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Folklore, Analysis and Utilization of the Golden Cave and Silver Cave

Novia Syafitri[1*], Muhammad Hanafi Maulana[2], Haddad Wifaq Arraihan[3], Nezeliana Putri[4], Nugroho Hadi Prayitno[5], Apriani Harahap[6]
[1,2,3,6] History Education Study Program, Faculty of Social Science, State University of Medan
[4] Geography Education Study Program, Faculty of Social Science, State University of Medan
[5] Physics Study Program, Faculty of Mathematics and Natural Sciences, State University
*Corresponding Author: hanafimaulana2105@gmail.com

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Abstract: The Gold Cave and Silver Cave are tourist attractions located in Durian IV Mbelang Village, STM Hulu District, Deli Serdang Regency, North Sumatra. Based on the data obtained, the gold cave and silver cave save a lot of historical history. Even these caves have their own uniqueness, namely there are silver and gold grains at several points on the cave walls. The historical story and the uniqueness of the cave became the basis for conducting a study to uncover the scientific truth of the gold and silver cave in history and laboratory testing of the authenticity of the gold and silver. This study uses qualitative methods to describe and describe existing phenomena, both natural and human engineered. This method consists of several stages of research interviews and observations using data analysis model Miles and Huberma techniques and observations of recordings and research notes so that every information can be recorded properly. The results showed several legend stories and cave naming if in a hermeneutic perspective the legend stories and the names of the caves were made for the preservation of the cave and increasing the tourism of the cave. Laboratory tests proved the presence of particles resembling gold (Titanium Nitride compounds, Ti2N) and silveccr (Nickel Iron Oxid compounds, NiFe2O4).

Abstrak: Gua Emas dan Gua perak merupakan tempat wisata yang berada di Desa Durian IV Mbelang Kecamatan STM Hulu Kabupaten Deli Serdang Sumatera Utara. Berdasarkan data yang di peroleh gua emas dan gua perak menyimpan banyak cerita sejarah. Bahkan gua-gua ini memiliki keunikannya sendiri yaitu terdapat butiran perak dan emas di bebeapa titik di dinding gua. Cerita sejarah dan keunikan gua tersebut menjadi landasan melakukan sebuah penelitian untuk menguak kebenaran gua emas dan gua perak secara ilmiah dalam kontek sejarah dan uji laboratorium keaslian emas dan perak tersebut. Penelitian ini menggunakan metode kualitatif dengan desain deskriptif guna mendeskripsikan dan mengambarkan fenomena-fenomena baik bersifat alamiah maupun rekayasa manusia. Metode ini terdiri dari beberapa tahap penelitian wawancara dan observasi dengan menggunakan teknik analisis data model miles dan Huberman dan mengamati hasil rekaman dan catatan penelitian agar setiap informasi dapat terekam dengan baik. Hasil penelitian menunjukkan terdapat beberapa ceritra legenda dan penamaan gua kalau dalam perspektif hermeneutika ceritra legenda dan nama-nama gua tersebut dibuat untuk pelestarian gua dan meningkatkan pariwisata gua tersebut. Uji labaoratorium membuktikan terdapat partikel-partikel yang menyerupai emas (senyawa Titanium Nitride, Ti2N) dan menyerupai perak (senyawa Nickel Iron Oxid,NiFe2O4)

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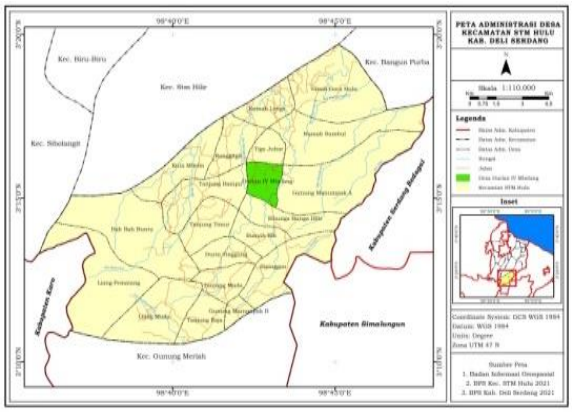
INTRODUCTION

Sinembah Tanjung Muda Hulu, known as STM Hulu, is one of the sub-districts located in Deli Serdang regency where the STM Hulu District area has an area of 223.38 km2 with a capital city of three juhars. STM Hulu sub-district has 20 villages, one of which is durian IV mbelang village (profile of deli serdang regency in 2015-2019). Durian IV mbelang village has a tourist attraction that helps the economy of the local community. One of these attractions is the Golden Cave and Silver Cave



Picture 1. Village Administration Map of STM Hulu District, Deli Serdang Regency (Map Source: Geospatial Information Agency, BPS Kec. STM Hulu 2021, BPS Kab. Deli Serdang)

Golden Cave and Silver Cave are types of karst caves because the rocks in this cave are limestone (limestone) and the stalactite process in this cave is quite active where there are many water droplets from the cave roof (Haryono dan Adji 2017). Karstification or the process of forming karst landforms is dominated by the dissolution process. The process of forming cave karts begins with the dissolution of CO2 in the water to form H2CO3. Unstable H2CO3 solutions decompose into H- and HCO3-2. It is this H- ion that further decomposes CaCO3 into Ca2+ and HCO32-. Rainfall is the main solvent medium in the carstification process besides that vertical drainage will occur when the range / distance between the surface of the limestone with the groundwater table or bedrock of the limestone is getting bigger. The higher the surface of the limestone is exposed, the wider the range between the surface of the limestone and the groundwater table and the better the vertical circulation of water, as well as the more intensive the carstification process. The driving factor of the classification process is temperature, the higher the temperature will cause recrystallization so that with recrystallization it will make surface hardening (case hardening) so that the karst landform that has been formed can be maintained from other denudation processes, namely erosion and rock mass motion (Haryono dan Adji, 2017).

Golden Cave and Silver Cave have wet soil conditions, some parts of the silver cave floor have bat feces that have been mixed with the ground. Both the golden cave and the silver cave when it rains, both will be flooded. In addition, sunlight does not reach the cave and the temperature inside the silver cave is hot and smells of sulfur as well as the cold temperature of the golden cave. According to the developing story, the silver cave is a cave that was once used as a hermitage by a king named panglima gocah pahlawan, where panglima gocah pahlawan was the first king and founder of the kingdom of Deli. Panglima Gocah was also the king of the Aru kingdom who later expanded his government by establishing the Deli kingdom. In addition to historical stories, the Golden Cave and Silver Cave have another uniqueness, namely that there are gold and silver grains in both caves.

The historical story and uniqueness of the cave became the basis for this research with the aim of revealing the truth of the historical story and the authenticity of gold and silver in the two caves. In the future, the Golden Cave and Silver Cave have the potential to become a tourism industry to the national level, where the results of this research will be introduced to the global community so that it will have an impact on

increasing the number of tourists. The hope is that the Golden Cave and Silver Cave can create new jobs for the local community. According to (Sihaloho 2018), the Golden Cave and Silver Cave attractions can help the economic growth of the population if managed properly by the community because the Golden Cave and Silver Cave have the potential for natural freshness that is still maintained and alternative medicine. Unlike previous researchers, in this research researchers found another potential possessed by gold caves and silver caves, namely in the historical stories contained in the two caves and the uniqueness of gold and silver contained in the cave walls.

METHOD

PKM – RSH Activities Uncovering the Mystery of Golden Cave and Silver Cave in Durian IV Village, Mbelang, STM Hulu District, Deli Serdang Regency, North Sumatra were carried out for 4 months in a blended manner. The main location in this study is Durian IV Mbelang Village, STM Hulu District, Deli Serdang Regency, North Sumatra. Durian IV Mbelang Village is the location of the Golden Cave and Silver Cave. In order to enrich the data, researchers expanded the research location to the nearest villages, namely Gunung Manumpak A Village and Sibunga-bunga Village. The objects in this study were 7 individuals consisting of village heads, traditional leaders and communities. Each of them is taken from the three villages mentioned earlier.

The research method used is descriptive qualitative. The data collection technique can be seen in (Figure 1), the PKM team collects data online and offline.

The stages of implementation of activities are described as follows: (1) Literature Study, in this study conducted a literature study which included archives and libraries of North Sumatra, archives and libraries of Medan City, Lukman Sinar Library, Archaeological Center, internet website (Google Scholar). (2) Determine the time, location and informant of the research. The sample in this study is people with a minimum age of 50 years. The location in this study is durian IV mbelang village, STM Hulu district, Deli serdang regency, North Sumatra. In order to increase information, the team looked for resource persons to nearby villages such as Gunung Manumpak A Village and Sibunga-bunga Village. (3) Conduct observations and interviews, After the team makes observations related to research informants and then conducts in-depth interviews. (4) Test the surface sample of the cave wall, In this sample test, researchers conducted SEM and XRD tests on the surface samples of the Golden Cave and Silver Cave to test the authenticity of the particles that resemble gold and silver. (5) Data analysis and data interpretation. After obtaining the data, researchers conducted data analysis and interpretation using the Miles Huberman data analysis method which consisted of three stages, namely reduction, data presentation and conclusion drawing (Sugiyono 2018). The following is an explanation of the stages of data analysis and interpretation in the Miles Huberman model.

Data reduction is the process of selecting, disconnecting, centralizing for simplifying, abstracting, and transforming data that is still rough from the results of field data collection. Data reduction in this study researchers obtained from observation, interviews, documentation, literature studies, soil sample test results. at this stage, the team selected and concentrated data, namely the use of the Golden Cave and Silver Cave as well as historical stories contained in the Golden Cave and Silver Cave.

The presentation of data is as a set of information that is arranged and

provides the possibility of meaning, conclusion drawing (decision making). Based on interviews and literature studies that have been conducted by the team, it is very likely that the Golden Cave and Silver Cave have nothing to do with the kingdom of Aru and Tim found another fact that the Silver Cave had played a role as a support for the income of the local community in the past. where the community once used bat droppings contained in the cave to be used as fertilizer and some were sold. Not only that, the bats in the Silver Cave are taken by the community and consumed and some are used as medicine and some are sold. Then the interviewees never found any items in the Golden Cave and Silver Cave.

Drawing conclusions is carried out with meaning through data reflection. The results of the data exposure collected are reflected by recompleting or rewriting field notes based on real work in the field so as to form a conclusion. Based on the results of the study, it was concluded that the Golden Cave and Silver Cave were scientifically not related to the kingdom of Aru.

RESULTS AND DISCUSSION

Golden Cave and Silver Cave Folklore

According to (Danandjaja 2007) there are three types of folklore, namely as follows. 1) Mite (myth) is a story that is considered to have actually happened and is considered sacred by the owner of the story. 2) Legends are stories that have characteristics similar to mites that are considered to have actually happened and the characters are ordinary people but have extraordinary characteristics and are often assisted by spirits. (Sugiarto 2009) added legends related to historical stories or natural events. 3) Fairy tales are stories that are considered not really happening either by those who tell or hear them, while fairy tales are not bound by time and place. Of the three types, gold and silver cave folk stories include types of legends and myths that will be explained as follows.

The responsibility of criminal abuse and violence against minors is based on the No. 1 ruling. 19/Pid. Sus/2016 PN. Slw that based on the consideration of the panel of judges as well as the evidence at the trial submitted by the Public Prosecutor, the Defendant Solihin bin Sidik was legally proven and convincingly committed a fraudulent crime. As for the form of legal protection against victims of criminal acts of adulteration and violence against minors based on Decision No. 1. 19/Pid. Sus/2016 PN. Slw is the police department keeping the identity of the victim as stipulated in Article 17 of Law Number 35 of 2014.

1. The Legend of the Hermitage of the King of the Kingdom of Aru

In ancient times, the silver cave was a place used for asceticism by Tuanku Panglima Gocah Pahlawan, where the commander of Gocah Pahlawan was the king of the Aru Kingdom who later founded the Kingdom of Deli. Together with his wife, the commander of Gocah Pahlawan developed the kingdom of Aru and Deli, after establishing the kingdom of Deli, Tuanku Gocah Pahlawan returned to the Kingdom of Aru and then went to the silver cave to meditate. To make it easier to protect himself if there is a threat, Panglima Gocah carries a sharp weapon in the form of a samurai with a length of 1.5 meters. On the surface of the samurai, there are carved sentences written in Chinese. During his asceticism, the hero gocah commander was accompanied by his wife named Putri Bulan, but the princess of the moon could only accompany outside the silver cave and then to protect herself from the threat of danger such as wild animals and others, the moon princess took refuge in the golden cave located right next to the silver cave.

It is not known how long Tuanku panglima gocah pahlawan and putri bulan

were in the gold and silver cave, but based on the story of the people they were in the cave for quite a long time. After asceticism, the commander of Gocah returned to the kingdom of Deli. Panglima Gocah did not return to the Silver Cave until he died and then came to the Silver Cave to meet his wife, Princess Moon. From then on, the two inhabited the Golden Cave and Silver Cave to the present. The golden cave is inhabited by the Moon Princess and the silver cave is inhabited by Panglima Gocah, therefore both are considered sacred by the people.

2. The Legend of the Eight Princesses

In ancient times, the eight springs located right in front of the Golden Cave and Silver Cave were the dwelling and resting places of the eight princesses (Putri Hijau, Putri Laut, Putri Kasih, Putri Br.Karo, Br Ginting, Br. Parangin-angin, Br. Tarigan, and Br. Sembiring). As time went by, the spring was buried in the ground and finally closed. In 2021, Mr. Antonius as the tour manager of the Golden Cave and Silver Cave was visited by one of the princesses and called on him to make a well right at the spring, but in the process the princess gave thirty days without being helped by anyone. On the last day the well did not release the spring, feeling that Mr. Anthony transferred the work to someone else but the man did not do the job well. Not accepting this, the princess again called Mr. Antonius to continue her work until she finally found a spring. Then Mr. Antonius hoeed the rocks again and found another spring. Sure enough, there were eight springs according to the names of the daughters mentioned to Mr. Anthony. Since 2016, one spring which is the dwelling place of Putri Kasih has been used as a place of treatment (Sembiring, March 12, 2021).

3. The Big Serpent Myth

The physical shape of the front of the golden cave resembles the face of Princess Nang Baluan, who is wearing traditional clothes from the snake that is coiled around her head as her headband. It is said that the large snake coiled around Princess Nang Baluan's head helped guard the golden cave. The snake has a very large size. He will show his form if someone breaks the rules if in the cave.

Naming, Meaning and Offerings of Golden Cave and Silver Cave

Based on the results of the interview, the team found other names for the golden cave and silver cave. In addition to the designations of the Golden Cave and Silver Cave, these two attractions have other names that are known in various circles. The presence of these other names is due to the things behind it. The other names are as follows:

1. Bat Cave

This naming is motivated because in the past the local community carried out activities to collect bats and their feces for consumption and fertilizer (Nasir Damanik, 07 June 2021, Damai Ginting 09 June and Witness Ginting, 3 June 2021).

2. Taoist Cave of the Eight Princesses

The naming of the Tao Eight Princesses Cave is due to the existence of eight springs located right in front of the Golden Cave and Silver Cave, where once this spring was a place of residence and rest for eight princes. The naming of the Eight Princesses Taoist Cave itself is more widely known by tourists who come to visit. (Antonius Sembiring, March 12, 2021).

3. Tamsar Cave

Tamsar Cave is one of the other names of gold caves and silver caves known by the surrounding community. This naming is motivated by the tourist sites of the golden cave and silver cave adjacent to the Tamsar cave bath. In terms of ownership, the two objects are owned by the same person, so people also often call it the Tamsar cave (Togo Tarigan, June 8, 2021).

4. Silver Cave and Golden Cave Offerings

The offerings on the right side of the silver cave door show magical functions in the form of supernatural power and magic power. The offering is right to the right of the entrance of the silver cave. Those who believe in praying before entering the silver cave and golden cave do not forget to leave everything to God. The hopes offered are such as asking to be reunited with a soul mate, facilitated sustenance, given health and others.

5. Meaning of Folklore

Every folk story like a legend has a meaning in it. Likewise, folk stories built by the community in gold and silver caves have meaning in them. The meaning in folk stories can be in the form of implicit meanings, namely hidden meanings and explicit meanings that convey exclamations, suggestions, warnings, advice, suggestions, prohibitions and regarding the ideas underlying the content of the story (Hutagalung 2022). Some of the meanings in gold and silver caves are:

a. As ideas, thoughts, ideals and even musings to protect gold and silver caves from all human threats so that they are maintained from large-scale human exploitation.
b. People's stories built for the benefit of increasing tourism objects whose location of the cave is adjacent to Lake Linting and the hot spring of Tamsar Cave.
c. The folklore contained is useful in the cultivation of characters in the form of loyalty, unity and strength

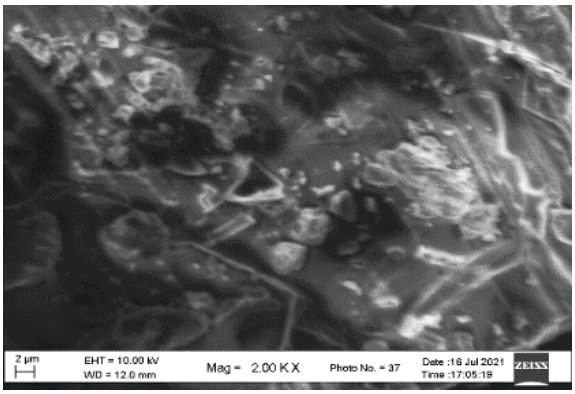
The naming, and meaning of the folk mythical legends about the gold and silver cave above is not just a story built by the community but full of meaning behind the story both the meaning of environmental preservation and cultural preservation and social welfare in it. The meaning and value in the legends and folk stories of gold and silver caves are cultural heritage in a certain period that is useful for the present and the future. The meaning of the story of the gold and silver cave must be balanced with scientific facts and truths in order to support the logic of thinking about the gold and silver cave discussed in the subchapter below.

Authenticity of Gold and Silver Content

The Golden Cave and Silver Cave have their own characteristics, namely in the Golden Cave there are grains that resemble gold on the cave wall and the Silver Cave has grains that resemble silver contained in the cave. In this research, laboratory tests were carried out on Golden Cave wall samples and Silver Cave wall samples found in the two caves using Scanning Electron Microscopy (SEM) and X-ray diffraction (XRD) tools.

1. Golden Cave Wall Samples

Based on Unimed Physics laboratory tests on June 30 – July 6, 2021, using SEM and XRD tools, the morphology of Golden Cave wall samples and the compound content in them can be known.



Picture 2. Morphology of Golden Cave wall samples by Scanning Electron Microscopy (SEM**)**

Table 1. Compounds in Golden Cave wall samples with X-ray diffraction (XRD)

Compound Symbol	Compound Name
$CaCO_3$	Calsium Carbonat

$CaTiO_3$	Calcium Titanium Oxid
Y_2O_3	Ittrium Oxid
Cr_3Si	Chromium Silicid
Zn	Zinc
WC	Tungsten Carbid
Cr_3Ni_2	Chromium Nickel
BaS	Barium Sulfid
Al_4C_3	AluminiumCarbid
Ti_2N	Titanium Nitrid
$Ca_{0,035}WO_3$	Calcium Tungsten Oxid
NiS	Nickel Sulfid
Fe_2N	Iron Nitrid
B_2O_3	Boron Oxid
CrOOH	Chromium Oxid Hydroxid

From the results of the laboratory tests above, it can be concluded that the gold particles contained in the Golden Cave are Titanium Nitride (Ti2N) compounds that have a color resembling gold. (Xu et al. 2021)Titanium nitride (Ti2N) has high corrosion resistance and is biocompetitive so it is widely used as an iron coating material (Salahudin, Widodo, dan Mulyaningsih 2014)

2. Silver Cave Wall Samples

Based on Unimed Physics laboratory tests on June 30 – July 6, 2021, using SEM and XRD tools, the morphology of Silver Cave wall samples and the compound content in them can be known.

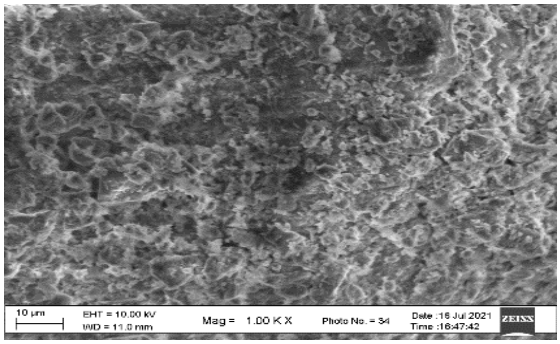


Figure 3. Surface morphology of silver cave wall samples by Scanning Electron Microscopy (SEM)

Table 2. Compounds in Silver Cave wall samples with X-ray diffraction (XRD)

Compound Symbol	Compound Name
$CaCO_3$	Calsium Carbonat
WC	Tungsten Carbid
Cr_3Si	Chromium Silicid
MoB_2	Molybdenum Borid
SiC	Silicon Carbid
Zn	Zinc
Ta_2O_5	Tantalum Oxid
Cr_3C_2	Chromium Carbid
$ZnMnO_3$	Zinc Manganese Oxid
Cr_3Ni_2	Chromium Nickel
$NiFe_2O_4$	Nickel Iron Oxid
Fe_2N	Iron Nitrid
TiO_2	Titanium Oxid
Fe_3Al	Iron Aluminium
Cu_2O	Copper Oxid
$FeCr_2O_4$	Iron Chromium Oxid
Fe_2C	Iron Carbid
Y_2O_3	Ittrium Oxid
Ti_2N	Titanium Oxid
Nd_2O_3	Neodymium Oxid
BaS	Barium Sulfid
Fe_2O_4	Nickel Iron Oxid

Utilization of Gold Cave and Silver Cave

Gold caves and silver caves, in addition to having the wealth previously described, also play a role in aspects of local people's lives. In the 1980s people began to use gold caves and silver caves to take bats and their feces to sell. Bat dung is used by the community as plant fertilizer, not infrequently people sell fertilizer at a selling price of Rp. 5000,-/sack. The sale of bat fertilizer is not used as a basic job by the community but only as a side job. The collection of fertilizer and bats is carried out routinely but the time span is not determined, If the bats in the cave are increasing in number, the feces will be more and more when that's when the community will take it. Once in 1998 a pickup was carried out producing as much bat manure

as one truck in a one-year retrieval span. Usually bat dung is used for chili and citrus plants.

Not only bat dung, but the sale of bats is also carried out by the community. Besides that, bats are also often used as medicine. According to (Paisal, Malik, dan Safita 2018) bats can treat stroke, shortness of breath, bloody stools and asthma. The sale of bats is carried out by the community with a selling price of Rp. 20,000 – 25,000 / kg. Usually, people take at least 50-200 bats. The rampant sale of bats and their feces was in 1998.

Besides being used as a place to take fertilizer and bats, the silver cave is also used as a tourist tear. The golden cave of the silver cave has the potential as a good and strategic tourist attraction in the environment of its existence. This good potential is supported by the geographical location of the cave adjacent to the linting lake tourist attraction. Although it has potential as a tourist attraction, this golden cave and silver cave has not been held by the government and developed by the government. Today the utilization as a tourist object is still at the level of utilization by the landowner and caretaker of the cave.

CONCLUSION

Golden Cave and Silver Cave are tourist attractions located in Durian IV Village, Mbelang, STM Hulu District, Deli Serdang Regency, North Sumatra. Based on literature studies, observations and interviews that have been conducted by the research team, that the historical story of the golden cave and silver cave is a folklore, it is proven by the physical condition of the golden cave and silver cave is not habitable so that it is not possible to have human activities in a long span of time such as asceticism, then there are no traces of historical relics such as weapons that usually participate in the hermitage of a king. In addition, based on laboratory test results, gold particles contained in the Golden Cave are Titanium Nitride (Ti2N) compounds which have colors resembling gold and Nickel iron oxid and Chromium nickel which has a silvery color. In this study, the research team found other facts, including 1) Utilization of the Golden Cave and Silver Cave. In the 1980s people took bats for consumption and sale and bat droppings were used as plant fertilizer and not infrequently people also sold them. 2) Other names are Golden Cave and Silver Cave. The other names of the Golden Cave and Silver Cave are the Tao Cave of the Eight Princesses, Bat Cave and Tamsar Cave.

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