

*Memorialization, Graffiti and Artifact  
Movement: A Case Study of Cultural  
Impacts on WWII Underwater Cultural  
Heritage in the Commonwealth of the  
Northern Mariana Islands*

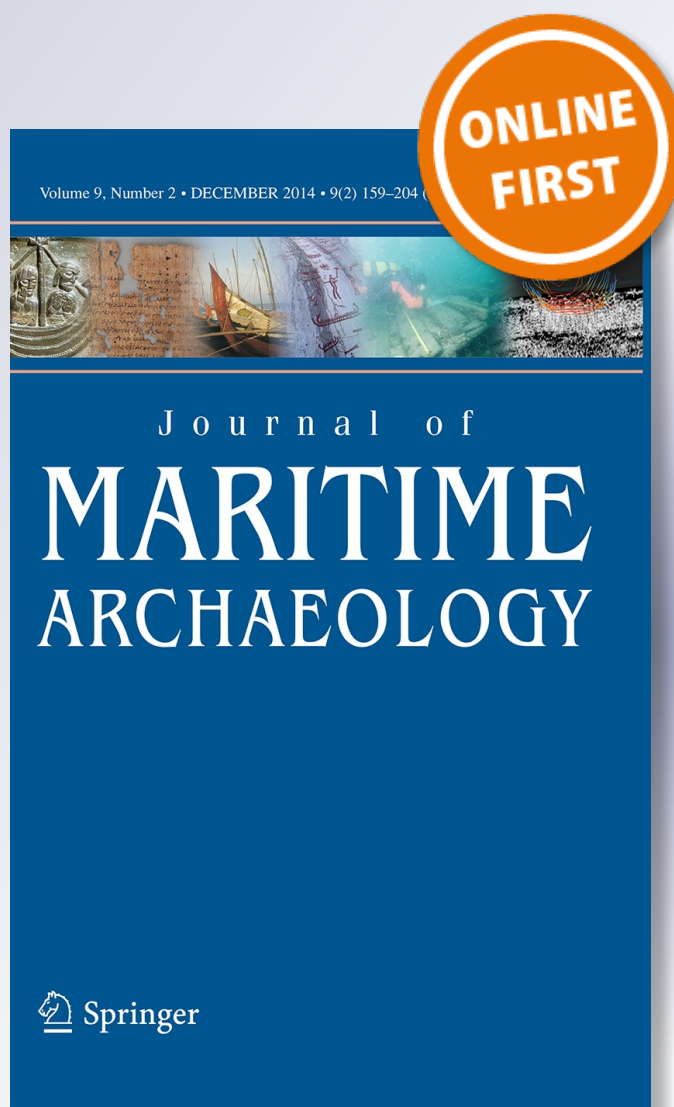
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# Memorialization, Graffiti and Artifact Movement: A Case Study of Cultural Impacts on WWII Underwater Cultural Heritage in the Commonwealth of the Northern Mariana Islands

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**Abstract** Cultural tourism in the Pacific has always offered an underwater option for those who snorkel or are certified to dive. In addition to the coral reefs and marine life, World War II (WWII) shipwrecks, aircraft wrecks and other submerged vehicles draw hundreds of tourists to the Pacific each year. While it is encouraging that so many are interested in the cultural heritage of battlefields, these same visitors can cause considerable amounts of damage. This paper presents a case study of cultural impacts on submerged WWII sites in the Commonwealth of the Northern Mariana Islands (CNMI) where diving heritage tourism is a growing industry. Cultural impacts in the CNMI include a diverse range of direct and indirect impacts including vandalism, the act of memorialization, looting and collecting souvenirs, anchor and mooring damage, and moving artifacts. What is often viewed as detrimental cultural impacts by archaeologists and managers can also be examined as behavior that reflects various stakeholders' values and attitudes towards heritage sites. As such, these behaviors can and should be examined and considered concurrently during research and management discussions.

**Keywords** Heritage management · Cultural impacts · WWII · Saipan · Ownership · Stakeholders

## Introduction

Cultural tourism in the Pacific has always offered an underwater option for those who snorkel or are certified to dive. In addition to the coral reefs and marine life, World War II (WWII) shipwrecks, aircraft wrecks and other submerged vehicles draw hundreds of tourists to the Pacific year after year. The preserved WWII shipwrecks of Chuuk Lagoon in

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the Federated States of Micronesia are perhaps the best known example of diver cultural tourism, as they are the largest source of revenue for the Chuukese people. It is estimated that approximately 3000 tourists visit Chuuk to dive the wrecks annually (Jeffery 2004a). Other areas of the Pacific impacted by WWII are equally popular; examples include the wrecks located at Guadalcanal in the Solomon Islands, which have been estimated to draw approximately 5000 divers annually (Drew 1998; Edney 2006), and the wreck of SS *President Coolidge* in Vanuatu, which was given government protection in 1983 due to its importance as a diving tourism destination (Stone 1997; Howard 1999).

While it is encouraging that so many people are interested in the history that lies beneath these important historic battlefields, these same visitors can cause considerable amounts of damage both directly and indirectly. In fact, “the tourist” has been considered by one Pacific researcher to be “the fourth horseman of the apocalypse...with hundreds of feet trampling over the site, poking here, poking there, with hundreds of curious hand-pulling there, picking up this and that and chucking it back in the general direction it came from” (Spennemann 1992: 16). Cultural or human impacts to underwater heritage are not that much different from the impacts on their terrestrial counterparts. However, it is often much more difficult to identify impacts and regulate or mitigate them because the sites are underwater or out of view of the majority and often the managers. Further, if the heritage sits outside of a conservation area or preserve that is actively managed, there is even less oversight. This paper presents a case study of cultural impacts on submerged WWII sites in the Commonwealth of the Northern Mariana Islands (CNMI) where diving heritage tourism is a growing industry and where damage to the sites as a result of this industry is in need of monitoring and management. Furthermore, it discusses the idea of multiple stakeholders and ownership of heritage and how visitors’ “impacts,” or behaviors at these sites can elucidate those users’ attitudes and motivations for visiting these sites which in turn improves our management of this heritage.

## Case Study

Identifying and including various stakeholders can be a complex process and one that is not static but changes over time and with generations (McKinnon 2011, 2013, 2014). ‘Who, we may then ask, can make a claim of association, emotionally, intellectually, cognitively, over that site? People’s sense of association with place can be extremely strong, and readily becomes equivalent to a sense of ownership. However, if we can identify such an individual or group, can that individual or group make a claim of absolute ownership that is valid, or should we be expecting to observe socially constructed and processed, shared, and overlapping ownerships?’ (Boyd 2012: 174). These are not new questions, but ones that archaeologists and heritage managers have been working on for some time with regard to the community, the public, stakeholder identification, multiplicity and inclusion (Hodder 2003; Little and Shackel 2014; Colwell-Chanthaphonh and Ferguson 2008). Boyd et al. (1996), who developed the concept “cognitive ownership,”<sup>1</sup> and others have rightly pointed out that we must first understand

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<sup>1</sup> Cognitive ownership “represents the link between people and place defined by intellectual, conceptual, and/or spiritual—all of these are acknowledged as explicitly socially constructed—meanings that people attach to that place” (Boyd 2002: 176–177). Cognitive ownership supports a multiplicity of groups and values (p. 176) and is not static but inherently unstable (p. 180).

the individuals and groups that are engaging with heritage places before we can begin to understand their value of the place as reflected in their behaviors on site, and thus manage that heritage appropriately (Colwell-Chanthaphonh and Ferguson 2008; Boyd 2012: 193; Little and Shackel 2014). Therefore, a consideration of the history of the battle and those involved and affected as well as CNMI's current composition and political economy is required to understand the stakeholders who may have an interest in the submerged heritage from the Battle of Saipan.

The CNMI is part of the larger Micronesian archipelago called the Mariana Islands. CNMI is a commonwealth of the United States (US) and is comprised of fifteen islands, of which Saipan is the capital. The first settlers of the islands arrived around 3500 years ago and today are known as the Chamorro culture (Bellwood 1985; Butler 1994; Russell 1998). The islands have been the subject of many colonial interventions and invasions ranging from those of the Spanish, beginning in 1521 which eventually brought an influx of Filipino peoples and Carolinians (from the Caroline Islands), to German occupation in 1898, to the Japanese occupation in 1919 and to the more recent battles during WWII. The origins and colonial influences can be felt, seen, smelled, and heard across the landscape and seascape today and include a population of Chamorro, Carolinian, Japanese, Okinawan, American, Spanish, German, Korean, and Filipino peoples. Of particular interest to this study is the historical period including the WWII Battle of Saipan from June 15 to July 9, 1944 which was fought between US and Japanese forces, but also included "a third component to which, or about which, minimal attention is given or altogether overlooked; not unlike what literally transpires on the battlefields whereupon the combative forces come head to head only to leave behind in their wake a compendium of non-combative collateral damage" (Cabrera 2015). That component would be the additional stakeholders who consist of the civilians, both indigenous and non-indigenous, who were immediately and still are affected by the battle, and thus have a stake in the heritage of this conflict.

The Battle of Saipan was one of the largest amphibious invasions launched by the US during the Pacific war with over 110 ships and support craft including 26 destroyers, 7 battleships and 11 cruisers (Farrell 2009). A considerable amount of that WWII underwater cultural heritage (UCH) related to the battle still exists in the waters surrounding the island today. A National Park Service (NPS) project in the 1980s included a survey of known sites in the lagoon and reported several shipwrecks and aircraft (Carrell 1991). In recent years, geophysical surveys conducted by Southeastern Archaeological Research, Inc. revealed a total of 1543 magnetic anomalies in both Tanapag and Garapan Lagoons (Burns 2008a, b). While not all targets are related to WWII activities, many of those tested during initial diver investigations were in fact associated with WWII.

In 2009 a project to develop a WWII Maritime Heritage Trail resulted in the archaeological survey of several sites of wrecked and abandoned vessels, vehicles and aircraft, of which twelve were chosen for inclusion on the trail (McKinnon and Carrell 2014). The trail consists of three US Sherman tanks, two Japanese Daihatsu landing craft, a US Landing Vehicle Tracked (LVT), a Japanese Aichi E13A aircraft (code name "Jake"), a Japanese Kawanishi H8K aircraft (code name "Emily"), a US Martin PBM Mariner aircraft, a US TBM Avenger aircraft, a possible Japanese submarine chaser and a Japanese freighter *Shoan Maru*. The locations of these sites vary from near shore in shallow water (2–3 feet) to approximately 30 feet of water and are inside the barrier reef and can be dived year-round.

## Population and Economy

The population of CNMI as of the last census data in 2010 was comprised primarily of those who identify as Filipino ( $n = 19,017$ ) followed by indigenous Chamorro ( $n = 12,902$ ) (Table 1). When viewing the total related to regional ethnicities, Asian ( $n = 26,908$ ) identified peoples also outnumber Pacific Islanders ( $n = 18,800$ ) in the CNMI. This immigrant Asian and particularly Filipino population is the result of a large garment manufacturing industry that operated in the early 1990s which relied heavily upon a poorly paid and mistreated Asian (Chinese and Filipino) workforce. Fortunately the garment industry became regulated and for better or worse much of the immigrant population moved off island. More recently the bulk of Filipino peoples have shifted to working many of the service industry jobs including food preparation and serving-related occupations, building and grounds cleaning and maintenance occupations, and jobs which support the development of tourism such as construction and extraction occupations, installation, maintenance, and repair occupations (US Census Bureau 2010). Chamorro peoples occupy most of the white-collar jobs on island including sales and office occupations such as office and administrative support, service occupations including protective services (firefighting and law enforcement) and education, legal, community service, arts and media occupations.

CNMI's economy in the past has been considered volatile, having been affected greatly by Asian markets as well as the collapse of the unregulated garment manufacturing industry. Today its economy relies primarily on the tourism industry as it has no gross export product (Commonwealth Economic Development Strategic Planning Commission 2009; US Department of Commerce 2014). Although visits to the islands have long been dominated by Japanese (50 % in 2010 and 44 % in 2011) and Korean tourists (29 % in 2010 and 31 % in 2011), Chinese visitation (11 % in 2010 and 14 % in 2011) has increased tremendously in the last two years. Russian tourists (1 % in 2010 and 2 % in 2011) represent a much smaller margin, but nonetheless exist as a market of wealthy tourists (Marianas Visitors Authority 2011).

In a 2011 exit survey (the most recent of which was completed), CNMI visitors were polled to gauge their reasons for visiting the islands, as well as to assess the particular activities in which they participated. Japanese visitors named their top reason for visiting CNMI as "tropical climate, sea, beach" at 84 % while "scuba diving" was ranked sixth (20 %) and "visit a historical area" (9 %) was ranked eighth. Other categories that ranked above diving were "inexpensive travel cost" (33 %), "nature activities" (32 %), "short travel distance" (23 %) and "shopping" (22 %). Interestingly when asked what activities they *chose to do* while on island, "scuba diving" was again listed at sixth (26 %) but "snorkeling" ranked first with 57 % of all people polled stating they undertook this activity. For Korean visitors, "scuba diving" ranked fifth (10 %) in the reasons for visiting

**Table 1** Population by ethnic origin or race (US Census Bureau 2010)

Total	Chamorro	Carolinian	Other native Hawaiian and other Pacific Islander	Chinese (except Taiwanese)	Filipino	Korean	Other Asian	Other ethnic origin or race	Two or more ethnic origins or races
53,883	12,902	2461	3437	3659	19,017	2253	1979	1343	6832

CNMI and “visit a historical area” did not make the top ten list. Again, “snorkeling” ranked as the number one activity they chose to do at 70 %, and “scuba diving” was seventh on the list (30 %). Chinese visitors ranked “scuba diving” third (28 %) below “tropical climate, sea, beach” and “nature activities” as the top reasons for visiting the CNMI. Within the list of activities Chinese visitors chose to do, “scuba diving” did not make the top ten list, however “snorkeling” came in fourth at 77 %. These numbers, although they vary by culture, suggest both a keen desire by the majority of visitors to participate in snorkeling and diving, and also provide an actual demonstration of the activities undertaken. While these statistics do not distinguish between divers who visit reefs as opposed to, or in conjunction with, underwater heritage sites, they do indicate a strong diving tourism sector.

To accommodate diving tourism, an estimated 50 dive companies were in operation in the CNMI as of 2011. The Northern Mariana Islands Dive Association (NMDOA) has approximately 30 members consisting of dive shops and instructors, most of which are Japanese and cater to Japanese tourists. A handful of businesses are owned, operated and cater to Korean, Chinese, and Russian tourists and one to two are owned and operated by and cater to US divers. Unfortunately, the situation in which foreign nationals invest in and operate the majority of the diving industry can create issues with regard to the long-term sustainability of both the underwater natural and cultural resources. Such a situation often prohibits discussion amongst companies as well as with regulatory agencies and law enforcement which are staffed and operated primarily by indigenous Chamorro peoples. Further, there is a perception by indigenous community members that the non-native or non-local user group of “foreign” operators do not understand or value the cultural and natural environment, and therefore are less likely to promote its protection through sustainable practices. This is an issue that the regulatory agencies are keenly aware of and are in the process of looking for solutions to, including government-enforced requirements for employing indigenous workers within the tourism sector (John D. San Nicolas personal communication 2012).

## **Regulation**

There are several regulatory agencies responsible for permitting, monitoring, and enforcing marine activities related to UCH in the CNMI. Foremost, the Historic Preservation Office (HPO) has the overall legislative responsibility for UCH. This obligation extends off shore to all UCH, whether it has been identified or is as yet to be investigated. To accomplish the legislative purpose of the Mañagaha Marine Conservation Act, the CNMI Department of Lands and Natural Resources (DLNR) was delegated the exclusive authority to manage the Mañagaha Marine Conservation Area (MMCA), as well as other marine conservation areas in the CNMI (Section 6 of PL 12-12). The role of the DLNR in regard to the management of UCH is to promote public access to the sites while protecting the physical remains.

The Coastal Resources Management (CRM) office was established on 11 February 1983 with the implementation of Public Law 3-47 within the Office of the Governor. The CRM program was established in order to promote the conservation and wise development of coastal resources. CRM is responsible for general permitting activities that impact coastal resources and, in particular, permits for dive boats and dive tour operations in all of the islands’ waters. The Department of Environmental Quality (DEQ) is mainly concerned with water quality and pollution and the US Fish and Wildlife Service (US FWS) is concerned with marine biota collection and fishing.

In order to coordinate natural resource efforts, all of the above mentioned agencies formed the Marine Monitoring Team (MMT). This consortium is charged with providing statistically sound and relevant scientific information necessary for the management of reef and fish resources. It is comprised of marine biologists and environmental technicians that collect information on coral species diversity, colony populations, and benthic cover, as well as fish and macro-invertebrate numbers. Unfortunately, HPO has not provided a representative to the MMT despite having been invited to do so. This can be seen as a lost opportunity for collaborative research and resource protection, as underwater cultural heritage sites are also living reef and habitat (Fowler and Booth 2012).

## Cultural Impacts

A number of cultural impacts on WWII submerged sites in the Pacific have been identified by researchers including: salvage and scrap metal removal, anchoring and mooring damage, improper buoyancy control which results in touching, concretion removal and increased corrosion, exhalation of bubbles which results in trapped air or additional oxygen and increases in corrosion, looting or souvenir collecting, dynamite fishing, and moving artifacts (Coble 2001; Edney 2013; Hezel and Graham 1997; Jeffery 2004a, b, 2006, 2007; Macleod 2006; McKinnon and Carrell 2011, 2014; Naval History and Heritage Command 2014; Spennemann 1992). In general, cultural impacts that affect WWII submerged sites in the CNMI are similar to other WWII submerged sites in the Pacific; nevertheless, there are specific impacts in the CNMI that warrant discussion and further elaboration. The majority of cultural impacts to WWII UCH in Saipan are a result of their “users” that is, the people who wish to visit the sites for whatever reason draws them to do so (i.e. diving, snorkeling, hook and line fishing, spearfishing, etc.). As opposed to many places around the world where development through dredging, filling and construction are the primary impacts to sites, few development impacts affect the sites in Saipan. This is because the lagoon is shallow and the channel has existed and been dredged for a number of years, post-WWII, and little to no jetty or waterfront infrastructure has been undertaken. The fact that the most impacts come from visitors to the sites is disconcerting because development impacts can be kept in check through surveys and permits; however localized user impacts through activities such as diving are much more difficult to regulate and monitor. The main physical impacts that result from visitation to sites in Saipan’s waters include anchor and mooring damage, looting or moving of artifacts, tourist service impacts, memorialization and acts of vandalism, each of which is addressed in the following discussion.

## Looting and Moving Artifacts

Much like other areas of the Pacific, looting and the movement of artifacts on sites is the most common and most destructive impacts to sites in Saipan. By their very nature, sites related to modern warfare have a considerable amount of associated moveable objects and for many years divers have been removing these artifacts or simply rearranging them on site underwater. This is incredibly destructive behavior because it impacts the historical and archeological context or fabric of a site. It can make the identification of a site more difficult and also affects the information that can be learned from the way in which the site was created (i.e. the circumstances of crashing or sinking).



Of the twelve sites on the maritime heritage trail, four demonstrate some form of looting or movement of artifacts. Included among these are the Daihatsu 1 landing craft site, which has had its steering wheel propped up on the stern deck and glass bottles (Coca-Cola bottles deposited on the site after its sinking) are arranged and rearranged regularly on the site. These kinds of impacts are also seen at the Japanese freighter site, which includes a Korean monument on which bullets have been placed and rearranged into patterns (Fig. 1). It is uncertain where the bullets actually originated and if they are from the wreck or another nearby site.

Diver impacts on the Kawanishi H8K Emily's cockpit section are also significant. From 2010 to 2012 the cockpit section was documented photographically (Fig. 2). Each photograph shows significant changes to the seat position, control panel and steering column configuration. Consultation with dive operators confirms that tourists like to take



**Fig. 1** Korean monument with 50-caliber rounds (photo by Valeo Films 2010)



**Fig. 2** Emily cockpit configuration which changes over time (photo by Brett Seymour 2012)

photographs while seated in the cockpit. This behavior is detrimental to the preservation of the site and will eventually destroy these features, however it is interesting to consider divers attitudes towards photography as a memento. The old adage “take only pictures, leave only bubbles” batted around for years, does little in protecting the Emily cockpit from damage and should perhaps include a third objective: “and watch your footprint.”

Additionally, smaller artifacts located on the Emily site have been moved from their original positions. A rack, which looks like a ladder, is propped up against the southern side of an aircraft wing and ordnance and gas cylinders are stacked around a Japanese memorial marker (Fig. 3). It is probable that the ordnance and gas cylinders were moved to this location to enhance the memorial. While such movement of artifacts on a historic site is seen as destructive by archeologists and destroys contextual evidence, it also has cultural significance in terms of the way different cultural groups visit and memorialize sites. It is interesting to note anecdotally that there are differences in the way cultures interact with moveable objects in Saipan. According to the local dive community, US divers have a tendency to “take” things (i.e. souvenir) from sites, while Asian divers “make” things (i.e.



**Fig. 3** Japanese monument surrounded by gas cylinders and other moveable objects (photo by Brett Seymour 2012)

move and collate objects to form patterns or piles). In addition, Asian, most likely Japanese, divers do not just remove or move artifacts; they also contribute objects such as a wooden stupa and sake bottle placed on the propeller of the Jake site photographed in the 1980s by the NPS and a tea kettle found on the Emily site in 2010. These behaviors on site mimic those of memorial behaviors on land where heritage places can be found adorned with paper cranes, candy or food offerings, incense and prayer tablets (see McKinnon 2015 for more discussion on memorial behavior). The study of Japanese and Korean memorialization is a subject in much need of research and one that requires investigating how the Battle of Saipan specifically, different than other WWII battles, is viewed by both cultures, as well as how individuals and groups differ in their approach to remembering WWII. Hein and Takenaka (2007) have demonstrated how intricately complex Japanese remembrance and memorialization of WWII is and how it continues to evolve over time and place to place in relation to museums in Japan and abroad. As would be expected, even within the same generation there are contradictory feelings, with those that range from pacifist to a more positive legacy.

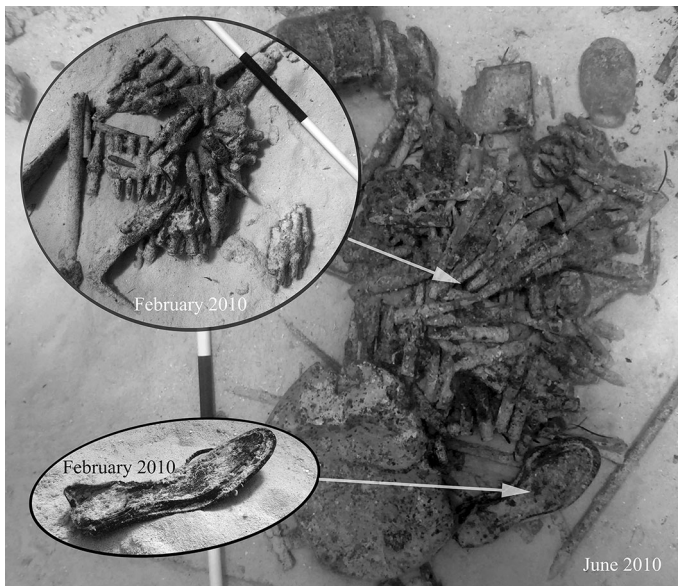
The locations of the four engines at the Emily site provide an additional puzzle which is subject to inquiry as a potential cultural impact. It remains uncertain if the engines are in situ or if some of them were subsequently moved to their current locations. Engine 2, in particular, has a questionable position as it is standing on its edge on a coral mound in a fashion that suggests it may have been moved and placed intentionally for the purposes of aesthetics and a potential photographic setting. This movement could have occurred during the placement of a large Korean monument on the site or by a local submarine tourism company which has impacted other sites through the movement of large artifacts to create an interesting view for tourists.

In addition to movement of artifacts, there are indications of looting or collecting of souvenirs at the Emily site. For instance, a local dive shop owner is in possession of the identification plates that were reportedly removed from the Emily site. Additionally, the HPO was informed of a piece of aircraft on a beach in 2010, which was suspected to have come from the Emily. After careful examination it was determined to be a portion of the nose from the Emily site which had been dumped on the beach by whoever collected it. As a result, the HPO returned the piece to the site but were unable to acquire information about who removed or discarded the piece. It is not clear how long ago collecting and looting at these sites began; as far back as the mid-1980s, local informants told researchers who visited an aircraft that a radio and other electronic instruments with US markings were removed from the site (Carrell 1991). While looting is evident on these sites, there is no way to determine the extent of or damage caused by such activities previously, however monitoring the sites regularly will help understand changes in the future.

A certain level of post-battle permitted and unpermitted salvaging and scrap metal collecting by private individuals or companies has likely occurred in the waters of Saipan. For some areas of the Pacific, scrap metal was a large source of income. As an example, in the late 1960s, the second largest export commodity in the Marshall Islands was scrap metal (Spennemann 1992). Evidence of scrapping has been documented by the HPO including a more recent report of several aircraft propellers in 2008 which were reportedly bought by a local scrap yard (Pruitt 2014: 143). There has been little effort by the HPO to reclaim these objects; rather the emphasis is on insuring that the sites and objects that remain in situ are protected and preserved for future generations. A limited number of artifacts are on display at the American Memorial Park, however it is not known if any of these are from underwater contexts. A close inspection of the collection as well as interviewing staff could provide contextual information about these artifacts.

The Martin PBM Mariner site has also been impacted by divers. Since the February 2010 field season during which the Mariner site was identified and mapped, the site has been visited more frequently by divers, which is having an impact on its preservation and integrity. For instance, ordnance and other smaller artifacts have been moved from their original positions; evidence of these changes were photographically documented between February and June 2010 (Fig. 4). During this five-month period, items including a leather shoe and ammunition were collected and placed in one area in a similar fashion to the collection of objects that occurs on the memorials at both the Emily and Japanese freighter sites. Fifty-caliber rounds were also located on site with gunpowder spilling from the casings; it is possible that this was caused by divers breaking the casings open.

Another possible impact to the Mariner site involves its missing engines and propellers. Although this model plane was originally equipped with two radial engines and four-blade propellers, none of these items are present at the site and there is no evidence of possible disintegration. It is unlikely the engines were lost as result of the wrecking event, but they could have been salvaged post-wrecking. Interestingly, there are two four-blade propellers at a nearby “fake wreck” created by a local submarine tour company; whether these belong to the Mariner site or some other aircraft wreck, such as a recently identified PB2Y, their presence is proof of aircraft wreck salvage for diving tourism purposes (Fig. 5). The “fake wreck” was visited during the 2012 field season and there are numerous artifacts from various wrecks around the area. The artifacts include: ammunition boxes, 50-caliber rounds, two propellers, hatches, multiple aircraft seats and other unidentifiable artifacts. It is uncertain when this pile was created but it is now touted to submarine tourists as an aircraft wreck. This type of blatant misinformation is disappointing and now that the artifacts have been displaced, their context can never be recovered and historical and archeological data has been lost forever.



**Fig. 4** Artifact pile created by divers and altered over time (photo by Samantha Bell 2010)



**Fig. 5** Fake wreck created for submarine tour. Note four-blade propeller in foreground and gun in background (photo by Jon Carpenter 2012)

## Acts of Vandalism

Acts of vandalism, either intentional or unintentional, also impact submerged heritage in Saipan. For example, local tour boats frequently visit the Sherman tanks or pass by for a closer look. During these visits tour operators often demonstrate to tourists how to climb on the tanks and/or swing off the gun barrels. The fact that these activities are unsustainable is demonstrated by a broken portion of the end of Tank 3's barrel which is suspected to have been caused or accelerated by this type of activity. Certainly there will come a time when the barrels have degraded and can no longer sustain the weight of people jumping or swinging off their ends.

Additionally, graffiti has been etched into the mucilaginous layer on the aluminum surface of the Emily aircraft in two locations: the wing of the aircraft and the gun turret (Fig. 6). These graffiti areas were not present during the February 2010 field season, but were noted in June 2010. Although the symbols etched on the bow turret were indiscernible, initials appeared to be etched on the starboard wing. The letters or characters are not distinguishable but they may represent the initials of the inscriber and could have been etched to personally memorialize one's attendance at the site. This behavior seems to be common on Saipan and there are several places on the island where initials have been carved into objects and painted or written on walls. For example, at Suicide Cliff, a location where many civilians committed suicide by jumping off the cliff during and just after the battle, there are large cacti pads that have been etched with initials of visitors, mostly Japanese or Korean.

Finally, unsightly rubbish, while not a serious impact, can be found on some sites such as the Sherman tanks which are close to shore. Because they are located nearby resorts and popular picnic beaches, rubbish such as plastic bags, beer and soda cans, plastic forks, and fishing line accumulate on site.



**Fig. 6** Graffiti etched into the Emily site (photo by Samantha Bell 2010)

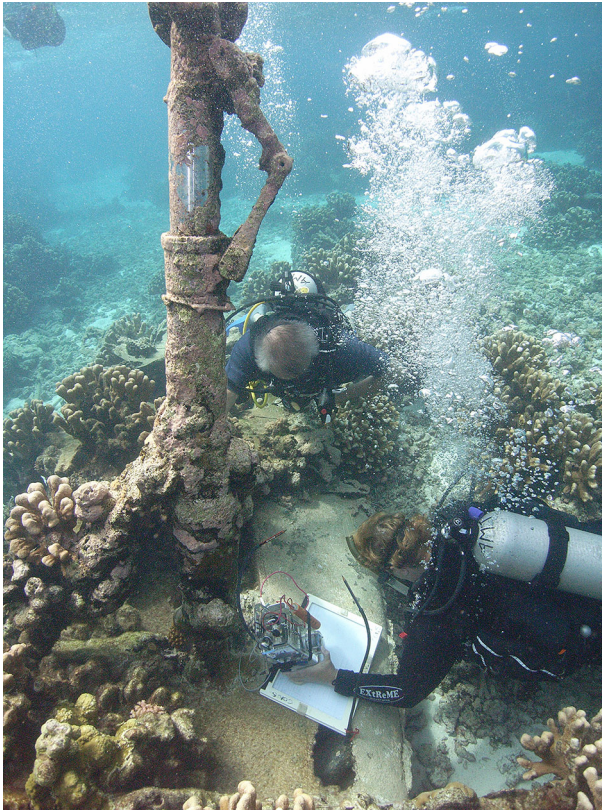
### **Anchor and Mooring Damage**

The MMCA encompasses 500 ha (1235 ac) within the Tanapag Lagoon and the adjacent reef slope on the west side of the island. This area accounts for 12 % of the lagoon and is closed to fishing, anchoring, and collecting. The DLNR is delegated with exclusive authority to manage the area and work in conjunction with various agencies to manage, monitor, and permit activities. CRM have installed mooring buoys at some of the more heavily visited sites including the Emily site (which has two moorings), and repairing and replacing moorings on the Japanese freighter (which has three moorings). Plans are currently in the works for installing more moorings on the recently developed WWII Maritime Heritage Trail (McKinnon and Carrell 2011). However, for those sites outside of the Conservation Area, there is no mandate or support for installing moorings and thus they run a greater risk of anchor damage. Further, even for those sites that lie within the Conservation Area, there is pre-existing anchor damage caused prior to the area's designation.

One site that is regularly subjected to damage by mooring activities is the TBM Avenger wreck. Conversations with a local boat driver disclosed that this plane's intact and extended landing gear is often used as a boat mooring for local surfers (Sheldon Preston personal communication, 2010). The effects of these mooring activities are seen on the landing gear where exposed metal is obvious (Fig. 7). Prolonged use of the landing gear as a mooring could cause severe damage if the boats collide with the aircraft or detach the landing gear during rough swell conditions.

### **Tourist Service Impacts**

Related to user impacts is the stress certain tourist services have on sites in Saipan. The Sherman tanks for example are subjected to an enormous amount of "foot traffic" through jet skis and banana boats. These vehicles create wakes that wash over the tanks causing irregular wetting and drying. This cultural impact directly affects the environment on site



**Fig. 7** Avenger landing gear, note shiny metal where concretion has rubbed away due to mooring (photo by Jon Carpenter 2012)

by increasing oxidization levels that in turn increase corrosion. Tank 3 shows signs of increased corrosion rates likely due to its location near two large resorts and a Jet Ski course (Richards and Carpenter 2012). Further, a second LVT site near the tanks was identified as demonstrating a recent impact area in 2012 where a small boat or jet ski struck the vehicle.

Another cultural impact that affects both the environment (i.e. marine organisms) as well as cultural heritage is the operation of a submarine that takes tourists underwater to visit reefs and wrecks. The Japanese freighter site is on the regular tour path of the submarine and, as it moves toward the shipwreck, the submarine disperses large quantities of food for fish. This serves to attract fish to the wreck but also introduces organic materials into the marine environment which can increase nutrient levels and, in turn, the biological activity in the area which can affect degradation. Of greater concern are the submarine's thrusters which directly blow onto the shipwreck while making its turn. It has been observed both while diving on the wreck and while riding within the submarine that the thrusters move portions of the iron plating up and down. This process leads to the active corrosion of the areas affected by the thrusters and over the long term this will drastically affect the corrosion rates on the site.

## Memorialization

Although it is not an obvious cultural impact, it should be noted that the process of memorialization does affect the sites in Saipan through the addition of outside material, aggregation of moveable objects and changing the overall feeling of a site which may be the subject of conflicting interests or ownership. Two monuments have been placed on the Emily wreck site to memorialize those lost during the battle. The first and largest monument is located north of the port wing and was placed there by “Challenge! Earth Exploration”, a television adventure series that previously aired on the Korean Broadcasting System (KBS) (Fig. 8). The larger panels of the monument state in both Korean and English, “Spirits sacrificed in the Pacific War, rest in peace, KBS Challenge! Earth Exploration, Inmolt Engineering Co. Ltd.” One side of the square monument lists the director, producer, and others involved in the television program’s placement of the monument. The other side has a series of memorial poems and statements (Jack London personal communication 2010). One poem inscribed on the side of the monument dedicates the memorial, “to spirits who hired to the compulsory military service and died during the Pacific War,” while an additional poem relates, “Anger, tears and grunge.” These remarks clearly indicate a Korean connection with those lost during the Battle of Saipan and further emphasize that Korean soldiers were forced into service by the Japanese government. Although, it is uncertain why a Japanese aircraft wreck was chosen as the placement site for a Korean monument, it may be due to its popularity as a dive site, or it could be a blatant act of identification and reinforcement of Korean conscripted labor. Sites of conflict often remain places of conflict where aggressions continue to be acted out and space is negotiated by multiple groups (Little and Shackel 2014: 40; see McKinnon 2015 for more on memorialization).

The Japanese monument is much smaller than the Korean monument and small artifacts from the wreck site have been placed around it including oxygen bottles. The monument appears to be an epitaph for an individual (Jun Kimura personal communication 2010). As the first few letters are in a special writing style, they are indiscernible; however the last four characters translate to “Underwater (sea-bed) War Memorial.” The shape of the



**Fig. 8** Korean monument on Emily site (photo by Valeo Films 2010)



monument is similar to that of a wooden stupa used for modern Japanese Buddhist style graves.

A third monument is located on the Japanese freighter *Shoan Maru*. Much larger than the two monuments on the Emily site, this monument is positioned off the starboard side of the bow and is dedicated to Korean conscripts lost during the battle. The placement of this monument on site represents a direct link between participants and memorial as the historical account of this vessel relates that Korean conscripts were onboard this vessel when it was bombed by the US. This monument, as mentioned previously, is also a repository of small finds collected by divers on site.

Together all of these monuments do not largely affect the historical and archeological context of a site, with the exception of additional or moved artifacts. Nevertheless, when considered alongside the developments of monuments occurring on land, which include significant increases in monuments at locations such as Suicide and Banzai Cliff, the addition of underwater monuments might begin to impact the historical and archaeological context. The motivations behind and behaviors of individuals and groups who partake in memorialization whether on a private, personal level or as an outward group activity has yet to be fully explored at WWII sites in Saipan, but is clearly an area that warrants further research.

## Conclusion

O'Neill and Spennemann (2001: 46) argued that efficacious preservation of cultural resources is dependent upon several factors, including political will, community interest, and availability of resources. Unfortunately, the CNMI struggles in each of these areas. CNMI's heritage tourism industry undoubtedly stimulates the local economy, attracting visitors and drawing money to the islands. However, the connection between economic gain and heritage preservation is a precarious one, in that heritage sites are vulnerable and may be harmed by visitor activities. Over 20 years ago Carrell (1991: 335) warned of this: "developing tourism operations of the CNMI could cause heavy visitation to these sites by scuba divers. There is already a commercial tour submarine on Saipan that offers tours of some underwater sites. There have been reports of this tour submarine damaging some of the sites." Thus a framework for managing underwater cultural heritage that both promotes and protects Saipan's submerged heritage and includes all stakeholders' interests is timely and necessary.

Recently, a grant-funded project to develop a preservation and management plan for CNMI's WWII UCH was undertaken during which all stakeholders were identified. The process of identifying stakeholders took several years from 2009 to 2014 and multiple public and agency meetings as well as visits to local businesses, offering free trainings and public volunteer opportunities. Once stakeholders were identified, both cultural and natural impacts were assessed and management considerations and recommendations were identified and made based on discussions with those stakeholders. These recommendations were tempered with knowledge of the sites, their historical and archeological context, and the social, economic and political conditions of Saipan, and included legislative initiatives, capacity-sharing and strategic planning and inter-agency cooperative agreements, direct and indirect site monitoring, and public outreach (for a full discussion see McKinnon and Carrell 2014). The plan was provided to the local HPO as well as other relevant agencies for consideration and action into the future. However, the responsibility for these sites does not just rest with those mandated to manage them—it is much broader than that. "There is,

finally, a recognition that ‘the public’ is multivocal and increasingly diverse in its attitudes, interests and perceptions; that decisions about place can no longer be justified where they are the concern of only state or local authority officials” (Schofield et al. 2012: 316). All stakeholders including the community as well as researchers can assist in the goals of identifying heritage and its preservation. Creating research projects and developing public programs that engage multiple stakeholders’ viewpoints and seek understandings of critical and sometimes competing claims and conflicts with heritage will provide the momentum and enthusiasm that is needed in an environment in which resources are at an all-time low.

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