KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
Balai Arkeologi Maluku

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Kapata Arkeologi, 16(1) 2020, 13—26
p-ISSN: 1858-4101, e-ISSN: 2503-0876

KAPATA ARKEOLOGI

SCIENTIFIC JOURNAL OF ARCHAEOLOGY AND CULTURAL STUDIES

Accredited by the Indonesian Ministry of Research, Technology, and Higher Education (RISTEKDIKTI)

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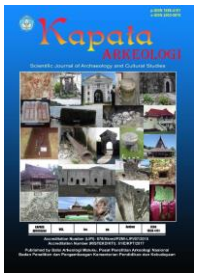

A LATEST DISCOVERY OF AUSTRONESIAN ROCK ART IN THE NORTH PENINSULA OF BUANO ISLAND, MALUKU

Muhammad Al Mujabuddawat *, Godlief A. Peseletehaha
Balai Arkeologi Maluku
Jl. Namalatu-Latuhalat, Ambon 97118, Indonesia
* mujab@kemdikbud.go.id

Received: 12/19/2019; revisions: 25/03 — 24/07/2020; accepted: 20/08/2020

Abstract

Rock art is one of the oldest and most widespread traditions around the world. Rock art is part of essential data in studying the past because rock art has the potential to tell us something of the symbolic concerns of the people that created it. Rock art in Indonesia is a culture that has been ongoing since the early period of the wave of human migration in the Indonesian Archipelago for about tens of thousands of years until the arrival of the Austronesian speaker's culture who opened the Neolithic period around thousands of years ago. Rock art in the Central Maluku Islands Region in particular, is generally recognized as characterized by the Austronesian Painting Tradition. This research reports new rock art findings at Tanjung Bintang Site, Pua Island, North Coast of Buano Island. This research applies qualitative and analytical methods in describing the object of rock art motifs based on a literature review related to references that refer to the study of rock art in Maluku. This research recognizes that the Tanjung Bintang Site is characterized by the Austronesian Painting Tradition. This study is the first record of the Tanjung Bintang Site rock art in the North Coast of Buano Island, Maluku.

Keywords: rock art; Austronesian; Australomelanesid; Buano Island; Seram Island; Maluku

INTRODUCTION

The Maluku archipelago, which is located in the Wallacea Region, comprises separate small islands. The Wallacea region has a different landscape from the Sunda Shelf in the West and the Sahul Shelf in the Eastern part of Indonesia, connected to the two mainland continents of Asia and Australia. This causes the community who arrives and crosses this area should know about a sea voyage to cross inter islands. Knowledge of this fairly advanced technology is relatively unknown when it started. It is possible that the Austronesian culture community mainly carried out the occurrence of crossing islands in the Maluku archipelago. However, several human migration theories indicate the possibility of inter-island crossing activities in the Maluku archipelago to the Pacific region taking place at the pre-arrival Austronesian community, tens of thousands of years earlier.

Many archaeological data found in the Wallacea region show a significant difference in cultural time between the North Maluku Islands and the Southern Maluku Islands. The time difference that is generally known so far is the cultural character of the North Maluku Islands. General evidence of archaeological findings in North Maluku are older than the archaeological findings in the Southern Maluku Islands. Based on estimates of the oldest archaeological remains, geographically, the cultural time character of the Southern Maluku Islands were also generally separated from the Aru Islands area (Rutgrink, Visser, & van Welzen, 2018). Aru Islands is integrated into the Sahul Shelf, especially during the Last Glacial Maximum and also separated from the Southwest Maluku Region, which includes Wetar Island, Timor Island, Kisar Island, Leti Islands, to Babar Islands (O'Connell & Allen, 2007; Ray & Adams, 2001; Roberts et al., 2020; Sathiamurthy & Voris, 2006).

Generally, the identification of archaeological findings in the Southwest Maluku region and the Aru Islands are older than the central part of the Maluku Islands. The central part of Maluku Islands comprises Buru Island, Seram Island, Ambon Lease Islands, Banda Islands, Seram Laut, Gorom Island, Watubela Islands, Kei Islands, to the Tanimbar Islands, as shown in Figure 1.

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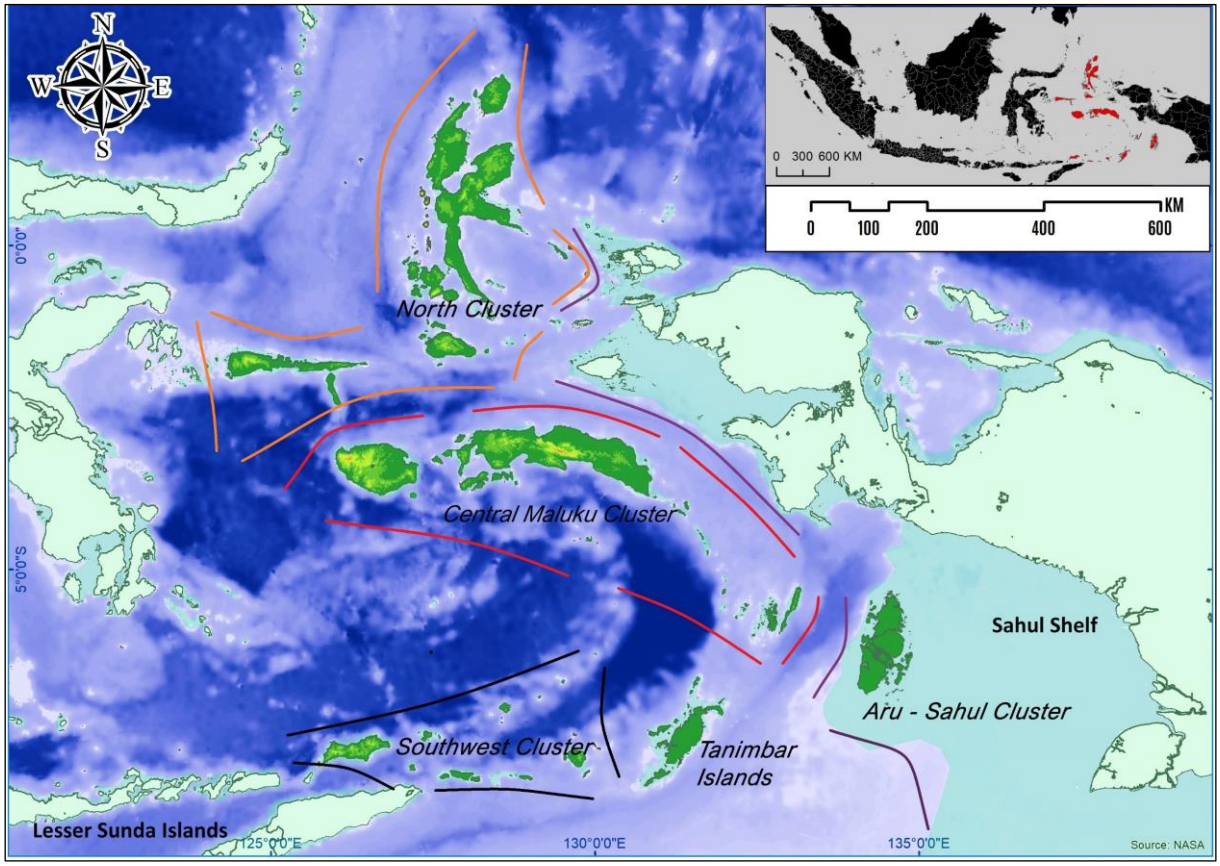

Figure 1. Disseverance cluster region by archaeological evidence of Early Human Occupation Chronology in Maluku Archipelago
(Source: World Imagery by ESRI, 2020, modified by Authors)

In general, prehistoric archaeological research in the Central Maluku region tends to find more cultural characters associated with the Austronesian culture-speaking community (O'Connell & Allen, 2012). Therefore, the published history of prehistoric research places the Central Maluku region in a significant position regarding human migration pathways and the development of Austronesian culture. Going back about 60,000 to 70,000 years ago, the Seram Islands and Ambon Lease areas belonging to the Central Maluku region are in a position that is estimated as the earliest human community pathways route, and the Southwest Maluku Islands as the Southern route (Florin et al., 2020). The issue about human migration routes that are generally agreed upon by many experts so far is that the earliest human communities crossed the islands, including Buru, Seram, and Ambon Lease in Central Maluku as a Northern route cluster and the Southwest Maluku Islands as a Southern route cluster. The Northern route cluster connects human migration to Papua Island, including the Aru Islands area, which was once mainland with Papua and subsequently connected to the archipelago in the Pacific. Besides, the Southern route cluster connects human migration routes to the mainland of Australia.

Most experts agree on the references that reveal one of the scientific evidence that indicates the earliest traces of human existence are rock art findings. Rock art is also one of the most supportive references to build the narrative of early human settlement and its distribution path (Arifin, 1992; Arifin & Delanghe, 2004; Tan, 2014; Widianto et al., 2017). Rock art throughout the Indonesian archipelago generally found in the character of the limestone environment in the form of niches, caves, rock walls, and boulders in coastal and mountainous areas (O'Connor, Mahirta, Kealy, et al., 2018; O'Connor, Mahirta, Tanudirjo, et al., 2018; O'Connor & Oliveira, 2007; Oktaviana, 2018; Oktaviana, Lape, & Ririmasse, 2016; Sugiyanto, 2018).

The rock art sites in the Indonesian archipelago that have been recorded include Kalimantan Island, Sulawesi Island, Sumatra Island, East Nusa Tenggara Island, Southern part of Maluku Islands, Papua Island, and West Papua. It is also believed that the findings of rock art sites in the Indonesian Archipelago will continue to be updated. Of course, several questions, theories, and temporary conclusions will become obsolete as science and research issues are built with international and regional perspectives. It is noted that the distribution of these sites can be grouped into the environmental characteristics of the big islands, including Papua, West Papua, Sulawesi, Kalimantan, and Sumatra. Meanwhile, the environmental character of small islands includes the Maluku Islands and Nusa Tenggara Timur. Through

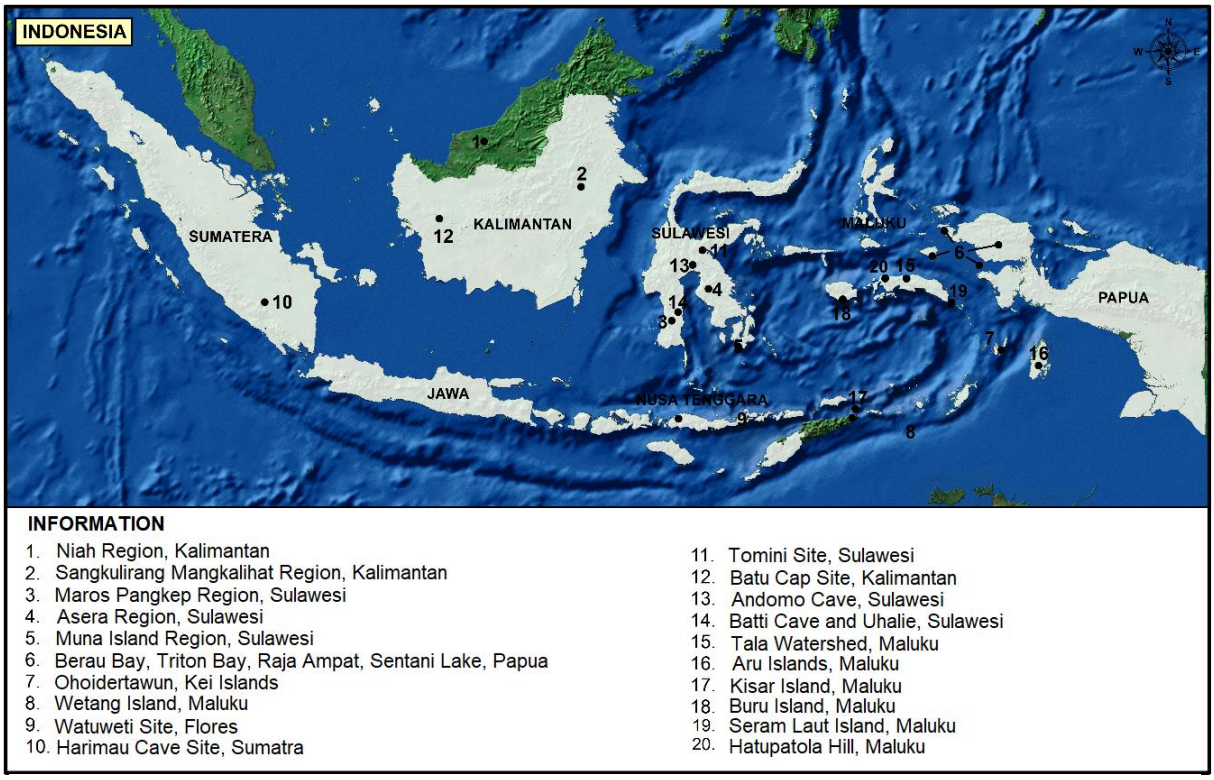

Figure 2. Distribution of rock art locations in Indonesia from latest references
(Source: Arifin, 1992; Arifin & Delanghe, 2004; Aubert et al., 2014, 2018; Ballard, 1988; Fage, 2014; Fage & Chazine, 2009; Kealy, Wattimena, & O'Connor, 2018; Lape et al., 2017; O'Connor, 2003; O'Connor, Louys, Kealy, & Mahirta, 2015; Oktaviana et al., 2016; Permana, 2005; Ririmasse, 2007; Röder, 1938; Setiawan, 1994; Simanjuntak & Oktaviana, 2012; Sulistyarto et al., 2014; Wattimena, Nussy, & Ferdinandus, 2019)

several chronological dating results from rock art samples found in the Indonesian archipelago, it is known that the oldest finds are 40,000 years old in the area of Sangkulirang-Mangkalihat, Kalimantan, and relatively contemporary with those found in the limestone area of Maros-Pangkep, Sulawesi (Aubert et al., 2018). The dating data confirms that rock art has been started by the earliest humans community before Austronesian and continues by the Austronesian community in Eastern Indonesia (Oktaviana et al., 2016; Oktaviana, Lape, & Ririmasse, 2018).

Considering the importance of rock art data in determining prehistoric chronology, this research aims to publish the latest discovery of rock art sites in the Maluku Islands. The rock art site is located on a small island on the North coast of Buano Island, and local people call this place the name *Tanjung Bintang* or it means 'Star in Headland.' This research produces a description of the site's location and situation and essential information about the various motif forms of this rock art. In addition, this study re-examines the perspective of past human communities associated with rock art culture in the Indonesian Archipelago in general.

METHODS

This study collected data directly from the site located at the Tanjung Bintang Site on Pua Island, the North Coast of Buano Island. The data collected included pictorial rock art data, description, measurement of rock art motif objects, and geospatial data site recording. This research focuses on the description of rock art motifs applying qualitative and analytical methods based on literature review related to references that refer to the study of rock art in Maluku and studies on the Austronesian Painting Tradition.

RESULT AND DISCUSSION

Rock Art Findings and Prehistoric Research in the Maluku Islands

The discovery of rock art in the Maluku Islands based on academic references that have been published most commonly refers to Röder (1938), who wrote about rock art discovery on Seram Island. Röder (1938) reported two locations where engraved rock art was found along the Tala River in West Seram and rock art in the coastal limestone area of Saleman Bay, North Seram. Several references mentioned other rock art site locations in the Maluku Islands. The coastal limestone area of Dudumahan, Ohoidertawun, Kei Kecil Islands (Ballard, 1988) is known to have an age range of around 2,000 years and is associated with mobility Austronesian speakers (Oktaviana et al., 2018; Spriggs & Miller, 1988). The findings of rock art in the coastal limestone area of Wamkana, Buru Island (Malessy, 1999; Ririmasse, 2007; Salhuteru, 2009b, 2009a; Suryanto, 1997) are thought to be associated with dwelling sites from the age

range of 6,894-7,310 cal BP (Latinis & Stark, 2005). The findings of engraved rock art on Kobroor Island, Aru Islands, are associated with dwelling sites aged 27,020 cal BP (O'Connor, Aplin, Spriggs, Veth, & Ayliffe, 2002; O'Connor, Spriggs, & Veth, 2005), as well as rock art findings on Kisar Island, Maluku Islands. SouthWest is estimated to come from the age range of 15,327-15,730 cal BP (O'Connor, Mahirta, Tanudirjo, et al., 2018).

Recently, several findings of rock art sites have been confirmed, rock art at Watu Sika Cliff, Seram Laut Island (Oktaviana et al., 2016, 2018); rock art on Wetang Island, Babar Islands; and further observation of rock art findings in Hatupatola Cliff, West Seram (Kealy, Wattimena, & O'Connor, 2018; Wattimena, Nussy, & Ferdinandus, 2019). In addition to rock art findings, many historical, archaeological studies have contributed to the chronological information of human settlements in

Figure 3. Variety of rock art findings in the Maluku Islands with an estimated age range based on dating tests from environmental samples from supporting sites (not from rock art samples themselves), from left to right, top to bottom: hand stencil motifs at Wamkana Site (Buru Island ± 7,000 years), geometric motifs at Tanjung Bintang (North Coast of Buano Island), anthropomorphic motifs at Hatupatola Hill (Seram Island), hand stencil motifs at Sawai Site (Seram Island ± 3,000 years), geometric motifs at Watu Sika Site (Seram Laut Island), human face motifs at Ohoidertawun Site (Kei Islands ± 2,000 years), boat motifs at Kaimear Site (Kei Islands), engraving foot motifs at Lisaibam Cave (Aru Islands ± 27,000 years), boat motifs in Tawuwun Cave (Wetang Island, Babar Islands), anthropomorphic and animal motifs in Her Sor Sorot (Kisar Island ± 15,000 years)
(Source: Author's Documentation, 2016; Kealy, Wattimena, & O'Connor, 2018; Mujabuddawat, 2019b, 2019a; Oktaviana et al., 2018; Ririmasse, 2013; Salhuteru, 2009b; Wattimena, Nussy, & Ferdinandus, 2019; Wattimena, Peseletehaha, et al., 2019)

the Maluku Islands, including the dating test at the location of Fatiba Cave, Sanana Island, showing the numbers 16,200-17,200 cal BP (Tanudirjo, 2001). Referring to the dating results of pottery fragments found in Ay Island, Banda Islands is known to be 2,887-3,827 cal BP, indicating the oldest cultural findings being 8,000 years old (Lape, 2000, 2002, 2003). The minimum number of findings characterized by stone tools, bone inserts, and pieces of mollusk shells at Liang Lembudu, Kobror Island, Aru Islands shows a figure of about 26,000 years, and human skeletons are known to be between 16,000-10,000 years old (Ririmasse, 2012b; Spriggs, 1998).

The rock art findings scattered in the Maluku Islands belong to the environmental character of small island clusters. Almost all of the rock art findings in the Maluku archipelago have similar characteristics of location placement, such as being on the surface of limestone rocks in the form of cliffs and niches on the coast. Regarding Ballard (1992), the rock arts in Western Pacific, spanning from Maluku to Papua, were linked to the Austronesians 4,000 years ago (Wilson, 2002). The rock arts of Maluku to Papua were estimated to be created not more than 3,000 years ago (Wilson, 2004). However, the images of the rock art of the Western Pacific, in general, can be categorized into two groups, namely the Maluku Rock Art and the Papua Rock Art (Setiawan, 1994). The Maluku Rock Art described as follows:

a. Scattered on the inaccessible coastal cliffs (Ballard, 1992) on the islands in Halmahera-Banda Sea;
b. The Maluku Rock Art mainly were in red color and only a few in white and no overlapping drawings;
c. No dotted images;
d. Using petrographic technique (spray/stencil and brush/painting);
e. The Maluku Rock Art is geographically located within the traditional Austronesian region, which is often linked to burial grounds.

Austronesian Painting Tradition

This kind of study of the Austronesian Tradition was initiated by Specht (1979). Specht (1979) was the first to distinguish a separation between the painted and engraved rock art of the Western Pacific. Specht (1979: 74) noted that the engraved rock art had a coherence in terms of motif range and location, consisting 'generally of curvilinear geometric forms including spirals, concentric circles, face-like forms, and various other concentric forms' on a coastal cliff close to the sea, and located in Austronesian language areas. This art style has become known as the 'Austronesian Engraving Style' (Wilson 2002: 46). Rosenfeld (1988: 134) suggested that perhaps they represented two separate 'artistic traditions' between painted and engraved rock art. Ballard (1992) suggested that painted rock arts in the Western Pacific had affinities with those on Dong Son bronzes dating to after 2,100 BP. Ballard (1992: 98) reasoned that the Austronesian Painting Tradition might be associated with a later Austronesian diaspora rather than initial spread.

Except for stencils, there is a clear separation between the Austronesian Painting Tradition and earlier dated rock art. Ballard, Bradley, Myhre, & Wilson (2004) note the most significant motifs and design elements of the Austronesian Painting Tradition do not seem to occur in the few sites that definitely pre-date the local emergence of proto-Austronesian languages, such as those in Borneo dated earlier than 9,000 BP (Fage & Chazine, 2009), and those in the aforementioned Maros region of Sulawesi, where a range of Pleistocene dates have been obtained using U-series dating of calcite overlying the paintings (Aubert et al., 2014). Conversely, while large naturalistic animals such as endemic 'pigs' (probably *Babyrousa sp.*) feature in the Pleistocene rock art of Sulawesi (Aubert et al., 2014), neither wild nor domesticated pigs feature in the Austronesian Painting Tradition, and animal images are rare aside from the zoomorphic mentioned above. As well as motif subject, color, and composition, the positioning of some paintings up to ten meters or more above the floor of the shelters, in inaccessible cliff-edge locations often overlooking the sea, was identified as a prominent feature of the Austronesian Painting Tradition (Ballard, 1992).

According to O'Connor et al. (2015), the Austronesian Painting Tradition does not derive directly from an ancestral artistic tradition in Taiwan or the Philippines. However, concentric circles, scrolls, and face-like motifs, which appear as a component of the geometric repertoire of the Austronesian Painting Tradition, dominate both the engraved rock art of Taiwan and the Austronesian Painting Tradition. Thus, it seems plausible that the Austronesian Engraving Style originated in the Austronesian homeland of Taiwan and tracked the dispersal of Austronesian-speaking communities moving South and East into the islands of the Banda Sea, Island Melanesia, and thence out into the Pacific. With its distinctive anthropomorphic and boat motifs, the Austronesian Painting Tradition may have developed rapidly as ideological signaling of the vast maritime world while retaining some of the elements of the original 'homeland' petroglyph style (O'Connor et al., 2015).

As has been suggested by many experts recently, the characteristics of rock art in Maluku generally refer to the characteristics of the Austronesian Painting Tradition as suggested by Ballard (1992). According to Ballard (1992), the Austronesian community has created rock art since 4,000 years ago in the Indonesian archipelago.

Generally, the tradition of rock art in Indonesia continued from 51,800 to 2,000 years ago (Widianto et al., 2017). Ballard (1992) indicates several rock art characteristics of Austronesian Painting Tradition, as follows:

- ✓ Austronesian Painting Tradition rock art must be in the area of distribution of Austronesian languages, where local people also spoke the language (before Western colonialism came).
- ✓ Austronesian Painting Tradition rock arts are generally located in isolated or remote areas, sometimes also depicted on high cliffs or inaccessible cliff-edge locations.

The typical motifs of Austronesian Painting Tradition, including geometric curves and circles or spiral; mask or face-like motifs; human figure motifs, hand motifs, disc or sun-ray motifs; and boat motifs (O'Connor et al., 2015; Tanudirjo, 2011).

The Tanjung Bintang Rock Art Site

The discovery of the latest rock art location in the Maluku Islands originated from information from the local people when a research team from the Balai Arkeologi Maluku was on a research project in Buano Island and the surrounding area. The local people reported several images depicted on the surface of a high limestone cliff on the Northern coastal promontory of Buano Island. Their narrative described the existence of unique red-painted motifs resembling the shapes of stars and suns. They believe that their ancestors painted those unique motifs in an unknown past. Local people named the suspicious location as *Tanjung Bintang*, which means 'Star in Headland.'

Figure 4. Cruising the sea through the coastline of Buano Island to reach the rock art location using a motorboat (Source: Balai Arkeologi Maluku, 2019)

The suspected location of a rock art site can only be reached by sea transport. To reach the rock art location using a motorboat through the coastline of Buano Island. It starts from Buano Utara Village on the Southeast coast of Buano Island, along the bumpy sea along the East coast of Buano Island, entering the Valentine Strait's calm seas on the Northside of Buano Island. The rock art location is on the Eastern side of Pua Island, a small island to the North of Buano Island. Almost along the Eastside of Pua Island's south side is a row of seashore cliff walls.

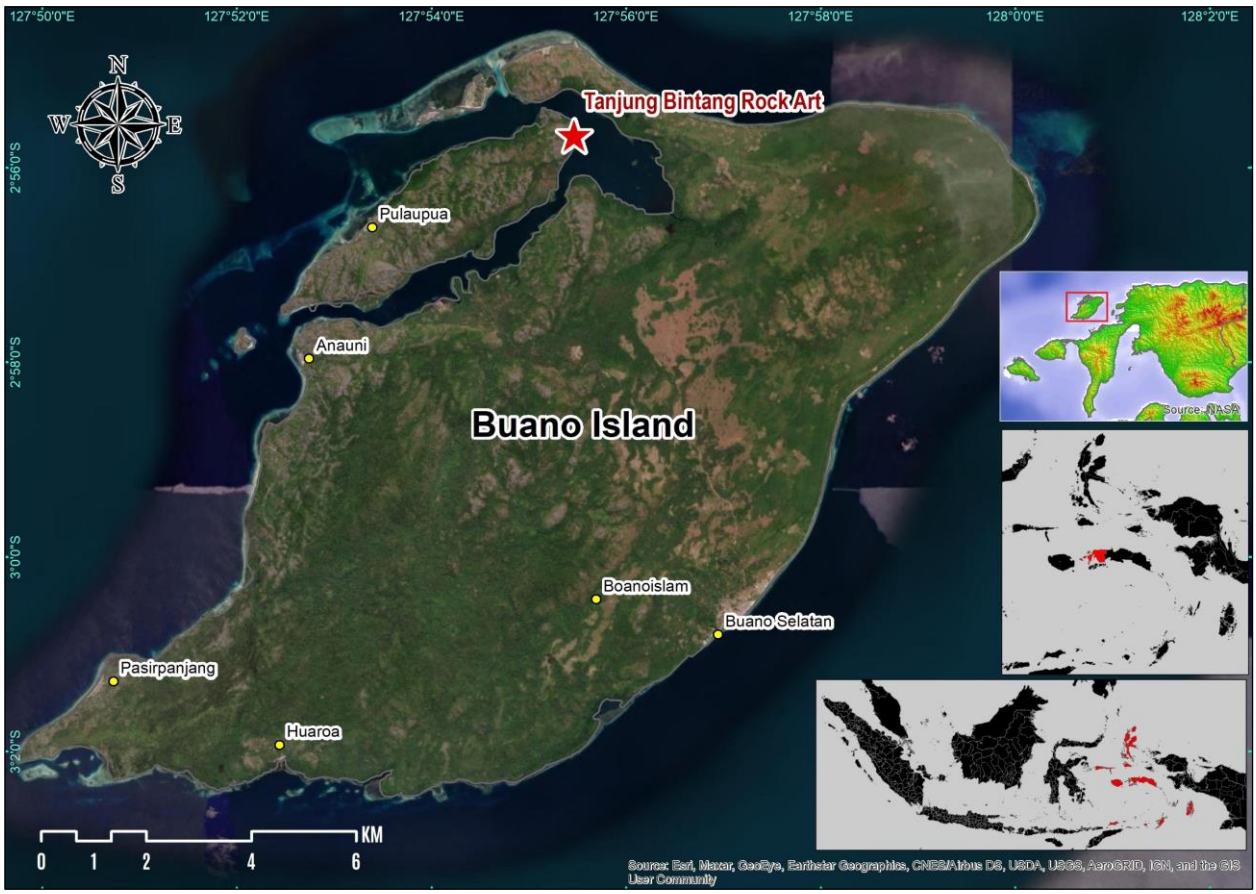

Figure 5. Map location of Tanjung Bintang Rock Art Site (Source: World Imagery by ESRI, 2020, modified by Authors)

Figure 6. The rock art on the niche of the cliff wall at Tanjung Bintang Site
(Source: Mujabuddawat, 2019b)

The rock art location is in a niche above the seashore limestone cliff wall. This rock art can be looking directly from under the cliffs of sea level but must climb the cliff walls to reach it. The rock art niche is located about 80 meters above sea level. This rock art niche is located on a pretty high cliff wall, so it is relatively dangerous to climb it. Rock climbing types of equipment are required as an essential requirement of safety standards to reach the rock art niche. This niche has a relatively narrow size that extends about 6 meters. The ceiling height is between 1 to 1.8 meters, and the niche terrace is relatively sloping with a terrace surface width of about 1.5 to 2 meters. Tanjung Bintang rock art site attributed to the Austronesian Painting Tradition was a fortuitous find and indicates that many painted panels remain to be located in limestone cliff faces and shelters bordering the coast around the thousands of limestone islands in the Indonesian archipelago.

The surface texture of the limestone cliff walls is relatively rough and sharp, composed of dark coral reef/coral limestone (Ql1) formations. In contrast, the surface on the inside of the niche is relatively smoother and brighter in color. Based on geological references, the mainland formation of Buano Island, including several small islands around it, is a land composed of coral reef/coral limestone (Ql1) and Manusela (TRJm)

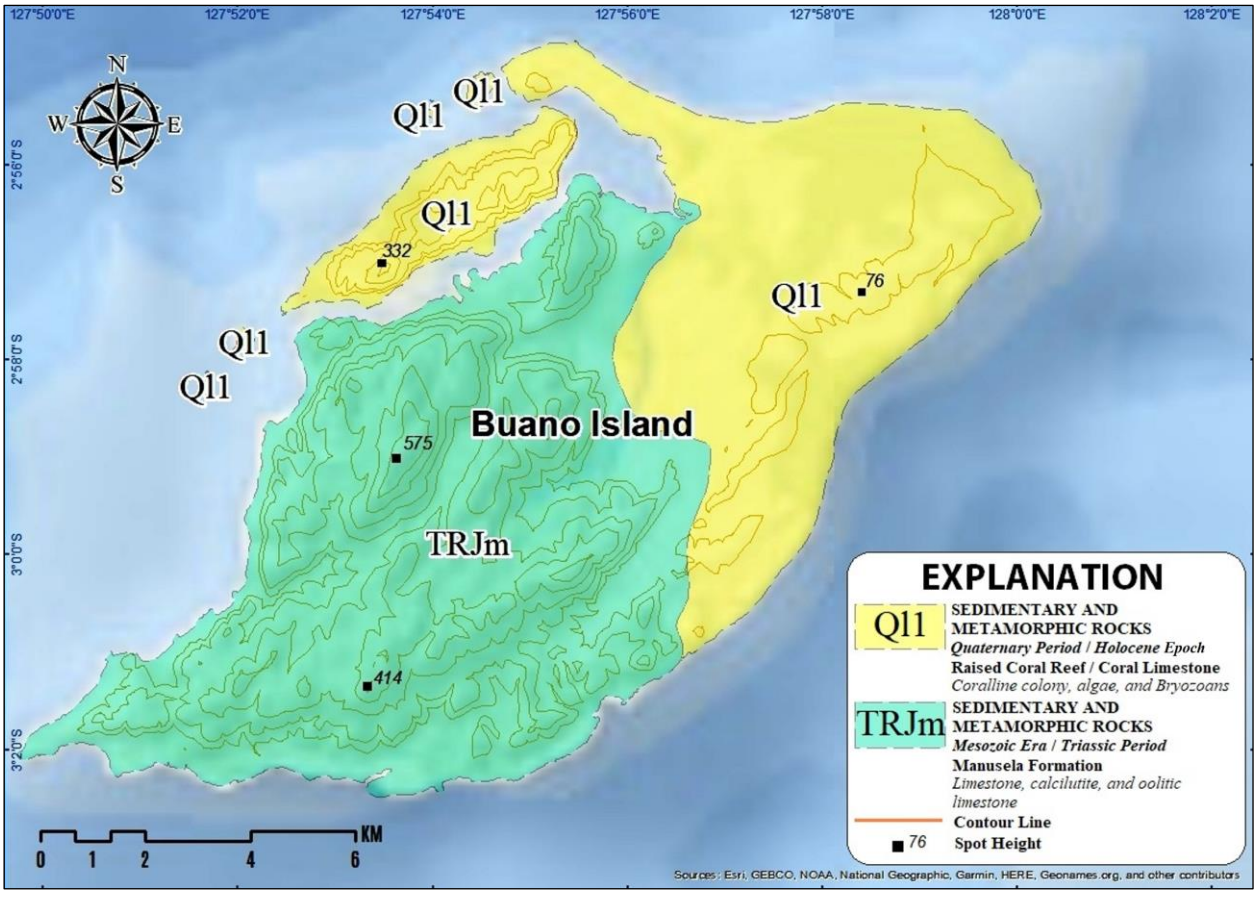

Figure 7. Geology and lithology formation of Buano Island
(Source: https://geoportal.esdm.go.id/, 2019)

formations. These two formation blades unite the entire mainland of Buano Island, which is separated by geological faults. The Manusela formation covers most of the Western part and the coral limestone formations in the Eastern part of Buano Island. The Manusela formation belongs to the old geological formations from the Triassic Period, Mesozoic Era, about 200 million years ago. (Charlton & van Gorsel, 2014; Mujabuddawat, 2019a; Sathiamurthy & Voris, 2006; Sriyono, 2014) The Manusela Formation (TRJm) extends to cover most of the highlands in the current Manusela Mountains of the mainland of Seram Island. The coral limestone (Q1) formation is included in a young geological formation, originating from the lifting of the seabed during the transition from the Pleistocene Epoch to the Holocene Epoch, the Quaternary Period about several tens of thousands of years ago. This coral limestone formation is characterized by a reefal structure composed of the coralline colony, algae, and bryozoans. This coral limestone formation is found on several parts of the mainland of the North coast of Seram Island to stretch most of the small islands in the East, including the Gorong Islands, Watubela Islands, and Kei Islands (Sriyono, 2014).

The rock art that can be identified in Tanjung Bintang Site consists of two motifs. These two motifs are entirely etched on the ceiling surface of the recess. These two motifs consist of one motif resembling the shape of sun-ray and eight motifs resembling the shape of a star or cross. Rock art in the form of a sun-ray motif is depicted

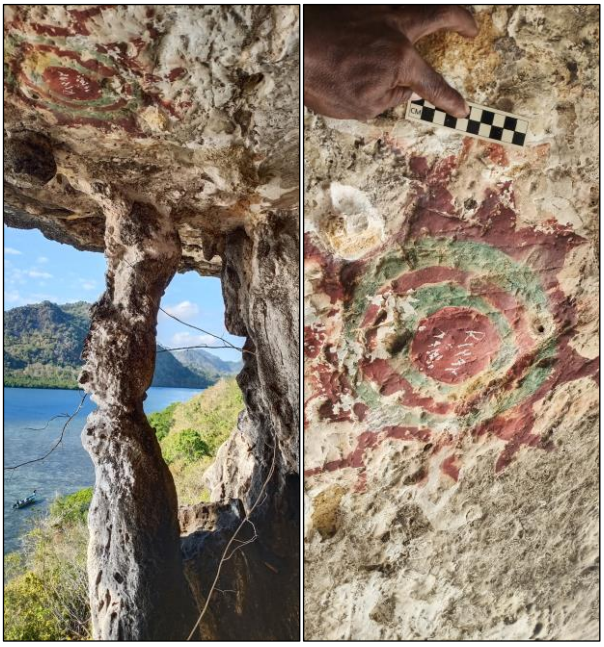

Figure 8. Geometric motif resembling the shape of sun-ray painted with red and green color (Source: Mujabuddawat, 2019b)

in a circle surrounded by four layers of circle lines along with the shape of sun rays in the outer circle layer. The core part of the circle shape is red, and the layer of circular lines consists of layers of green lines and layers of red lines. This sun-ray shape motif is the most prominent, and there is only one motif. The diameter of the outer circle layer of the sun-ray is about 30 cm, plus the extension of the beam rays pattern overall size is about 40 cm. The image of the *lantar* was commonly

Figure 9. Star-shaped motifs or crosses are painted in red color (Source: Mujabuddawat, 2019b)

Figure 10. One cave entrance close to the niche at Tanjung Bintang Site
(Source: Mujabuddawat, 2019b)

found in the rock art from Maluku and Papua. The *lantar* is a circular drawing of a sun-like image, sometimes with sun rays like a shining circle. The *lantar* was also found in the Muna sites, Southeast Sulawesi. The *lantar* of the Papuan rock art, particularly in Dunwahan or Dudumahan, Ohoidertawun, Kei-Kecil Islands, were beautifully made with meticulous calculation. The *lantars* found in Papua were similar, but some were only drawn in a simple way (Setiawan, 1994). The geometric motifs in the Dudumahan Site, Kei Kecil Islands, those in Timor-Leste, and those in the MacCluer Gulf, Papua, are strikingly similar to the 'sun-ray' motive in the assemblages of all three. There are such close parallels between the rock art motifs from Timor-Leste and MacCluer Gulf that interaction between these regions seems almost certain (e.g., O'Connor, 2003).

Eight star-shaped motifs or crosses are depicted in red, with variations in each motif's overall length ranging from 15 cm to 20 cm. Based on all the motifs that can still be observed, most of the shapes are still relatively looks clear, but some of the motifs appear to have faded, and there are also star motifs that are almost entirely eroded. In the sun-ray shape motif, apart from having faded in some parts, there are also indications of vandalism over the pigment in the core of the circle. One of the unique features of the sun-ray motif rock art at the Tanjung Bintang Site is the appearance of green pigments. Based on recorded and confirmed archaeological data so far, the green pigment in rock art in Maluku has never been found before. Meanwhile, green pigments in rock art in the Maluku region were only found at the Tanjung Bintang Rock art Site. There is cave entrance close to the niche, which may contain a chamber inside. The size of the cave entrance is relatively narrow, with a height of about 50 cm and a width of up to 100 cm. Local people call it Batu Bintang Cave, but the limited safety equipment makes the chamber inside the cave not yet documented.

Tanjung Bintang Rock Art as Part of the Austronesian Painting Tradition

Based on a number of references, it is known that the character of rock art motifs found in the Sawai-Saleman area, the North coast of Seram Island, and the rock art at the Ohoidertawun Site, Dudumahan, Kei Islands were characterized by typical Austronesian Painting Tradition (APT) motifs or rock art typical of Austronesian speakers (Leihitu & Permana, 2019; O'Connor et al., 2015). In addition, Ballard (1992) suggests some general characteristics of rock art typical of Austronesian speakers. Many of the characteristics including the location where rock art finds located in the distribution area of Austronesian speakers, located in remote areas and is generally depicted on high cliff faces that are difficult to reach. Based on the motifs, Austronesian speakers' rock art is characterized by several distinctive motifs such as geometric, concentric circles, spirals, human face motifs, anthropomorphic motifs, handprints, sun, and boat images (O'Connor et al., 2015; Tanudirjo, 2011). Typical of Austronesian rock art were also scattered in Papua, which includes Yapen, Biak, Waropen, Raja Ampat, Wandamen Bay, along the coast of Cendrawasih Bay, from the Western tip of Papua Island in Sorong to the South, along the coastal areas of the Sele Strait, Bintuni Bay, Arguni Bay, and the coast of Etna Bay (Leihitu & Permana, 2019: 229). The characteristics of Austronesian rock art motifs are also similarly evident in the Hatupatola site and the Tanjung Bintang site, such as anthropomorphic, geometric, sun, and circle motifs, as well as being in a difficult to reach position, relatively high cliff face (Mujabuddawat, 2019b). Based on these data and references, it is clear

Figure 11. Geometric motifs as sun-ray and cross shape in Tanjung Bintang Site are distinctive of typical Austronesian Painting Tradition
(Source: Mujabuddawat, 2019b)

that the origins of civilization and culture of the human community that inhabited the Maluku Islands began to develop rapidly since the entry of the Austronesian community, or the beginning of the Neolithic period around 4,000 years ago (Blust, 1985; Tanudirjo, 2008).

Human Community Associated to Rock Art Culture in Indonesian Archipelago

In general, rock art that is scattered in the Indonesian archipelago does not find a strong indication of the human community associated with this tradition. This is due to the lack of indication of human skeletons found in the vicinity of the rock art site. However, previous allegations by some researchers agree with the provisional idea that the Australomelanesid human community did not produce rock art. The indication of the finding of Mongoloid race skeletons in some dwelling caves associated with rock art and the absence of any indication of rock art with the location of the findings of the Australomelanesid race skeletons remains a consideration for this idea (Widianto et al., 2017). This idea proposes that most of the rock art that was spread in Indonesia comes from the Austronesian community, meaning no more than 4,000 years ago. Of course, this issue raises questions about the human community associated with the discovery of rock art when it was recently discovered that it was tens of thousands of years old on the islands of Kalimantan and Sulawesi. Thus, there is a gap of more than 40,000 years or known as a dark era in determining the chronology of the prehistoric habitation in Indonesia (Widianto et al., 2017: 90). However, as with any scientific principle, some theories and provisional estimates will become obsolete as the latest data and research are updated. Evidence of the dating of rock art that is more than 40,000 years old in East Kalimantan and South Sulawesi confirms that this rock art was not associated with the Austronesians.

The figure of 40,000 years is factual evidence considering that many recent scientific publications have tested various models of modern human migration pathways across the Southeast Asian Islands covering the Wallacea Region and Papua to mainland Australia (Kealy, Louys, & O'Connor, 2017, 2018). Excavations at the Madjedbebe Site, Australia's North Coast, show evidence of possible human occupation of the region dating back 65,000 years (Clarkson et al., 2017; Florin et al., 2020). This evidence certainly supports the theory that rock art culture in several sites in Kalimantan and Sulawesi is tens of thousands of years old. The minimum age of this rock art is compatible to the earliest established indications of Anatomically Modern Human from excavated deposits in the Lesser Sunda Islands, which formerly provided the oldest archaeological evidence for Homo Sapiens in Wallacea (~ 44.6 ka cal BP) (Widianto et al., 2017).

The criteria for Anatomically Modern Human may be quite complex when compared to the variety of human races in the Indonesian Archipelago today. The most common theory accepted by experts so far is that the Australomelanesid race is the earliest human community that crosses and occupies parts of Southeast Asia, including Wallacea, Papua, and Australia (Radiny & Artaria, 2019; Simanjuntak, 2019). However, DNA sequencing research conducted to determine the origins of Indonesian society shows that the modern native Papuans and Australians have an average of 4% archaic human races, Neanderthal and Denisovan lineages. This percentage is the highest compared to other human race communities globally (Jacobs et al., 2019). This evidence suggests in theory that the Australomelanesid communities that were closer to the indigenous Papuans and Australians were a series of early predecessor communities that crossed and inhabited the Southeast Asia Region and Australia (Zhang et al., 2020).

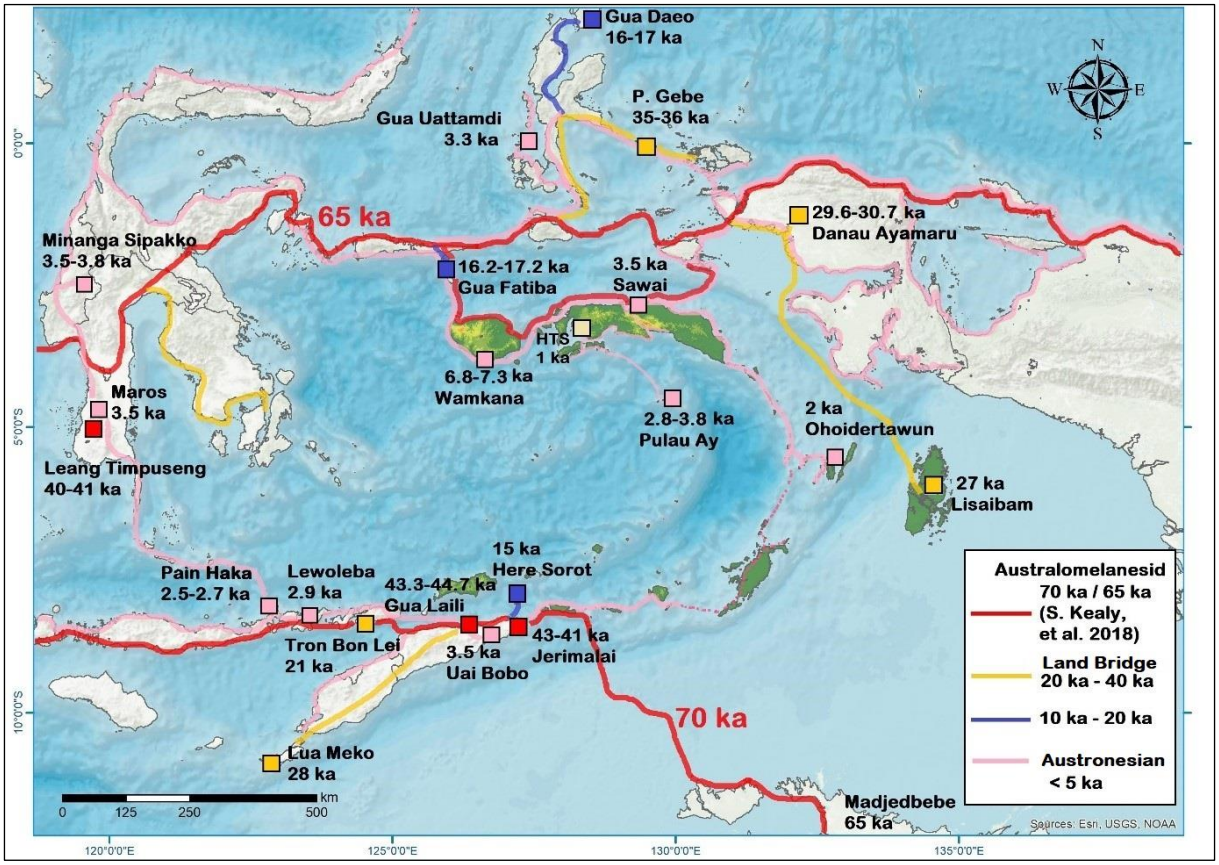

Figure 12. Reconstruction analysis possibility of the Anatomically Modern Human migration pathways chronology in the Wallacea Region, based on latest references
(Source: Arifin & Delanghe, 2004; Clarkson et al., 2017; Hawkins et al., 2017; Kealy et al., 2017; Kealy, Louys, et al., 2018; Lape, 2000; Lape et al., 2017; Latinis & Stark, 2005; Leihitu & Permana, 2019; M. J. Morwood et al., 2007; M. Morwood & Van Oosterzee, 2007; O'Connor et al., 2002, 2005; O'Connor, Mahirta, Tanudirjo, et al., 2018; Pasveer, 2004; Ririmasse, 2012a; Simanjuntak, 1994, 2015; Simanjuntak et al., 2008; Spriggs, 1998; Tanudirjo, 2001, basemap data from ArcGIS Database, 2019, modified by Authors)

Based on the available data, we can temporarily agree that the communities associated with the oldest rock art culture in Indonesia, including Kalimantan and Sulawesi, are Australomelanesid communities. This Austromelanesid community is Homo Sapiens humans who have the criteria of Anatomically Modern Human who first reached the Southeast Asia region after leaving Africa and introgressing with other archaic human races that had already left Africa, that is Neanderthals and Denisovans (O'Connell & Allen, 2012; Roberts et al., 2020). The crossing of the migration paths that reached the Southeast Asian region is believed to have occurred in several waves, from the earliest initiation period around 60,000 to 70,000 years ago to the presence of evidence of archaeological remains characterized by the earliest Austronesian culture around 3,000 to 5,000 years ago (O'Connell & Allen, 2012). Various archaeological findings characterized by Austronesian culture in the Southern Maluku Islands that have been recorded so far include Banda Island around 3,000 years ago, with indications of the oldest archaeological evidence on Banda Island about 8,000 years ago (Lape, 2000, 2002, 2003). The arrival of this Austronesian community marked the start of the Neolithic period, bringing a variety of new cultures and knowledge. The various new aspects brought by the Austronesian people also directly impacted the rock art tradition. This new culture also explicitly gave and specific characteristics that we know today as the Austronesian Painting Tradition.

CONCLUSION

The rock art at the Tanjung Bintang Site is characterized by the Austronesian Painting Tradition. The apparent characteristics that can be considered include that many painted panels remain located in limestone cliff faces and shelters bordering the coast in limestone islands. The location of rock art findings is in the distribution area of Austronesian speakers and all rock art motif objects with geometric motifs. The rock art motif at the Tanjung Bintang Site consists of only two types, one sun-ray motif surrounded by a distribution of eight star-like or cross-like motifs. The rock art motif is made by painting techniques with red paint and green on the sun-ray motif. The painted green color in the Tanjung Bintang site is probably the only green color painted rock art with Austronesian characteristics in Maluku. This research is the first report of rock art discovery at Tanjung Bintang Site, Pua Island, North Coast of Buano

Island. The discovery of rock art at the Tanjung Bintang Site again confirms that so far, the past cultures found in the Central Maluku Islands were dominated by Austronesian Neolithic cultural characteristics.

ACKNOWLEDGEMENT

The authors thank all parties who have assisted in this research. We also thank the two reviewers who have provided constructive suggestions for the completion of this scientific publication. Finally, we do not forget to thank Kapata Arkeologi for publishing it. Hopefully, this article will contribute a real scientific impact.

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