also require special attention to sustain UCH projects. Alike the other developing countries, the paper highlights the daunting challenges that face the Fiji Museum including the lack of human resources, equipment and above all insufficient funding to carry out this much needed work.

Key words: Capacity building, Collaboration, Levuka Town, Sacred, Underwater Cultural Heritage, World Heritage Site

Introduction
The Fiji Islands
The Republic of the Fiji Islands encompasses a group of over 300 volcanic island landmasses, of which over 100 islands are inhabited. Fiji is located in the tropics of the southern hemisphere and has a total land area of approximately 18,300km$^2$ that covers the region positioned between a latitude of 12N-21°S and longitude 176°E-178°W (Fig. 1). Fiji has two main islands namely, Viti Levu and Vanua Levu and approximately 80% of the population resides on these two islands the majority of which is located in rural areas and about 40% of the people dwelling in urban areas. 83% percent of land is owned by indigenous Fijians while nine percent is State owned and eight percent is
Freehold land (Ministry of Information, Communications and Media Relations, 2006). The Fiji group is situated in tropical waters, surrounded by coral reefs and considerable variation in the physical island formations histories enclosed within a total sea area of about 1,260,000km² of its Exclusive Economic Zone where more than 500 shipwrecks have been documented, a great number of which were wrecked less than 50 years ago.

Fig. 1 Map of the Fiji Islands. (Nakoro, 2014)

A Brief History
Fiji has a colorful past of tradition and culture. The first settlements in Fiji were constructed by voyaging traders and settlers from the west about 3500 years ago. Voyaging and settlements in this period were associated with the manufacturing of Lapita ware of distinctive intricate dentate stamped motifs. Western influence of European traders began in 1800 as Oliver Slater, a survivor of the ship Argo, which was wrecked near Oneata, an island in the Lau group discovered sandalwood at Bua.
Bay on Vanua Levu. This was followed by sandalwood traders, beachcombers, whalers, beche-de-mer traders and missionaries (Williams, 1858). However, in the early seventeen and eighteenth century, European explorers began to discover the Fiji group of islands and other Pacific Islands in the exploration of the South Seas. Islands were charted from aboard ships with the fear of local hostility. During the sandalwood trade, beachcombers were welcomed by Fijian chiefs as they brought with them new ideas on life and knowledge of western technology including firearms. These were shipwrecked sailors, runaway convicts from New South Wales and ship deserters as they escape harsh conditions on board, low wages and severe punishments (Donnelly et al., 1994). In the early 19th century, exploration journals and missionary records described hostility and settlement fortifications (Donnelly et al., 1994). In the pre-history context there are no written records however there were social structures that defined roles in a community together with visual evidence and oral stories being passed down from one generation to another or through ceremonies and rituals. In order to preserve and hold such cultural wealth of the nation in trust for all generations, the Fiji Museum was established.

**The Fiji Museum**

The idea to have a museum was first mooted in 1904 where donations from the first colonial administrations made up the initial collection exhibited for public display. Today, over a century since its operations began, the institution showcases and stores treasured cultural artifacts and memories of the past and is responsible for the collection, documentation, exhibition, conservation and preservation of Fiji’s significant cultural artifacts and sites of local and national heritage. The Fiji Museum holds a remarkable collection, which includes archaeological material dating back to about 3,500 years ago and cultural objects representing Fiji’s indigenous inhabitants as well as other communities that have settled in the island group over the last century, items from its Pacific Island neighbors, and from around the world. The significance of the institution is in documenting historical events, conducting research, education, public outreach and keeping cultures and history alive. In addition to focusing on local cultural material - the institution also aims to strengthen a regional study and the collection of cultural materials of the South Pacific.
Organizational Structure

Governed by the Fiji Museum Act1 and the Preservation of Objects of Archaeological and Palaeontological Interest Act2, the institution is a statutory body that comes under a Board of Trustees. The Fiji Museum has six professional departments namely the Conservation department, Education department, Collections department, Pre-history Archaeology department, Historical Archaeology department and Exhibitions department. These departments form the core functions in the maintenance and operations of the institution however these departments function with little funds.

The Archaeology Department

The Archaeology unit of the Fiji Museum was established in 1995 and consists of two sections: (1) Pre-history Archaeology Department and (2) the History Archaeology Department. The legislation that governs the work of the department was endorsed by cabinet in 1940. Fiji’s pre-history period was confirmed from results of an excavation in 2003 that was collaboratively undertaken by the Archaeology Department and the University of the South Pacific, Fiji to be approximately 3050 years BP/1100 BC to European contact within the group. The first Europeans to have engagements with native Fijians were European explorers where Abel Janzoon Tasman visited Fiji waters in 1643. However during the sandalwood trading around 1800 Europeans heavily interacted with the natives in the purchase of sandalwood. The findings of the earliest settlement southwest of Fiji predate most oral narratives known by Fijians today. The History Archaeology Department deals with all the events and history from the European contact period to the present day. The Department of History Archaeology’s role in the museum is to identify sites, conduct research, and provide protection for historic sites, which also includes maritime sites. In this capacity, the department carries out legislative review, identification and recording of all historical sites, and cultural heritage management related activities. The department also assists in the enforcement of the legislation "the Preservation of Objects of Archaeological and Palaeontological Interest Act" around the Fiji Islands. The History Archaeology
Department maintains a register of all historical sites. This is an ongoing project through which a comprehensive database of all known historical sites is being compiled. The department is interested in documenting as many heritage buildings in Fiji, especially in Suva, Levuka and the sugar producing towns where many colonial buildings are situated and also documenting significant cultural heritage sites not to mention the recording of all maritime and underwater cultural heritage sites.

**The Archaeology Department’s Legal Frame Work**

The Fiji Museum’s Archaeology Departments administers the legislation under the Laws of Fiji: Chapter 264, which is the Preservation of objects of Archaeological and Palaeontological Interest Act. Under the legislation it requires the Archaeology Department to promote and preserve all objects that include any erection (buildings), memorial (monuments), tumulus (burial mounds), cairn (pile of stones), place of interment (cemetery), pit-dwelling, trench (war ditches), fortification stone walls, irrigation works, mounds, excavation (for research purposes), caves, rock drawings, paintings, sculpture, inscription (carving of words on rocks etc), monolith (sacred rocks), or any remains thereof, fossil remains of man or animals or plants or any bed or beds containing such fossil remains thereof, or any object (or any remains thereof) which is or are of archaeological, anthropological, ethnological, prehistoric, or historic interest, and includes - (a) the site on which such object of archaeological or palaeontological interest was discovered or exists; (b) such portion of land adjoining the said site as may be required for fencing or covering in or otherwise preserving such object of archaeological or palaeontological interest; and (c) the means of access to and convenient inspection of such object of archaeological or palaeontological interest.

**Underwater Cultural Heritage in Fiji**

Some work has been accomplished in the last few years in an effort to establish the foundation of collating data on underwater cultural heritage focusing on shipwrecks and implement protection procedures on these sites. However, the importance of being aware of the existence of these heritage sites forms the basis of taking such a bold step. The Historical Archaeology Department to date has managed to compile a national shipwreck database (Fig. 2) that maps out a plan of action on work that needs to be undertaken to safeguard these valuable and historic heritages. This research has been
carried out over several years by looking at archival literature records, archived newspapers and maritime records of the country. As a result, research showed that Fiji has a total of more than five hundred (500) documented shipwrecks on its territorial waters. These include both old and new shipwrecks within the last 10 years. As illustrated in the image above, the database is maintained using Microsoft Office Access and it will continue to be modified in the future to also capture images of the ship before and after it wrecked once a full-scale research has been conducted. Since Fiji is lacking legislative cover on underwater cultural heritage, the Fiji Government (Department of National Heritage, Culture and Arts under the Ministry of Education), is giving its full support and backing to oversee and assist in the process of producing legal documents. As we convene, there is a team responsible for drafting and reviewing the current legislation Chapter 264: Preservation of Objects of Archaeological and Paleontological Interest to include specifically the safeguarding of underwater and maritime cultural heritage.

![Fig. 2 A glimpse of Fiji’s shipwreck database. (Fiji Museum, 2014)](image-url)
Underwater surveys
A single underwater survey has been undertaken in Fiji to date by a diving team from the Australian National Maritime Museum (Fig. 3). The team comprised of Mr. Kieran Hosty, Mr. Paul Hundley and a staff member of the Archaeology Department of the Fiji Museum who conducted surveys of the harbor of Levuka Town for the nomination of the town as a World Heritage Site. The township of Levuka on the island of Ovalau is located on the east of the main island Viti Levu and is home to British colonial building structures. It is a living town and the only one in the Pacific. Several English merchant schooners are submerged in the harbor of Levuka. For this purpose, the underwater survey was carried out to assist in the nomination document, identifying the core zone for the town and the buffer boundary as a world heritage requirement and also provide protection on these sunken vessels. The Levuka World Heritage local committee was able to draft a new legislation that included the protection of shipwrecked vessels in the Levuka Bay. The Fiji Government has since completed the submission and the nomination of the township of Levuka to the World Heritage Committee and the town has been inscribed as a World Heritage cultural site, however the effort to include the shipwrecks as a component of the nomination was later withdrawn with legitimate reasons for management of the nominated properties.

Types of Maritime Cultural Heritage sites in Fiji
In addition to shipwrecks, there are other underwater and maritime cultural sites from myths and historical accounts to be considered such as the use of traditional canoes, sunken double hull canoes, sunken settlements, fish traps and sharpening stones that represent ideal potential projects in the exploration and preservation of underwater cultural heritage. The types of maritime cultural heritage sites in Fiji are summarized below:

1. Sacred Canoes or Waqa Tabu (Drua)
In the 1800s, Europeans were amazed with the majestic naval fleet that the native Fijians were using. These boats known as the waqa drua (double hull) or waqa tabu (sacred) are said to be the biggest of all the types of canoes used in Fiji. It was also sacred as its construction was fitted for high chiefs. Generally acknowledged as the
finest two-hulled sailing vessels, the largest of these required 50 men to navigate and in war might use up to 100 –but it could transport 300 or more warriors– and was claimed to have sailed faster with the wind than the European vessels that visited the Fiji Islands in those days. The canoe was structurally unlike other sea-going canoes, although it sailed by similar techniques, the hulls being made from fitted planks, not dugouts. Moreover the deck was a platform resting across the two canoes. To all who shared in the activities and the rituals of the construction and the launching this was indeed a sacred canoe. Every feature had its particular function and the craft were superbly handled by none better than the Bauan navy (Tippett, 1968). There is great traditional ceremonial sacrifice attached with the construction of a new *drua*, which begins from the initial process of tree felling which is associated with songs, chanting while hauling the fallen tree for the keel and feasting once hauling. It is said that it could take five to seven years for the *drua* construction. At the launching of the new *drua*, many lives were lost as the *drua* slid on the sea of blood of slaves who served as rollers under its massive hulls (Tippett, 1968). There are also claims that these majestic *drua* lay buried under one of the major river system of Fiji, the Rewa River or Wailevu. This river system was an active pathway during the reign of Ratu Seru Cakobau, the self proclaimed king of Fiji. Ratu Cakobau originally was from the island of Bau, a small island off the eastern coast of the main island and was constantly engaged in war in his effort to unify the islands under his authority.

2. *Fish Traps (Impounding enclosures of stone-Moka)*

Fish traps are found in most parts of the islands and most field tours on Viti Levu have revealed the remains of these enclosures occur along the western coast and the islands off the mainland. This method of trapping fish is by means of low walls of boulders set out in horseshoe form between tide marks and is one of the most primitive methods of fishing, maybe the earliest of the efforts of early man to devise a mechanical arrangement for the automatic capture of fishes (Hornel, 1940). Very little has been documented about the construction and the use of these stonewalls however it has been generally described by early researchers.

3. *Sunken Islands and Settlements*
Vuniivilevu and Burotu are two islands in Fiji that allegedly ‘vanished’ (Fig. 4). Vuniivilevu is located in the Lomaiviti group, east of Viti Levu and it was believed to have disappeared as a result of collapse of part of the Viti Levu insular shelf between 1200 and 1600 AD (Nunn et al., 2005). According to informants and oral narratives collected by Nunn et al., (2005) Vuniivilevu was inhabited and residents dispersed to neighboring islands and other parts of Fiji. The island was believed to have disappeared as punishment for the excessive cannibalism and disobedience to the Gods according to other accounts. While some parts of the province of Tailevu have close attachments and rituals connected to the sea area where Vuniivilevu used to be, the area is said to be sacred where most seafarers pay great respect when passing through. In 2012, Valentin Bayer, a German tourist on Caqalai Island discovered a piece of pottery while snorkeling northwest of Caqalai Island. The remnant pottery was the neck of a clay water container, depicted in (Fig. 5). The finding may provide evidence that Vuniivilevu was initially an inhabited island before submerging. Burotu is another example of a mythical island, which appears occasionally in the Lau group specifically near the island of Matuku. It is also sometimes referred to as Burotukula (kula is red) because of the reported redness of many things on the island. Villagers of Levukaidaku claim that at times they do come across burnt-out fishing torches of coconut fronds believed to have been used on the island of Burotukula the night before. There are also occasions where red feathers were washed ashore. There is also a myth that says the island is occupied by beautiful women. A number of oral traditions were collected firsthand from Matuku Island in December 2003.
The key aspect of the story of Burotu that distinguishes it from many others involving vanished islands in the Pacific is that Burotu allegedly reappears and disappears periodically (Nunn et al., 2005). The last sighting of Burotu was reported by a school Head Teacher, Mr. Emitai Vakacegu in 2003 at 6 am. The school teacher and his
students witnessed the 30 minutes glimpse of the island over the horizon of Levukaidaku village. Other sightings of Burotu were reported in 1933, 1948, 1953, 1980-83, 1993, and 1995 (Nunn et al., 2005). In 2011, villagers from a community in the Province of Tailevu recovered pottery sherds from Moon Reef five kilometers off the eastern coast of Viti Levu. Moon reef is crescent shaped where tourists go for snorkeling and to watch dolphins and villagers believe that Moon Reef used to be an island. Similarly, in the Lomaiviti (central Fiji) group, a former Fiji Museum Archaeology staff, Mr. Kolinio Moce describes a sunken settlement more than five kilometers on the reef off Nukuloa village on Gau Island. According to Mr. Moce the settlement contains pillars and several whole clay pots that have become overridden with corals and algae over the years.

**Limitations in the Fiji context**

Over the past years the museum has struggled in its efforts to safeguard and preserve Fijian cultural material. While the institute has huge potential for improvements, its endeavors are limited and hindered by a lack of funding. The frequent changes in Governments have impacted the operations of the Fiji Museum as grants received vary, often dwindling. The current regime provided the museum with an annual grant of $230,000 used mainly to cover the operational costs such as staff salaries. Additional costs- such as field expedition expenses -are covered through community sponsorship or via proceeds collected from visitors to the museum, which comprise an average of about 21,000 local visitors (school students being the majority) and between 9,000-12,000 tourists annually. In recent times, the department has been overwhelmed with the great influx of local interests from traditional land owning units. The rate of development has accelerated recently and a number of sacred sites have been decimated as a result. The work required to run an effective Underwater Unit is hindered by a lack of skilled staff and the Fiji Museum is barely managing to achieve goals in the vocation to protect and monitor Fiji’s national tangible cultural heritage at present. While Fiji has been represented in two foundation courses that were organised by UNESCO Bangkok, the capacity and facilities required for training including storage, lab equipment and diving gears are lacking and unlikely to happen without financial support from outside donors. To date the existing database has been constructed using
secondary information and reconnaissance surveys to confirm the existence of shipwrecks and pinpoint their exact locations have not been undertaken. A big threat to underwater cultural heritage are the booming scrap metal industries that pay good money for scrap metal that can be sourced from just about anywhere. Underwater treasures are accessible only to those who have the resources to obtain it- from fishermen to sports/leisure divers and as there are no records to begin with and Fiji’s legal framework does not have specific provisions for the preservation of maritime sites and underwater shipwrecks – potential cultural sites are at great risk of being lost.

**The Way Forward**

Fiji has ratified two UNESCO Conventions on culture and heritage and is currently in the process of preparing the ratification of the Convention of the Protection and Promotion of the Diversity of Cultural Expressions. The Fiji government is also concerned with the state and protection of Fiji’s underwater cultural heritage sites and is also supporting the need to deliberate on the 2001 Convention as soon as possible, with discussions earmarked for 2015. Networking and the involvement of key stakeholders at the local, regional and international level is necessary for this undertaking. For example, the Applied Geosciences and Technology Division (SOPAC) conducts marine geophysics surveys within the Pacific region and the Historical Archaeology Department has begun networking through dialogue to promote future collaboration once the underwater unit is successfully established. There is also a need for assistance in the form of awareness and capacity building at local and regional levels. Relevant experts from UNESCO and within the realm of the UCH fraternity are needed to provide guidance through the provisions in the convention and all local stakeholders are required to be a part of this process. Workshops need to be developed for policy makers to design the legal framework that will best capture the preservation of UCH in Fiji without neglecting the management aspect of the whole process. It is also vital to have awareness workshops taken to grass root levels. The communities will play a vital role in the success of preserving the nation’s cultural heritage therefore needs to be properly informed and be aware of the importance of preserving our heritage, whether it is underwater or on land.
Conclusion

Maritime sites are important to communities in that they are sacred and tied closely to cultural identities. These undocumented sites in Fiji waters hold vast amounts of information and offer enormous potential in the field of maritime and underwater cultural heritage research. Not only would this provide greater understanding of the great tales of adventure behind shipwrecks, the callous ceremonial rituals attached with the construction of a sacred canoe or the events that took place before an island or settlement vanished, it also provides the basis for safeguarding the remains of the past that now underwater. Safeguarding and preserving underwater cultural heritage is vital to maintaining connectivity between Fiji and the Pacific and the world. It is important that, in order to achieve measurable and positive outcomes in safeguarding these valuable assets, Fiji has all its policies and legislation structures grounded on a solid platform. The nomination of Levuka Town as a World Heritage Site for example took more than a decade of work and research before it was eventually listed in 2014. This process, however lengthy, has provided valuable lessons on the various procedures to follow when the time comes for Fiji to ratify the 2001 convention. Essential components such as community awareness, informing government agencies and non-government stakeholders will all be part and parcel of the process of formulating and implementing appropriate legislation, establishing an underwater unit that will work towards preserving these untold and forgotten treasures.

Acknowledgements

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Endnote

1Fiji Museum Act (Laws of Fiji, Chapter 263).
2Preservation of Objects of Paleontological Interest Act: (Laws of Fiji, Chapter 264).

References

Biography

Elia Nakoro is the Head of the History Archaeology Department at the Fiji Museum responsible for identifying, surveying, mapping, researching and providing for the protection of the maritime and historic sites of Fiji. Having worked at the Fiji Museum and on cultural heritage projects for close to a decade, Elia has vast experience in
conducting desktop overviews, archaeological field assessments, archaeological monitoring programs, and salvaging excavations for the identification and protection of terrestrial cultural heritage sites as a national pre-development process and as part of a biodiversity surveys for conserving Fiji’s forests. In the foreseeable future, Mr. Nakoro hopes to be involved in establishing an Underwater Cultural Heritage Unit for Fiji towards identifying and safeguarding Fiji’s underwater and maritime sites.