

# The History, Status, and Future of Underwater Cultural Heritage Management in Japan

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## Abstract

*Underwater archaeology in Japan has a long history, as a report of artifacts from Lake Suwa in 1908, as well as discoveries at Tsuzura Ozaki site in Lake Biwa in 1924 detailed. The attempts to find the ill-fated fleet of Khubilai Khan at Takashima Island in Nagasaki prefecture began in the 1980s, but the Japanese archaeological community was slow in recognizing the importance of underwater archaeology. A number of underwater archaeological projects were conducted, but none had a lasting influence; the Japanese government has no law that specifically protects submerged sites, and there was neither government agency nor university that conducted a large scaled underwater excavation. However, several major developments suddenly took place in the past few years. In 2012, at first, following the discovery of a Chinese ship remain at Takashima Island, the Kozaki Underwater Site was registered as the first submerged national historic site. In 2013, secondly, the Asian Research Institute of Underwater Archaeology published 6 volumes of “The Database of Underwater Cultural Heritage and Promotion of Underwater Archaeology: Report on Comprehensive Survey of Maritime Cultural Heritage”. In 2013, moreover, the Agency for Cultural Affairs formed a committee to discuss how the government should act in response to the growing importance of protecting submerged sites. These events signify the Japanese archaeological community, as well as the government, finally began to recognize the importance of underwater cultural heritage. This paper illustrates the history, current status, as well as the possible future development plan of underwater archaeological research in Japan.*

**Keywords:** The Japanese Agency for Cultural Affairs, Law and Policy, Mongol Invasion, UCH Management, Database

## **Introduction**

As an island nation, the ocean has always influenced the life of people living in Japan. A part of Japanese culture has been also shaped by “foreign” influences which must come from “outside the ocean.” Despite these facts, Japan is one nation that has not fully embraced the concept of underwater cultural heritage (UCH) management yet. In this brief article, the authors will propose a possible plan for initiating the management of submerged sites in the nation. To better understand this plan, a brief history of the field, recent developments of underwater archaeology, and the status of Japanese archaeological community are discussed.

### **A brief history of Underwater Archaeology in Japan**

Japan possesses a long history of study of cultural relics found underwater. The discoveries of lithic from Lake Suwa in 1908, and the discovery of nearly complete pottery from Tsuzura Ozaki site at Lake Biwa in 1924 may be noted as the insipient stage of the field of underwater archaeology (Ishihara, 2000). The archaeological community debated how and why these underwater sites formed. It is interesting to note that archaeologists from a century ago had recognized the importance of submerged cultural remains. Since, a number of sites were investigated through a local municipal level but the majority of the projects were limited in scale (Hayashida, 2013). However, two projects that played an important role in the development of underwater archaeology in the country should be mentioned; sites around Lake Biwa and Takashima underwater site.

The largest inland lake in Japan, Lake Biwa has been an important waterways as well as a source of water and food for the people of central Japan. Since the lakefront renovation plan was commenced in 1972, Lake Biwa became one of the focal points of UCH management in the country; over one hundred sites were investigated through this development project (Shiga Prefectural Association for Cultural Heritage, 2010). Cofferdams were built on nearly all of these sites making a dry land excavation possible (Shiga Prefectural Association for Cultural Heritage, 2010). The sites range from Jomon-midden sites to historic building structures; information gleaned through these excavations was tremendous. One important site, dated to around 4,500 years before present, is the Awazu-midden site (Tsuboi, 1994). The shell midden consisted of a layer

of shells and a layer of plants alternatively bedded (Matsui and Kanehara, 2006). Such layering seen at the Awazu site has not been found on any midden sites on land; this is due to a waterlogged condition favorable for the preservation of the organic remains. Chestnuts, acorns, beans, gourds, edible burdock, and other cultigens were found within the plant layers and these plants were most likely cultivated, making the Awazu site one of the earliest that produced an evidence of extensive plant utilization in the country (Matsui and Kanehara, 2006). Japan with its acidic soil, large fluctuation of temperature, and a high annual rainfall rate, finding organic remains on a land site is rare. Thus, the potential of finding evidence of rich and extensive plant utilization of the early inhabitants of Japan is more likely to be found from underwater sites. The Takashima underwater site is a well-known historical battle site; Khubilai Khan's fleet was destroyed here by the legendary typhoon during the Mongol invasion of Japan in 1281 (Delgado, 2010). The site has been reported by popular media, but has seen only a few scholarly publications (Takano, 2013). The history of research at Takashima extends for more than 30 years; based on historical records and local fishermen finding artifacts in their nets, the initial survey around the island was planned in the early 1980s. The project was led by a marine engineer, and various artifacts were found using a sonar system. Some of the artifacts were raised by divers; however, no remains of a vessel were found. Although professional archaeologists were not directly involved during this initial stage, the importance of the site was recognized (Matsuura City Board of Education, 2011). The Takashima underwater site was registered as a known archaeological site and thus became a protected archaeological site by the Law of Buried Cultural Property. Under this law, a site must be thoroughly investigated prior to any land development taking place.

Following this initial project, a series of surveys and excavations were conducted at the island intermittently throughout the 1980s and 1990s. The board of Education at Takashima entrusted the research projects to various organizations, and the Kyushu Okinawa Society of Underwater Archaeology (now the Asian Research Institute of Underwater Archaeology: ARIUA) became the main partner of research. The rescue excavations for the harbor renovation at Kouzaki produced a large number of artifacts related to the Mongol invasion. The excavations continued, and large wooden anchors,

fragments of hull remains, and weapons including ceramic bombs are just a few examples of finds made (Fig. 1). However, the discovery of a hull had to wait for a few more years (Matsuura City Board of Education, 2011).



*Fig. 1 Photo of the Hull Timbers waiting to be conserved at Takashima. (Courtesy of Matsuura Board of Education and R. Sasaki)*

As will be discussed in detail below, the overall majority of archaeological projects in the nation are conducted through local municipalities. While the discoveries were being made, a few underwater excavations had taken place across Japan, but some projects had barely been reported. The Japanese Agency for Cultural Affairs (JACA) had realized the

importance of underwater archaeology and a national plan to manage such sites. Between 1989 and 1991, JACA sent interviews to all 3,245 municipal offices in the country, and a large number of offices reported the possible presence of submerged sites or artifacts recovered from their waters. Among them, 216 locations were selected for an additional survey. The result showed that only 44 of these sites were investigated (Agency for Cultural Affairs, 2000).

### **Recent Developments**

A new phase of research at Takashima was initiated by the team led by Ryukyu University and the technical support provided by the Tokai University. Several seasons of remote sensing surveys identified several targets. In 2011 when divers began removing the accumulated silt on one of the targets, the remains of a Chinese vessel, perhaps more than 20 m in length, appeared. This discovery was covered extensively by Japanese media and brought underwater archaeology to the forefront of attention for many people (Ikeda, 2013). In 2012, Takashima became the first nationally registered submerged historical site; it signifies that an underwater site is now protected as one of the most important Japanese national heritage assets (Nakata, 2013). Following the



Fig. 2 ARIUA's Webpage Showing a Part of the Database. (K. Hayashida)

discovery of intact hull remains at Takashima, JACA formed a committee to discuss how the Japanese government should act to protect submerged sites. The members were selected from various specialists including municipal officials, a vocational archaeologist, and a conservator. At this point, no specific management plan for the country has been decided. To provide the

committee with up to date and accurate information regarding the status of managing submerged sites, Kyushu National Museum was entrusted to study how other countries in the world are managing their UCH.

Another development that took place in recent years is the growth in number of academic, municipal, and vocational maritime archaeologists. Recognizing the growing importance of the field, Tokyo University of Marine Science and Technology became the first University in Japan to establish a course in maritime archaeology. The University initiated a number of survey projects using advanced remote-sensing technologies (Kondo and Iwabuchi, 2011). Some municipalities, including Okinawa, has developed a strong team of archaeologists that can manage the UCH in their waters. They have also conducted several outreach programs where a public can access the underwater sites (Katagiri, 2013). In the last decade, several underwater archaeology groups were formed and conducted research at submerged sites. Among them, ARIUA emerged as a leading institute. Besides their work at Takashima, the ARIUA's underwater site database project initiated in 2009 should be equally cited as a breakthrough. They conducted an extensive evaluation of all known underwater sites in Japan. The project was also supported by various organizations, including other vocational underwater archaeological groups. This was the first time that such a comprehensive information of submerged sites was collected. ARIUA published six volumes of reports with a

<b>Name of the Site</b>	Roof Tile with Kego Inscription	Bounotsu, Kushi-ura	Ashiya Underwater Site
<b>Area</b>	Kyushu/Okinawa	Kyushu/Okinawa	Kyushu/Okinawa
<b>Prefecture</b>	Fukuoka	Kagoshima	Fukuoka
<b>Location</b>	500m SW off shore from Ai-Island in Shingu, Koga City	Bounotsu, Kushi-ura, Minami-Satsuma City	Off Shore Okazaki, Onga District
<b>Type</b>	Isolated Distribution of Artifacts	Shipwreck	Cargo or Possible Shipwreck
<b>Date</b>		Edo Period?	Edo Period?
<b>Site</b>	20-25m deep, sandy bottom	10-20 m deep	23 m deep
<b>Condition</b>		No major changes since its discovery	
<b>Registered/Protected</b>	NO	NO	NO
<b>Content</b>	A roof tile was accidentally found in a fishermen's net and was reported to Koga-City Museum.	Sonar Survey conducted in 1983 by Torao Mozai (Grants-in-Aid for Scientific Research)	A sports diver located the site between 1989-1992; found over 100 Hizen porcelain fragments. ARIUA conducted a preliminary diving survey in 2004.
<b>Artifacts</b>	Roof Tile	Wood (hull), Porcelain	Edo Period (19 <sup>th</sup> cent) Porcelain from Hizen. Mainly Glazed ware and celadon. Bowls and plates.
<b>Feature</b>	A side-scan sonar survey was conducted around the area in 1998	Shipwreck	
<b>Reference</b>	Yoshitake, M., 2001. The Roof Tile with Kego Inscription Collected off Ai-Island Shore in Shingu, Fukuoka. <i>Bulletin of Fukuoka City Museum</i> , Vol. 11:25-30. (in Japanese)	Agency for Cultural Affairs., 2000. Considering Methods for the Protection of Archaeological Sites: Underwater Sites. Agency for Cultural Affairs, Tokyo (in Japanese).	Nogami, T., 2005. Porcelain from Hibiki-sea. <i>The Journal of Underwater Archaeological Studies</i> , Vol. 1: 62-85.
<b>Photo</b>	YES		

Table 1. Examples of part of the Database available on-line (translated into English)

database of over five hundred submerged sites (Fig. 2 and Table 1) (Asian Research Institute of Underwater Archaeology, 2013). This study will be a valuable source for obtaining information regarding underwater archaeology in Japan and a foundation for future studies on the subject.

### **Problems Concerning Underwater Cultural Heritage Management in Japan**

There are three main problems concerning the protection of UCH in Japan. First, the underwater sites are not specifically mentioned in the laws. Second, there are no proper rules established when someone discovers a relic underwater, and third, no archaeological survey is required prior to a construction over water. Another concern, perhaps different in nature than the first three mentioned, is the lack of information regarding UCH in general. Before beginning the discussion of these problems, a current status of Japanese archaeological community will be illustrated.

The law on the Protection of Buried Cultural Properties is the basis of all archaeological excavations in Japan. JACA sets the rules and guidelines for site management, and in most cases, the local Board of Education is responsible for managing local sites (The Japanese Archaeological Association, 2012). Each municipality is responsible for maintaining a database of known sites. Once the site is listed, any development that takes place within or around the site must be excavated. The local authority decides which sites are to be listed and some municipalities take a step further by surveying. There are many Universities with programs in archaeology, but academic research within Japan is little more than 5 % of the total (The Japanese Archaeological Association, 2012). There are a few public archaeology firms, but they are mainly limited to conducting projects in large cities. Their archaeological projects must also follow the municipal standards. The number of archaeological sites excavated - around 8,000 sites per year - may be surprising to many (The Japanese Archaeological Association, 2012). Although many of the sites are small, the number of artifacts recovered from these sites accumulates quickly. For example, the number of sites (or perhaps it should be called “projects”) at Hakata, the historical port city in Fukuoka Prefecture in western Japan, now counts up to two hundred in number. These Hakata sites produce thousands of artifacts each. Many of the municipalities are struggling to complete the analysis of the astronomical amount of data gathered. Still, excavations

take place each year while the budget and the number of specialists involved with the heritage management has been shrinking (The Japanese Archaeological Association, 2012). In this situation, the focus of the research tends to be detailed artifact analysis (which Japanese archaeologists are one of the best in the world) and starting something new is extremely difficult.

Japanese law also has a room for improvements. Although the current law does not specifically mention artifacts found underwater, the absence of the word “underwater” in the legal code should not imply that submerged sites need not be protected. Underwater sites can be protected if they are registered; the problem is how to get the site onto the list. The Takashima underwater site has been on the protected list and thus the past rescue projects were possible. Still, not having the word “underwater” may give an impression - consciously or not - that such sites are not common. The second problem, not having a set of standards when discovering an underwater site, may be a larger issue than the first problem. When a relic is found, a person should report to the local police department first. The police will then decide the fate of the found artifact. There are several ways to dispose of the finds depending on which law is applied. The best way in which to protect objects is to define them as a cultural property. In this case, the object will have the same protection as that found on land. If the police consider the artifact as a lost object, the law of lost property will be applied; the lost object may be given to the finder if no one claims ownership of it. The third problem is not having a regulation that requires archaeological survey before a development takes place over water. The archaeological community is largely unaware that such a survey does not require a large sum of money as it did in the past, and the industry is unaware of the fact that underwater sites are fairly common.

One problem is the lack of information on maritime archaeology that can be found written in Japanese. In addition, a somewhat skewed and out-dated image of the field still persists. The blame should not be directed towards Japanese archaeologists, as it is our shared world heritage that we are striving to preserve. Not many people in Japan think that underwater sites are common and finding those sites are extremely difficult and expensive, if not impossible. Many think that to become an underwater archaeologist requires extensive training, and that excavations and conservation still

more expensive. The information we hear about the subject primarily comes from national projects conducted in China and Korea, together with the stories of raising *Vasa* and *Mary Rose*. Considering the national budget set for archaeological research, underwater archaeology does not appear to be a practical choice. Furthermore, since it is certain that there is no job that a student can get even with a degree in hand, the study of underwater archaeology cannot be a career of choice for many.

### **Proposed Plan**

There are several ways in which Japan may develop the program managing UCH. One possible way is for Japan to create a national underwater archaeological research center under JACA. This plan may be similar to the path China and Korea have taken. However, considering that the Japanese archaeological community is structured through cooperation of municipal archaeologists and a nation-wide project is rare, this plan may result in the isolation of underwater archaeologists from the rest of the “land archaeologists.” In addition, the government must first secure funding for such program. The most suitable plan for Japan is to utilize the existing infrastructure, limit any major changes, and create a system that municipal archaeologists could manage. The best management plan is one in which the main task of actual activities will be conducted through the municipal archaeologists and the existing groups of underwater archaeologists assisting the tasks. JACA will provide advice to municipalities and check the overall management of the underwater sites. The municipal archaeologists will manage the underwater sites according to the principles set by JACA. The main task will be to register new sites and perhaps organize surveys and excavations with the help of vocational underwater archaeological groups. As this scheme is only a proposal and not a completed plan, the details regarding how to incorporate the non-archaeological community and stakeholders into the overall heritage management has not been fully debated.

Along with the minor organizational arrangements, changes must be made in some of the laws; the three problems mentioned in the section above must be solved. The current cultural heritage law is an effective way to protect underwater sites, even it does not mention the word “underwater” specifically. JACA may distribute to each municipality an addendum explaining the guidelines for managing UCH. It should be

mentioned in these guidelines that objects found in submerged context should have equal protection to those found on land. In addition, a survey to find and record new archaeological sites should be encouraged. The government should set a standard procedure when someone finds a historical artifact underwater, and a note should be distributed to all authorities. A change in legislation - namely to require a survey before development takes place on water and an agreeable cooperation plan with the fishermen's association - is needed. When there is construction over water, conducting archaeological surveys by marine engineering companies is not something out of the ordinary. Once the stake-holders realize the importance of protecting underwater sites, as they respect archaeological sites on land, installing a rule for surveys on water should not be difficult to accept. The actual "loss" for a community and the stake-holders caused by adopting the protection of UCH, we believe, is minimal; the benefit, although it may be difficult to represent in economical terms, should outweigh the malefic. The local community may feel pride in having an underwater site, or some of the representative artifacts raised from the sea may bring tourists to the area.

At the same time these changes are made, more up to date and accurate information about maritime archaeology should be disseminated. Both academic and non-academic publications should be encouraged. There is a plethora of reasons why distributing a current status of the study need to be promoted. To give one example, the Japanese archaeological community has already realized that raising and conserving a nearly complete vessel is not practical; however, it is a surprise to the Japanese public, as well as archaeologists, that the study of underwater archaeology is no longer about excavating sunken vessels. Once the archaeological community realizes that a project that raises an entire vessel is not a norm, and the coexistence of development with a long-term management of underwater sites is the current trend, a meaningful discussion of how the nation should protect submerged sites can begin. In addition to academic publications, the study of UCH should be introduced to a wider audience through popular publications and media. The stakeholders, including construction companies and the fisheries cooperatives, are the most likely groups that will be directly involved with UCH. Without the proper understanding of the value of artifacts found underwater by these groups, a protection of UCH will be difficult to achieve.

## **Conclusions**

In this brief article, the history and current status of UCH in Japan was discussed. Based on the discussion, a possible plan on UCH management was proposed. Despite a long history of people being interested in relics found underwater, the Japanese archaeological community was largely indifferent to the development of UCH management around the globe. To bring about change in the Japanese archaeological community may take some effort, but the benefit of the proposed approach is that it does not require an extensive change in how the archaeological community is organized, nor does it requires a large budget. It also preserves the existing, and growing, underwater archaeological groups in the nation. Although this is one proposed solution, we believe it will bring more in depth and meaningful discussion on how to manage UCH in Japan.

## **Acknowledgment**

This paper was written by the members of a group led by Kyushu National Museum entrusted to create a report for the Japanese Agency for Cultural Affairs on a current trend of UCH management in the world. This is only a proposal generated by the authors' personal views and does not reflect the opinion or the plan of the Japanese government nor any institutions.

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## **Biography**

**Randall J. Sasaki** a PhD candidate at Texas A&M University, Sasaki is also working as a city archaeologist in Fukuoka City. His main interest has been traditional East Asian shipbuilding technology, particularly from the Chinese Yuan (Mongol) dynasty period. He conducted a timber recording project at the Takashima underwater site and also led a survey team at the Bach Dang River Naval Battle Site in Vietnam. He has been working on promoting importance of Underwater Cultural Heritage to the Japanese public; a popular book he published became one of the best seller titles on the subject in Japan.

**Setsuo Imazu** has received his doctorate from Aoyama Gakuin University. He has worked at Fukushima Museum and Archaeological Institute of Kashihara at Nara. In 2005, he was invited to the newly created Kyushu National Museum. Currently he is the Director of Museum Science Division. He specializes in conservation, mainly focusing on treatment of waterlogged wood. He has published in various scholarly articles in Japan and other countries.

**Yuji Dainobu** received his BA in History of Western Art from the International Christian University in 1977, Maitrise in History of Western Art from Universite Catholique de Louvain (Belgium) in 1980, and MA in History of Eastern Art from Kyushu University in 1983. He worked as a research assistant at the Faculty of Letters at Kyushu University in 1983, and later as a curator at Tokyo National Museum until 2004. He has joined Kyushu National Museum in 2004. He has organized many exhibitions including Tibetan Art, Liao Art, HIRAYAMA Ikuo and World Cultural Heritage. He has published many articles on Buddhist art and Silk Roads.

**Yoshihiko Akashi** studied archaeology at Meiji University. His career includes working at Kyushu Historical Museum. His current position is the Director of Exhibition Division at Kyushu National Museum. He has published a number of scholarly articles on Japanese forts, or mountain castle, and also on the study of international commerce and relationship in ancient Asia. He is also interested in ancient Korean ceramics and decorated Kofun (painted tumuli).