Historical learning based on outdoor learning and environmental insight as implementation of the utilization of Gua Suci sites in Tuban

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Abstract. Cultural heritage is an important state asset which becomes the local identity of the region. Tuban is one of the areas with potential historical heritage sites. Utilization of historical heritage sites is often associated with historical learning. The purpose of writing this article is to use historical heritage sites as a learning source that can build student interest and motivation. The research method uses in this article was the literature study method as part of a qualitative method by collecting and analyzing historical source through books, articles, archives, notes and reports. The result of the study based on review literature obtained a discussion of historical heritage sites namely Gua Suci in Tuban with a combination of outdoor learning and environmental insight. Gua Suci is a man-made cave composed of karst rocks. Therefore, the activity of utilizing Gua Suci site based on outdoor learning and environmental insight is expected new atmosphere for the student with the step that has been arranged. The implementation of the outdoor learning method at Gua Suci sites has indirectly carried out environmentally-friendly activities while maintaining historical and cultural values.

1. Introduction

The diversity of local cultures of the Indonesian people has made the country which is formed from islands to save a variety of natural tourism potential. The potential for natural tourism will be an amplifier in formulating strategic policies for planning and regional management so that it can be said to be one of the important sectors for regional development. Apart from the potential for nature tourism which has a good impact on regional development, other assets that are stored as important assets are historical heritage sites. Generally, historical heritage sites depict historical traces of past events in the form of objects left by historical actors. One of the regions in Indonesia, especially in East Java, has potential historical heritage sites, namely Tuban. Chronologically, the Tuban area is recorded as an old city with historical heritage from the days of the Hindu-Buddhist, Islamic and colonial kingdoms. However, some historical relics scattered in the Tuban area have not been exposed in-depth due to the affordability of the place and there are also discoveries of historical objects that have been damaged so that it is difficult to identify them. Researchers have also conducted ancient bathing sites in Pasuruan[1]. Research on Hindu-Buddhist buildings has also been carried out by researchers at Selokelir Temple[2]. Research on Indonesian music museum as historical education in Malang[3]. This research is in line with previous studies that conducted about the history of ancient Indonesia.

Tuban has a geographical location that is directly adjacent to East Java (Tuban Regency) and Central Java (Rembang Regency) where there is a fairly dense population concentration. The strategic and advantageous location of the area on the coast of the North Java Sea makes Tuban have the potential for cultural and natural diversity. In addition, Tuban is listed as a Karst Landscape Area with a range of northern limestone mountains or karst so that many natural caves are found, which are basically the topography of the Tuban area in the form of a basin [4]. It is undeniable that Tuban holds
the nickname as the City of a Thousand Caves because of the large distribution of natural and man-made caves. Palang Subdistrict is one of the areas where historical heritage sites were found in the form of ancient sites of the Gua Sucis which are thought to have originated from the relics of the Majapahit Kingdom. The Gua Suci Site is a man-made cave site that has a limestone or karst foundation with regular carvings. Even though it has been registered as a Cultural Heritage Site, the conditions around the Gua Suci site are poorly maintained and there is vandalism on the cave walls. The construction of the Gua Suci site is in the same location as the rice fields and plantations, making it difficult to enter access that can be reached on foot. The Gua Suci site is considered important for regional development assets in the form of historical relics of the past that should be preserved and developed as local historical tourism potential.

Based on the Law of the Republic of Indonesia Number 11 of 2010[5], "Cultural Heritage Sites are locations that are on land and/or in water containing Cultural Conservation Objects, Cultural Heritage Buildings, and/or Cultural Conservation Structures as a result of human activities or evidence of past events ". The existence of the Gua Suci site in Palang District, Tuban Regency is considered to have the historical value that is over 50 years old as a relic of historical objects in the form of a man-made cave. Historical heritage sites are closely related to local history that developed in an area where it gives more essence to learning resources, especially historical learning[6]. In the building of the Gua Suci site, for example, there were found carvings of Old Javanese numerals indicating the year 1295 S or 1373 AD. Unfortunately, the excavation of information on historical heritage sites related to local history is still minimal. In fact, extracting data and information related to local historical sites provide an open awareness of the past and can be used as an alternative place for historical learning.

The development of the digital era has a strong influence on all aspects of life, especially in the field of education. Various efforts have been made to create educational innovations in order to achieve a fun and directed learning. The innovation of the concept of history learning becomes the focus of the main discussion by paying attention to the Learning Implementation Plan (RPP) then adjusted to the Core Competencies (KI) and Basic Competencies (KD). Historical learning is closely related to local historical sites which have the essence of digging in-depth information about historical heritage objects. Learning history that is relevant to scientific studies is important to build historical awareness in students [7]. The fact states that history learning is considered monotonous learning because there is no variation in teaching from the teacher. The variety of media and historical learning resources in the current era makes it easy for teachers in teaching and learning activities in addition to using learning strategies, methods and models[8].

In connection with the use of the Gua Suci site in Tuban for history learning, it opens opportunities for outdoor learning to be held. Apart from being based on outdoor learning, it is important to have insightful historical learning by examining the phenomena around the Gua Suci site so that it fosters a caring character for the environment. The purpose of outdoor learning based on environmental learning and environmental insight is expected to stimulate students in applying learning by exploring information related to historical heritage sites, namely the Gua Suci sites so that history learning is fun, building enthusiastic attitudes and student interest. Therefore, the author has a learning method solution related to local historical sites with the title Historical Learning Based on Outdoor Learning and Environmental Insights as an Implementation of Utilizing the Gua Suci Site in Tuban.

2. Method

The study of historical heritage sites in the form of archaeological findings of the Gua Suci in Tuban requires more attention to be investigated. It is undeniable that the Gua Suci site which is the object of research can be used as a place of learning that is linked to the outdoor learning method as an alternative to learning outside the classroom. Researchers have conducted research online through literacy studies or literature studies with reference materials for books, articles, journals and the East Java BPCB website. The research method in the form of literature study which is part of the qualitative research in this article is more inclined to be used to obtain information related to local history learning which is applied by the outdoor learning method. The qualitative research based on literature studies emphasizes exploration of historical sources or literature reviews[9]. Literature study[10] is a way of obtaining, collecting and providing in-depth studies based on literacy sources.
through books, notes and reports so that historical writing (historiography) is obtained. The literature study research method becomes the foundation in preparing the steps for historical learning based on outdoor learning.

3. Result and Discussion

3.1 Historical Heritage Sites: Goa Suci Site in Tuban

The Sacred Cave site is located in Hamlet Suci, Wangun Village, Palang District, Tuban Regency, East Java, 6291 based on the coordinates of 6°56'21.8" LS and 112°09'35.1" East Longitude and has a land area of 672 m². Gua Suci site is a cave formed from human activities in mining karst or white limestone[11]. The community suspects that the Sacred Cave site has links to the Majapahit Kingdom. Raden Wijaya became the first ruler of the Majapahit Kingdom which was founded in 1293 AD with the title Krtarajasa Jayawardhana or Nararya Sangramawijaya Sri Maharaja Krtarajasa Jayawardhana. The reign of the Majapahit Empire after Raden Wijaya's death was replaced by the king's lineage. Entering 1350-1389, the government of the Majapahit Kingdom was occupied by Hayam Wuruk with the title Rajasanagara[12]. The leadership of Hayam Wuruk ushered the Majapahit Kingdom into an era of glory accompanied by Patih Gajah Mada who is known for his Palapa Oath as the unifier of the archipelago.

Gua Suci means the sacred cave. The location of the Gua Suci site is in the vicinity of rice fields and community settlements in Wangun Village, surrounded by white karst mountains. Geographical conditions in the form of karst mountainous areas provide evidence that the creation of patterns of human mining activity at the Gua Suci site. The architecture of the Gua Suci site is dominated by karst or limestone in the form of carvings and has an aesthetic value of stone terraces. The building pattern of the Gua Suci site has an irregular shape with a size of 70 m x 60 m x 15 m [11]. Previously, the local community named this site the Wayang Picture Gap, but it is not certain where the name was taken. Pastel brown gradations on the walls of the Gua Suci give each corner of the cave uniqueness due to the humidity, air temperature and the intensity of sunlight that enters through the gaps in the cave walls, resulting in the growth of moss vegetation that sticks to the cave walls. The rays of the sun that enter through the gap in the roof of the cave highlight the bottom of the cave so that many tourists call it the "Ray of Light" or light from Heaven. The aesthetic value or beauty of the Gua Sucis brings benefits to the tourism sector. When the rainy season brings a lot of mud particles and rock deposits, it adds to the beauty of the gradation of the Gua Suci walls.

![Figure 1. The inscription of Javanese Kawi year 1295 S or 1373 AD on the wall of the Gua Suci](image.png)

The archaeological findings on the walls of the Gua Suci are in the form of carvings of Javanese Kawi figures with the inscription of 1295 S or 1373 AD. Another article states that the written numbers engraved on the walls of the Gua Suci are inscribed with 1026 S but the truth of the information is not known. The carving of Javanese Kawi year numbers with the inscription of 1295 Saka or 1373 AD on the side of the Gua Suci identifies a connection with the Majapahit Kingdom during the leadership of Hayam Wuruk. Allegations on the Gua Suci site during the Majapahit
Kingdom era were used as a place for logistics distribution from Mojokerto to Tuban. Another allegation states that karst or limestone in the Gua Suci Site was used by the Majapahit Kingdom to build Majapahit's building infrastructure. The use of karst or limestone rock from the Gua Suci site has similarities with the Majapahit Kingdom buildings.

The explanation of the UM History researcher who conducted direct research at the Gua Suci site by interviewing one of the residents said that there were two years on the walls of the Gua Suci, namely, first, the outside was written 1112 S or 1190 AD and second, the inside was written 1146 S or 1224 AD. If you look at the descriptions of the residents, articles and analysis of Javanese Kawi figures, there is an unsynchronized year carved on the walls of the Gua Suci. Based on the analysis of Javanese Kawi figures, it provides clues to writing with the numbers 1295 S or 1373 AD. It can be concluded that the truth of the number of years the Gua Suci was founded cannot be ascertained because there is overlapping information. The writing of Javanese Kawi numbers written on the walls of the Gua Suci is included in the branch of historical aids, especially in the field of archaeology, namely epigraphy. According to the fifth edition of the Big Indonesian Dictionary, epigraphy is a study of ancient writing on inscriptions and so on. The symbol of the year number uses the Kawi, Sanskrit, Pallawa and Javanese numerals[13]. Evidence of the epigraph of Old Javanese writing which is thought to come from Pallava writing which has characteristics such as being upright, angled, simple, which can be found during the Hindu kingdom including the Majapahit Empire[14].

In addition to the Javanese Kawi year numbers on the walls of the Gua Suci, there are carvings of wayang images that tell about Arjuna Wiwaha[11]. The explanation regarding the Arjuna Wiwaha relief which is thought to be found on one of the cave walls is not clearly stated. Concrete evidence that links the Arjuna Wiwaha relief relation with the Gua Suci site still overlaps. The hypothesis that there is Arjuna Wiwaha relief on the wall of the Gua Suci has not received a more in-depth study. It is contained in Mpu Kanwa's Kakawin which illustrates the achievement of life perfection by a knight named Arjuna. If it is true that the Arjuna Wiwaha relief exists, then the connection between the function of the Gua Suci as a hiding place, meeting and storing treasures with the story of Kakawin is related to the hermitage that Arjuna did to get Panah Pasopati[15]. Based on the story of Kakawin written by Mpu Kanwa and the reliefs of Arjuna Wiwaha carved on the cave walls, it is suspected that the Gua Suci was also used as a place of the hermitage. The hypothesis above from the researcher has not been proven correct because other sources of information do not contain a comprehensive discussion of the Arjuna Wiwaha relief.

Potential of Gua Suci Sites as Cultural Heritage

Law of the Republic of Indonesia Number 11 of 2010[5] concerning Cultural Heritage that, "Cultural Conservation is a material cultural heritage in the form of Cultural Conservation Objects, Cultural Heritage Buildings, Cultural Heritage Structures, Cultural Conservation Sites and Cultural Conservation Areas on land and / or in water where its existence needs to be preserved because it has important values for history, science, education, religion and / or culture through a process of determination. Cultural heritage in the form of historical heritage sites is an important asset of the country and must be preserved by everyone. Historical heritage sites that have been registered as cultural heritage are concrete evidence of the existence of historical objects originating from past activities. The importance of the management, protection and preservation of cultural heritage is the implementation of Law of the Republic of Indonesia Number 11 of 2010 by preserving historical values and cultural authenticity.

The Gua Suci site in Tuban was recorded as a Cultural Heritage Object which was established in 1979. The building which is composed of karst or limestone rocks with carved staircases and gradations of pastel colors reflects the uniqueness of the site surrounded by limestone mountains (Batu Kumbung Putih). The historical value attached to the Gua Suci site is in the form of archaeological discoveries of Javanese Kawi figures and reliefs of Arjuna Wiwaha puppet images on the cave walls. Based on the rock arrangement of the Gua Suci buildings, it is suspected that they have a connection with the Majapahit Kingdom. Referring to the Law of the Republic of Indonesia Number 11 of 2010[5], the criteria for a Cultural Heritage building, namely being 50 years old or more, representing a period of style at least 50 years old, having a specificity for history, science, education and culture as well as having cultural values that become the identity of the nation's personality. The identification outlined in the law represents the existence of the Gua Suci site which
has been designated as a Cultural Heritage in Tuban. The status of land ownership still belongs to the people of Wangun Village under the names Marsidin and Ngarsini. Management of the Temple Cave Site is officially managed by the East Java Cultural Heritage Conservation Agency.

Evidence of historical heritage has unique, rare, irreversible or irreplaceable characteristics. The high historical value possessed by sites and Cultural Conservation Objects is prone to looting, destruction and illegal extraction if there are no intensive care and maintenance efforts. Departing from the problems that could harm the existence of Cultural Conservation Objects, regulations were made in the Law of the Republic of Indonesia Number 5 of 1992 concerning fines to be borne if they carry out activities that damage the historical and cultural values of the Cultural Conservation Objects. As part of the potential of Cultural Heritage Sites and Objects, the Gua Suci in Tuban and its environment can be managed into two aspects, namely the aspect of tourism and the aspect of education (education). The development of the tourism aspect is an important asset in increasing regional income, especially the Tuban area. Infrastructure improvements such as road access to the Gua Suci site make it easier for tourists to visit and enjoy the beauty of the cave. Apart from being potential as tourism, the Gua Suci site can be used as a place for historical learning based on archaeological and historical studies based on the environment through the process of cultivating the value of caring and preserving the Cultural Heritage. Two important aspects can be utilized at the Gua Suci site to build awareness of how valuable the existence of a Cultural Heritage is to the nation.

Utilization of the Gua Suci Site: Historical Learning Concept Based on Outdoor Learning and Environmental Insights

History learning has a wide range of material. Teachers are expected to be able to combine historical learning innovations so as not to be fixated on LKS books or lecture teaching without any variation in learning. The development of technology affects the variety of learning media and historical learning resources. History learning activities are not only carried out in the classroom but can be outside the classroom. History learning that makes use of outside the classroom as a learning resource is known as outdoor learning. The continuity of outdoor learning in history learning becomes a perspective of environmental-oriented historical studies by paying attention to the phenomena that occur around them to foster relationships between students and nature. In this case, it opens opportunities for integration of the use of historical heritage sites with outdoor learning methods and environmental insight. The advantages of the outdoor learning method are motivating student learning related to local history, making it easier to find facts on field data, fostering physical and social cooperation. Meanwhile, the disadvantage of outdoor learning lies in managing the time for activities.

Based on Government Regulation Number 19 of 2005 concerning National Education Standards that, "The learning process in educational units is held in an interactive, inspirational, fun, challenging manner, motivates students to actively participate, and provides sufficient space for initiative, creativity and independence according to their talents, interest and physical and psychological development of students. Likewise with the outdoor learning method that is in accordance with the 2013 curriculum which emphasizes the activeness, abilities, intelligence, attitudes and practices of students. The existence of an outdoor learning and environmentally friendly learning method at historical heritage sites can give an impression to students to be actively involved in learning[20]."

One of the uses of historical heritage sites as learning resources is at the Gua Suci site in Tuban by using the outdoor learning method. Both teachers and students have the advantage of doing learning outside the classroom, especially within the scope of historical heritage sites. The field activities provide a stimulus for students to explore in-depth related to the Gua Suci site based on history, the location of the building, the materials that make up the cave and the reliefs on the cave walls[21]. The Gua Suci site in Tuban is a historical finding that is thought to be a relic of the Majapahit Empire. The implementation of the use of the Gua Suci site is in the Indonesian History subject section of the Hindu-Buddhist Kingdom of Class X with Basic Competencies (KD) 3.6 Analyzing the development of community life, government, and culture during the Hindu and Buddhist kingdoms in Indonesia and showing examples of some evidence that still applies to people's lives in Indonesia today. Referring to Basic Competency (KD) 3.6, the Gua Suci site is one example
of evidence of the relics of the Hindu Kingdom that still exists and is protected by the East Java BPCB. Broadly speaking, outdoor learning activities at the Gua Suci site are illustrated in the chart below:

**Figure 2. Outdoor learning steps at the Gua Suci Site in Tuban**

The arrangement of structured steps based on outdoor learning at the Gua Suci site determines the smooth running of field learning activities based on on-site exploration[22]. There are six steps of outdoor learning activities at the Gua Suci site. First, conceptualizing and planning learning objectives. Teachers make preparations before implementing outdoor learning activities at the Gua Suci site related to what is needed, especially concepts that will be taught to students. Second, determining the location of historical heritage sites. Determination of the location is based on a location survey related to the distance and the environment around the site if outdoor learning is used. In this case, the Gua Suci site has rooms that can be explored for students even though there are obstacles to access the entrance to the cave. Third, the formation of groups of 4-5 people. The formation of groups in outdoor learning provides the advantage of dividing each group's tasks to explore archaeological findings around the Gua Suci site. Fourth, a brief explanation of the Gua Suci site from the teacher. After forming the group, the teacher explains to students the general description of the Gua Suci which is the provision for students before exploration activities and rules during outdoor learning. Fifth, students' site exploration activities. At this stage, students conduct direct observation and exploration of every corner of the Gua Suci building and record the data they find. The last stage is the process of evaluating outdoor learning at the Gua Suci site by the teacher then writing a report from the data obtained by the students.

The implementation of the outdoor learning method at the Gua Suci site has indirectly carried out environmentally-friendly activities while maintaining historical and cultural values. Learning history indirectly instils character in students based on facts that occur in the field by fostering chronological and critical thinking, curiosity and social care[23]. The concept of having an environmental perspective becomes a study of the reciprocal relationship between humans and the environment so that an orderly pattern is created in protecting, protecting and preserving Cultural Heritage Sites.

**Conclusion**

Historical heritage sites provide an overview of the place in the form of historical traces of events in the past. Like the Gua Suci site in Tuban which has been registered as a Cultural Heritage Site and the site management is under the auspices of the East Java Cultural Heritage Conservation Agency. The Gua Suci Site is a man-made cave composed of karst or limestone. The local community believes that the construction of the Gua Suci site is related to the Majapahit Kingdom. To utilize the Gua Suci site as part of the Cultural Heritage, there are two aspects, namely tourism and education aspects to increase the income of the Tuban area.

Regarding the educational aspect, the Gua Suci site is used as a place and source of history learning for grade X high school students. The purpose of using historical heritage sites can foster curiosity, enthusiasm and interest in students in learning history. The use of the Gua Suci site is based on the concept of outdoor learning and environmental learning methods. Outdoor learning becomes learning outside the classroom that optimizes student learning in the field by observing and analyzing surrounding phenomena. In carrying out outdoor learning activities, steps are arranged which become references for student learning. Likewise regarding environmental concepts that prioritize students to be better able to know, protect and preserve the environment, especially in historical heritage sites which are the most important heritage.
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