

A Study on the Narrative Display Technique of the Underwater Archaeological Museum: Focusing on Shipwrecks and Underwater Cultural Assets

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ABSTRACT

The underwater archeology museum mainly deals with archaeological and historical shipwrecks and artifacts from ancient times to modern times as old as the history of marine activities of mankind, and has been operated with the participation and efforts of many experts for a long time, from underwater excavation to preservation and exhibition. Unlike general archaeological artifacts, underwater cultural properties require sufficient preservation treatment, as they are in a waterlogged environment. In particular, shipwrecks, which are submerged timber cultural assets, should be displayed in a sustainable manner while considering the preservation environment, and there is a need to explore how to effectively introduce the remaining hulls to visitors.

The museum's exhibition can be said to be a fact-based narrative realization activity. In particular, a shipwreck that sank at a specific time has a narrative like a 'time capsule'. In order to examine the narrative display techniques of underwater archaeological museums, this study is conducted as follows: 1) analyzing the shipwreck exhibition cases in Korea and the world to organize the differences of other maritime museums, 2) identifying convergence characteristics such as viewing environment-preservation-restoration strategies, tasks, and issues for effective exhibition of shipwrecks and underwater cultural properties, and presents exhibition directions, and 3) suggesting an exhibition technique to effectively convey the 'narrative' and value of shipwrecks and underwater cultural assets. From 1994 to the present, the author has been exhibiting several ancient shipwrecks at the Maritime Artifacts Exhibition Hall of the National Research Institute of Maritime Cultural Heritage (NRIMCH), and has tried various display techniques for them. This study is expected to be the data to think about how spatial curation, which visualizes and spatializes 'time and space of the past' through encounters with convergent exhibition techniques, is carried out.

Keywords: underwater archeology, maritime museum, underwater cultural heritage exhibition, shipwreck

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INTRODUCTION: NARRATIVE OF MUSEUM EXHIBITS

Today, the paradigm and central function of museums are rapidly shifting from traditional roles such as collection, preservation, and exhibition to one of user-centered, cultural enjoyment, and consumption. Among them, exhibitions are at the very center of the paradigm shift as an essential activity of museums. In-depth consideration is required for subject selection, exhibition planning, content and scenario composition, archive services, public feedback of academic research and return of research results to the public, and presentation methods and materials. Moreover, it is important to seek an exhibition that moves the hearts of visitors. One of the important elements that move the emotions of the visitors is the narrative. The museum's exhibition can be considered to be an activity of realizing a narrative based on facts. Narrative exhibition contents are curated to visualize and spatialize 'time and space of the past' through encounters with design.

Narrative realization is importantly treated in museum exhibitions in the field of humanities, such as archeology, history, and folklore. In particular, the 'shipwreck', the central exhibition content of the underwater archeology museum, is a product that disappeared at a specific time and place, and has a narrative that contains the story of that point, like a 'time capsule'. Admittedly, the narrative of the museum is not contained only in the exhibition content. Many maritime museums around the world are located in waterfront spaces such as ports or riversides, providing historical locality to the location environment, and harmony with the sea space and identity to in the architecture. All of this can be said to be a time-space curating and an integrated narrative process.

Research scope and method

An exhibition achieves its best purpose when it communicates and exchanges emotions between people in the past and present visitors through exhibits. The theme of the exhibition is a fantasy series that transcends time and space, and the work of creating optimal narrative and storytelling is exhibition design and space curating.

This study aims at examining the important 'narrative directing technique' in the exhibition space of the underwater archeology museum and the convergence curating with various fields in the process of realizing it. The scope of the research is museums specializing in underwater archeology, which focuses on 'shipwreck' and 'underwater cultural assets'.

EXHIBITION AND NARRATIVE OF THE UNDERWATER ARCHAEOLOGY MUSEUM

Underwater Archeology Museum in Korea

As for the underwater archaeological museums in Korea, there are two museums: the Mokpo Maritime Artifacts Exhibition Hall and the Taejeon Maritime Artifacts Exhibition Hall of the NRIMCH under the Cultural Heritage Administration. Other than them, there are two places that focus on humanistic exhibition contents, the National Maritime Museum and the Incheon National Maritime Museum under the Ministry of Oceans and Fisheries. All of these four museums have the identity of the sea and the historical locality. These museums are establishing a narrative environment that connects the sea and exhibition programs from the external environment.

Maritime Silk Road Museum in China

The museums displaying underwater cultural properties in China include the Shandong Province Penglai Ancient Ship Museum, the Fujian Province Quanzhou Overseas Transportation History Museum, the Zhangzhou Maritime Silk Road Museum, and the Guangdong Provincial Museum and Yangjiang Maritime Silk Road Museum.

Yangjiang Maritime Silk Road Museum is China's first museum specializing in underwater archeology, located on the seashore of Hailing Island, Hailing Island, Guangdong Province, in the South China Sea. Nanhai no. 1, the Southern Song Dynasty merchant ship, and about 100,000 artifacts are the main collection. The shipwreck sailed from China to the Arabian Peninsula about 800 years ago, but sank in the South China Sea. The Maritime Silk Road is a huge historical narrative that connects the world by sea and is an important theme in the exhibition of underwater cultural properties in Asia.

In 2013, Nanhai no. 1, an underwater merchant ship of the Southern Song Dynasty, was moved to the center of the museum in a large container. Since then, the lower part of the hull has been made into an environment similar to the sea, and archaeological excavations have been carried out on land. All of these processes are open to the public as exhibition contents. It is very experimental and interesting attempt to make the museum into an underwater excavation site.

Asian Civilizations Museum in Singapore

The Asian Civilizations Museum (ACM, established in 1993) is located on the beautiful seaside of the port city-state of Singapore. 'Understanding Asia Through Singapore' is the motto promoted by the Museum of Asian Civilizations, implicitly containing the identity of the museum. It focuses not only on the history of the port city of Singapore, but also on Asian culture, civilization, and globalization.

The iconic collection of the Asian Civilizations Museum is the Belitung shipwreck artifact. In the permanent exhibition room no. 1 is an exhibition with the theme of 'Maritime Trade'.

Museums of Underwater Archeology in Europe

Mary Rose Museum in England

While, in the UK, there are several maritime museums such as the National Maritime Museum, the Cornwall Maritime Museum, and the Mary Rose Museum. The Mary Rose Museum is about underwater archaeology. The Mary Rose Museum (established in 1982) is located in the Portsmouth Historic Dockyard in Portsmouth, County Hampshire, England.

Mary Rose is a warship from the time of King Henry VIII (1509-1547) of the Tudor dynasty in England in the sixteenth century. The museum exhibits remaining restored hull and artifacts. The narrative of *Mary Rose* begins from the time the ship was built (1509-1511). Henry VIII built the *Mary Rose* as a product of Tudor naval power and the product of Renaissance science. The *Mary Rose* was sunk in the Strait of the Solent in 1545 during a battle with a French fleet after 30 years of active service. The narrative of the *Mary Rose* could be restored with vivid marine paintings and records drawn by court painters at the time

The entire journey of *Mary Rose*, including voyage, sinking, discovery, excavation, preservation, research, and opening to the public, is a historical narrative and exhibition content. The exhibition at the Mary Rose Museum is characterized by the arrangement of a 1:1 scale artifact exhibition space next to *Mary Rose*. Through this, the exhibition line of movement was directed as if the visitors were active inside the ship. To ensure that visitors and the local community can feel the image of 'eternal treasure Mary Rose' rather than a battleship of misfortune, online and offline exhibition techniques with various ideas are being developed.

Vasa Museum in Sweden

Sweden's representative underwater archaeological museums include the Vasa Museum and the Maritime Museum Stockholm. Along with the Mary Rose Museum, it is one of the European leading underwater archaeological museums. Sunk in Stockholm in 1628 and excavated 300 years later, *Vasa* is the best-preserved seventeenth century warship in the world. Its artifacts are on display. A total of 64 cannons were installed on the ship, of which only three were found. The Vasa Museum is working on a project to find the remaining cannons by 2028, the 400th anniversary of the sinking.

Like the Mary Rose Museum in England, the exhibition is structured to tell the story of the entire journey of *Vasa*, including voyage, sinking, discovery, excavation, preservation, research, and opening to the public. The narrative of *Vasa* was introduced along with historical information such as Swedish naval power and shipbuilding in the seventeenth century. Visitors can see the keel at the bottom of *Vasa*, the interior space, and the end of the stern while moving through a total of six floors.

Copenhagen National Museum in Denmark

In Northern Europe are many underwater archaeological and shipwreck museum. Shipwreck museums include the Copenhagen National Museum in Denmark and the Viking Ship Museum in Norway, both of which have Viking ships as an exhibition theme.

Norway's Viking Museum focused on presenting three Viking shipwrecks: Oseberg, Gokstad, and Tune rather than narrative exhibitions. The National Museum in Copenhagen, Denmark, mainly presents narrative and dynamic exhibitions using various convergence production techniques.

The highlight is the Viking exhibition among them. Once active as warriors and raiders on the seas between continental Europe and Britain, the Vikings have historically been both respected and despised. The National Museum of Copenhagen introduces one Viking shipwreck and hundreds of historical artifacts. Although only a small part of the Viking shipwreck was excavated, the narrative of the Vikings was expressed through various exhibition techniques such as restoration frames of the shape of a ship and large-scale videos.

The National Museum in Copenhagen is planning three-series exhibitions with a Viking theme. In 2023, the second special exhibition ‘Join the Viking – on Raid’ is being held. In this exhibition, visitors can encounter the world of Vikings and the rarest treasures of the Viking Age, and experience the journey of joining the Vikings in an epic film. An archaeologist-turned-screenwriter maximized the narrativity of the exhibition by participating in this work.



Figure 1. Restoration frames and video display technique of Viking shipwreck



Figure 2. A Viking warrior in the animation

THE 700-YEAR JOURNEY AND EXHIBITION REALIZATION OF THE EAST ASIAN MEDIEVAL TRADING SHIP, SINAN SHIPWRECK

Narrativity of time and space

Sinan shipwreck marks the beginning of underwater archeology in Korea. Even now, 50 years after the underwater excavation, it is a representative underwater excavation achievement not only in Korea but also in Asia. Like shipwrecks in many countries around the world, Sinan shipwreck has a journey of about 700 years from voyage to sinking, discovery, excavation, preservation, research, and opening to the public. Sinan shipwreck narrative is a merchant ship that departed from Ningbo, Fujian Province, China in 1323 and sailed to Fukuoka and Tokyo, Japan. It also has the narrative that it was sunk through a marine accident in the process of voyage.

In the 700-year long journey and time and space, there are cultural properties excavated underwater and numerous people, including fishermen in the Sinan fishing village who accidentally discovered the Sinan shipwreck, and an investigation group who devoted their passion for about 10 years, and researchers of preservation and recovery of Sinan shipwreck over the 20 years. All of these tangible and intangible records and data were used as exhibition contents for the 40 years of the Sinan Shipwreck Exhibition.

Composition of the exhibition

The underwater archeology museum, which mainly exhibits the Sinan shipwreck, is the Mokpo Maritime Artifacts Exhibition Hall (Asian Maritime Exchange Room) of the NRIMCH. In addition, the National Museum of Korea (World Culture Center) and the National Gwangju Museum (Asian Ceramic Culture Room) introduce their main collections in their permanent exhibitions.

Exhibition of Sinan shipwreck at the National Museum is a comprehensive museum focused on ceramics, especially art history. Unlike this, the Mokpo Maritime Artifacts Museum, an underwater archeology museum, organizes exhibitions focusing on the 700-year journey of the Sinan shipwreck and time and space: Part 1 'Sinan Shipwreck, Awakening the Underwater Treasure Ship', Part 2 'Secrets of the Sea, Navigating the Maritime Silk Road', Part 3 'Cultural Exchanges through the Sea Route in Medieval Asia', and Part 4 'Sinan Shipwreck, Opening the Treasure House under the Sea'. The exhibition scenario is developed in the order of discovery (1975 CE) and excavation (1976-1981 CE) of the Sinan shipwreck, voyage (1323), enjoyment of medieval culture and maritime exchange (the fourteenth century), and opening (present).

Convergent time-space restoration and exhibition technique of Sinan shipwreck

Most of the underwater archaeological museums examined until now open the restoration process of shipwrecks to visitors, and even utilize the work of the staff as an element of the exhibition. At this point, in addition to the exhibition planner, experts in visual and interior architectural design, conservation science, shipping company, and ship engineering participate together to create a convergence exhibition, empirically restore the wreck, create a safe preservation exhibition environment, and finally visualize the exhibition space, completing comprehensive space curating.

Table 1. Processes of combining restoration and display of shipwrecks

No.	Country	Museum	Shipwreck designations	Display methods
1	Korea	Mokpo National Maritime Museum of the NRIMCH	Sinan shipwreck	- display of restoration process - restoration of hull shape (metal frame) - production of multiple mapping panorama
2	China	Maritime Silk Road Museum of Guangdong	Nanhai I	- display of processes of outdoor archaeological excavation for the first time around the world
3	Denmark	National Museum of Denmark	Viking shipwreck	- restoration of hull shape (metal frame) - production of multiple mapping panorama
4	Sweden	Vasa Museum	Vasa	- display of processes of conservation and restoration
5	Germany	International Maritime Museum	Bremen cog	- display of processes of conservation and restoration
6	United Kingdom	Mary Rose Museum	Mary Rose	- display of processes of restoration

The shipwreck exhibition is largely divided twofold: 1) ship structure with frames of the shape of a ship and restoration of lost hulls, and 2) introduction of digital, model, and lighting exhibition directing techniques. Both Viking shipwreck from the National Museum of Denmark and Sinan shipwreck from the Mokpo Maritime Artifacts Museum in Korea introduced both of them.

The restoration frame of Viking shipwreck expresses the structural characteristics of the ship and the magnificent yet elegant shape well, and the appropriate lighting directing allows visitors to feel the majesty of the Viking shipwreck. In particular, the animated panoramic video makes it possible for people to understand the dramatic historical story emotionally. The exhibition space was brought back to the dynamic Viking era with the technique of mapping videos on multiple screens.

As for the convergent restoration of space and time of Sinan shipwreck since 1994, new attempts have been applied to depending changes in exhibition techniques and technologies. In addition to restoration frames of the shape of a ship, animations and panoramic images were directed, and the audience's immersion was enhanced by maximizing the impression of the images through music direction.

CONCLUSIONS

The environment for underwater cultural properties includes the sea, rivers, and lakes, and most of them are the sea. As the sea is a space separated from the land, it is an unknown world from ancient times, a subject of fear, challenge, and overcoming, and a space where life and death coexist. This perception of ours is generally overlapped with the gaze of looking at underwater cultural properties. If ship's voyage and maritime activity had been successful, there would have been no unfortunate archaeological artifacts.

This study examined how the narrativity of underwater cultural properties is realized in exhibitions in museums. Through the cases of major underwater archaeological museums and shipwreck museums in the world, it was found that there is a common journey and narrative from sailing -> sinking -> discovery -> excavation -> preservation -> research -> exhibition. Each museum is reducing the distance between the audience and the exhibition contents and expanding the direct or emotional participation of the audience by organizing the exhibition through storytelling of its shipwreck's narrative. Above all, it was found that the value of underwater cultural properties was being recreated through convergence with

various fields, and museum exhibition techniques were also greatly changed and developed according to the paradigm of the digital age.

The basic condition of the exhibition is to make the audience immersed in the time and space through interaction with the exhibits. Narrativity, that is, an exhibition based on storytelling, draws empathy and immersion. The long journey from the narrative and the long journey from sinking to the exhibition of underwater cultural properties is being reinterpreted and reconstructed through the exhibition methodology and is open to the public. This is the reason narrative exhibition techniques and space curating are needed to draw sympathy and emotion in line with the public's gaze on not only the brilliant history and culture, but also cultural properties.

This study considered that there is a limit to comprehensively grasping the narrative exhibition techniques and trends of the underwater archaeological museum, as it is limited to the analysis of limited museums and exhibition cases. The Maritime Artifacts Exhibition Hall of the NRMCH has exhibited several ancient shipwrecks and has been using and attempting various exhibition contents. However, there is still a challenge of how to proceed as a museum specializing in underwater archeology.

Bibliography

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