

[Kakenhi Essay]

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Grants-in-aid and Underwater Archaeological Research
on the Mongol Invasions of Japan (*Genko*)

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That day in October 2011, I was working on the seabed at the depth of 23 m, off 200 m from the southern shore of Takashima Island in Imari Bay. The Island is part of the city of Matsuura in Nagasaki Prefecture. Imari Bay and surrounding area is known in history as a staging ground for the Mongol Invasions of Japan (*Genko*) that took place in the late 13th century. We were searching there for the relics of the Mongol fleet sunk during the Battle of Koan in 1281 A.D. It is estimated that the thick deposit of silt washed in from the surrounding area accumulates at the rate of 10 cm every century. Assuming that the estimate is accurate, we should be able to reach the layer of seabed that existed at the time of the battle by digging down into the sediment for 70 cm. However, when we began excavating, the stirred sediment formed murky clouds that limited our visibility to less than 50 cm at its worst. Although divers engaged in the excavation work reported that they had found buried pieces of wood and other material, the entire plan of the excavated area remained virtually invisible for some time.

Perhaps we were fortunate that day for having favorable wind and tidal current. While we excavating, the turbid sediment suddenly dispersed, revealing the entire excavated area of 10 m by 10 m. As the site came into our view, we could clearly see what appeared to be a keel - approx. 50 cm wide - along the center, stretching east to west. The hull planks were lying neatly along the keel and ceramic tiles scattered over the wreck. That was the moment I realized that I have finally discovered a sunken warship of the Mongol Invasions, which I was searching for years off Takashima Island.

The first scientific survey at Takashima was initiated by Torao Mozai who advocated the possibility of finding sunken remain of the Mongol Invasions off Takashima Island. This survey was part of the study titled “A scientific study of ruins and ancient cultural artifacts (1976–1979; principal investigator Namio Egami),” that had been selected to receive Ministry of Education grants-in-aid for scientific research on special topics. In 1981 as a result of this survey, an area extending 200 m off shore along a 7.5 km belt of Takashima Island’s southern coastline was registered as a protected archaeological site

associated with the Mongol Invasions. Some years later, another project titled “Fundamental Study on the Methods of Investigation: Study, and Conservation of the Site at the Mongol Invasion in the Takashima Seabed (1989–1991; principal investigator, Tadashi Nishitani),” was awarded a three-year grant for conducting comprehensive project in scientific research (A) that involved the utilization of acoustic sounding equipment and underwater cameras. These projects combined geophysical survey tools, including acoustic sounding, with diving works for the benefit of underwater archaeological research.

To develop a preceding research of this kind, I applied and was approved for a new grant-funded undertaking in basic research (S) titled “Grasping and Analyzing Mongolian-Expedition-Related Archaeological Sites and Remains on the Seabed of Takashima”, which was scheduled from 2006 to 2010. A recent rapid advancements in Differential Global Positioning Systems (DGPS) and acoustic sounding devices enabled us to deliver drastically improved level of precision in mapping seabed features. Introducing these advanced tools to archaeology, this research project produce detailed bathymetric and geological maps of the entirety Imari Bay. Analyzing the data, we selected locations where relics from the Mongol Invasions were most likely buried. At one of those sites, we launched an exploratory excavation work and in the final fiscal year of this grant-funded project, we detected outlines of wooden frames with scattered tiles assumed to be from a sunken vessel. However, partly because our survey plot at that time was as small as 5 m square, we were unable to clearly identify the hull components, the structural design, and the size of the sunken vessel. Hence, I applied for an abolition grants-in-aid to fund a 2011 project in basic scientific research (S) on the theme, “Survey and study of sunken ship from the Mongol Invasions utilizing the methods of underwater archaeology”, to support the continuation of our survey and research efforts. Fortunately, my application was approved for another five-year period that began in 2011; ultimately, this research led to the discovery of the sunken Mongol warship I described at the beginning of this essay.

Unlike research surveys performed on land, surveys of underwater relics demand technical proficiency in scuba diving. Additionally, one must obtain the instrument utilized in an underwater research and must master the technologies and methods involved with it. These are some of the reasons why projects in underwater research tends to demand budgets tens of times larger than those research conducted on land. Sites. Many Japanese researchers have accordingly distanced themselves from underwater archaeology as an esoteric branch of science; that is one factor that has impeded an advancement of research in this field. However, the recent discovery of the Mongol warship was an accomplishment that has effectively removed this bias and

steadily fostered growing public interest not only in the field of underwater archaeology but also in the ruins and relics that lay submerged in waters of the Japanese archipelago. Thanks to the long-term contributions of grants-in-aid for scientific research, underwater archaeological research has at last earned a measure of social recognition in Japan. Indeed, without the contributions that grants-in-aid have provided us, we believe that a Mongol warship may never have been discovered. We are cognizant of this reality and wish to accomplish more through surveys and research over the remaining duration of the project now under way. According to historical accounts, the invading Mongol naval fleet—crushed by the legendary storm—was comprised of about 4,400 warships. We discovered only one of these sunken vessels. The other 4,399 vessels may still lay submerged or buried somewhere on the seabed in Imari Bay. Unless we strive to improve our ability in locating them, a prospect of further scientific breakthrough in research of the Mongol Invasions may remain little.