

Burial System of Austronesia: (A Study of Lansot Site, Tomohon, North Sulawesi)

Ipak Fahrani^{1*}, Khadijah Muda², Triwurjani Triwurjani³, Nur Ihsan⁴,
Paulina Nugrahini⁵, Erni Erawati⁶

¹ Balai Arkeologi Sulawesi Utara

² Universitas Hasanuddin, Makassar, Sulawesi Selatan

³ Pusat Penelitian Arkeologi Nasional, Jakarta

⁴ Universitas Hasanuddin, Makassar, Sulawesi Selatan

⁵ Balai Arkeologi Sulawesi Utara

⁶ Universitas Hasanuddin, Makassar

* Corresponding author. Email: ipak.arkeo@gmail.com

ABSTRACT

Minahasa is one of the migration routes that traversed by Austronesia native speaker who came from Taiwan (Out of Taiwan theory). They came with their origin culture that later assimilated with the local culture (Minahasa). Burial activity was one of the cultural activities that developed in Minahasa in the past. Lansot Site is one of the Megalithic dispersal sites in Minahasa. The result of survey and excavation shows that there was Austronesia characteristic in the burial procession in this site. Initial analysis toward cultural relics in Lansot Site provides an information about the influence of Austronesia culture in this area, such as the invention of net patterned pottery. Particular characteristic of Austronesia and local culture assimilation (as genius local) were also found in the burial activity.

Keywords: Austronesia, Waruga, Grave crock, Porcelain, Metal, Beads, Obsidian.

1. INTRODUCTION

Migration of Austronesia native speaker was one of the migration waves in North Sulawesi. According to Bellwood in Out of Taiwan theory (2017), the diaspora of Austronesia was from Taiwan; an area that linguistically considered as the origin of protoAustronesia language [1] [2] [3]. Archaeologically, the area proved the subsistence of farming and the other cultures such as the use of square pickaxe and pottery, which also found in 7000 years Hemudu site, Hangzhou gulf, Province of Zhejiang [1].

It is believed that Austronesia native speaker started to migrate to the islands of Indonesia and Pacific around 4000 years ago. The dispersal was started from Taiwan to the Philippines islands and then separated into two groups. The first group headed to southwest reaching Kalimantan Island until Malay peninsula (Malaysia). The second group went toward the northern Indonesia islands way through North Sulawesi, and headed to the southeast toward Halmahera Island into Bismarck, they even reached Polynesia area. [4]

The presence of Austronesia culture from

Philippines to North Sulawesi created a new culture as the result of new environment adaptation and acculturation with the local culture [5]. The development of this culture was marked by the remnants of the cultural material discovered in North Sulawesi, namely stone flakes and neolithic axe that found in the caves in Talaud Islands, Minahasa, Bolaang Mongondow, and Gorontalo. Besides that, various megalithic cultural relics were also found in some sites in Minahasa, Sangihe Islands, Bolaang Mongondow, and Gorontalo such as waruga (traditional grave of Minahasa ancestors), stone mortar (lesung batu), stone tray (dulang batu), stone slab (lumpang batu), kalamba, menhir, etc.

Researches on history of Austronesia culture in North Sulawesi and its surroundings have been conducted by the several researchers with various themes. Despite mentioned at glance, the record of cultural history in North Sulawesi was mentioned by H.O. Beyer in 1947 and Heekeren in 1972 [6]. An intensive archaeological research was conducted by Peter Bellwood in 1974 by excavating two areas, Minahasa and Talaud Islands [6]. The preliminary attempt had put the area of North Sulawesi into global

and regional discourse of the origin trace and dispersal of Austronesia native speaker.

A following research by Sukendar in 1987, took the dispersal of megalithic tradition in Indonesia based on the perspective of cultural history, including the megalithic tradition in North Sulawesi area. Sukendar explained that the era of 'big stone' tradition in North Sulawesi had developed into secondary burial tradition that use Waruga container [8]. Going deeper about the burial tradition, Ipak Fahrani conducted research in Megalithic site in Motoling District, Minahasa, North Sulawesi [8]. A few years later, an exploration on the megalithic relics in North Sulawesi was performed by Balai Arkeologi Sulawesi Utara in North Minahasa Regency [9] and Minahasa Regency [10]. Focusing on the physical environmental aspects in reading the placement of Waruga in Minahasa, Dwi Yani Yuniawati Umar applied Geographical Information System approach in reading the placement pattern of Waruga site in Minahasa Regency [11].

Danau Tondano is one of the important locations in North Sulawesi that attracted researchers. In a more specific study, paleoenvironmental (reconstruction of primeval landscapes), Dam et al. reported the results of primeval landscapes reconstruction in Danau Tondano, North Sulawesi. Based on the analysis result of fluctuation on the lake surface and local paleogeography, sedimentation history, and paleoecology of Danau Tondano, Dam et al. has identified some important episodes of landscape history of Danau Tondano since 33.000 years ago [12]. In the archaeological aspect, Simanjuntak continued Peter Bellwood research by excavating Passo Site [5]. These two researches have depicted Danau Tondano as an important location in the discussion on the cultural history of North Sulawesi.

Discourse about the trace of Austronesian migration has evoked the researchers interest by Daud Aris Tanudirdjo dissertation research [13]. In his study, he put a particular attention on the archaeology of Talaud Islands and has discovered some occupation periods on the islands since around 30.000 years ago. A study in the same site was conducted by Rintaro Ono who examined the change of sea environment exploitation in Talaud Islands based on the analysis on the relics of mollusk shells in Ceruk Sarru [14].

Residence aspect in the construct of cultural history of North Sulawesi has also attracted researchers' interests. Some researches that conducted by Balai Arkeologi Sulawesi Utara had studied several residential sites, including Sendang Site (Fahrani 2013) [15], Sinuan Site (Fahrani 2014) [16]. Additionally, synthetic article about the residence in South Minahasa (Fahrani 2019a) [17].and North Sulawesi in general had also been conducted (Fahrani 2019b) [18].

In the past, Austronesia native speaker performed various activities in the area of North Sulawesi. It was

recorded in the remnants of archaeological culture relics spread in this area, especially in Minahasa. The activities of Austronesia native speaker included domain activities, burial activities, ritual activities, and workshop activities. Based on the research result conducted in one of the megalithic sites in Tomohon area, namely Lansot Site, it is found that the area was the centre of its people burial activity. It is a quite interesting site to study further, regarding the archaeological research that show the presence of Austronesia native speaker in this area, and they collaborated with the local people in their daily lives. Then, how is the result of adaption in Lansot Site in the past? Therefore, the researchers conduct this study to find out the burial system in Tomohon in general through Lansot Site as one of the potential sites to study.

The dispersal of Austronesia culture relics has become the hints or proof of human occupation and its activity during the past time in this area. In other words, the activities and the produced objects are the realization of action and idea generated by human in the past time. One of the methods to comprehend it by applying the dispersal data of cultural relics in this area. The dispersal pattern and the proofs of human activities potentially become the source of people mindset and actions in the ancient time (Mundardjito 1990) [19].

According to the conceptual framework, a series of methods is required to find out the objective of this study by applying an approach that relate one object with the other objects in one site, one site with the other site in a space or area. The researchers applied explorative and explanative research method that collect the data, analyze the data, interpret the data, and get into a conclusion.

2. RESEARCH LOCATION

Lansot Site is located in Minahasa, particularly in Tomohon City. Tomohon is an administrative city in North Sulawesi, inaugurated in 2003 based upon UU Nomor 10 Tahun 2003. Before transforming into an administrative city, Tomohon was one of the districts in Minahasa Regency. Tomohon City borders on Pineleng District, Minahasa Regency in the north, Tondano District, Minahasa Regency in the east, Sonder District, Minahasa Regency in the south, and Tombariri District, Minahasa Regency in the west.

Geographically, Tomohon City is in latitude 1°15'N and in longitude 124°50' E, with average height about 900 – 1100 m above sea level. Tomohon City is located between Gunung Lokon (1.580 m) and Gunung Mahawu (1.311 m). The total area of Tomohon is 147,2 km², consists of 5 (five) districts and 44 sub-districts after the creation of new districts in 2009.

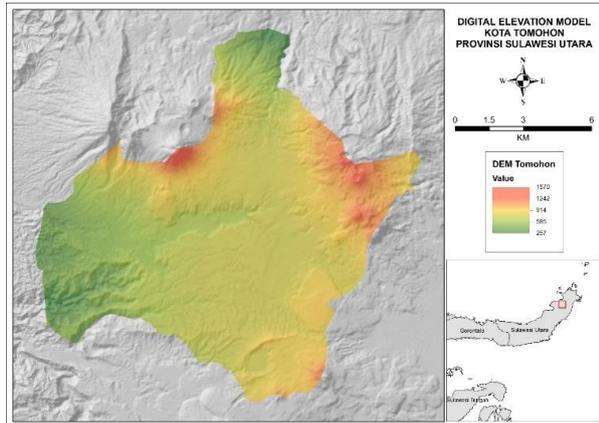


Figure 1. Digital Elevation Map of Tomohon City, North Sulawesi

Tomohon City is surrounded by Minahasa District. In other words, Tomohon directly borders on Minahasa Regency in the north, in the south, in the east, and in the west. Generally, Tomohon City is located in the main circulation route that connected Manado City as the capital of North Sulawesi Province with the other cities in Minahasa Regency. Tomohon City can be reached directly from Manado City or it can be reached from Bitung across Tondano City or Manado. The accessibility to the other cities in North Sulawesi Province is quite ease, passing through smooth highways.

Tomohon City is well known by its tectonic condition and the most complex geological evolution [20][21]. The complexity of geological structure can be identified by using two theories, namely *Undation Theory* which pioneered by Van Bemmelen [22] and Theory of Tectonic Plates proposed by Katili [23][20] to be applied in Indonesia. The theories mention that first, Sulawesi is divided into three main lands, they are North Sulawesi, Central Sulawesi, and South Sulawesi [24]). The main lands were formed from the up and down movements resulted from the lava movements in the Earth's core [20]. As the time goes by, the theories are considered weak because its failure in explaining the difference of geological characteristics of the Earth as can be observed in Sulawesi.

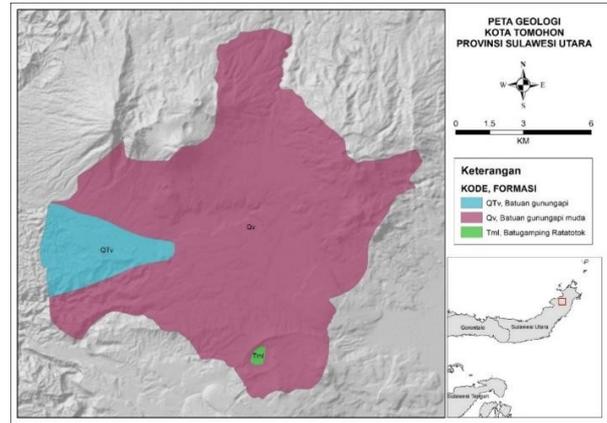


Figure 2. Detail information about the geological structure of Tomohon City (see.2) is written on Peta Geologi

Lembar Manado published by Pusat Penelitian dan Pengembangan Geologi. Based on the map, it is also known that there are three types of geological structure elements in South Minahasa Regency are [25]:

Qv, BATUAN GUNUNGAPI MUDA: Lava, bomb, lapilli dan ashes; forming young strato volcanoes including G. Sopotan, G. Mahwu, G. Lokon, G. Klabat, G. Tongkoko; lava that erupted from G. Sopotan and G. Lokon particularly consists of basal, G. Mahawi and G. Tinongko composed of andesit; obsidian streamline is found in Kp. Tataaran and Kp. Kiawa, that possibly erupted from G. Tompusu and G. Lengkoan.

Qtv, TUFA TONDANO: the volcano coarse clastic that mainly composed of andesite, consists of angled and half-angled components, characterized by the fractions of pumice, lapilli, breccia, dense ignimbrite, brook structured. This unit is found around Danau Tondano in the northern area of Minahasa; forming low waved ridge. Lava flow composed of yellowish trachyte andesite, is found near Kp. Popintelan and in S. Singenkeian. In the coast area between Paslaten and Sondaken, this unit also formed low waved ridge. Pyroclastic sediment is assumed formed from and created as the result of massive eruption during the forming of Kaldera Tondano.

Tml, BATUGAMPING RATATOTOK: consists of reef limestone, sandy limestone and clay limestone. This unit was a lens in the volcano stones of Tmv. The fossil that can be identified including *Miogyssina thecidaeformis* (RUTTEN), *Lepidocyclina* sp., and *Textularia* sp., showing the age was between Early Miosen Awal and Middle Miosen (Subagyo, D.G., komunikasi tertulis, 1974). Koperberg stated that the limestone age was Early Miosen.

The formation of geological structure was influenced by a series of process dominated by external processes. The external processes include tectonic activities, volcanoes eruptions, and climate change. Thus, Tomohon is categorized as an unstable area.

According to the mapping of land potential conducted by Pusat Penelitian Tanah dan Agroklimat (2000), the land in Tomohon area is categorized into two sub-ordo land, namely Hapludands Volcanic and Hapludults Volcanic (see 3. Description of five characteristics of land as explained further below).

Hapludults Volcanic is a sub-ordo of Ultisol ground type. This type is one of ground types in Indonesia that widely spread into 45.794.000 ha or about 25% of the land in Indonesia (Subagyo dkk., 2004). There are various Ultisol ground texture and influenced by the stem material of the land. Ultisol ground in Minahasa consists of limestone, andesite, and tufa. Therefore, the ground in Minahasa tends to have smooth texture like clay and fine clay (Subardja, 1986). The color of the ground is affected by several factors, such as organic materials that cause dark color or black, light fraction of primary mineral components such as quarts and plagioclase that give grayish white color, and iron oxide including goethite and hematite that contribute brownish into reddish color. The more brownish the ground color is, the higher the goethite component is. The more reddish the ground color is, the higher the hematite is (Eswaran dan Sys, 1970).

Hapludands Volcanic is one of the land sub-ordos of andisol ground. Andisols ground has 60% of andik soil characteristics or which thickness is more than 60 cm from the mineral land surface. The stem material is ash/tuf volkan which mostly consists of Volkan glass. The characteristics include the light weight, rich of organic materials, rich of Volkan glass, contains of amorf mineral (alofan), high phosphate retention, and irreversible toward dryness. In the natural situation, the capacity to hold water is very high and resistant toward erosion, but if it is disrupted/dry, the capacity to hold water will get low and land toward water/wind erosion. Chemically, the land is fertile, good physical characteristic, high potential, especially in the flat area, while in the steep slope, it is threatened by erosion. Andisol ground is made from volcano materials that decayed so there is a slight change in the physics and chemicals characteristics. Therefore, andisol ground is mostly found in the area that has many volcanoes or has frequent volcanic activities, from the tip of Sumatera until the tip of Nusa Tenggara and some areas in Sulawesi and Kepulauan Maluku. In Sulawesi, andisol ground can be found in Minahasa area and Gunung Tomohon in North Sulawesi. Besides that, this ground is also found in South Sulawesi Province, such as in the slope area of Gunung Lompobattang.

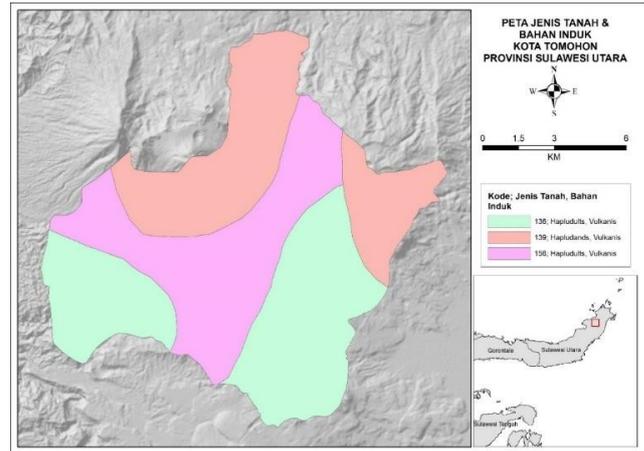


Figure 3. Land Types and Stem Material of Tomohon City, North Sulawesi. (Source: Pusat Penelitian Tanah dan Agroklimat (2000)).

In general, the position of Lansot Site in South Tomohon District borders on Central Tomohon District in the north; Sonder District (Minahasa Regency) in the south; West Tomohon District in the west; East Tomohon District in the east. South Tomohon District is located in the average of 827 m above seal evel, between 0 to 250 North Latitude and 111 to 124 East Longitude. The total area of South Tomohon District is 31,78 km². The administrative area of South Tomohon District consists of 12 sub-districts, with each total area of sub-district: Tondangow (1.6 km²), Pangolombian (3.8 km²), Lahendong (6.8 km²), Pinaras (3.98 km²), Kampung Jawa (0.96 km²), Tumatangtang (1.4 km²), Lansot (3.55 km²), Walian (4.53 km²), Walian Satu (2.1 km²), Walian Dua (0.16 km²), Tumatangtang Satu (1.8 km²), and Uluindano (2.1 km²).

Lansot Site specifically is located in Jalan Nimawanua, in front of Gedung Balai Nikah dan Manasik Haji Kantor Urusan Agama, Lansot SubDistrict, South Tomohon District, Tomohon City. Lansot Site is a plantation location in which most of the people plant corn, spring onion, chili, etc. The *waruga* dispersal in this area shows a quite large burial site of *waruga* megalithic.



Figure 4. Environmental Condition of Lansot Site, Tomohon City.

Lansot Site is a relatively large plantation land (about 2 Ha) in the highways of office center of Tomohon City. It is a very strategic location, because the highways connect Manado City and Tomohon City. A lot of cultural relics of stone grave *waruga*, that has its container and the cover, were found in this site. It can be seen in this area that there was relocation of some *waruga* in this area. It has been confirmed by one of the neighborhood chiefs that it was a rescue attempt, because some parts of the site area were exposed to highway expansion. There was an excavation in 2017, but it got rejection from Saroinsong indigenous people (local indigenous). The mutual agreement mentioned to release a plot of land, which later become indigenous land (Pasini land), located near the area, in which the *waruga* exposed to highway expansion will be relocated.

A survey on the megalithic relics dispersal of grave stone *waruga* in the area near the site was given by plotting the existence of each *waruga*. It was intended to get the data of *waruga* dispersal, so that if the *waruga* was relocated, the data of cultural *waruga* was still exist, therefore, the cultural entity of Saroinsong people was preserved.

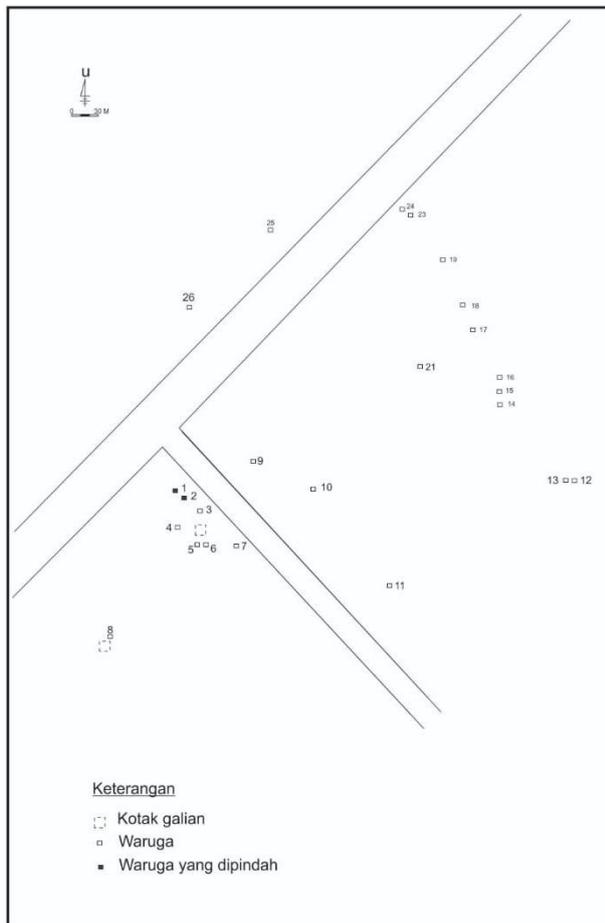


Figure 5. Map of Waruga Dispersal in Lansot Site, Tomohon City.

Beside *waruga* plotting, an observation of land surface in the site area of the excavation was also

conducted. The observation result on the land surface in the site area discovered human culture relics in the form of plain and decorated pottery fragments, porcelain fragments in various shapes and colors, and obsidian stones. The survey shows that the area is a potential area to conduct an excavation, to investigate the culture and activities dispersal of Austronesia native speaker during the past time in Lansot Site and its surround.

3. FINDINGS

The survey in Lansot Site shows the relics dispersal of grave stone container *waruga* in this site. Based on the data collection in 2021, there were 27 dispersals of *waruga* (see map 4). There supposed to be more *waruga* that discovered, but some of them were missing, while the others still buried in the ground and damaged.

Excavation research was also conducted in Lansot site. There were 3 (three) excavation boxes. The excavation started by excavating 2 boxes, namely BD J6 and BD X30 box. Furthermore, excavation box of BDX30 was expanded to the west, creating excavation box BD Y30, because previously, there was the discovery of facedown crock jar (*tempayan*) relic in the western side of the box.

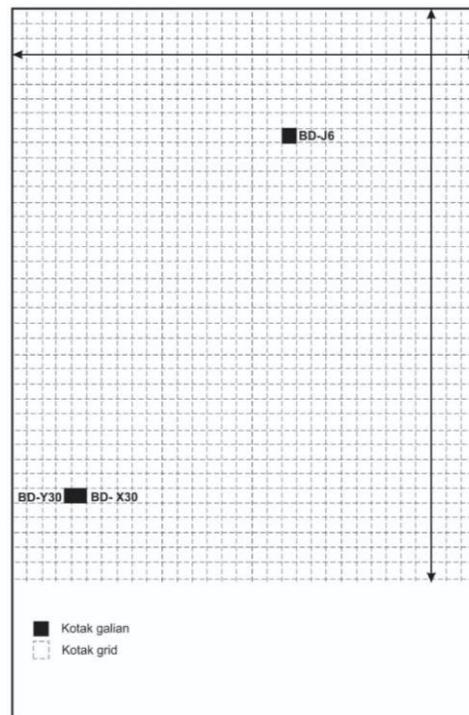


Figure 6. Excavation Grid of Lansot Site, Tomohon City.

Digging excavation grid in Lansot Site was aimed to find and collect the buried relics as the data. Additionally, the objective of the excavation was to figure out the possible activities in this site during the past time, particularly burial activity, due to the discovery of stone grave dispersal of *waruga* in Lansot Site.

The excavation in Lansot site was started by digging into 25 cm from the land surface, by measuring the angle of each excavation box previously. Then, into the ground depth, it dig into 10 cm (perspit). Excavation box BD J6, BD X30 and BD Y30 were excavated into spit 15, or about 165 cm into the ground.

The excavation of the three excavation boxes provides some data, including the relics remnants of human culture who occupied this site during the past time. The relics data are described in the following:

3.1 BD-J6 Box

Excavation box of BD J6 was located in the front area of Lansot Site, particularly between waruga number 3, 4, and 5 in the north side.

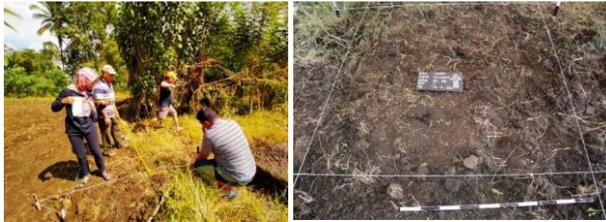


Figure 7. Excavation documentation (left) and Surface of Box Spit BD-J6 Lansot Site

The excavation in BD J6 box discovered some pottery and porcelain relics in fragments and whole. The culture relics remnants were found in the second layer of ground stratigraphy. The second layer ground was dark brown ground, rough texture with medium compactness. The ground is a bit clay, tend to hard to excavate. The second ground layer is quite deep, which can be seen from the depth of spit 6 or about 75 cm to 120 cm into the ground. Various forms and fragments of pottery and porcelain were found in this excavation box. Interestingly, there were also whole objects found in the excavation, the objects are the relics of human culture who occupied this site in the past time. Overall, the culture relics that found in this box were the objects used in the burial procession (in the past time).



Figure 8. Various pottery found in the excavation of Lansot Site, Tomohon City.

A plain bowl that made of clay (*gerabah*) was found in the depth of spit 6. Besides, charcoal fragments were also found in this depth. Relics concentration was also found in the depth of spit 9 in the southeast corner side of the excavation box. The relics was a fragile bone and could not be identified yet, regarding to the vulnerability and fragmentary. When the bone was lifted, the bone was wrecked, thus a further description could not be proceeded. Besides the

discovery of bone, obsidian stones were also found. The other discoveries were human teeth in spit 11 depth, in position $x=42$ $y=22$ $z=118$ and eye spear in position $x=30$ $y=33$ $z=120$.



Figure 9. Clay bowl relic (spit 6) and eye spear (spit 9) that were found in box BD J6, Lansot Site 2021.

There was another discovery in spit 12 depth in BD J6 box that found whole porcelain bowl. The bowl is medium size with ornaments, except in the outside basin in moss green colour. Small beads in various colors such as red, blue, yellow, and white (30 beads) were found in the appearance of ground remnants in the bowl.

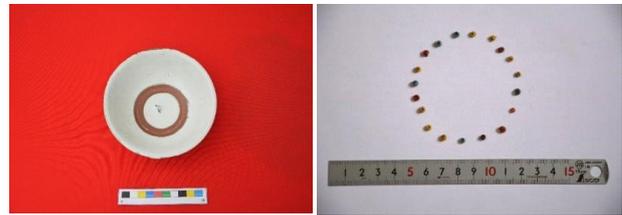


Figure 10. Relics of porcelain bowl and beads that are found in spit 12 depth BD J6 Box, Lansot Site 2021.

Afterward, a whole porcelain plate was also found in 10 cm depth (spit 13). The plate size is medium with red and green tendril leaves/flowers ornaments.



Figure 11. Relics of porcelain plate that was found in spit 13 depth.

3.2 BD-X30 and BD-Y30 Box

Excavation box of BD X30 and BD-Y30 were located in the southern part of Lansot site. BD Y30 box was the extension of BD X30 excavation box. Both boxes were close to waruga number 8.

Similar with the previous mentioned excavation box, the archaeological data of the relic remnants were also found in the second layer of the ground in Lansot Site.

Some of the human culture relics that found were also interesting. Human culture relics in the second box show the cultural relic as part of the burial activity in the past time.

Cultural relics that found in 35 cm depth were clay and porcelain fragments, but only a few. A quite interesting relics were found in spit 3 depth in BD X30 excavation box. Parts of crock jar that made of clay (gerabah) were found in the west side of this excavation box. Half of the crock jar was still embedded in the box wall. Besides half of crock jar, some pottery and ceramic fragments were also found in spit 3 depth.



Figure 12. Cultural relics of facedown big jar that was found in spit 3 depth in BD X30 excavation box, in Lansot Site.

In a deeper depth, another crock jar was found in BD X30 box, which precisely under the crock jar that found previously. Thus, the big jars were look like in stack (see picture 6). Furthermore, a medium whole big jar was found in spit 6 depth.



Figure 13. Cultural relics of big jar that was found in spit 6 depth in BD X30 box, Lansot Site 2021.

Besides the discovery of crock jar in spit 6 depth, there were also some artefact and non-artefact objects found in the same location such as pottery fragments and human teeth. The teeth that found at the top surface of big jar was assumed as kids' molar teeth. The teeth position (number 3) and crock jar (number 4) were in $x=43$ $y=26$ dan $z=66$. The excavation of crock jar found in the previous layer of spit was successfully done in spit 6 depth. The excavation in BD X30 box brought a medium size jar with 30 cm diameter.



Figure 14. Molar teeth remnants that was found in spit 6 depth, Box BD X30, Lansot Site 2021.

In spit 9 depth, the ground layer was still in the second layer of the ground. In this layer, a porcelain plate was found in the west side of the excavation box. The position of the plate in which it was found $x=55$ $y=10$ dan $z=105$.



Figure 15. Cultural relics of white porcelain that was found in spit 9 depth, Box BD X30, Lansot Site 2021.

As excavation box expansion of BD X30 box, BD Y30 box was made to show the relics of human culture in the form of crock jar. The crock jar that previously discovered in BD X30 box was found in the west side of the box. Similar with the excavation of the previous box, the excavation system of BD Y30 followed the excavation flow that had been conducted in BD X30 box.

The crock jar that previously excavated in BD X30 box, in BD Y30 box, the crock jar was excavated in spit 4 depth. There was an incident in excavating the jar that broke and damaged the object. Thus, the object could not be measured. Based on the appearance of jar when it was stuck on the excavation wall, it can be assured that the size of the broken jar was almost similar with the jar found in spit 6 depth in box BD X30 (medium size). Iron fragments were found in spit 11 depth with its wooden holder and fragile teeth (broken).



Figure 16. Relics of eye spear and some part of its holder and teeth flecks in box BD Y30, Lansot Site 2021.

4. BURIAL SYSTEM OF LANSOT SITE

Stone grave “waruga” was one of the relics of prehistoric era (megalithic) that brought into Minahasa by Austronesia native speaker. The culture of stone grave was lasted until the end of 19th century. The traces of megalithic relics were found in most areas in North Sulawesi, particularly in Minahasa, including Tomohon and its surround. The idea of making objects from stone had existed in this area during the culture of megalithic in some places in Indonesia. Basically, the ideas were based on similar belief, but in fact, the megalithic objects in each area were various. The characteristics were in accordance with the culture in the area. The basic concept adopted in that time was based on the belief about supernatural power, such as the power of ancestor spirit. Consequently, a ritual for ancestor spirit must be conducted by using objects or buildings that made of wood (Haris Sukendar, 1993; 152, dalam Fahriani 2018).

Life value and concept of nature was the basic and important thing in daily life during that time. One of the characteristics was their dependance on the natural resources, that clearly seen in the cultural relics found recently. Burial activity is one of the implementations of the concept. People in Minahasa believed the life after death, that resulted the use of waruga— grave container in Minahasa. Utilizing stone coffin container of waruga was the manifestation of new life form that will be lived by the people who have passed away. In the culture of ancient Minahasa, making the grave container for the death people, adapting the form of house (with body and cover), was expected that the death people placed in waruga would not be neglected and could be prosperous. In Minahasa belief, life prosperity after death was reflected by inserting the things that belong to the death people before he/she died. By inserting the belongings as the death people’s stock, it was hoped that the death people would not be poor in the new life and they could

do their activities just as they did when they were still alive. Further, sculpture, scratch or signs that symbolized ward off misfortune were made to smoothen the death people’s journey to the new life, to avoid obstacle or disaster. Sculpture or element that symbolizing ease journey toward the new life was also created for the journey smoothness of the death people into the new life.

Besides burial system of waruga, the excavation in Lansot site was successfully discovered 3 (three) crock jar (Box BDX 30). The function of crock jar could be figured out based on the physical appearance of the object when it was found. A tooth was discovered at the top of the crock jar lip, but the teeth was vulnerable. The crock jar was found in spit 6 depth, BDX 30 excavation box. The other crock jar was found in spit 4 depth. The crock jar was cupped, covering each other, with different thickness. These findings show that the burial system was most probably conducted in Lansot Site in particular, and Tomohon in general. The burial system used stone grave container (waruga) and crock jar. Based on the cultural data, the use of crock jar as grave container had been known by the tribes in Minahasa since many years ago. But this container was used for death baby.

Based on the analysis result on the relics or artefacts that found in the ground outcrops from the excavation, it did not only find objects that functioned as daily activities tools, but also artefact that functioned as grave goods. The tools took part in death procession of someone who buried in waruga. The discovery of iron that functioned as weapon, foreign ceramics (a prestige that marked someone’s social status in the past time), and other relics were the example.

The result analysis on the potteries found in Lansot Site shows that the objects were utilized as grave goods or equipment that brought by someone when they were passed away. Referring to the form and typology of pottery discovery in Lansot Site, Tomohon, the pottery was made by applying local technology (according to XRF analysis). It was identified that people applied simple and easy technology in making the pottery. Nowadays, this type of pottery is still found in many areas in Minahasa, particularly in Pulutan— center of pottery making.

The other relics found in the site was porcelain in various forms and colors. Commonly, these relics were not originally made in Indonesia. The technology utilized in the making process was more sophisticated, if compared to the potteries. According to the discovery context of waruga area, the porcelain that found was most possibly as the grave goods in the funeral. In addition, the ease in obtaining the objects in the past time shows that Minahasa people was quite dynamic in accepting new cultural elements.

5. CONCLUSION

The analysis results on the artefact relics found in the excavation in Lansot site show that the insertion of grave goods in burial procession was also performed in the culture of Lansot (Saronong) in the past time. The belief in megalithic tradition was strongly rooted in Minahasa people. Variety of grave goods, whether they were local or foreign objects, more likely shows the dynamics of Minahasa toward new foreign culture. It can be assumed that Minahasa people easily accepted new culture, whether it came from near the site or from other places. Consequently, the acculturation between local culture of Minahasa and other culture (region) was high (the culture of Austronesia native speaker who came to Minahasa).

The discovery of archaeological relics in Lansot Site shows the culture dispersal of Austronesia native speaker in this area was quite diverse and interesting in the settlement during the past time. The remaining of foreign culture had assimilated with the local culture. One of the acculturation examples in Tomohon can be seen in the burial system in this area during the past time. The burial system and procession in Minahasa reflect the cultural assimilation of foreign and local culture.

AUTHORS' CONTRIBUTIONS

IPAK FAHRIANI, KHADIJAH MUDA, TRUWURJANI,
NUR IHSAN, PAULINA
NUGRAHINI, ERNI ERAWATI

ACKNOWLEDGMENTS

THANK YOU TO ALL ARCHAEOLOGY RESEARCH TEAM 2021 "THE SPREAD OF AUSTRONESIAN CULTURE IN NORTH SULAWESI AND SURROUNDING AREAS", DR. TRIWURJANI FROM PUSLIT ARKENAS, DR. KHADIJAH TAHIR MUDA, MUH. IHSAN, MHUM, DR. ERNI ERAWATI FROM UNIVERSITAS HASANUDDIN AND PAULINA NUGRAHINI, S.SI FROM BALAI ARKEOLOGI SULAWESI UTARA

REFERENCES

- [1] P. Bellwood, A Hypothesis for Austronesian Origins, in *Asian Perspectives* XXVI (1), 1984-1985, pp 107-117
- [2] P. Bellwood, The Prehistory of Island Southeast Asia: A Multidisciplinary Review of Recent Research, in *Journal of World Prehistory* 1 (2), 1987
- [3] P. Bellwood, Austronesian Prehistory in Southeast Asia: Homeland, Expansion and Transformation, in *The Austronesians : historical and comparative perspectives*, edited by Peter S. Bellwood, James J. Fox and D. T. Tryon, viii, 359 p, Dept. of Anthropology as part of the Comparative Austronesian Project, Research School of Pacific and Asian Studies, Australian National University, Canberra, 1995
- [4] Muller in H. Soeroto, *Prasejarah Papua*, Udayana University Press, Denpasar, 2010
- [5] T. Simanjuntak, *Budaya dan Lingkungan Penutur Austronesia di Passo, Tondano, Sulawesi Utara*, Departemen Kebudayaan dan Pariwisata, Jakarta, 2009
- [6] P. Bellwood, Archaeological Research in Minahasa and the Talaud Islands, Northeastern Indonesia, in *Asian Perspectives* XIX (2), 1976, pp 240-288
- [7] H. Sukendar, Description on the Megalithic Tradition of Indonesia, in *Berkala Arkeologi* 8 (1) Balai Arkeologi Yogyakarta, Yogyakarta, 1987, pp 1-30. DOI: <https://doi.org/10.30883/jba.v8i1.483>.
- [8] I. Fahriani, *Situs Megalitik di Kecamatan Motoling, Minahasa, Sulawesi Utara*, Balai Arkeologi Manado, Manado, 1995
- [9] I. Fahriani, *Kajian Situs megalitik Waruga di Minahasa Utara*, Balai Arkeologi Manado, Manado, 2010
- [10] I. Fahriani, *Kajian Sebaran situs Megalitik di Kecamatan Tompaso, Minahasa, Balai Arkeologi Manado, Manado, 2012*
- [11] D. Y. Y. Umar, A Picture of the Physical Environment of the Waruga Stone Grave Sites in Minahasa Regency, North Sulawesi, in *Archaeology: Indonesian Perspective (R.P Soejono's Festschrift)*, edited by Truman Simanjuntak, M. Hisyam, Bagyo Prasetyo and Tuti Surti Nastiti, Yayasan Obr Indonesia, Jakarta, 2006
- [12] Dam, Rien A.C., Jennie Fluin, Papay Suparan, and Sander van der Kaars, Palaeoenvironmental developments in the Lake Tondano area (N. Sulawesi, Indonesia) since 33,000 yr B.P, in *Palaeogeography, Palaeoclimatology, Palaeoecology* 171, 2001, pp 147-183
- [13] D. A. Tanudirdjo, *Islands in Between; Prehistory of the Northeastern Indonesian Archipelago*, in Doctor of Philosophy Dissertation, ANU, Australia, 2001
- [14] D. A. Tanudirdjo, *Islands in Between; Prehistory of the Northeastern Indonesian Archipelago*, in Doctor of Philosophy Dissertation, ANU, Australia, 2001
- [15] I. Fahriani, *Kajian Permukiman di Situs Sendangan, Kecamatan Tompaso, Minahasa., Balai Arkeologi Manado, Manado, 2013*
- [16] I. Fahriani, *Kajian permukiman di Situs Sinuian, Kecamatan Romboken, Minahasa. Balai Arkeologi Manado, Manado, 2014*

- [17] I. Fahriani, *Perkembangan Hunian Dan Budaya Minahasa Selatan Pada Masa Prasejarah*. Balai Arkeologi Sulawesi Utara, Manado, 2019
- [18] I. Fahriani, *Perkembangan Hunian dan Budaya Minahasa Selatan Pada Masa Prasejarah*.di Sulawesi Utara, in *Tumotowa 2* (2). Manado, 2019, pp 60-71
- [19] Mundardjito, *Metode Penelitian Permukiman Arkeologi, Monumen Lembar Susatra*, Universitas Indonesia. Jakarta, 1990
- [20] W. Hamilton, *Tectonics of the Indonesian region*. Indonesia, Departemen Pertambangan and United States. Agency for International Development Washington, 1979
- [21] R. Hall, *Cenozoic geological and plate tectonic evolution of SE Asia and the SW Pacific: computer-based reconstructions, model and animations*, in *Journal of Asian Earth Sciences* 20 (2002), 2002, pp 353-431
- [22] V. Bemmelen, *The undation theory of the development of the earth's crust*, Int. Geol. Congress Washington, Washington, 1933
- [23] J. A. Katili, *A review of the geotectonic theories and tectonic maps of Indonesia*, in *Earth-Science Reviews* 7 (3), 1971, pp 143-163. DOI [https://doi.org/10.1016/0012-8252\(71\)90006-7](https://doi.org/10.1016/0012-8252(71)90006-7)
- [24] A. Jaya, *Tectonic Evolution of South Sulawesi, Indonesia: Reconstructed by Analysis of Deformation Structures*, in *Doctoral of Engineering Dissertation, Department of Engineering and Resource Science, Akita University*, 2014
- [25] A.C. Effendi, S.S. Bawono, *Peta Geologi Lembar Manado, Sulawesi Utara (2416, 2417)*, in *Peta Geologi Bersistem Indonesia*, Pusat Penelitian dan Pengembangan Geologi, Bandung, 1997