

Submerged Battlefield: Examining the Status and Challenges of World War II Shipwreck Management in the Philippines

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ABSTRACT

Many sites in the Philippines had been battlegrounds during World War II (WWII) that resulted in substantial sinking of American and Japanese naval vessels. Advanced technology has significantly helped in locating these shipwrecks and documenting their current condition. However, many of these underwater cultural resources have not yet been subject to proper scientific examination. Navigea, Ltd., in collaboration with the Maritime and Underwater Cultural Heritage (MUCH) Division of the National Museum of the Philippines (NMP) has located and photo-documented WWII shipwrecks in Subic Bay, Surigao Strait, and Ormoc Bay which only comprise a small percentage of the total number of shipwrecks. These sunken vessels are considered war graves which are regarded with certain sanctity particularly for the nations they fought for. They possess intrinsic, scientific, educational, monetary, and cultural values, thus should be extensively investigated to effectively plan for their protection against threats such as natural processes and human intervention. Archaeological studies of sunken warships can also provide insight on the events during the naval battle and clarify information from written sources. This paper presents a status update and results of research activities in the WWII shipwrecks in the Philippines. It also outlines the challenges in managing these sites and proposes potential plans and measures for their long-term management and preservation.

KEYWORDS: shipwreck, World War II, warships, Philippines, underwater cultural heritage

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INTRODUCTION

The Philippines played an important role during the Second World War (WWII). Some sites such as in Subic Bay, Zambales Province in Luzon served as naval fortresses because of their strategic location (Anderson 2006, 189-204). The Battle of Surigao Strait is viewed as the last pure battleship-to-battleship engagement in WWII. It was also part of the larger Battle of Leyte Gulf, which is considered to be the largest naval battle in WWII (Tully 2009, 13). The Battle of Ormoc Bay was a sequence of naval battles between the American and Japanese forces, which prompted the latter to strengthen their forces in Leyte (Pinak 2017, 252). As many of the sites that resulted from these engagements are war graves for American and Japanese troops, the shipwrecks are regarded with a certain sanctity, particularly for the nations they fought for. They embody both tangible and intangible cultural heritage, apart from intrinsic historical significance.

While vivid accounts of WWII were provided by numerous eyewitnesses, investigation of material evidence is still important to determine a site's historical significance and formulate plans for its preservation (Lacsina 2017, 7-8). These wreck sites are part of our underwater cultural heritage (UCH) and are currently vulnerable to a wide range of threats from human activities and natural processes. Wrecks in shallow waters are expected to collapse and deteriorate in the next few years. The advancement of technology has also made the wreck sites more accessible to divers and salvors. The stability and condition of these underwater cultural resources are largely affected by the activities of sports divers and fishermen using surface supplied air diving (hookah system) (King et al 2019, 3).

There is also reported looting on some shipwrecks through the salvage of ship metal parts or structures for commercial exploitation purposes (King et al 2019, 11-12). Moreover, volcanic deposits and sediments have been observed covering the surface of certain shipwrecks which may affect their condition (Cuevas 1994, 2). With these emerging issues, the management of underwater cultural heritage and progress of underwater archaeology is a priority, as well as a challenge.

As the leading government agency tasked with the protection of the country's UCH, the National Museum of the Philippines (NMP) is constantly seeking ways to improve and develop the management of underwater archaeological resources through the help and coordination with local governments, archaeological organizations, and other stakeholders (King et al 2019, 2). The surveys of the wrecks may be used as a tool to reconstruct events from the past and clarify some conflicting memories of eyewitnesses.

WORLD WAR II SHIPWRECK SURVEYS AND EXPLORATIONS IN THE PHILIPPINES

A. The Surigao Strait Shipwrecks

The Battle of Surigao Strait took place on 25 October 1944 when the Imperial Japanese Navy (IJN) forces attempted to regain control over Leyte from American and Australian forces (Tully 2009, 25-70). This is the last pure battleship-to-battleship engagement that ever took place and is thus a significant event in the world of naval history (Lacsina 2017, 2). The IJN Southern Force, led by Admiral Shoji Nishimura, sailed from Brunei towards Leyte. The fleet was joined by the two battleships *Yamashiro* and *Fuso*, the heavy cruiser *Mogami*, and four destroyers *Shigure*, *Michisio*, *Assagumo*, and *Yamagumo* (Lacsina 2017, 2). However, USN Admiral Jesse Oldendorf anticipated their approach and commanded six battleships, four heavy cruisers, 28 destroyers, and 39 motor torpedo boats to trap and overwhelm them. The IJN Force was overpowered, with only *Mogami* and *Shigure* able to retreat south. *Mogami* was eventually sunk by aircraft.

In 2017, NMP coordinated with Navigea to confirm the locations of the IJN ships that sunk in Surigao Strait. Using Navigea's research vessel *Petrel* and its state-of-the-art equipment, the conditions and exact locations of the *Yamashiro*, *Asagumo*, *Fuso*, *Michishio*, and *Yamagumo* were found. Figure 1 shows the image captures from the live video footage of Argus 6000 Remotely Operated Vehicle (ROV). Sonar images were also obtained using Multibeam Echosounder (MBES) sonar (Figure 2).



Figure 1. ROV image capture of a) *Asagumo*'s bridge, b) *Fuso*'s portside inboard propeller, c) *Michishio*'s dual gun turret. Courtesy of RV *Petrel*.

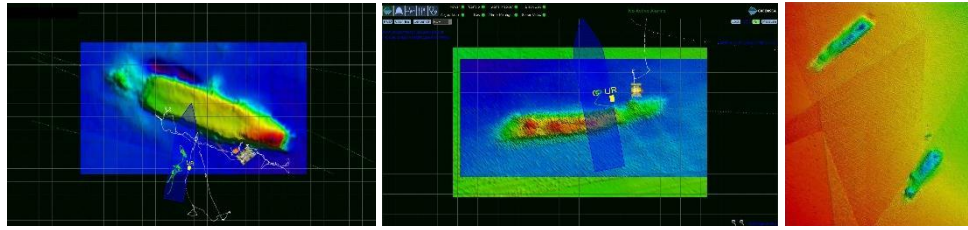


Figure 2. MBES sonar images of a) *Yamashiro*, b) *Michishio*, c) *Yamagumo*. Courtesy of RV *Petrel*.

B. The Ormoc Bay Shipwrecks

Air and sea battles between American and Japanese forces were fought from 11 November to 12 December 1944 for the Battle of Ormoc Bay. USS *Ward* is a destroyer that was lost in the battle during the IJN air raid of the US Naval base. Another American ship, Summer-class destroyer USS *Cooper* was less than a year old when it was hit by a Japanese destroyer and then sunk at a depth of 193 meters (Lacsina 2017, 2).

In 2017 to 2018, the NMP continued the project with Navigea to confirm the locations of the ships that sunk during the Battle of Ormoc Bay. Using Navigea's RV *Petrel* and its equipment, the conditions and exact locations of USS *Ward*, USS *Cooper*, IJN *Shimikaze*, IJN *Naganami* (suspected), and IJN *Wakatsuki* (suspected) were found. Figure 3 shows the image captures of the parts of the wrecks from the live video footage of Argus 6000 ROV. Sonar images were also obtained using MBES sonar (Figure 4).

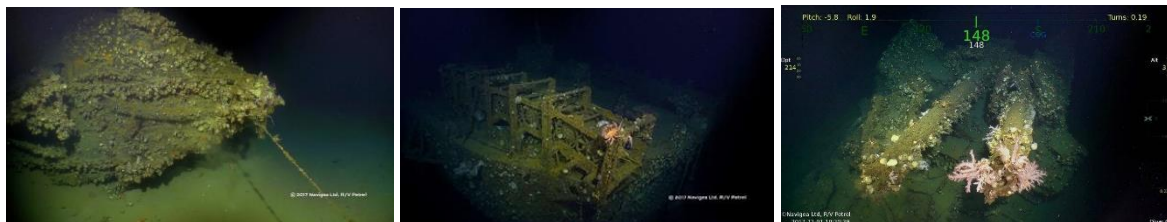


Figure 3. ROV image capture of a) USS *Ward*'s bow section, b) USS *Cooper*'s side launchers, c) IJN *Shimikaze*'s gun turret. Courtesy of RV *Petrel*.

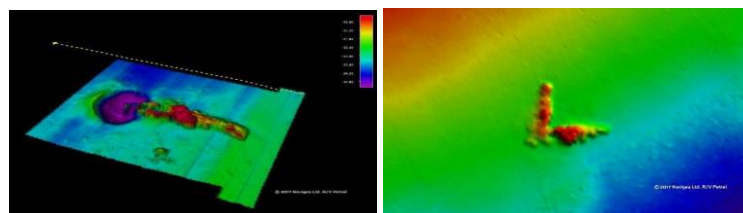


Figure 4. MBES sonar images of a) USS *Ward*, b) USS *Cooper*. Courtesy of RV *Petrel*.

C. The Subic Bay Shipwrecks

Subic Bay is known to contain a large number of historical ship, aircraft, and vehicle wrecks. It is located on the west coast of the island of Luzon in Zambales, Philippines, about 100 km northwest of Manila Bay. Its strategic location makes it an ideal shelter for vessels. The Spaniards discovered the natural, deep and strategically located harbor of Subic Bay and later built their naval fortress that served as a battlefield during the Spanish-American war in 1898. After the Americans took control over the Philippines, Subic Bay was designated as a military reservation from 1900 to 1941 and then again from 1945 to 1991, ultimately relinquished to the Philippines in 1992 (Anderson 2006, 194-204; King et al 2019, 1). Moreover, throughout WWII, Japanese forces took control and maintained a shipbuilding facility in Subic Bay (King et al 2019, 2).

Currently, 14 shipwrecks are identified in Subic Bay to date, excluding aircraft and vehicle wrecks (King et al 2019, 2). This reflects the rich maritime and underwater cultural heritage of the area. One of the most accessible and popular diving sites in Subic Bay is the USS *Majaba*, more commonly known as the *El Capitan*. *El Capitan* was deployed between Hawaii Islands in the South Pacific to bring supplies for the American forces and was torpedoed on the starboard side at the Solomon Islands while unloading (Bennett 2010, 155). After undergoing repair, it was returned to Subic Bay and was placed out of service, then decommissioned in 1946. The ship sunk at its dock that same year (Bennett 2010, 155).

The NMP has conducted field explorations and surveys on different Subic Bay shipwrecks since the 1990's as part of its Cultural Heritage Management responsibilities. In 2019, surveys were conducted on *El Capitan* to document and monitor its condition for the protection and management plan of the Subic Bay shipwrecks. *El Capitan* is situated approximately 10-22 meters below sea level (King et al 2019, 8). The absence of obvious explosive damage confirmed historical records that the ship did not sink in action, but more likely due to collision. Parts of the shipwreck such as the rudder and a possible forward gun platform was also measured and documented for further research (Figure 5).



Figure 5. Documentation of the *El Capitan*'s rudder.

One known 'hell ship' that wrecked in Subic Bay is the Japanese Fleet Carrier Ship *Oryoku Maru*. In December 1944, the *Oryoku Maru* carried around 1,622 Prisoners of War (POW) to be taken to Japan to work in labor camps (Bennett 2010, 139). Several POWs died through injuries, starvation, suffocation, and other brutal causes. As the ship proceeded to Olongapo across Subic Bay, it was relentlessly bombed by American planes from USS *Hornet* causing it to sink. Some prisoners were able to swim to the shore, however, about 270 POWs reportedly died onboard (Bennett 2010, 139).

In 2019, the NMP coordinated with RV *Petrel* to conduct preliminary surveys of Subic Bay shipwrecks, including the *Oryoku Maru*, using MBES. The data (Figure 6) obtained shows that the wreck is laying on the port side in a deteriorated state as its location is also a shipping area. The wreck lies 17–25 m deep, 400 m from Alava Pier (Bennett 2010, 139). There is poor visibility on the site and the wreck has reportedly undergone extensive scuttling. Currently, the Subic Bay Metropolitan Authority (SBMA), the primary authority over the Subic Bay Freeport Zone (SBFZ), has closed the site for all diving activities.

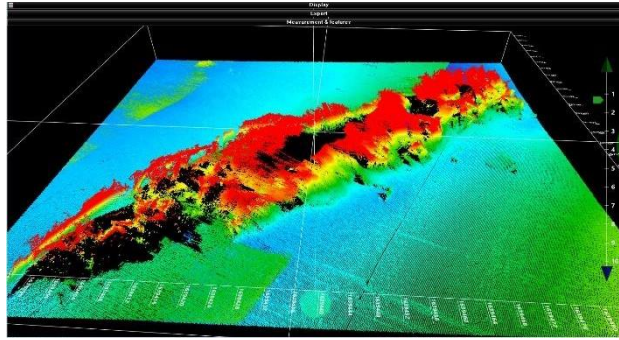


Figure 6. MBES sonar image of *Oryoku Maru*. Courtesy of RV *Petrel*.

One of the most dived wrecks in Subic Bay is the USS *New York*, also known as USS *Rochester*. The ship was a veteran flagship of the Spanish-American War in Cuba in 1898 and the leading battleship of the Asiatic Fleet when it came to the Philippines in 1901 (Bennett 2010, 35). In December 1941, orders came to destroy the Naval Yard at Subic Bay on the advancement of the Japanese. The ship was towed out into the bay and then sunk as depth charges were set off to avoid the Japanese forces from taking advantage of the ship's powerful 200 mm guns (Bennett 2010, 35). Currently, the wreck lies on the Subic Bay seabed with a maximum depth of 30 meters. The decks, forward rear gun turrets, and one large eight-inch gun can be observed in the wreck (Bennett 2010, 35).

The USS *New York* is also part of the Subic Bay shipwreck survey in 2019 with RV *Petrel* using MBES sonar. The sonar image (Figure 7) shows the USS *New York* lying on her port side and in fairly good condition. The data obtained from the surveys will be used for the cultural heritage management of Subic Bay shipwrecks.

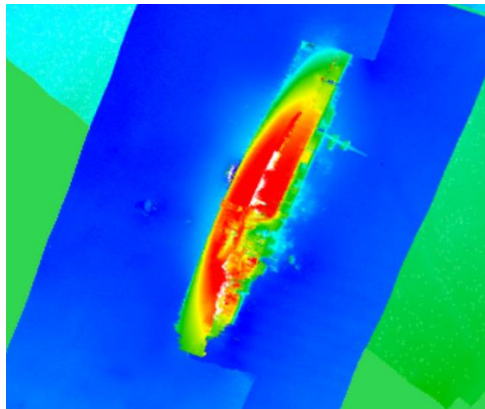


Figure 7. MBES sonar image of USS *New York*. Courtesy of RV *Petrel*.

CHALLENGES IN THE WWII SHIPWRECK MANAGEMENT

Underwater cultural heritage has become more accessible to the public and has been vulnerable to exploitation as well as natural conditions (Manders 2012, 3). These make the management and protection of UCH more difficult. Historical shipwrecks, especially those on shallow waters, are one of the most vulnerable sites since they are constantly exposed to a number of threats such as impacts of climate change, climatic conditions, and damage from human activities including looting, anchoring, and coastal or offshore development (Steyne 2010, 50).

The NMP through its MUCH Division, is the lead agency in the management and research on WWII shipwrecks in the Philippines. Lim et al (2021) outlines the challenges of UCH management in the Philippines. These include lack of adequate funds and qualified personnel, weak legislation and policy enforcement, and insufficient communication and demonstration of significance (Lim et al 2021, 49).

A. Lack of manpower and qualified personnel

The amount of discovered and reported shipwrecks are continuously growing and there is a need for more trained and qualified personnel to conduct archaeological research and excavation. Currently, there are only 11 personnel in the NMP MUCH division: three researchers, six technicians, one laboratory aide, and one administrative officer. Nine of these personnel are licensed SCUBA divers; only one has an extensive background in archaeology. The other researchers have backgrounds in marine science and chemistry, but both are currently pursuing a Diploma Course in Archaeology. With the upsurge of newly discovered sites, as well as the sites that need re-examination, more support is needed.

B. Inadequate funds and equipment

Archaeological surveys, exploration, and excavation of wrecks is very costly, as it requires special equipment necessary to ensure safety of the divers and to be able to conduct the work accurately. It is also crucial to spend a long time underwater for assessment and documentation of wrecks thus, one field season is generally not enough to complete the survey and study of a site. The NMP has acquired SCUBA diving capabilities in recent years, including equipment such as dive computers, metal detectors, a rigid inflatable boat for surveys, and a side scan sonar. However, due to the onset of the COVID-19 pandemic and the safety restrictions, underwater research has been hampered and most equipment has not yet been used. Most equipment such as the dive computer and buoyancy compensator (BC) must be regularly maintained, which also requires additional funding. More advanced equipment is also needed for deeper sites and unstable environmental conditions – the latter are typically very expensive and also need regular maintenance.

C. Issues on policy enforcement and legislation

The major challenge in cultural heritage management is treasure hunting, illicit trade, and antique collecting, which result in the loss of significant information of our history. There has been reported salvaging of small ship parts and objects from WWII shipwrecks as souvenir items and the dynamiting of metal structures for commercial purposes (King et al 2019, 11-12). The regulation of treasure hunting permits is authorized by the National Commission of Culture and the Arts (NCCA), in coordination with the NMP. However, these activities still adversely impact cultural heritage resources. Most of the reported underwater wreck sites have already been looted before the authorities can excavate or survey the site. The illegal trade of cultural objects provides an opportunity for low-income locals to earn money for their livelihood, thus it is a problem that is difficult to control or resolve, especially as there is no clear penalty for the violation of some laws. Moreover, some excavations such as the Tagbita Bay and Mangsee shipwrecks, were unfinished due to insufficient funding, while the investigation of thirteenth to sixteenth century CE wreck sites and WWII remains in Scarborough Shoal was halted due to territorial and maritime dispute between the Philippines and China in the West Philippine Sea (Lim et al 2021, 44-45).

The management of WWII-related UCH involves specific issues such as repatriation of human remains, unexploded ordnances, and potential pollution by oil spills (Takahashi 2018, 11). Many of these sites are war graves and regarded with respect for the troops and the countries for which they fought for. Apart from their historical significance, these wrecks embody our cultural heritage. For the repatriation of human remains, international laws and code of ethics must be considered.

WAYS FORWARD

Although faced with challenges, the NMP MUCH division continues to be proactive by conducting programs that promote understanding and appreciation of the significance of cultural heritage.

A. Raising awareness

Raising awareness is one of the best ways to preserve cultural heritage for future generations. Presently, the museum is increasing the public awareness program through social media educational

posts, *Museum from Home* programs, Virtual Gallery Tours, and soon the digitization of records and databases to make the collections and their study more accessible to the public. The research conducted by MUCH is continuously published in different journals and presented on local and international conferences. It is the agency's objective to strengthen the relationship of the museum with stakeholder communities and share updates on archaeological research and museum works. Information on WWII shipwrecks has been published on NMP's official website and social media pages. Strengthening these programs promotes the appreciation of the public not only on historical shipwrecks but for all the country's cultural heritage as well.

B. Personnel development

There is a need to increase the workforce in the MUCH division, especially personnel that specialize in archaeology. Training workshops and programs on SCUBA diving, proper archaeological methods, conservation, and relevant skills must be developed to produce more competent cultural heritage workers.

C. Linkages and collaborations

The task of managing UCH is a multifaceted process that should not be assigned to archaeologists alone (Manders 2012, 15). Cooperation among concerned stakeholders is therefore essential. Examples are the diving communities who are establishing their own shipwreck databases and are actively involved in discussion forums regarding their environment. The museum's role as the leading agency in the protection of UCH is to facilitate and influence the discussions regarding research, protection, and site accessibility. Priority should also be given to the establishment of partnerships or collaborations for museum works and archaeological research, such as with archaeological institutions, national government agencies involved in cultural heritage and underwater preservation, and other international research institutions. Presently, the NMP has signed with a Memorandum of Understanding with the Philippine Coast Guard.

Other national agencies that the NMP is pursuing collaboration with are the National Mapping and Resource Information Authority (NAMRIA) and Philippine Navy. These agencies have the necessary and more advanced equipment for the survey and documentation of shipwrecks. For instance, NAMRIA has four survey vessels equipped with multi beam and single beam sonars. They also have side scan sonars used in survey activities at shallow waters. They have experienced hydrographers on board that analyze the data from the surveys. According to NAMRIA representatives, they conduct a survey over each reported wreck site every five years. Through collaboration and a Memorandum of Agreement with the agency, their data can be shared with NMP which will be valuable in the protection and management of the wreck sites.

Strengthening of linkages with local and international institutions is also important in the protection and preservation of UCH including historical shipwrecks. These include the continuous collaboration with local institutions such as Kapisanan ng mga Arkeologist sa Pilipinas, Inc., University of the Philippines School of Archaeology, and the NCCA. In the international venue NMP collaborates with the International Centre for the Study of the Preservation and Restoration of Cultural Property, Southeast Asian Ministers of Education Organization, and other cultural agencies.

D. Policy implementation

There is a lack of understanding on the laws governing the underwater cultural heritage of the Philippines. A strict implementation of policies must be established to discourage looters and treasure hunters. There should also be clear designation of roles for all the cultural agencies involved in the preservation of UCH. A regular focus group to address all the issues in the management of UCH can help in ensuring that the policies are properly disseminated to the public.

CONCLUSION

The NMP has been working continuously on the research and preservation of historical shipwrecks. Notable progress on the WWII shipwreck management in the Philippines was demonstrated by the undersea surveys at Subic Bay, Ormoc Bay, and Surigao Strait conducted in collaboration with Navigea's RV *Petrel*. The data obtained from the surveys can be used to document the sites and record their conditions to help plan their protection and preservation. The museum also works on the development of educational programs to raise awareness of the archaeological and historical significance of UCH. Major issues include lack of qualified personnel, inadequate funds and equipment, policy enforcement and legislation, and ethical concerns over exploitation of UCH. These issues can be addressed by strengthening the programs on raising awareness, creating more job opportunities and training workshops for cultural heritage workers, developing new partnerships and strengthening the links between different local and international institutions, as well as strict implementation of UCH policies. It is recommended to publish a book or catalogue explaining the significance of the historical wrecks in the Philippines and also to educate and update the public on the archaeological research activities on these shipwrecks. There should also be involvement and coordination with local diving communities on the promotion of safe and enjoyable diving of wreck sites, while creating a scheme to protect the UCH. The management of WWII shipwrecks must follow a holistic approach, which includes long term measures and monitoring for the protection and sustainability of the shipwrecks.

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