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Characteristics of Beanembala Naguhi Cave Prehistoric Site 2 in Yuruf Village, Yaffi District, Keerom Regency, Papua Province

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ABSTRACT

Keerom Regency, West Papua Province has the potential for archaeological remains in the form of prehistoric caves with remains in the form of rock images and various artifacts. The archaeological remains were first reported by Galis in the Gumamit and Pinfeloe caves in the Web district area, rock drawings on cave walls with lizard and abstract motifs (Galis, 1957 in Arifin, 1992). Koyafi (1989) also reports that in the Web and Yaffi Regions there are cave wall paintings and rock cliffs which are relics of the ancestors of the Web people, namely the Emem and Ndra tribes (Fairyo, et al, 2018). The existence of these potential archaeological remains is the background of this research by focusing on studies on the prehistoric site of Beanembala Naguhi Cave 2. Survey and observation methods combined with excavations were applied in this study to determine the characteristics of the site. Obtaining research data in the form of stone artifacts, bone artifacts, human bone fragments, human teeth, and rock images found on the cave walls. Based on the analysis and interpretation of the archaeological remains that have been found, it is concluded that the characteristics of the Beanembala Naguhi 2 Prehistoric site are cave dwellings that also function as burials and are related to religion. Based on the dating analysis, the occupancy at this site comes from the first phase, 5650 ± 30 BP and the second phase 4720 ± 30 BP.

Keywords: artifact, bone fragment, excavation, dwelling, prehistory, characteristic, site.

1. INTRODUCTION

Archaeological research along the border of the Unitary State of the Republic of Indonesia (NKRI), especially in the eastern part of Papua, which stretches from the north, namely the Jayapura region to the Merauke region in the south, is considered very rare, both from domestic and foreign archaeologists. Administratively, the area is included in the Keerom Regency which is directly adjacent to Papua New Guinea (PNG). The topography of Keerom Regency in the form of mountains to hills, lowlands and even valleys with karst areas to the Indonesia-Papua New Guinea border is very important for prehistoric archaeological studies. Information on archaeological finds in this area is based on searches conducted by Galis in the Gumamit and Pinfeloe caves in the Web district. Galis found paintings on cave walls with lizard

and abstract motifs (Galis, 1957 in Arifin, 1992). Koyafi (1989) also reports that in the Web and Yaffi Regions there are cave wall paintings and rock cliffs which are relics of the ancestors of the Web people, namely the Emem and Ndra tribes (Fairyo, et al, 2018: 1).

Based on this, the Papua Archaeological Center in 2011 conducted prehistoric archaeological research in Keerom Regency. Furthermore, in 2016 intense archaeological research began until 2019 in the border area. The research locations include the Arso Timur district in Kibay village, Senggi district in Yabanda village and Web district (now Yaffi district) in Yuruf village. The prehistoric cliff site in Kibay village is the Isusuk cliff. The prehistoric cave site in Yabanda village is Banggar cave. Prehistoric cave sites in Yuruf's village are Erfe Hora, Triffi, Yakumbru, Yahoto, Yadumblu, Kwarfei, Hubiyambru, Notenga Tefna, Yambiahrambru,

Kefai Ambea, Kefai Ambea, and Kubiyam cliffs, Gumumblu, Mafne Iwabiruhi (Research Team, 2011, 2016, 2017) cave sites.

The findings obtained from the study were in the form of prehistoric cliffs and caves with various drawings/paintings. Findings of drawings/paintings in the form of geometric shapes, circles, noken, patterns of tendrils, rectangles, lizards, humans, anthropomorphic, sun, fish, snakes, turtles, palms, feet and various abstract images. In addition to the images obtained fragments of pottery, human teeth and bones, animal teeth and bones, bone tools, molluscs and stone tools such as stone axes, flake tools. The research is only exploratory in nature which produces a general description of the archaeological finds found in the area. Based on the results of a 2017 survey, with the location of a prehistoric cave suspected of being a residence, in 2018 archaeological research was again carried out in the Yuruf village area. This research uses the excavation method in Yahoto, Hubiyambru and Notenga Tefna caves. Based on information from the Mandaweri clan community that the Hubiyambru and Notenga Tefna caves they call Beanembala Naguhi 1 and Beanembala Naguhi 2. Research is related to functional and artifactual studies by conducting excavations (excavations). The findings obtained are generally in the form of human bone fragments, animal bones, fish bones, stone axes, bone tools and pottery fragments.

These findings also provide direction on the importance of studying the prehistoric region of Keerom, especially that the region has now experienced quite rapid development with the existence of a cross-cultural route with Papua New Guinea. Therefore, based on the findings in Beanembala Naguhi 2 Cave in the form of human bone fragments indicating a burial chamber. However, this assumption needs further research to reveal more scientifically, accurately and clearly to understand the reconstruction of cultural history and the reconstruction of cultural processes.

2. RESEARCH PROBLEMS

Further research related to the study of functions and artifacts in Beanembala Naguhi 2 cave and the distribution of other caves, can provide space for achieving a deeper understanding in the future. The results of the study will better describe the diversity of findings and the location of the findings will provide clues as to the location of certain activities. Temporary suspicion that the cave was used as a second burial place (secondary burial) with the possibility of obtaining various objects used as grave supplies. Therefore, this research is expected to reveal the relationship between artefactual and cave functions. Thus, it will have an impact that the Papua region, especially the border area with Papua New Guinea, will have cultural diversity. This will also strengthen geographically and culturally

within the framework of the Unitary State of the Republic of Indonesia. Previously, the first phase of research only traced the traces of artefactual relationships.

Forms of cultural heritage and all activities based on such findings can be said to have historical cultural significance and cultural processes in the past. Therefore, this study focuses on the function and artifactual in the prehistoric Keerom cave and its relationship with the environment. In addition, it will also conduct a survey of prehistoric caves in the Indangan hamlet area based on information from the local community. The diversity of the findings also indicates a variety of activities, however, research conducted in 2011, 2016, 2017 and 2018 in several caves in Keerom can provide a temporary picture of the level of civilization. prehistoric humans in the area.

Prehistoric research around the area is also very much needed to obtain a general picture of the level of prehistoric human civilization in Keerom which is the boundary of the Republic of Indonesia. In the area there are also other caves in the karst cluster that stretches from north to south across from east to west. Previous research has produced a number of variables that do not clearly indicate the burial place of past humans or ritual areas. Therefore, a comparison is needed with other caves in the Keroom and Beanembala Naguhi 2 areas. The research problem is then formulated in a research question, what are the characteristics of the Beanembala Naguhi 2 prehistoric cave site in Keerom?

3. THEORETICAL FRAMEWORK

The study of archeology today, has experienced a very rapid development. This development is not only seen in the formulation of models, concepts, and theories, but also in the field of methodology. Developments in the field of methodology in the study of archeology are strongly influenced by other sciences, both from the social sciences group, and the exact sciences. Reconstruction of social life, economy, religion, politics, and religion, for example, the contribution of social sciences is very much needed; while the reconstruction of space (space) and time (time), the exact sciences contributed a lot. Thus, archeology is a multi-dimensional science. The fields of reconstruction of the past that are the task of archeology are formulated in three main aspects, namely form, space, and time. The aspect of form relates to past cultural formulas, both visible and invisible through the analysis of artifacts. The aspect of space is related to the "region" of a culture that adapts and develops over a certain period of time. While the time aspect is related to the question of when a certain culture appears, develops, and becomes extinct. It seems that the aspects of space and time in this context are two aspects that cannot be separated.

Talking about the aspect of space in interpreting past cultural activities is tantamount to an attempt to reconstruct the environment in which a culture once took place. The reconstruction of the archaeological environment is very important in drawing conclusions about the ways of past human life, because a number of information can be obtained through this process. One of the interests of environmental reconstruction efforts is finding the context of archaeological data in spatial units or more specifically called ecological niches.

This is in accordance with what was proposed by Walter Taylor (1948) that archaeologists should pay attention to contextual aspects in interpreting archaeological data. Taylor's idea was developed from the thought of Thomson (1939) who said that the character of the past human system can be seen through visible patterns from archaeological data. At that time, the commonly accepted view was that the "cultural context" depended on the presence or absence of archaeological data that showed clear cultural patterns and characteristics. In other words, the degree of preservation and the presence of artifacts are considered meaningful for interpreting archaeological data (Dharmaputra and Rahardjo, 1990: 32).

The remains of life obtained are not only in the form of artifacts, but the environment in which they live and the remains of humans are objects of archaeological research. Therefore, archaeologists basically study human activities, the remains of humans themselves and their environment (Kasnowiharjo, 2001: 5). These archaeological findings can illustrate that the caves in the Keerom region were used by humans in the past. In other words, the exploitation of caves and niches has been carried out by humans since prehistoric times (the Holocene period), these caves are often used as multi-functional spaces; namely as a place of residence, a center of industrial activity and a place of burial (Simanjuntak in Prasetyo, 2004). For burial activities in caves, it is carried out by community groups who have the same perception and understand each other, so that habits and customs are formed in community groups.

4. METHOD

This research is descriptive, which aims to collect archaeological data in accordance with the research objectives, which can reveal various aspects related to the data obtained using a qualitative approach and a form of inductive reasoning. The data and information that have been collected in this study are used as a reference for conducting the analysis. The research instruments in collecting data in the field and in the laboratory are: Field Equipment for Surveys and Excavations and laboratory analysis equipment for dating (Dating). The strategy in this research will go through several stages, namely:

1) Data Collection Stage.

At this stage there are several ways to collect data or information, namely through:

a. Literature study is collecting library data in the form of literatures, and research reports, which are related to research studies.

b. Observations were made by direct observation of the symptoms of archaeological remains and the surrounding environment. At this stage there are several activities carried out such as recording, photos and visual documentation, measurement/drawing, and determining the position of the location with GPS.

c. Observation in the field (survey of caves) by searching for caves that have pictures/paintings and artifacts as well as ecofacts.

d. The excavation was carried out by continuing the previous box in the Beanembala Naguhi 2 cave with the aim of removing human bone fragments with accurate data recording. In addition, the excavation box was opened on the terrace of the inner wall of the cave. Determination of the dug box by considering the indications of the findings of the cave floor surface.

2) Research Data Processing Phase.

After the findings are collected, both survey findings and excavations are carried out for data processing. Survey findings in the form of artefacts and cave drawings were analyzed according to the research objectives. Likewise with excavation findings, especially the unit of analysis for findings per spit. Carry out cleaning, classification of findings, identification of findings, photos of findings, labeling of findings. The data collected in this study were then described, analyzed, measured and photographed in detail. Next, interpret, to obtain an overview of the research objectives, analyze both artifacts and ecofact findings and carry out laboratory analysis for dating.

3) Research Data Interpretation Stage

At this stage, survey findings and excavation data are collected after tabulation based on the results of the analysis. The entire data is then explained by doing a description to make conclusions based on the research objectives.

5. DISCUSSION

Beanembala Naguhi 2 Cave has a length of 7 meters and a width of 10 meters with a direction facing south. Astronomically it is located at coordinates 030 34' 50.0 "south latitude and 1400 55' 56.4" east longitude and is at an altitude of 360 meters above sea level. Cave ornaments in the form of stalactites, stalagmites and

pillars. On the walls of the cave there are small passages. This cave is located at the foot of a slope with a slope of 300. There are limestone chunks at the mouth of the cave close to the pillars. The existence of painting images placed on the walls and ceiling of the cave and there are stalactites. The colors used are red and black. There is even an image that combines red and black. Inside the cave there is a kind of terrace and bone fragments of a pig species were found. The image forms are geometric, lizard, wave lines, square, rhombus, circle, and abstract.

After conducting a peleontological and paleoanthropological analysis of 1,418 finds from Beanembala Naguhi 2 Cave, the findings are divided into 25 specimens of human bone fragments, 711 animal bones, 25 plant specimens, 656 rock specimens, and 1 piece metal. The finding of animal species in Beanembala Naguhi 2 Cave is a type of animal originating from habitats outside the cave. Rock findings in general also come from the environment outside the cave, except for flow stone which is part of this cave.

The findings of the remaining human bone fragments that have been obtained during excavations at Beanembala Naguhi 2 Cave are 25 specimens. These findings were in the form of fragments of the cranium, phalanges (fingers) and molars (molars) and maxilla and longbones. The findings of this fragment have not shown gender, race and age. Animal remains found during excavation activities at Beanembala Naguhi 2 Cave amounted to 711 specimens. The findings consist of: 26 numbers of bivalves, 82 numbers of gastropods (236 specimens), Sus sp. as many as 30 specimens, fish as many as 26 specimens, bats as many as 3 specimens, cuscus as many as 20 specimens, Rodentia as many as 16 specimens, Testudo as many as 19 specimens, birds as many as 2 specimens, crabs as many as 2 specimens, and 485 unidentified animals.

The rest of the plants found in Beanembala Naguhi Cave 2 amounted to 25 in the form of 18 seeds, 2 logs, and 7 small bags of charcoal. The remaining seeds found in Beanembala Naguhi 2 Cave amounted to 18 specimens. The seeds consist of two types based on their shape, namely round with a rough surface and oval shape with a smooth surface. There were 6 specimens of burned seeds. The seeds measure between 7.15 mm – 16.91 mm long, 6.49 mm – 15.95 mm wide, 4.24 mm – 13.33 mm thick. The logs found in Beanembala Naguhi Cave 2 amounted to 2 specimens. Both logs are in weathered condition and each measuring 25.68 mm long, 2.84 mm wide, 2.21 mm thick and 74.51 mm long, 9.92 mm wide, 6.90 mm thick. The remains of charcoal found in Beanembala Naguhi 2 Cave are the remains of burned plants. The charcoal obtained comes from the U0T1 Grid A.2 box and will be used as a sample for

dating analysis at spit (5) and Spit (6) with a depth of 43 – 56 cm from the Laser line level.

Rock findings obtained during excavation activities at Beanembala Naguhi 2 Cave amounted to 672 specimens. The findings consist of ocher, earthenware, burnt earth, limestone, andesite, quartz, claystone, cave ornaments, chert and unidentified stones. The metal found in the excavation box at Beanembala Naguhi Cave 2 is a coin. Obtained in the dig box U1T1 at spit 1. This coin is cm in diameter and comes from the currency of Papua New Guinea.

6. CHARACTERISTICS OF BEANEMBALA NAGUHI CAVE PREHISTORIC SITE 2

Research that has been carried out in Beanembala Naguhi 2 Cave shows various artifacts and ecofac findings related to human activities in the use of space and the environment as well as related to the concept of belief. Past human activities are closely related to the subsistence environment. The Indangan area with a topography of karst stretches, rivers and tropical forests provides an ecosystem that is close to the source of livelihood. Utilizing space in the fulfillment of life in terms of hunting and gathering that does not require too much energy. It can be seen that the prehistoric caves in the Indangan village are very close to the river. Rivers as a source of life are needed by humans and animals.

Utilization of this environment provides humans with a source of food both in the form of animals and root crops. Hunting activities are known by the finding of animal bone fragments in the form of pigs, cuscus, and cassowaries. Equipment used in hunting such as the use of bone tools in the form of arrowheads, tapers, stone tools (stone axes), and flake tools for skinning the prey. Stone tool materials are generally from limestone and andesite which are easily obtained around caves and rivers. The shale tools are mainly made from chert, the source of the material is not obtained around the Indangan environment but is located around the upstream of the Mba river/time which is in the customary forest area of the Amgotro village. The use of fire is known by the presence of some pigmented andesite rock fragments and fragments which are identified as a result of the influence of heat from combustion products.

Based on this, the function of the Beanembala Naguhi 2 cave as a residence is evidenced by the findings of andesite and limestone compositions in grid box C.4 as well as burned and broken rocks used to burn food consisting of animals and plants, mollusk shells for making lime. Beanembala Naguhi 2 Cave is also used as a burial. This is evidenced by the human bone fragments in grid box B.3. Place human bone fragments at a depth of 40 cm – 60 cm from the laser line level placement.

The human bones found were fragments of the cranium, mandible, molar and canine teeth, longbones, phalanges. The position of this bone is associated with limestone and andesite chunks. Limestone is placed between longbone and mandibular fragments, while andesite is adjacent to cranium fragments. With this position it is suspected that the human bone fragments stored in the Beanembala Naguhi 2 cave are the process of secondary burial. This burial is characterized by limestone covered and andesite camouflage as an intact cranium near the frontal cranium fragment. Based on the dating analysis, the occupancy at this site comes from the first phase, 5650 ± 30 BP and the second phase 4720 ± 30 BP.

On the walls of the Beanembala Naguhi 2 cave there are black and red paintings, and even geometric images that combine the use of red and black. The geometric image looks like a circle with a tendril pattern on the inner wall of the cave, while the black wave lines are right above the grid box B.3. The placement of this image is that the inner wall and the ceiling of the wall are positioned at the top of the bone fragment findings. man. The distance between the heights of human bone fragments with geometric paintings is 145 cm. Geometric drawing patterns are assumed to be a form of life that continues to run with the laws of good and evil that continue to go hand in hand. While the pattern of wave lines shows that living life has obstacles, sometimes it is above, sometimes it is below. Therefore, the Beanembala Naguhi 2 cave also functions as a space for religious activities. The finding of limestone chunks in grid C.4 which shows a black geometric image at a depth of 45 cm is closely related to the form of religious activity. The use of ocher and charcoal is used to draw the painting.

6. CONCLUSION

Based on this research, the function of the Beanembala Naguhi 2 cave is a residential cave, burial and related to religion. It is a residential cave with artefactual findings in the form of stone tools, bone tools, and shale tools. Regarding burial in the form of human bone fragments and religious functions based on the findings of paintings in the form of geometric, wave lines, vines, sun and lizards. Supporters of culture in the Beanembala Naguhi 2 cave are thought to have come from the Melanesian community who traveled from the east to the west of Papua, namely the Sentani lake area to the Tanah Merah bay.

The characteristics of prehistoric caves in Keerom are more in the environmental space adjacent to the river. This is supported by the availability of food sources to fulfill the necessities of life. Prehistoric caves in Keerom have in common with placing images on the geometric shape of the cave walls. This form is assumed to be a form of living life. Beanembala Naguhi 2 Cave can provide information regarding traces of the use of caves as shelter and burial. This can be seen from the findings of rock images on the walls and ceiling of the cave. The excavation results in the form of human bone fragments can be used as a study to trace the early humans who inhabited Papua. Therefore, this cave needs a conservation study to support sustainable use of space. It is necessary to disseminate information about the promotion of regional culture related to the law on cultural heritage. Cross-stakeholder cooperation is needed to develop and utilize and preserve culture in the Indonesia-Papua New Guinea border area. It is necessary to establish a village cultural information center located in the Border Area of Indonesia and Papua New Guinea.

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Figures:
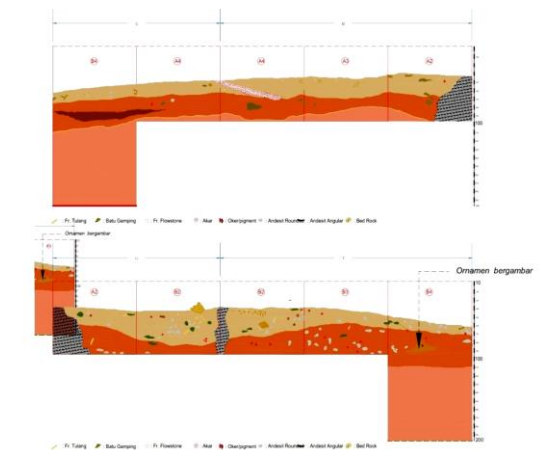
Stratigrafi Gua Beanembala Naguhi 2

Temuan Fragmen tulang Manusia

Beanembala Naguhi 2 cave