Loyang Mendale and Loyang Ujung Karang Sites and Their Potential as Sources for Learning History

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ABSTRACT

This study aims to describe how the Loyang Mendale and Loyang Ujung Karang sites, based on their relics have the potential as a source of historical learning. The research method used in this research is descriptive qualitative method. Sources of literature in the study came from scientific articles and books related to the excavation results of the Loyang Mendale and Loyang Ujung Karang sites. The results of this study are to describe findings of Hoabinh cultural tools from the Mesolithic period, to Austro-Nesian cultural tools from the Neolithic period at both sites. Based on the results of the archaeological finds, the Loyang Mendale and Ujung Karang sites have the potential to be used as sources for learning history, and can be grouped into KD 3.4 and 4.4 in the Indonesian History subject class X with the teaching material of prehistoric life in Indonesia. Learning history by using local pre-historic cultural relics is expected to foster students' interest in loving the history of their area.

Keywords: Loyang Mendale, Loyang Ujung Karang, history learning resources

ABSTRAK

Kajian ini bertujuan untuk mendeskripsikan bagaimana situs Loyang Mendale dan Loyang Ujung Karang, berdasarkan hasil tinggalannya berpotensi sebagai sumber belajar sejarah. Metode penelitian yang digunakan pada penelitian ini adalah metode kualitatif deskriptif. Sumber literatur dalam penelitian berasal dari artikel ilmiah dan buku terkait hasil ekskavasi situs Loyang Mendale dan Loyang Ujung Karang. Adapun hasil penelitian ini adalah mendeskripsikan temuan alat kebudayaan budaya Hoabinh periode Mesolitikum, hingga alat kebudayaan Austronesia periode Neolitikum pada kedua situs tersebut. Berdasarkan hasil tinggalan arkeologisnya situs Loyang Mendale dan Ujung Karang sangat berpotensi untuk dijadikan sumber belajar sejarah, dan dapat dikelompokkan ke dalam KD 3.4 dan 4.4 pada mata pelajaran Sejarah Indonesia kelas X dengan materi ajar Corak Kehidupan Pra-Aksara di Indonesia. Pembelajaran sejarah dengan menggunakan tinggalan budaya prasejarah setempat diharapkan dapat menumbuhkan minat peserta didik untuk untuk mencintai sejarah daerahnya.

Kata Kunci: Loyang Mendale, Loyang Ujung Karang, sumber belajar sejarah

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INTRODUCTION

Central Aceh is one of the regencies in Aceh Province which has quite a lot of prehistoric sites. The area has a hilly topography and on the hillside there is a niche or umbrella cave that allows it to be used as a place to live. The position of the niche as a place of settlement is also supported by the availability of food sources. Lake Lut Tawar which is located around the alcove, is inhabited by animals such as shellfish and fish that can be consumed, Lake Lut Tawar is also a stopover and gathering place for animals that need water for drinking, this condition allows hunting activities as an effort to fulfill their needs (Wiradnyana & Setiawan, 2011).

Prehistoric sites located on the outskirts of Lake Lut Tawar some of which are Loyang Mendale and Loyang Ujung Karang. Artifacts from these two sites date back to the Mesolithic period to the Neolithic period. The diversity of ancient relics at the two sites allows us to reconstruct the pattern of human life at that time and its correlation with life today, considering that until now the outskirts of Lake Lut Tawar are still residential areas.

In the context of learning, history subjects are often considered as boring lessons. This is inseparable from the teacher's role in managing monotonous learning, reconstruction of historical events carried out by teachers in classrooms tends to use the lecture method. In the use of learning resources, teachers are only adrift with textbooks as the only source of learning. The material content in the textbooks places very little on local history as a learning resource so that students just stare without any concrete evidence around them that can be linked in elaborating the material taught by the teacher (Krisnawati, Warto, & Suryani, 2018).

Local history helps students understand problems in learning history, because students can observe and relate directly to events in their area that are related to national-scale events, this causes students' historical understanding to be richer. History teachers are required to be able to explore local history in their area and package it in the form of learning resources and manage it with interactive learning methods (Wijayanti, 2017). Therefore, this study aims to see how local history in this case the prehistoric sites of Loyang Mendale and Loyang Ujung Karang have the potential as a source of learning history.

RESEARCH METHODS

In this study, researchers used descriptive qualitative research methods. Qualitative research is a process to describe a main phenomenon under study (Creswell, 2015). In addition, descriptive qualitative research aims to explore and describe an object and relate it to the variables studied (Samsu, 2017). Therefore, in this study, researchers explore and describe artifacts and fossil remains from prehistoric times found at the Loyang Mendale and Loyang Ujung Karang sites to see their potential as sources for learning history. The data collection technique in this study was a study of literature, articles and scientific books related to the excavation results at the Loyang Mendale and Loyang Ujung Karang sites.

RESULTS AND DISCUSSION

Overview of the Loyang Mendale and Loyang Ujung Karang sites

The variety of findings in the form of artifacts and fossils from the Mesolithic period to the Neolithic period at the Loyang Mendale and Loyang Ujung Karang sites is evidence that since prehistoric times these places have been used as residential areas. Its very strategic location and rich in food sources is an added value for hunting and gathering activities. The hallmark of settlements in the Mesolithic period is that humans have used niches or umbrella caves (Abris Sous Roche) as a place to live (Jati, 2013). The discovery of artifacts from the Neolithic period, is strong evidence that the place remained a settlement after the Mesolithic period.

The term "loyang" itself comes from the Gayo language which means a niche or cave. The topography of the Central Aceh region is hilly, causing on the hillsides there are many inhabitable niches. Both sites are now included in the Kebayakan District. The Loyang
Mendale area consists of four adjacent niches, and each niche contains prehistoric archaeological finds. The location of Loyang Mendale with Lake Lut Tawar is about 50 meters, because the affordable distance allows gathering and hunting activities to take place in that place. Loyang Ujung Karang is about 1.3 km from the Loyang Mendale site. This site consists of two caves with gently sloping floors which are very convenient to live in (Wiradnyana & Setiawan, 2011).

Based on the results of archaeological remains, the Loyang Mendale site consists of cross-cultural. Sumatralith finds; bone tools; mollusk shell; and the presence of hematite in human fossils at the Loyang Mendale site proves that the early humans who inhabited the place were adherents of the Hoabinh culture. Hoabinh culture is a culture that is widespread throughout Southeast Asia to the region, southern China, and Taiwan. The hallmark of this culture is the use of river stone tools which are flaked on both sides. Such characteristics are often found in North Vietnam, which is the origin of the Hoabinh culture (Bellwood, 2000). Supporting the Hoabinh culture are Australomelanesoid, this is evidenced by the discovery of an Australomelanesoid skeleton with hematite and a bent knee position in the Moh Khiew cave, Thailand (Wiradnyana, 2016).

Furthermore, the culture that developed at the Loyang Mendale and Loyang Ujung Karang sites was Austronesian speakers who belonged to the Mongoloid race. This culture is thought to have originated in southern China, which later developed in Taiwan, from here it then spread to various regions in Asia, the spread of Austronesian culture in Indonesia based on the Out of Taiwan route via Taiwan; Philippines; Sulawesi; Kalimantan; Java; and Sumatera (Wiradnyana, 2015).

The distinctive features of the stone tools used by them are square axes and oval axes, classified as tools in the Neolithic period, in addition to other cultural tools, red-slipped pottery. So far, the Austronesian culture in Indonesia which is considered the oldest is the Minanga Sipakko site in West Sulawesi and it is estimated that its spread to the western region of Indonesia (Simanjuntak, 2015).

### The Findings of the Loyang Mendale Site

Excavations carried out by the National Archeology Center for the North Sumatera Region at this site showed various findings. The oldest stone artifacts found are from the Hoabinh culture belonging to the Mesolithic period. The findings were in the form of hand-axes and flake tools made of rock and shells. Sumatralith as the main feature of Hoabinh stone tools was also found, the ax was made of andesitic rock. Furthermore, another stone tool characterized by the Mesolithic period is an ax with a gravel waist. It was also found that a hammer made of karts rock, a drill as a piercing tool made of andesitic and limestone limestone, apart from stone tools, bones made in the form of a long spatula were also found (Wiradnyana & Setiawan, 2011).

The discovery of mollusk shells in considerable numbers indicates that the human inhabitants of Loyang Mendale have taken advantage of the available food sources around the residential area. *Corbiculidae* is a type of shellfish that lives in Lake Lut Tawar and *Planorbidae* a type of snail, the shells of which are both most commonly found in the Loyang Mendale area. The discovery of the shells of *Articidae* molluscs that live in coastal areas, allows a connection between the highlands and coastal areas, related to the spread of Austronesian culture. The early humans who inhabited Loyang Mendale were also familiar with the art of aesthetics, this can be seen from the discovery of the fangs of a carnivorous animal with a hole in the top, most likely the fangs were used as necklaces (Wiradnyana, 2011).
Tools in the neolithic period found at the Loyang Mendale site include square axes and oval axes, the presence of prospective square axes that are not yet ready to be worked on gives us information that Loyang Mendale is also a production site for square axes. This allegation was further strengthened when the discovery of a mortar made of gravel. Mortar is a kind of stone base that is used as a place for the tool to be formed. All sides of the mortar appeared to be damaged due to the curing process. Another important discovery related to Austronesian culture at Loyang Mendale is human fossils, these discoveries illustrate how burial procedures and belief systems developed at that time.

There is a large boulder that fell on the skeleton explaining that the burial was carried out by placing a stone on top of the corpse, this is of course done so that the body remains safe and free from disturbance by wild animals, in addition to the belief values behind it. Then the location of the east-west orientation framework, this is related to the values of belief in following the direction of the rising and setting of the sun, that life is likened to the sun rising and setting, from birth to death.

Another aspect of the belief system can be seen from the position of the skeleton with bent knees and the many fragments of pottery, around the skeleton which is indicated as a grave stock. Besides there are belief values behind it. Then the location of the east-west orientation framework, this is related to the values of belief in following the direction of the rising and setting of the sun, that life is likened to the sun rising and setting, from birth to death. Another aspect of the belief system can be seen from the position of the skeleton with bent knees and the many fragments of pottery, around the skeleton which is indicated as a grave stock (Wiradnyana, 2015).
One of the other characteristics of the Neolithic period is the ability to domesticate animals that are used to support human activities and as food for consumption, this can be seen from the discovery of upper jaw fossils of buffalo in Loyang Mendale. Consumption of buffalo at this time is also still going on, usually in traditional ceremonies. In addition, dog skeletons were also found, it is estimated that at that time the inhabitants of Loyang Mendale had been able to tame dogs that were used to support human activities such as hunting, even now, dogs are still kept by most of the Gayo people in Central Aceh for gardening activities. In addition to animal domestication, Loyang Mendale humans have also been familiar with food processing, this can be seen from the discovery of candlenut shells. The use of candlenut as a cooking spice can also be found until now, Gayo cuisine even often uses candlenut as the main seasoning for cooking, so that Gayo cuisine has a distinctive taste. Gayo recipes that use candlenut as a cooking spice such as Cecah Gayo and Masam Jing (Wiradnyana & Setiawan, 2011).

The Findings of the Loyang Ujung Karang Site

The excavation was carried out at Loyang Ujung Karang by the team from the National Archaeological Center for the North Sumatera Region. The artifacts found at the Loyang Ujung Karang site generally date from the Neolithic period. The discovery of mortar also indicated that the Loyang Ujung Karang site was a place for stone tool work. Human inhabitants of Loyang Ujung Karang have been doing hunting activities to fulfill their needs, this can be seen from the discovery of arrowheads made of stone at the site. In addition to functioning as a hunting tool, the arrowhead is thought to also have a function as a grave stock, considering that it was found close to a human skeleton, in addition to that, red-slipped pottery was also found. Supporters of Loyang Ujung Karang culture are Austronesian, This can be proven by the findings of human skeletons and fragments that can be identified as the Mongoloid race. The skeleton with the R.I code was buried in an east-west orientation, its knees bent backwards and around it were found many earthenware fragments which were thought to be grave supplies. In addition, in the same soil layer, leaf abscalates and rattan remains were also found.
related to burial procedures. The burial system found at the Loyang Ujung Karang site indicates that the human inhabitants of the area have adhered to a certain belief system, as can be seen from the findings of two skeletons coded R.III and R.IV in one hole. It is estimated that burials are carried out using living humans as grave provisions for the dead (Setiawan, 2014).

Figure 3. The Burial System at Loyang Ujung Karang
Source: Balai Arkeologi Medan

Estimated Occupancy of the Loyang Mendale and Loyang Ujung Karang sites

The archaeological findings found at the Loyang Mendale and Loyang Ujung Karang sites, in addition to giving us an idea of how human life at that time with their cultural tools, also allow us to reconstruct how long these places have been inhabited. The results of radiocarbon analysis on burning remains and bones in the deepest soil layers of the Loyang Mendale site show that Mesolithic culture has taken place in that place since 7,400 – 5,040 thousand years ago, this indicates that it was during these times that the adherents of the Hoabinh culture began to enter Central Aceh (Wiradnyana, 2011).

An older date was found in the deepest soil layer at the Bukit Kerang Pangkalan site in Aceh Tamiang, radiocarbon analysis results showed the date was 12,550 years ago. These dates are contemporaneous with sites in North Sumatra, such as the Togi Ndrawa Site on Nias characterized by Hoabinh culture dating back 12,000 years, and the Bukit Kerang Tandem Hilir sites; Bukit Kerang Kampung Baru; Bukit Kerang Pasar III; and V. The Bukit Kerang site base which is located on the bank of the Tamiang river has the oldest date among other coastal sites, this indicates that there has been exploration of other areas, considering that from the lower reaches of the Tamiang river to the river that originates in North Sumatera along its riverbanks there are sites with Hoabinh culture (Wiradnyana, 2017).

One of the hallmarks of Austronesian culture is the red-slipped pottery, which is widespread in Taiwan; Philippines; Sabah; Thailand; and Sulawesi, in line with the Austronesian Out of Taiwan migration area (Bellwood, 2000). In Indonesia, the earliest Austronesian culture was found in Minanga Sipakko with the date 3834-3572 years ago (Simanjuntak, 2011).

The discovery of red-slipped pottery at Loyang Mendale and Loyang Ujung Karang indicates an alternative route related to the spread of Austronesian culture through the western part of Indonesia. The results of radiocarbon analysis of pottery show that the oldest figures were at 4,400 years ago, older than those at the Minanga Sipakko site, it is possible that the alternative route of Austronesian dispersal in Central Aceh did not pass through the Sulawesi route, but through Thailand, this is associated with the morphological similarities red-slipped pottery at the Loyang Mendale site with red-slipped pottery at the Ban Chiang site (Wiradnyana, 2015). The existence of an alternative route for the spread of Austronesian through the western route of Indonesia, is also reinforced by the findings of square axes and oval axes on Weh Island (Wiradnyana, 2012).

Austronesian culture at the Loyang Mendale site, based on the results of radiocarbon analysis on the remains of burning charcoal, shows the number 3,580 years ago (Wiradnyana, 2015). Meanwhile, in the soil layer of the Loyang Ujung Karang site which contains artifacts and human skeletons, radiocarbon analysis was carried out on the skeletons in the deepest soil layer showing the date 4,400-1900 years ago, compared to the Loyang Mendale site, the Loyang Ujung
Karang site was the initial residence of cultural speakers Austronesians who have entered Central Aceh 4,400 years ago (Setiawan, 2014).

![Austronesian migration path of western Indonesia](image)

**Figure 4. The Austronesian migration path of western Indonesia**
Source: Wiradnyana

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**Potential Prehistoric Sites in Central Aceh as a Source of History Learning**

History subjects are often considered as boring lessons, this is certainly inseparable from how history learning takes place in the classroom. In reconstructing historical events, teachers tend to use a traditional approach, the lecture method for example, so that the function of the history teacher as a teacher turns into a history storyteller. Students are also increasingly charged with rote learning tasks. Textbooks that are expected to be able to overcome the gap between historical knowledge taught by teachers and students' cognitive abilities are also not very helpful, because the teacher's role in using textbooks is still conventional and often only relies on textbooks without further exploring the content of the material being taught (Krisnawati, Warto, & Suryani, 2018).

Implementation of scientific learning, namely learning that focuses on scientific approaches such as observation and experiment. It is hoped that in scientific learning, students can develop their knowledge and skills to be creative and innovate (Musfiqon & Nurdyansyah, 2015). The teacher as a facilitator plays an important role in designing and managing learning that is centered on student active learning. Students are given the breadth to explore learning resources in the surrounding environment and through the process of observing; ask; collect information; associate; and communication, students synthesize the results of their observations to give birth to a conclusion.

Based on Government Regulation No. 57 of 2021 concerning national education standards, each education unit has the right to develop the potential of local content in its area, and integrate it with the national curriculum. The potential for local content can be in the form of learning resources based on local history. The term local history is used to refer to historical events that occurred in an area, and does not rule out the possibility of being related to national history (Winarti, 2012). Learning resources are used by students to support learning activities to assist them in completing competency goals (Wiyanarti, Supriatna, &
Learning resources are also used by teachers to improve effectiveness and efficiency in the learning process. Therefore, the need for local history learning resources as an alternative source is taught in the classroom, so that students can directly observe historical objects around their homes and construct them with the historical knowledge taught by the teacher.

The Loyang Mendale and Loyang Ujung Karang sites are prehistoric sites located in Central Aceh and have great potential to be used as sources for learning history. Apart from having various artifacts and ecofac remains, the site is closely related to the spread of Hoabinh and Austronesian culture in Indonesia. In addition, the use of the Loyang Mendale and Loyang Ujung Karang sites, as a source of history learning, is expected to increase students' love for the ancestral culture of the Gayo tribe, considering that based on the results of DNA tests, the human skeletons found in Loyang Mendale and Loyang Ujung Karang have similarities with the Gayo tribe who live around Lake Laut Tawar at this time (Purnawibowo & et al., 2015).

The integration of local history learning resources into history learning is also in accordance with the Minister of Education and Culture Regulation No. 37 of 2018 concerning Core Competencies and Basic Competencies, in the Indonesian History subject class X there is KD 3.4, namely understanding the results and cultural values of the Indonesian pre-literate community and their effects in the immediate environment, then KD 4.4, which is to present the results and cultural values of the Indonesian preliterate community and their influence in the immediate environment in written form. The content of teaching materials related to basic competencies 3.4 and 4.4 is the pattern of early human life in Indonesia, very in accordance with the life of ancient humans who inhabited Loyang Mendale and Loyang Ujung Karang,

**CONCLUSION**

Loyang Mendale and Loyang Ujung Karang sites are prehistoric sites located in Central Aceh. The findings of the two sites are very diverse, ranging from tools from the Hoabinh culture to Austronesian culture. This proves that these two sites played an important role in the migration of Hoabinh and Austronesian cultures in Indonesia. Based on Government Regulation No. 57 of 2021 concerning national education standards, each education unit is given the opportunity to explore the potential of local content in their respective regions. The use of local history as a source of historical learning such as the Loyang Mendale and Loyang Ujung Karang sites, and is a much-needed alternative learning resource apart from textbooks.

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