The Eruption of Mount Raung and Traces of Classical Cultural Heritage in The 15th - 16th Centuries in Bondowoso Regency

Akhmad Ryan Pratama¹, Robit Nurul Jamil², Kayan Swastika³, Gusti Ngurah Ary Kesuma Puja⁴, Mohamad Na’im⁵

¹University of Jember, Jember, Indonesia
²University of Jember, Jember, Indonesia
³University of Jember, Jember, Indonesia
⁴University of Jember, Jember, Indonesia
⁵University of Jember, Jember, Indonesia

Abstract Research into the classical period in Bondowoso Regency has yet to provide a clear description of its archaeological remains. Between 2009 and 2020, numerous artifacts from the classical period were discovered, including kepeng money, ancient brick structures, and Majapahit-style wells buried 1 to 5 meters deep. No inscriptions definitively link these relics to the Majapahit kingdom, but their presence indicates that Bondowoso is rich in classical cultural artifacts. This study aims to investigate the historical traces of classical civilization in Bondowoso Regency, influenced by Hindu-Buddhist culture, which have not been thoroughly examined. The main objective of this research is to document and analyze the classical cultural remains in Bondowoso Regency, focusing on the number, type, form, and function of these artifacts. Accurate data on the distribution, quantity, and characteristics of these remains are essential for academic research, cultural heritage preservation, and tourism development. The research employs a historical method supported by archaeological approaches. This combined methodology is chosen for its effectiveness in addressing the research objectives, which rely heavily on the analysis of archaeological evidence, such as artifacts, structures, and buildings. The archaeological approach enhances the historical method by providing tangible data and context. Initial conclusions suggest that the classical civilization in Bondowoso began to decline due to the eruption of Mount Raung in the 16th century. This research contributes to a deeper understanding of Bondowoso’s historical and cultural landscape, highlighting the significance of its classical period remains. In summary, this study provides a comprehensive examination of the classical cultural artifacts in Bondowoso Regency, aiming to clarify their historical context and significance. The findings are expected to offer valuable insights for further academic research and contribute to the preservation and promotion of Bondowoso’s cultural heritage.

Keywords: Classical Cultural Remnants, Mount Raung Eruption, Bondowoso Regency

Kata kunci: Peninggalan Budaya Klasik, Erupsi Gunung Raung, Kabupaten Bondowoso
INTRODUCTION

The presence of Hinduism and Buddhism in the archipelago not only introduced a belief system, but also introduced means of worship. One of the means of worship introduced was the making of statues. The statues that were made varied in shape according to the religion behind it. There are statues of gods in Hinduism and there are Buddhist statues. These statues became a medium of worship by the community (Soejono, 2010: 205-207). The areas that received Hindu-Buddhist influence in Indonesia can be seen from the kingdoms with Hindu-Buddhist patterns, such as the Kutai Kingdom in East Kalimantan, Tarumanegara in West Java, Ancient Mataram in Central Java and East Java, Sriwijaya in Sumatra, Kediri in East Java, Singasari in East Java, and Majapahit Kingdom in East Java.

Many of these kingdoms left behind objects that are typical of the conditions of society, culture, and government during the Hindu-Buddhist period in the archipelago, such as brick structures, Majapahit treasured wells, statues symbolizing Hindu or Buddhist deities, kepeng money that is thought to have been left over from the XIII - XV centuries. Although not many, some archaeological remains influenced by Hindu-Buddhist culture or better known as the classical period were also found in Bondowoso Regency. These archaeological remains have not been studied much, so it is deemed very necessary to be studied scientifically. At the very least, these archaeological remains should be recorded, recorded, and interpreted in accordance with their historical context. It is hoped that this simple data collection will stimulate the district government and the public to intensify the process of preserving archaeological remains from the classical period in Bondowoso district. This will provide the general public with valuable information about the history of Bondowoso district during the classical period.

Preliminary studies show that research on the traces of classical culture in Bondowoso is still very limited. The oldest book that we (read the Research Team) can trace in recording classical cultural remains in Bondowoso Regency is a record compiled by Dr. Veerbeek in 1923. This record contains an inventory list of archaeological objects made during the Hindu period. For Bondowoso district, there are several records of the discovery of kepeng coins, lamp holders, several phalluses, some of which are engraved with year numbers. There are dozens of reports of Hindu-era finds in Bondowoso, but the locations of the finds are not detailed, making it difficult to adjust the locations to this period. The report also includes descriptions of the objects found, although these are not very detailed; it is likely that Veerbeek simply copied the report of the Bondowoso Resident's assistant without verifying it in the field. With all its shortcomings, Veerbeek's account is enough to prove that Bondowoso was once inhabited by a community that had been influenced by Hindu culture. In addition to Veerbeek's report, there is also an academic paper on the establishment of cultural heritage conducted by the Bondowoso Cultural Heritage Expert Team (TACB). The paper designated Butha Sumber Canting Cave in Sumber Wringin.
Subdistrict and Butha Cerme Cave as Bondowoso Cultural Heritage structures. Both caves were found with reliefs that are estimated to have been carved in the XIV - XVI centuries. The periodization of the carving time corresponds to the classical period of the spread of Hindu-Buddhist culture in Java.

Given that there are not many studies related to classical heritage objects, so that the number, type, form and function have not been clearly identified. While the accuracy of data on the location of the distribution, number, type and function of the nation's cultural heritage objects is very important for academic certainty, history and cultural heritage and tourism interests. This research is basically a development of previous studies. This research intends to offer a comprehensive and integrative reconstruction of the cultural history of the classical period in Bondowoso (inventory, description, typologization and identification of the function of archaeological remains added to the interpretation of the historical conception underlying their manufacture along with a description of the social and economic life of the community that made them).

METHOD

This research was designed as historical research, implemented using the historical method with a strong emphasis on archaeological approaches. Initially, the research design was chosen for its relevance to the problem and objectives, which focus on uncovering and analyzing classical cultural remains in Bondowoso Regency. The study began with extensive fieldwork to locate and document archaeological remains, including artifacts, ecofacts, and features such as ancient structures and wells. These remains were then classified into five categories: artifacts, ecofacts, features (structures), sites, and archaeological areas. The next stage involved a detailed analysis of these remains to interpret their historical and cultural significance. This was done through the study of material culture and environmental conditions from previous civilizations, employing primary sources and physical evidence. The methodological approach of prehistoric archaeology supported this analysis, providing context and depth to the historical method. In the subsequent stage, the research focused on synthesizing the collected data to reveal patterns and insights about the classical culture in Bondowoso. This included interpreting the distribution, type, and function of the remains to build a comprehensive understanding of the region's historical landscape. The findings were then cross-referenced with historical records and previous studies to validate the conclusions. The utilization of archaeological methodologies was crucial in this research, as it allowed for a tangible examination of classical culture through physical evidence. This approach also aligned with the principles of neo-scientific history, emphasizing empirical data and systematic analysis. Ultimately, the research provided a detailed
narrative of classical civilization in Bondowoso, contributing significantly to the academic knowledge and cultural heritage of the region. (Kartodirdjo, 1993).

RESULT AND DISCUSSION

The Spread of Hinduism and Classical Culture in East Java

The presence of Hinduism and Buddhism not only introduced a belief system, but also introduced means of worship, including the making of statues. These statues vary in form according to the underlying religion, including statues of Hindu gods and Buddhist statues. People used these statues as a means of worship (Soejono, 2010: 205-207) (Oudheidkundigen Dienst: 1912). The areas influenced by Hindu-Buddhist teachings in Indonesia can be identified through the kingdoms that embraced these teachings. Some of them are Kutai Kingdom in East Kalimantan, Tarumanegara in West Java, Ancient Mataram in Central Java and East Java, Sriwijaya in Sumatra, Kediri in East Java, Singasari in East Java, and Majapahit Kingdom in East Java. Through these kingdoms, we can see how the development of society, culture, and government during the Hindu-Buddhist influence in Indonesia. (Oudheidkundigen Dienst: 1915) Hindu-Buddhist influence extended to various fields, including politics, economics, social, and culture (Suryana, 2017: 2). Influences in the political field, for example, produced new groups in Indonesian society, such as merchants with typical Indonesian commodities. The social field also experienced significant changes, with the division of society into four groups, namely brahmins, ksatriyas, vaisyas, and sudras (Hasan, 1995: 336-347). The influence in the field of culture can be seen in the increase in Indonesia's cultural wealth, including building art, sculpture, carving, and literature. Further information on these areas can be observed through archaeological remains (Kieven, 2004: 47).

Physical evidence of Hindu-Buddhist influence in the political field includes the findings of inscriptions such as Yupa, Pasir Kolengkak, Tugu, Kota Kapur, Kedukan Bukit, Tuk Mas, Dinaya, Canggal, and others (Rani, 2010: 4-8). These inscriptions reveal the existence of Hindu-Buddhist kingdoms such as Tarumanegara, Sriwijaya, Ancient Mataram, and Majapahit. The inscriptions are written in Sanskrit, Malay Kuna, and use the Pallawa alphabet, reflecting the Indian influence in literature and script (Marwati & Notosusanto, 1993: 73-76).

The influence of Hindu-Buddhism can be seen in the art of building or architecture, especially in the form of temples that represent Hinduism and Buddhism. A temple is a building made of stone or brick that serves as a place of worship and storage of the ashes of Hindu-Buddhist kings or priests. The main temple is a large temple surrounded by perwara temples, which are smaller temples. During the Hindu-Buddhist period in Indonesia (around the 4th century to the 15th century AD), temples were used as places of worship and served as centers of worship for sacred spirits, associated with the palace of the gods (Istanto, 2018: 6).
These temples depict the concept of Mount Meru from Hindu mythology and are adorned with ornaments that reflect the atmosphere of heaven. Inside the temples are trees of life (kalpavrksa), heavenly beings (gods or deities), and heavenly animals, depicting the dwelling place of gods according to Hindu concepts. In addition, the temple is also considered the abode of the gods, which is related to cosmology in Hinduism (Kempers, 1959: 21).

Javanese temple architecture is strongly influenced by Indian models, but also develops its own style and form. The main features of Javanese temples include a vertical order with a base or foot of the temple, a temple body with cella and niches, and a temple roof. These temple buildings represent bhurloka (Sphere of the Mortals), bhuwarloka (Sphere of Purified), and swarloka (Sphere of the Gods) in Hindu cosmology. The temple is also seen as a replica of Mount Meru and is decorated with ornaments that reflect heaven. Temples are places of worship and offerings to the gods, and represent the richness of Indonesian culture (Munandar, 2009).

Contemporaneous written sources that can be used to dig up information about the Hindu-Buddhist period include inscriptions, contemporaneous literary works, and records of foreign visitors, especially from China, who came for various missions, including political, economic and religious. In addition to written sources, information derived from artifacts and the natural environment is also important in reconstructing classical history. These sources provide a complete picture of the development of Indonesian society and culture during the Hindu-Buddhist period (Abdullah et al, 2012: 9-10). Written sources in the form of inscriptions mainly contain information about the establishment of a village or area as a perdikan free of taxes (sima), a gift from a king to a meritorious individual or for the benefit of a sacred building. These inscriptions also include various other information about the social and political order of the time (Abdullah et al, 2012: 12).

**Alleged Classical Cultural Remains of Bondowoso**

Residents of Alas Sumur Village found historical artifacts in the form of bricks and bowls. After research by archaeologists from the Trowulan Cultural Heritage Preservation Center (BPCB), it is estimated that the building materials date back to the Majapahit era. The BPCB Trowulan archaeologist involved in this research is Wicaksono Dwi Nugroho, and according to him, the physical characteristics of the bricks indicate their origin from the Majapahit period.

The possibility that the well found at Alas Sumur dates back to the Majapahit period is also reinforced by findings in the Negarakartagama text. The text records Gadjah Mada’s journey in the Bondowoso region, during which the king decided to spend the night in Pakembangan. Hery Kusdarijanto explains that the area referred to in the story is probably Alas Sumur Village. In the story, the road traveled by Hayam Wuruk is flat or in the basin between Mount Argopuro and Raung.
When Hayam Wuruk spent the night there, it is thought that there was an ancient settlement in Pakembangan. The belief that there were ancient settlements buried in the soil of Alas Sumur Village was strengthened after fragments of green chalcedony porcelain dating from the Yuan Dynasty in the 13th-14th centuries were found. In addition, fragments of white porcelain dating from the early Yuan Dynasty or late Song Dynasty in the 12th-13th centuries were also found. Porcelain is usually used as home decoration or tableware. These porcelain fragments were found by a resident of Alas Sumur Village, while digging a new well to the right of his house. From some historical records, in the 14th century or around 1400, Mount Raung erupted and allegedly covered the Pakembangan area, so this area was lost.

The current condition of Butha Sumber Canting Cave is still in a good and well-maintained condition. The Kala relief found in the cave can still be observed clearly. The crown, face and ears are still intact and clearly visible, although the left eye is slightly damaged. Kala has six teeth, including four front teeth and two canines. However, the four front teeth and one canine tooth on the left are now decayed. The left ear is also covered in moss, which is difficult to clean. Both of Kala's eyebrows appear to be chiseled, and the chisels can still be seen. The carved number of the year is also still legible, though somewhat worn.

Gua Butha Sumber Canting is a hermitage cave that has relief carvings of Kala and the year 1216 Saka or 1294 AD on the front of the cave entrance. The location of this cave is very hidden because you have to pass through a large road, then travel about 20 km deep, and finally pass through a coffee plantation and go down using a rope to enter the cave. The establishment of hermitage caves usually follows some rules, and Butha Sumber Canting Cave was established on a steep and hard-to-reach cliff. There is also a flowing river at the site. In addition to the remote
location, this place was chosen because it is at a high altitude, which is considered sacred and close to objects of worship, according to the concept of cosmology. It is an ideal place for yoga practice. Although it is far from residential areas, it is still on the same slope as residential areas. Butha Cerme Cave also has a water source, a key requirement for building a sacred building. All these conditions correspond to the selection of the right building site.

As for Butha Cerme Cave, it is located on high ground that is part of the Hyang mountain range, to the northwest. The environment is dry and barren, but inside the cave there is a small water source that never dries up, according to local beliefs. The reliefs on the cliffs of Butha Cerme cave are divided into three sections. On the south cliff, there is a Kala relief with a rectangular frame underneath, as well as images of monkeys and hemispherical figures in a frame that has collapsed. On the north cliff, there are cross-legged reliefs, bird reliefs, and reliefs of four-legged animals thought to be cows. There are also other reliefs that are difficult to identify because they are damaged. Between the two cliffs, there is a lotus flower relief and a worn-out face relief. The relief of Kala’s head on the southern cliff is depicted sinesterly with a glint in his eye that leads to the frame below. Above Kala’s head, there is a carving of curly hair, prominent cheekbones, grinning lips with two fangs protruding from his upper jaw, displaying six teeth. Kala’s head measures 134.5 cm wide and 160 cm high. The overall relief of Kala is asymmetrical, with the right side larger than the left. According to research, Butha Cerme cave was probably used in the XIV-XV centuries A.D. This is based on the similarity of the building art style with other sites in the mountainous area that also date back to the XV century A.D.

**Mount Raung Eruption and Its Impact**

Mount Raung, located at the tip of East Java, is one of the highest mountains in the region at 3,260 meters above sea level. The mountain has deep sacred significance in Hindu mythology and has been considered a sacred place since the days of the Hindu Kingdom in Java. Some myths record that several kings of the Blambangan Kingdom, especially Tawang Alun, made Mount Raung a hermitage. In Hindu belief, Mount Raung is considered as the most sacred and sanctified mountain by the local community, especially in the Banyuwangi area. Mount Raung is one of the active volcanoes that has erupted several times during its history. Volcanic eruptions can have serious impacts, including endangering nearby residents, disrupting air traffic due to volcanic ash, and changing land use in the area around the mountain.

The most recorded eruption of Mount Raung occurred in 1593, as recorded in VOC (Vereenigde Oost-Indische Compagnie, United East India Company) sources. In addition, there are strong indications that Mount Raung has places of worship dating back to the Blambangan Kingdom and Hinduism. Evidence of this historical legacy still exists today, for example the petilasan in Jamberwangi Village. Remnants of the Blambangan Kingdom that were buried by volcanic ash due to the eruption of Mount Raung in the 18th century. Many of the kingdom's relics
have yet to be fully unearthed. Therefore, this mountain has a high historical relevance with many cultural and historical relics that have not been fully revealed. Sri Margana in the book Ujung Timur Java: The Struggle for Hegemony in Blambangan 1763-1813 (2012).

Over the past few centuries, Mount Raung has experienced a series of explosive eruptions with major hazards such as hot cloud slides and pyroclastic material ejections. The largest eruption in 1593 is considered one of the largest in the mountain's history. It created a new crater at the top of the mountain, now known as Kawah Raung. The eruption also caused severe damage to a number of surrounding villages due to pyroclastic flows, hot clouds and volcanic ashfall. Sukir Maryanto Seismik Vulkanologi (2016). The 1593 eruption changed the topography of the area around Mount Raung by forming new craters and creating significant damage. The eruption caused severe damage to villages on the slopes of the mountain, claiming lives and destroying homes.

Picture 2. East Java Physiographic Map
Source: Bemmelen 1949

Picture 3. The brick structures (well) are alleged to have been affected by the eruption of Mount Raung.
Source: Private Collection
The impact of the eruption of Mount Raung can be seen in the discovery of a well in Alas Sumur village, Pujer sub-district. The well structure was uncovered due to flooding and reported by residents to the relevant institutions. Based on field observations, we measured the structure. The brick structure, thought to be an ancient well, may have been covered by material from the eruption of Mount Raung decades ago. The ancient well is located below the riverbank and was discovered by residents after a flood. As a result, the riverbank was eroded, making the well clearly visible to the community. Preliminary observations show that the structure of the ancient well was buried by material from the eruption of Mount Raung in the 16th century. The edge of the well is made of large bricks, and the diameter of the well circle reaches one meter. Based on the contours of the land in the Bondowoso district, it is thought that the area was a lowland at the time, which was later formed into a high hill by the eruption of Mount Raung in 1593 AD.

CONCLUSION

The research focuses on artifacts and structures that show Hindu-Buddhist influence in the area. Archaeological finds, such as kepeng money, ancient brick structures, and Majapahit-style wells, found at depths of 1 to 5 meters, became the central point of the research. Although there are no inscriptions that definitively link these finds to the Majapahit Kingdom, the distinctive style in the finds leads to the assumption that they date back to the classical period around 1200-1500 AD. This research is significant because it reveals that Bondowoso Regency, in addition to being rich in classical cultural objects, also has the potential for classical period remains that have not yet received in-depth exploration. Accurate data on the number, type, form and function of cultural relics is very important, both from an academic perspective and in the context of cultural heritage preservation and tourism interests. The research method used is the historical method with an archaeological methodological approach as support. The results showed that the classical civilization in Bondowoso may have disappeared due to the eruption of Mount Raung in the 16th century AD. The follow-up of this research is to identify the number, type, form and function of classical cultural remains more clearly in Bondowoso Regency. This will make a valuable contribution to understanding the history of the area and promoting the preservation of cultural heritage. The findings also raise questions about the influence of Hindu-Buddhist religion in the area, which is an important element in Indonesia’s classical history. The eruption of Mount Raung, recorded in this study, also provides insight into the natural impacts that can alter topography and bury valuable historical traces. This research reveals the undiscovered historical potential of the region and encourages further research to unearth the treasures of Bondowoso’s history.
ACKNOWLEDGEMENT
We would like to express gratitude for the funding assistance provided by LP2M Jember University. This research was conducted with the support of the Bondowoso Regency Tourism and Culture Office, especially with the help of Mr. Hery Kusdarijanto and his colleagues who accompanied the field research. We express our deepest gratitude.

REFERENCES


Tim Ahli Cagar Budaya Kabupaten Bondowoso. (2018). Naskah Rekomendasi Penetapan Struktur Gua Butha Sumber Canting Dusun Sumber Canting, Desa Sukorejo, Kecamatan Sumber Wringin. Bondowoso: (Not Been Published)


