

Utilization of the Samudra Raksa Museum as A Learning Resource for Nusantara Maritime History from the 8th to the 16th Century

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ABSTRACT

The Samudra Raksa Museum is an important representation of the archipelago's maritime history that developed from the 8th to the 16th centuries AD. However, its utilization as a learning resource for history remains relatively minimal, especially in contextual learning oriented toward direct experience. This research aims to explore the potential of the Samudra Raksa Museum as an effective and relevant learning resource for history among students. A descriptive qualitative approach was used, with data collection techniques comprising observation, interviews, documentation, and literature studies. The results show that the Samudra Raksa Museum has high educational value through its collections and visual narratives, which represent the glory of shipping, trade, and maritime diplomacy of the archipelago's kingdoms—especially the Sriwijaya Kingdom. This study recommends integrating museum visits into the national history curriculum. In conclusion, the Samudra Raksa Museum serves as a highly effective and interactive learning resource that enriches maritime history education. To optimize its use, it is recommended to integrate museum visits into the national history curriculum, develop structured learning modules, enhance teacher preparedness, and expand accessibility through digital platforms such as virtual tours. Collaboration between schools and museums, along with logistical support, is essential to ensure equitable and contextual learning experiences for all students.

INTRODUCTION

The maritime history of the archipelago cannot be separated from its strategic role in international trade networks since ancient times. Its geographical position at the crossroads of the world's shipping lanes makes this region the main link between the Indian Ocean and the South China Sea, as well as a center for the distribution of high-value commodities. This advantage of location triggered the development of maritime empires that relied on the power of naval fleets to maintain and expand their influence.

In the 8th to 16th centuries AD, the archipelago's maritime shipping reached its heyday with the emergence of large kingdoms such as Srivijaya and Majapahit that controlled strategic trade routes in the Strait of Malacca, Sunda Strait, and the Banda Sea. The archipelago acts as a distribution center (*Warehouse*) in the global trade network connecting the Indian Ocean and the South China Sea, exporting commodities such as spices, camphor, gold, and cinnamon (Ananda Maharani et al., 2025; Hall, 2019; Orillaneda, 2014).

The technological advances of the outrigger ship of the 8th century depicted in the relief of Borobudur, as well as the ship *Young* 14th–15th century giants, allowing long-distance voyages to East Africa by taking advantage of monsoon winds and star navigation. These shipping lanes not only encouraged economic growth, but also became an influx of Hindu-

Buddhist and Islamic cultural and religious influences, while major ports such as Palembang, Tumasik, Gresik, and Ternate developed into centers of international interaction. Nevertheless, this glory was colored by competition between kingdoms, the threat of sea piracy, and the beginning to disrupt the dominance of local trade with the entry of the Portuguese in the early 16th century (Charney, 1996; Villiers, 1981; Wade & Laichen, 2010).

The maritime history of the archipelago in the 8th to 16th centuries was an important period that showed the glory of shipping, trade, and diplomatic relations of kingdoms such as Sriwijaya, Majapahit, and others. However, students' interest in learning history is often low due to methods that are textual in nature and less contextual. One potential contextual learning approach is to use museums as a learning resource (Acim et al., 2023; Ashari et al., 2025; Sony Setiawan et al., 2025; Vaizin, 2023).

The Samudra Raksa Museum in the Borobudur Temple area displays a replica of a outrigger ship from the Borobudur relief depicting a cross-ocean voyage, as well as a collection that tells the trade and cultural relationship between the archipelago and the Indian Ocean region. This museum can be a concrete maritime history learning medium and spark students' imagination on Indonesia's important role in the world's maritime map (Awaloedin et al., 2024; Kusumastuti et al., 2025; Leung, 2023).

Many studies show that the use of visual media and field trips can improve students' understanding of history and their emotional involvement in the learning process. However, not many schools or history teachers have used the Mercury Ocean Museum as an active learning resource (Rachman, 2022; Yuliana, 2021).

Based on the description above, the problem faced in the use of the Samudra Raksa Museum as a source of learning maritime history lies in the low integration of museum visits in the school curriculum, so that history learning is still dominated by textual methods and minimal direct experience. This condition is exacerbated by limited resources, especially for schools located far from museums, which face transportation and logistics cost constraints. On the other hand, many history teachers do not have competence or museum-based learning modules, so the visits made are often recreative without strengthening educational goals.

In addition, the absence of interactive digital platforms limits the access of students outside the Borobudur area to study museum collections virtually. Empirical facts show that the level of school group visits is still low compared to the total number of visitors, and the learning outcomes of students who rely solely on textbooks tend to be less in-depth than those who gain hands-on learning experience. This gap emphasizes the need for a learning strategy that is able to optimize the function of museums as relevant, interactive, and inclusive educational media for all students.

Based on the problems that have been explained above, the author feels the need to conduct research at Miftahurrohmah IT Junior High School, precisely in grade IX, because at this level students have studied the maritime history material of the archipelago in accordance with the applicable curriculum, so it is relevant to test the effectiveness of the use of the Mercury Ocean Museum as a learning resource. In addition, grade IX students are at a more mature stage of cognitive development to relate historical information to concrete evidence in the field, as stated by Piaget (1972) that adolescents at the formal operational stage are able to think abstractly, reason logically, and integrate real experience in constructing concepts (Piaget, 1972).

The selection of this school is also based on the need to increase students' interest and involvement in history learning, considering that learning at the school so far has tended to be textual and minimal contextual activities. Thus, this research is expected to be able to provide an empirical picture of the extent to which a visit to the Samudra Raksa Museum can increase students' understanding, emotional involvement, and appreciation of the archipelago's maritime

history, as well as become a practical recommendation for teachers and schools in developing learning strategies based on direct experience (Rahmawati, 2020).

Based on the background outlined above, this research aims to identify the potential of the collections and narratives of the Samudra Raksa Museum as a learning resource for Nusantara maritime history from the 8th to the 16th centuries. Additionally, the study seeks to analyze the impact of utilizing the museum on students' understanding, interest, and emotional engagement in learning history. Furthermore, it aims to formulate strategic recommendations for teachers and schools to integrate the museum into more contextual and meaningful history learning. Thus, this research is expected to provide an empirical foundation and practical recommendations for optimizing the museum's function as an effective and impactful medium for historical education.

RESEARCH METHOD

This study used a descriptive qualitative approach. Data collection techniques are carried out through direct observation at the Samudra Mercury museum, interviews with students and history teachers, documentation and literature studies from various scientific sources. Data was collected through direct observation, interviews with students and history teachers who had visited, documentation in the form of collection photos and museum historical literature. The researcher observed the objects in the Samudra Mercury museum, including collections, displays, and educational narratives in the museum.

The interview instruments used were: (1) what are the main collections of the Mercury Ocean museum that are relevant for the study of maritime history? (2) How do museums convey historical narratives to visitors, especially students? (3) What is the student's response after visiting the museum? (4) Are there any obstacles in making museums part of history learning? The documentation collected is in the form of ship reliefs, photographs of Mercury Ocean ships, tools used, spices traded, embossed maps and paintings of boats in caves, as well as boats used from time to time.

RESULTS AND DISCUSSION

Based on the results of observations, documentation, and interviews, it can be stated that this museum has great potential as a source of learning maritime history, especially in the period of the 8th to 16th centuries AD. This is in line with previous findings by Suryadi (2021), who emphasized that learning media based on concrete historical relics such as museums are able to build a deeper and more memorable historical understanding. Several key points relevant to the study of maritime history were found.

First, the main collection of the Samudra Raksa Museum relevant to learning includes a full-size replica of the Borobudur outrigger ship reconstructed based on an 8th-century relief on Borobudur Temple, maritime trade artifacts such as replicas of spices (cloves, nutmeg, cinnamon), embossed maps of the archipelago's shipping routes, miniature boats from various regions, and boat paintings on cave walls depicting ancient shipping technology. This collection serves as a concrete medium to understand trade routes, ship technology, and diplomatic interaction between the archipelago's maritime kingdoms. These findings are in line with the concept of experiential learning put forward by Kolb (1984), who asserts that direct experience with real objects strengthens the learning process and improves knowledge retention.



Figure 1. Miniature double-outrigger ship



Figure 2. Mercury Ocean Ship

Source: researcher

From the results of interviews with teachers and students at SMP IT Miftahurrohmah, related to the use of the Samudra Raksa museum as a learning resource. The authors found that making museums as a source of learning history is effective in building students' understanding that can be visualized directly. Then the response of the students who felt that learning became more fun with a visit to the museum. This is evidenced by interviews with social studies teachers and students in class IX of SMP IT Miftahurrohmah who said that:

"The collection at the Samudra Raksa Museum really helps me in teaching maritime history. Replicas of Borobudur ships, embossed maps, and trade artifacts make it easier for students to understand material that is usually only read in books. I see them being much more enthusiastic, asking a lot of questions, and trying to relate the information from the museum to the material we've already learned in class. Visits like this are important to build a deeper understanding and foster pride in the nation's history (Mrs. Windu Cahyani, history social studies teacher at SMP IT Miftahurrohmah, 2024)".

"In my opinion, visiting the Samudra Raksa Museum makes history lessons more exciting and easy to understand. Seeing a replica of the Borobudur ship firsthand helped me imagine how our ancestors sailed and traded all the way abroad. I also just found out the original form of spices that used to be traded (Amelia, a student of SMP IT Miftahurrohmah, 2024)".

From the results of the interview, it can be seen that the use of the Samudra Raksa Museum has a positive impact on the maritime history learning process. The museum's collections, such as replicas of Borobudur outriggers, embossed maps of shipping lanes, and maritime trade artifacts, serve as concrete learning mediums that help students relate theoretical material with real evidence. Teachers felt an increase in students' understanding and enthusiasm when learning was carried out through museum visits, while students admitted that it was easier to understand the concepts of ancient trade routes and shipping technologies after seeing the collection firsthand. These findings corroborate that hands-on experiential learning in museums not only improves cognitive aspects, but also builds emotional engagement and a sense of pride in the nation's history.

Second, historical narratives are conveyed by the museum through a combination of chronological information boards, thematic displays, and audio-visual media such as documentary videos describing the process of making replicas of the Borobudur ship and simulations of the shipping route. For student visitors, the museum guide provides interactive explanations and relates the collection to the learning materials at school. This approach is in line with Bruner's (1966) theory of constructivism, which emphasizes the importance of presenting information in a form that makes it easier for learners to associate new knowledge with existing cognitive schemas.

Third, students' responses after visiting showed increased interest and emotional involvement in learning maritime history. Students revealed that seeing replicas of ships firsthand made it easier for them to understand trade routes and shipping activities, as well as

foster a sense of pride in the nation's maritime glory. This phenomenon is in accordance with the opinion of Falk and Dierking (2000) who stated that learning in museums not only affects the cognitive aspect, but also the affective aspect of students. This can be proven by a statement that says:

"When our students were invited to the museum, their enthusiasm was extraordinary. They can see how the ancient ship shaped which is not just imagined from the book. I noticed a change in students' attitudes after visiting the museum. They not only understand the subject matter better, but also show admiration and pride in the nation's history. Direct interaction with the museum's collections makes students more active. In my opinion, visits like this are very important to combine aspects of knowledge and attitudes in learning history (Mrs. Windu Cahyani history social studies teacher at SMP IT Miftahurrohmah, 2024)".

This statement suggests that history learning not only needs to be informative, but also contextual and interactive.

The Mercury Ocean Museum displays a replica of the Borobudur ship which is visual evidence of the archipelago's maritime trade interaction with India, East Africa, and China. According to Bruner's theory of constructivism, learning experiences that are directly linked to real objects will make it easier for students to structure new knowledge based on the schemas they had before. It is supported by the concept Bruner (1966) *experiential learning* from Kolb (1984) who emphasized the importance of concrete experiences in the learning process.

According to Wahyuni (2020), museums can develop three domains of learning at once: cognitive, affective, and psychomotor. The cognitive realm is seen as students understand the ancient sea trade routes and shipping technologies; the affective realm when they feel pride in the nation's maritime glory; and psychomotor can be realized through visual reconstruction activities or the practice of making shipping route maps.

In practice, teachers can use the Samudra Raksa Museum as a *learning resource* with various approaches such as *field studies*, *artifact-based storytelling*, or reflective discussions on the spot. Research by Lestari & Prasetyo (2022) shows that history learning in museums can increase students' information retention by 35% compared to just classroom learning.

In addition, in the context of the Independent Curriculum, the use of museums supports the principle of *differentiated learning* and *projects based on Pancasila student* profiles. This opens up space for students to express their understanding through creative products such as historical infographics, visit vlogs, or mini exhibitions of research results.

Although the Samudra Raksa Museum has great potential as a source of maritime history learning, its implementation in schools still faces a number of obstacles that affect the optimization of its utilization. These obstacles arise from both technical and non-technical factors, which have an impact on students' opportunities to gain hands-on learning experience in museums.

Fourth, obstacles to the use of museums as learning resources include limited transportation costs for schools located far away, the absence of ready-to-use museum-based learning modules, and the lack of digital facilities for distance learning. This is in line with the findings of Hooper-Greenhill (2007) which emphasized that the success of museum-based education is greatly influenced by logistical support, availability of learning materials, and accessibility. This is evidenced by the results of interviews with teachers who said:

"If our school wants to invite students to museums, the biggest challenge is the cost of transportation, even though the school is not too far from the museum's location, the cost is still an additional burden for students and parents. In addition, we do not yet have a guide or learning module that is integrated with the museum's collection, so during the visit the teacher has to prepare his own materials. In my opinion, if there is transportation support and official modules from the museum, this activity will be much easier to carry out (Mrs. Windu is a social studies teacher of the history of SMP IT Miftahurrohmah, 2024)".

In addition, there are obstacles that need to be considered. One of them is the lack of teacher readiness in designing museum-based learning. Therefore, teacher training and the provision of flexible museum-based learning modules are needed. Based on these findings, it can be concluded that the Samudra Raksa Museum has great potential as a source of learning about maritime history from the 8th to 16th centuries AD, but its implementation needs support from various parties, both in terms of curriculum, development of learning media, teacher skills and policies from schools.

CONCLUSION

The Samudra Raksa Museum holds significant potential as an interactive learning resource for the archipelago's maritime history, featuring concrete collections like replicas of the Borobudur ship, embossed maps of shipping lanes, and trade artifacts that boost students' understanding, interest, and national pride. Despite proven benefits of museum-based learning, its utilization remains limited by barriers such as costs, distance, lack of structured modules, and insufficient digital facilities. The findings underscore the need to integrate museum visits into the curriculum, develop tailored learning modules, enhance digital access via virtual tours, and foster school-museum collaborations with transportation support to ensure equitable, contextual opportunities for all students. For future research, studies could evaluate the effectiveness of digital virtual tours in overcoming geographical barriers, comparing learning outcomes between in-person museum visits and virtual experiences among diverse student demographics.

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