

# Makalamau House Images: Revisiting one of the Oldest Known Depiction of Interiors in Indonesia

## Gambar Rumah Makalamau: Mengulas Kembali Salah Satu Depiksi Interior Tertua di Indonesia

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### Abstract

The Makalamau kettledrum from the island of Sangeang is one of Indonesia's significant metal age finds, estimated to be made around the 3rd century CE. Four depictions of buildings, interpreted as houses, appear in the third band of Makalamau's tympan. They constitute as one of the earliest depictions of architectural edifice and interior space found in Indonesia. Despite the Makalamau kettledrum's Vietnamese provenance, the house images therein are representative of Austronesian style architecture that were used in ancient Vietnam and Indonesia. The Makalamau house images itself have distinctive articulation which are not found in house images of other kettledrums. These include the tripartite vertical division of the house, multi-purpose open space rooms, lack of loose furniture but the use of built-in fixtures such as suspended *para* racks, and a sacred aspect as repository of heirlooms. These elements can still be linked with traditional features in vernacular Indonesian houses from various regions. This shows that some aspects of traditional Indonesian interior can be ascribed as resilient continuation of Austronesian elements used since at least the 3rd century CE and this can be the subject of further studies and appreciation to the region's architectural history and cultural heritage.

Nekara Makalamau dari Pulau Sangeang adalah salah satu temuan signifikan dari zaman logam Indonesia yang diperkirakan dibuat sekitar abad ke-3 M. Empat gambar bangunan yang diduga sebagai rumah muncul di lingkaran ketiga dari muka timpan Makalamau. Gambar-gambar ini merupakan salah satu gambar arsitektural dan interior tertua yang ditemukan di Indonesia. Terlepas dari asal Makalamau dari Vietnam, gambar rumah Makalamau merepresentasikan arsitektur gaya Austronesia yang digunakan di Vietnam dan Indonesia kuno. Gambar rumah Makalamau sendiri memiliki pengolahan bentuk khas yang tidak ditemukan di gambar rumah nekara-nekara lain. Khusus terkait unsur interior, kekhasan ini meliputi pembagian vertikal yang bersifat tripartit, ruang tunggal serbaguna yang tanpa sekat, tidak adanya mebel lepas dan penggunaan mebel pasang seperti rak gantung para-para, serta aspek suci sebagai penyimpanan pusaka. Unsur-unsur ini masih dapat dikaitkan dengan sejumlah fitur tradisional dalam rumah vernakuler dari berbagai daerah Indonesia. Ini menunjukkan bahwa terdapat unsur interior tradisional Indonesia yang dapat ditelusuri sebagai kelanjutan unsur Austronesia yang telah digunakan setidaknya sejak abad ke-3 M,

dan transformasi unsur-unsur tersebut dapat menjadi bahan kajian serta apresiasi lebih mendalam terkait sejarah arsitektur dan warisan budaya di wilayah Indonesia.

**Keywords:** Interior depiction; Makalamau kettledrum; Indonesian traditional architecture | gambar interior; nekara Makalamau, arsitektur tradisional Indonesia

## Introduction

The vernacular architectural tradition of Indonesia is known for its highly diverse built forms.<sup>1</sup> The reason for this is obvious when we consider that vernacular traditions are based on accumulated knowledge of ordinary people responding to differing local factors such as climate, material resource, and culture (Pardo 2023). Despite the great diversity of forms, there are also many shared elements and themes resulting from centuries of dynamic cultural exchange between various groups (Waterson 2006). It is perhaps fair to say that this complex picture has mostly been studied from a synchronic point of view using mostly present conditions. Diachronic study which chart the historical developments of Indonesian vernacular architecture still pose a considerable challenge to this day for various reasons. Organic materials which dominated the region's architecture leave little archaeological evidence to study, while inference of chronological development from surviving typologies is often inconclusive (cf. Domenig 1990: 311-312). Sounder analysis often had to rely on visual documentation to compare current building traditions with older forms. Photography is especially useful for this purpose, but they only became abundant in the late 19th to 20th centuries. There are older architectural depictions in indigenous arts, such as the narrative reliefs of Borobudur temple (e.g. Nawa 2022; Setyawan 2022). But such depictions tend to be sporadic, as many Indonesian indigenous communities have little cultural obligation to systematically document their built environment (Khambali & Lukito 2023: 33, Waterson 1990: 14-15). In an already sparse material, depictions which show interior space are sparser still. This is unfortunate, as studies of the interior space may complement our understanding of the region's architecture and further reveal the cultural complexities of societies that use them.

With their relative scarcity in historic materials, it is therefore quite unexpected that one of the oldest known visual depictions of architecture found in Indonesia also include interior space. Specifically, the depiction is part of a decorative program in the surface of a ritual bronze kettledrum known as Makalamau, estimated to be made in the 3rd century CE (Calò 2009: 117-122). This artefact is known in archaeological sources but rarely remarked on in architectural and interior design studies. Further, partial descriptions of the Makalamau images are scattered in various sources, many of which are out of print (e.g. van Heekeren 1958, Heine-Geldern 1947, Kempers 1988, Taylor and Aragon 1991) or difficult to access especially for Indonesian readers (e.g. Calò 2014). The following paper will collate and review archaeological literature on the Makalamau images as well as providing some additional remarks from an architectural and interior design point of view. By re-examining one of the oldest known interior depictions in Indonesia, it is hoped that this research could give archaeologist, historians, architects, and scholars from related fields some historical perspective to Indonesia's vernacular interior features and serve as reference for future studies relating to Indonesian architectural heritage.

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<sup>1</sup>Taking cue from Waterson (1990: 1), it might be useful for the purpose of this paper to consider the term 'Indonesia' and 'Indonesian archipelago' in more purely geographical terms rather than national terms.

## Methods

This research is a literature review and qualitative based study using the architectural-historical strategy, as most of the evidence is derived from archival or artifactual sources (see Groat and Wang 2013:173, 215). This research starts by collating and cross-referencing writings made by previous scholars on the main object of study, the Makalamau kettledrum. These are utilized to comprehend the significance of Makalamau among other kettledrums. This is followed by visual analysis of Makalamau's architectural depiction, defined as representations which communicate architectural forms or ideas (Dittmar et al. 1980: 4). Calò (2009:18-21) argues that the overall depictions in kettledrums represent a mythical world which is not meant to be realistic. However, scholars such as Kempers (1998) and Waterson (1990) have also shown that their architectural depiction are 'true' to some degree and can be related to real architectural built forms. Presumably, this is because artists use real life models taken from their own experience and environments as a starting point of their works, even for fantastical compositions.<sup>2</sup>

Using similar methods used by Waterson (1990: 1-3, 24-26), the architectural depiction of Makalamau house images is broken down into descriptions of perceivable interior aspects, which the authors have focused into spatial arrangements, function, and furnishings. These are then compared with similar elements attested in traditional Indonesian architecture using representative images. This paper then concludes with elements in the architectural drawings of Makalamau that differentiates it with other bronze drums and how comparable interior elements can still be seen in various Indonesian traditions. Due to the strategies and data involved, authors limit analysis only to physical built elements. Decorations of the kettledrums are frequently subject to interpretations of their symbolic significance, but this is often contentious since the information present in the drums themselves are ambiguous while the societies which produced and used them left no written records. The authors agree with Han (2004: 17-21, 26-27) that detailed discussion of symbolic significance in Makalamau's architectural depiction (while potentially interesting) would be highly conjectural and is otherwise outside the main scope of this paper.

## Discussion

### *The Makalamau Kettledrum*

Some of the world's oldest art are found in Indonesia. In a 2021 study, a cave painting of Sulawesi warty pig (*Sus celebensis*) in Maros-Pangkep karst area, South Sulawesi is dated to be 45000 years old (Brumm et al. 2021).<sup>3</sup> Indonesia's oldest art however lacked any depictions which can be identified as architectural edifice or interior space. The usual subjects in these ancient cave paintings are local faunas, hand stencils, simple human figures, and stylized boats (Aubert et al. 2014, Oktaviana 2018, Brumm et al. 2021). Architectural depictions are found in much later artefact known as *nekara*. *Nekara* is an Indonesian term for ritual bronze kettledrums,<sup>4</sup> one of the

<sup>2</sup>Cf. Director of The National Research and Development Centre of Archaeology (2009: 2, 259, 266, 281, 285) and Reichle (2009: 352) in the later case of Borobudur reliefs, where mythical scenes are interspersed with Austronesian style houses which points to the local environment.

<sup>3</sup>New study by Oktaviana et al (2024) even dates a narrative composition in the Leang Karampuang cave of Maros-Pangkep to be painted at least 51200 years ago.

<sup>4</sup>The term is almost certainly a modern appellation. Initially, the term *nekara* referred to variants of Arabic نقره *naqqāra* (a kind of single tympan drum) used in several Malay musical ensembles (Kartomi 1997:3). It is unclear from available

implements that heralded Southeast Asian metal age. Based on their basic typology, Heger (1902) classified Southeast Asian kettledrums into four types dubbed as Heger I-IV. Heger II to IV are comparatively young (whose production are dated up to the 19<sup>th</sup> and 20<sup>th</sup> century CE) and are only attested within limited ranges of mainland Southeast Asia. Conversely, Heger I are widely attested in both mainland and insular Southeast Asia. Also called Đông Sơn drums, they are estimated to be made between 600 BCE to around 200 CE by the Đông Sơn culture centered around the Red River (Sông Hồng) delta of modern-day northern Vietnam. From this center of production, ancient trade networks dispersed them to insular Southeast Asia where local derivations later developed.<sup>5</sup> Due to the large distribution and varied quality of their work, Đông Sơn drums may be conceptualized as a ‘large family’ whose chronological and decorative subdivision have been proposed by various scholars (Calò 2009: 21, e.g. Imamura 2010: 32, Phạm et al 1987). It should be noted that exact dating for individual Đông Sơn specimens are often contentious. Absolute dating has been hampered by the fact that many specimens are found accidentally in unprotected sites with very little related biological materials. Chronology based on decorative variations should also be approached cautiously as they may represent disparate but contemporaneous workshops rather than sequences within long periods of time (Calò 2009: 21; Han 2004: 16, 22). In this paper, the authors defer to the approximate dates used by Calò (2009, 2014) who mapped representative specimens into clusters based on close observation of their specific features.

Đông Sơn drums were cast using lost-wax methods, with specimens that can weigh up to 100 kilograms with a height up to 1 meter. Exemplary specimens are intricately decorated with geometric patterns and scenes involving stylized human figures and animals. These required significant resources alongside specialized craftsmen to build. For the Cổ Loa drum (now at Hanoi Museum) that weighs 72 kilograms for example, Higham (2014: 200) wrote that it would have require the smelting of between 1 and 7 tonnes of copper ore. Scholars such as Hung (2017) and Oliveira et al. (2019) have suggested that these drums were not exclusively used as ceremonial musical instruments. They also served various functions which differed regionally, including shell storage, implements of rain-calling ceremonies or other rituals, grave goods, and burial containers. In Indonesia, as remarked by van Heekeren (1958: 18; 1985: 49), the largest and most intricate Đông Sơn drums are usually found in the eastern part of the archipelago. Along with some specimens in Vietnam, they form what Calò termed as Region Specific cluster 3 (RS3) or ‘eastern Indonesian’ drums. Calò (2009: 113, 117) notes that eastern Indonesian drums tend to have homogenous form, which indicates that may have been dispersed in a short-lived event. This cluster includes the specimens found on Sangeang, a small volcanic island northeast of Sumbawa Island in the Nusa Tenggara Barat province (Figure 1).

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sources who first extended this term to include ancient bronze kettledrums in Indonesian. Inhabitants near locally known *nekara* often used differing appellations, such as *tifa guntur* in Maluku and *sangu* in Sangeang.

<sup>5</sup>Only Đông Sơn derivations such as the *pejeng* drums has been confidently assigned as an insular production. Their production in some regions persisted until the 20<sup>th</sup> century, most notably in the Alor Islands where they are known as *moko*. See Bellwood (1985: 281), Calò (2009: 129-156), and Kempers (1988: 361-386)

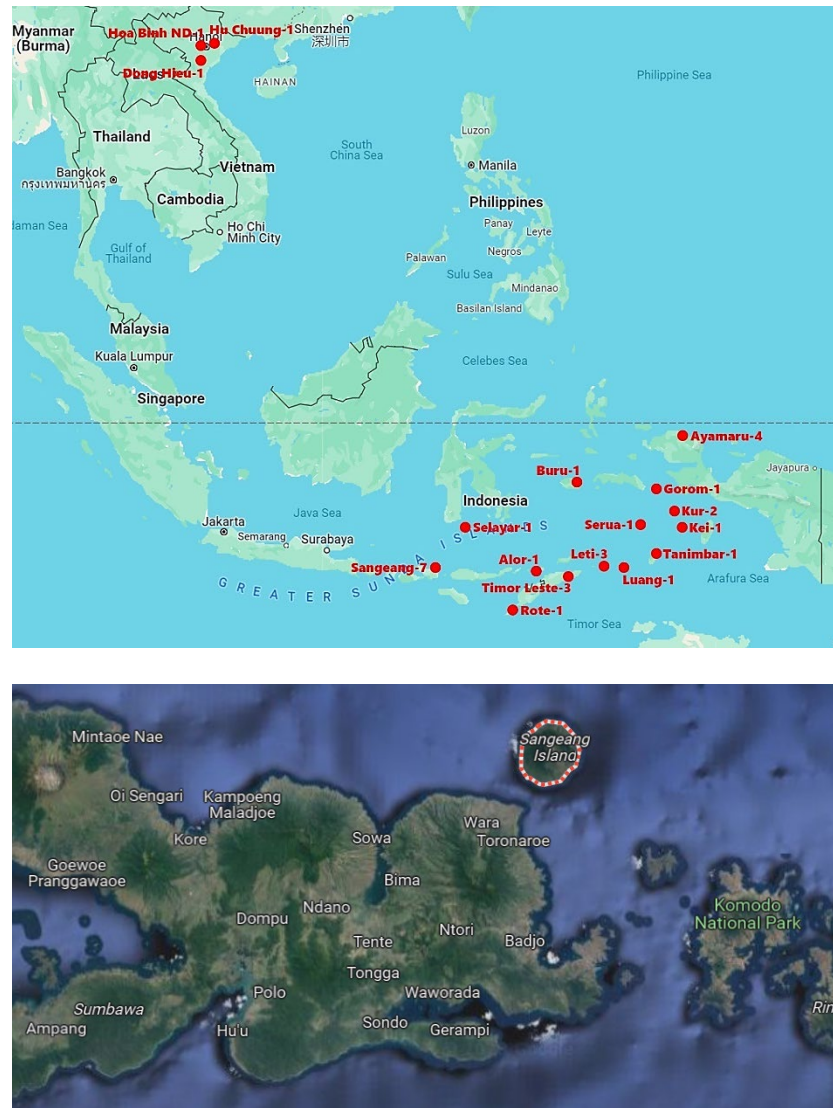


Fig. 1 Above: Map of mainland and insular Southeast Asia showing the distribution of RS3 or 'eastern Indonesian' drums. Below: Sangeang island, shown in red outline. Source: Google Maps, after Oliviera et al. (2019: 164).

In 1937, the Controleur of Bima in Sumbawa, S. Kortleven, reported to the Royal Batavian Society of Arts and Sciences (Koninklijk Bataviaasch Genootschap van Kunsten en Wetenschappen) regarding five kettledrums present in Sangeang. Local inhabitants at the time venerated the drums as sacred heirlooms which were used in rain calling ceremonies. Collectively they were called *sangu* or water vessels, as they were installed upside down with the hollow side upwards.<sup>6</sup> The three largest drums were given personal names by the locals: Waisarinci, Saritasangi, and Makalamau respectively. They were installed within the vicinity of an old graveyard in a deserted village. Later in the same year, the Batavia Museum (now Museum Nasional at Jakarta) acquired the five drums alongside one tympan fragment (van Heekeren 1985: 51; Kempers 1998). One additional specimen was found in 1983 by National Centre of Archaeological Research (Pusat

<sup>6</sup>The tympan decorations would not be visible in this configuration, and it is unclear from reports of the time whether local inhabitants are aware of them.



Penelitian Arkeologi Nasional), so that there are a total of seven kettledrum specimens known from Sangeang thus far. Calò (2009: 122) reported that the 1983 specimen has been sold, but all six of the 1937 specimens are still kept in Museum Nasional, collection no. 3364 (Makalamau), 3365 (Waisarinci), 3366, 3367 (Saritasangi), 3368, and 4948.

Makalamau in particular is a substantial specimen (Figure 2); with height of 835 mm and diameter of 1160 mm, it is the third largest known Đông Sơn drum (Calò 2009: 42; Taylor and Aragon 1991: 64; van Heekeren 1958: 24). Various sources such as Dumarçay (1987:3), Schefold (2003: 30), and Waterson (1990: 26) often refer this specimen as the Sangeang drum, apparently unaware of, or failing to mention that there are, other Sangeang drums. Based on profile and stylistic typology, Makalamau has been classified as a late Đông Sơn production casted in Vietnam around the first centuries CE (Heine-Geldern 1947: 171, 173-174; Kempers 1988: 47). Calò (2009: 117, 127; 2014: 15–16, 107–109, 125,) further identifies Makalamau as part of the eastern Indonesian cluster which was first made in the 3rd or 4th century CE.<sup>7</sup> They were transported to the archipelago around the late 3rd to the 5th century CE, and entered a series of inter-island trade networks over a more extended period of time, possibly spanning through the second half of the first millennium CE, before arriving in their final destinations. The body and tympan of Makalamau are covered with complex decorative patterns, and it is here that one of the oldest and clearest depiction of interior space in Indonesia may be found.

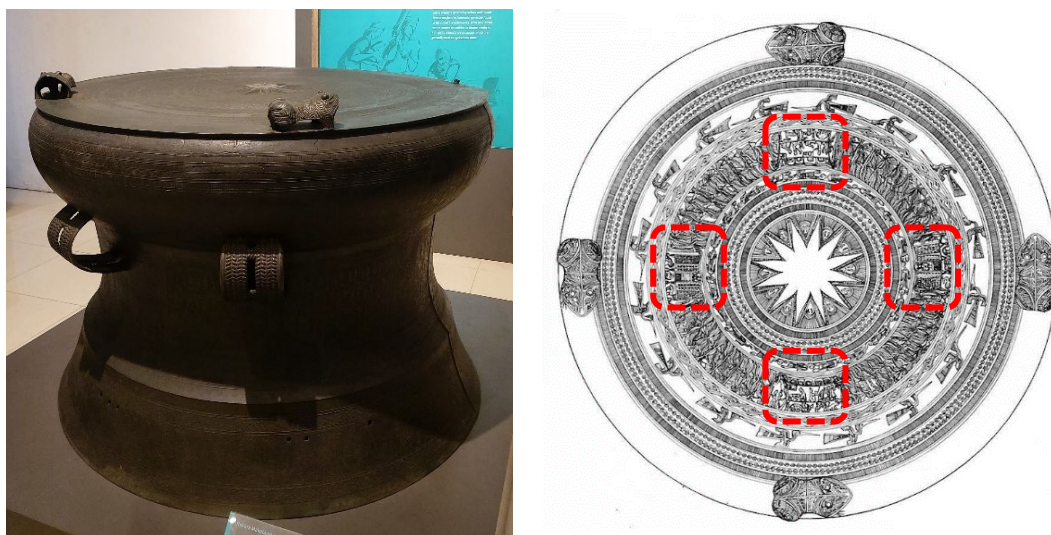


Fig. 2 Left: The Makalamau drum from Sangeang, now in Museum Nasional Indonesia (collection no. 3364). Right: Drawing of Makalamau's tympan by Marcia Bakry. Position of house images are shown in red square. Note the frog sculptures are drawn complete as opposed to current condition. Source: Authors, Taylor and Aragon (1991: 64), courtesy of Paul Michael Taylor, Smithsonian Institution.

<sup>7</sup>Curators at the Museum Nasional believe an earlier date before the common era is also possible (N.L.P. Chandra Dewi, Retno Moerdianti, Fidia Wardhani, Fajar Ichsan from Museum Nasional. Pers. Com. January 20, 2023)



Fig. 3 Detail of Makalamau tympan showing one of the house images. Source: authors.

### *House Images in Makalamau*

Four buildings interpreted as houses appeared in the third band of Makalamau's tympan (Figure 3, 5). House images are only found in a few other Đông Sơn drums such as Ngọc Lũ and Cô Loa, and they present the earliest pictorial representations of buildings in Southeast Asia with clear Austronesian features (figure 4) such as pile construction (*panggung* in Indonesian) and saddle roofs.<sup>8</sup> Waterson (1990: 26) wrote that Makalamau is the only Indonesian specimen to contain house images. There is actually one other found in Kabunan, Central Java that is dated earlier than Makalamau,<sup>9</sup> but the Makalamau images remain a significant example due to its exceptional depiction of interior space, as we shall see.

In light of Makalamau's Vietnamese provenance, it may be argued that the house images therein do not represent Indonesian architecture, but rather the Đông Sơn. Earlier scholars such as Vroklage (1936) and Heine-Geldern (1947) tend to view kettledrums as signs of Đông Sơn migrant waves whose architecture (depicted in the drums) later become traditional Indonesian architecture. The nature of Vroklage's writing especially leads him to believe in an original 'pure' form whereas current architectural traditions are explained as evidence of deviations or degenerations. These views however are based on several conjectures regarding the scale and timeline of migrations that have not been proven. They also reflect the tendency of earlier diffusionist scholars in ascribing many Southeast Asian cultural milestones to injections of external influence which later degenerated in the hands of locals.<sup>10</sup>

<sup>8</sup>Waterson (1990: 18-19, 2006: 227). See Schefold (2003) for further discussion of formal features associated with Austronesian houses.

<sup>9</sup>The Kabunan drum was found in 1909 and now kept in Museum Nasional collection no. 1827. Two house images are visible in its tympan, but they are rarely remarked or reproduced probably because the overall drum decorations have become very faint. It is closest in style with the houses in Sông Đà (aka Moulié) drum now kept in Musée Guimet (Kempers 1988: 20; van Heekeren 1958: 19). Calò (2009: 16, 23, 60) classifies Kabunan as stray example of 'Red River Valley' drums made around the 3<sup>rd</sup> century BCE to the 1<sup>st</sup> century CE.

<sup>10</sup>See Aciri (2017) and Waterson (1990: 18-23) for discussion.



Although the assumption of “Đông Sơn origins” is still repeated in many popular publications regarding Indonesian arts,<sup>11</sup> the assumption has been criticized and supplanted by writers such as Domenig (1980: 34), Schefold (2003: 40-41), Tjahjono & Miksic (2002: 14), and Waterson (1990: 24-26; 2006: 227). Briefly put, Austronesian architectural style is found in wide geographic regions well outside possible Đông Sơn influence such as Melanesia and western Oceania. It is therefore more likely for the style to have spread earlier in conjunction with the spread of Austronesian speaking people, who began to move from Taiwan into the Philippines then to western and eastern Indonesia around 3000-2000 BCE. By the time Đông Sơn drums were created, Austronesian-style architecture was already well established throughout Indonesian archipelago and beyond; Đông Sơn drums are simply the oldest visual record available. In another word, the houses images of Makalamau are not exclusive to the Đông Sơn and are representative of widespread Austronesian style architecture that would have been used in both ancient Vietnam and ancient Indonesia.



Fig. 4 Various buildings with typical features of Austronesian style architecture: a) former palace of Simalungun raja, Pematang Purb, north Sumatra, b) Sundanese house at Papandak, Garut, west Java, c) Torajan Tongkonan house, Tana Toraja, southwest Sulawesi, d) Manggarai house, Labuan Bajo, Flores, e) men's house at Tambunum, Sepik River, Papua New Guinea, f) community house at Yorlap, Yap Island, Micronesia. Source: Christian Adv's Slgt (2019), Tropenmuseum (1910), Medianto Tangkela'bi (2021), Tropenmuseum and Le Roux (1915), Eksilverman (2014), StefKa81 (2004)

Kempers (1998: 91) divides the kettledrum house images into two types: H type (wider, with saddle roofs) and O type (squatter, with domed roofs) (figure 5). The figure arrangement is similar across all drums: the same house type is placed across each other within the same band, and each house are spaced from each other by stylized human figures wearing feathered headdresses.<sup>12</sup> The H type houses will be the focus of following analysis as they always drawn in longitudinal section, providing viewers with an insight to their interior space.

<sup>11</sup>See criticism in Barnes et al (2020: 5) for an example.

<sup>12</sup>The feathered figures in Makalamau are not obvious unless compared with more naturalistic depiction in continental drums.



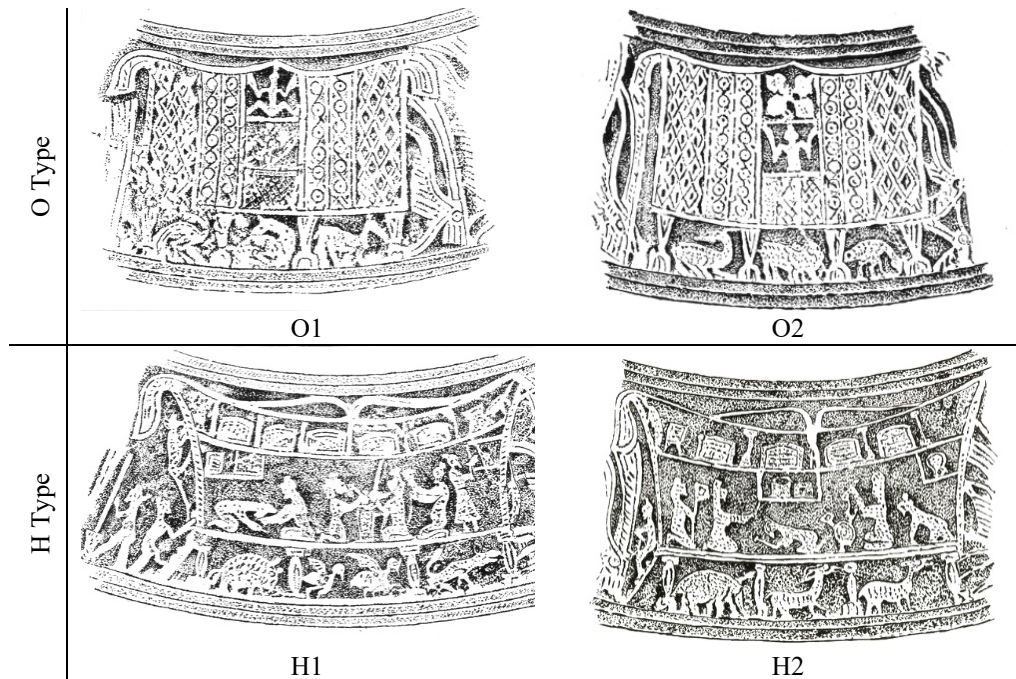


Fig. 5 Drawings of Makalamau's house motifs. Source: Leiden University Libraries Digital Collections (1941a-d).

Before discussing the interior elements of Makalamau houses, slight remarks regarding the accompanying human figures are necessary. Many archaeological sources like Heine-Geldern (1947) gave more lengthy analysis to the human figures compared to the houses. Scholars have observed that Makalamau's indoor figures seem to be dressed in long robes reminiscent of Chinese style Han clothing; quite different from the outdoor figures that are more lightly clothed (Calò 2009: 147; van Heekeren 1985:51; Kempers 1988: 128). The way indoor figures sit and bow also points to precedents in Chinese art, such 3rd century BCE Chinese tiles and 2nd century CE Han Dynasty reliefs according to Heine-Geldern (1947: 168-169). This appears to reflect the progressive Chinese presence and influence in northern Vietnam during the first centuries CE. Nevertheless, the houses which these Chinese-like figures occupy are not comparable with contemporaneous Chinese arts and are distinctly Austronesian.

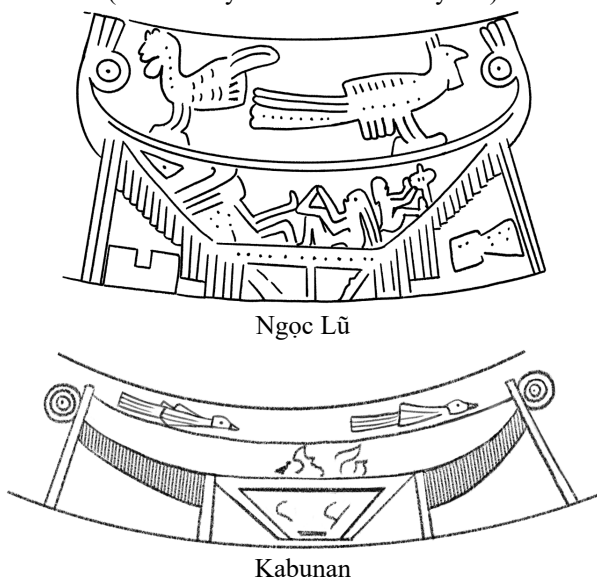
### ***Observed Elements in the Interior Depiction***

The space in Makalamau houses is vertically delineated into three distinct parts (Figure 6). The lower space below the main floor (*kolong* in Indonesian) is evidently used as an animal pen. The middle space is the house's main interior space, with five to six figures performing different activities. The upper space appears to be an attic (*loteng* in Indonesian) filled with storage containers and possibly heirlooms, as will be discussed below. This tripartite spatial articulation in Makalamau corresponds well to the tripartite spatial division documented in various Indonesian architectural traditions and cosmological views.<sup>13</sup> Interestingly, house images from other drums do not show similar articulation. In Ngoc Lũ and Kabunan for example (classified by Calò (2009, 2014) as 'Red River Valley' drums produced between 3rd century BCE to 1st century CE), the

<sup>13</sup>See summary in Auersbach (2018: 4). Note however that tripartite division is not applicable to all Indonesian architectural cases. Perdana & Kurniawan (2022: 8-9) for example has argued that the common notion of ancient Javanese temples (*candi*) having tripartite elevation seems to be based on flawed conjecture with little supporting evidence.

lower space is smaller and contain no animals. The middle portion is occupied by fewer human figures cramped into much smaller space, and the interior lacked any distinguishing elements which can be analyzed. The attic is non-existent; much of the upper space is dominated by perching avians which Makalamau lacked.

Region Specific cluster 1 or 'Red River Valley' drums  
(3rd century BCE to 1st century CE)



Region Specific cluster 3 or 'Eastern Indonesian' drums  
(3rd to 4th century CE)

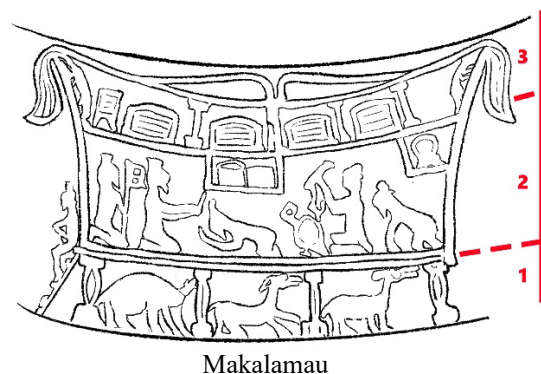


Fig. 6 H house of Makalamau compared to the older Ngọc Lũ and Kabunan drums. Makalamau house is shown with tripartite division: lower (1), middle (2), and upper (3) space. Source: Ghina Amalia Yuhanida after Goloubew (1940: 399), Calò (2009: 16), and van Heekeren (1958: plate 6).

One could interpret these depictions as a reflection of changing relations between society and their house. In older drums, the house may be viewed more as a simple respite from the natural forces of the outdoor world. In the younger Makalamau drum, houses gain an increasing role in everyday life as more activities are taken indoors and more material wealth is accumulated within. This move towards the indoor, however, is fairly limited compared to habitation in temperate climates such as in Europe and East Asia. As far as the 20th century, many societies in Indonesia only use the indoor spaces of their house to sleep, cook, and store heirlooms while open pavilions and other outdoor spaces are preferred for most everyday activities (Waterson 1990: 32). It is not surprising then that interior spaces are often dark and austere. In fact, as Waterson (1990: 34) noted, some societies such as the Atoni of Timor consider the cool and dark interior of their house as symbolically significant contrast to the heat and brightness of the exterior world.

In Makalamau, the main storey consists of a single unpartitioned open space. While occupying the same space, the human figures seemed to be performing several activities in their own portion of the room. While it appears to be sequential and ritualistic, especially due to the bowing figures, their exact nature is otherwise unknown. It is possible in the author's opinion that the scene conflates several unrelated activities that are both profane and sacred. Single, multi-functional space that accommodates the private and public as well as the profane and sacred is a common feature in many traditional Indonesian interior. Portions of the room may be allocated for specific users or functions, such as sleeping quarters for the women or meeting place for the men, but they are not always physically divided by walls. An example given by Waterson (1990: 59) is the Dayak Iban longhouses, also known as *rumah betang*, which "satisfies all the necessary functions of both public and private space within a single structure." A longhouse would be occupied by multiple families

with their own assigned private quarters (*bilik*), but public affairs such as village meetings communal rituals are held in the common gallery (*ruai*) and terrace (*tanju*) of the same structure.<sup>14</sup> Cooley (1962: 8-9) in his accounts of Ambon communities also note that while Ambonese has a word for public meeting places (*baileu*, cognate to Indonesian *balai*), ‘house’, ‘temple’, and meeting-place’ may still blend into one at various events.

The indoor figures in Makalamau do not seem to use loose furniture such as chairs, tables, or bedsteads. This is the norm in many traditional Indonesian interiors for considerable amount of time, often remarked by European visitors from as early as the 16th century to the beginning of the 20th century (van Gompel et al. 2013: 21-24; Waterson 1990: 31). However, it is not correct to say that traditional interiors are completely devoid of furniture. Indonesian interiors may incorporate elements which do not conform to conventional Western categorization of ‘furniture’, yet provide inhabitants with the means to engage with interior space as a furniture would. Abidin (1981: 35) for example notes that loose items (like mats) and parts of the structure itself (like raised floors) can both be considered as ‘furniture’ in a traditional Malay house. Makalamau image show several of such ‘furniture’ which seem to primarily serve storage function.

The figure on the far right of H1 house appears to be placing an object into a cupboard between the upper part of the walls and the ceiling, as also observed by van Heekeren (1958: 25). Meanwhile, larger chest-like items are stored above in the attic. An echo of this storage configuration can be seen in the *ammu pe* houses of the Sawu people in the island of Sawu,<sup>15</sup> Nusa Tenggara Timur province. An upper deck called *kalaga dammu*, which may be partitioned by bamboo walls, was primarily used to store crops or crafting tools (Figure 7).<sup>16</sup> Additional built-in shelves or tie beams below the attic floor are used to store more frequently reached items such as drinking vessels. Similar treatment of tie beams as shelves is also seen in other traditions such as the Sasak and Toba Batak (Figure 8). The many built-in and suspended storage occupying the headroom makes the floor space in many traditional houses to be bare and unobstructed, which can also be seen in the Makalamau depiction. This interior feature may seem trivial, but this is noticeably different from modern, conventional houses where the opposite is usually true: the floorspace is occupied and partially obstructed by a variety of standing furniture while the headroom is mostly bare.

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<sup>14</sup>See Sather (2006: 71, 83-85, 116). The walls that separate private quarters from common room are called dog walls (*dinding ukoi*) as it was initially meant to keep family dogs (*ukoi*) from entering the quarters. This implies that resulting privacy for human inhabitants are somehow incidental, although the authors do not know whether similar case is applicable in other regions of Kalimantan.

<sup>15</sup>Spelled inconsistently between sources as Sawu, Savu, Sabu, Hawu, and Havu. According to Grimes (2006: 1), the Sawu /s/ sound attested during colonial times has now shifted completely into /h/, while the letter <w> is variably pronounced between /b/ and /v/ depending on the dialect. For Indonesian speakers, the spelling <Havu> probably better reflect how current Sawu speakers pronounce this name.

<sup>16</sup>Mosmarth et al. (2017: 57) note that Sawu people now rarely need to store large amount crops for extended periods of time and so *kalaga dammu* are often empty.



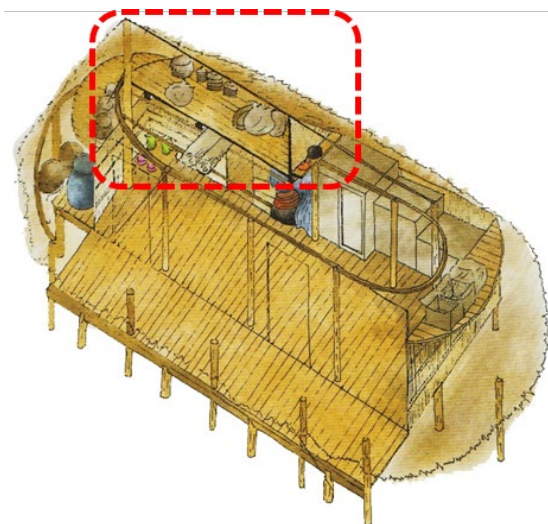


Fig. 7 Axonometric view of *ammu pe* house from Sawu by Rizka Fadilah, with attic or storage deck called *kalaga dammu* shown in red square. Source: Mosmarth et al (2017: 53)



Fig. 8 Tie beams which doubles as storage shelf: a) in a Sasak house at Sade village, Lombok, b) in a Toba Batak house, c) in a Sawu *ammu pe* house documented by Athasya Kandhiya. Source: Midori (2010), Tropenmuseum and Lawson (1971), Mosmarth et al (2017: 56).

Another fixture can be seen in the middle of H2 house above the kneeling figure (Figure 9), which appears to be a storage rack suspended from the ceiling. This element has never been commented upon in prior studies, but it seems comparable with racks called *para-para* or *para* in Indonesian. Blust and Tressel (2020) in their *Austronesian Comparative Dictionary* have traced the term to Proto Austronesian \*paRa ‘storage shelf; attic, loft,’<sup>17</sup> with cognates in various Indonesian languages.<sup>18</sup> Built *para* are documented in various Indonesian architecture traditions, which tend to be square or rectangular in shape. To name a few examples, square hanging *para* above the hearth can be seen in traditional houses of Karo (Tropenmuseum and Adam 1914) and Simalungun regions<sup>19</sup> from North Sumatra. Similar iterations were once used in Tazo houses of Flores, although

<sup>17</sup>Note that \*R represents reconstructed uvular trill as opposed to \*r which represents alveolar trill.

<sup>18</sup>Examples from Blust and Tressel (2020) include: *para* in Acehnese, Karo Batak, Sundanese, Iban, Sasak. *Paha?* in Kayan. *Pahe* in Ngaju Dayak. *Paa Ombu* in Wolionese.

<sup>19</sup>Simalungun case is exemplified by the palace of former rajas of Simalungun in Pematang Purba. Waterson’s (1990: 215-220) documentation were taken in 1986 when the palace was in a relatively good condition. Unfortunately, as reported by Sinaga (2021), the palace is now in much poorer state of preservation.



no extant samples have survived.<sup>20</sup> Rectangular hanging *para* for storing cooking equipment can be seen in the kitchen area of some older *betang* houses in central Kalimantan.<sup>21</sup> Similar iteration are installed above the hearth in some Sundanese houses to store firewood and crops.<sup>22</sup> While often paired with the hearth or kitchen, sometimes they are used as generic storage space as seen in some *ammu pe* houses of Sawu (Mosmarth et al. 2017: 53).

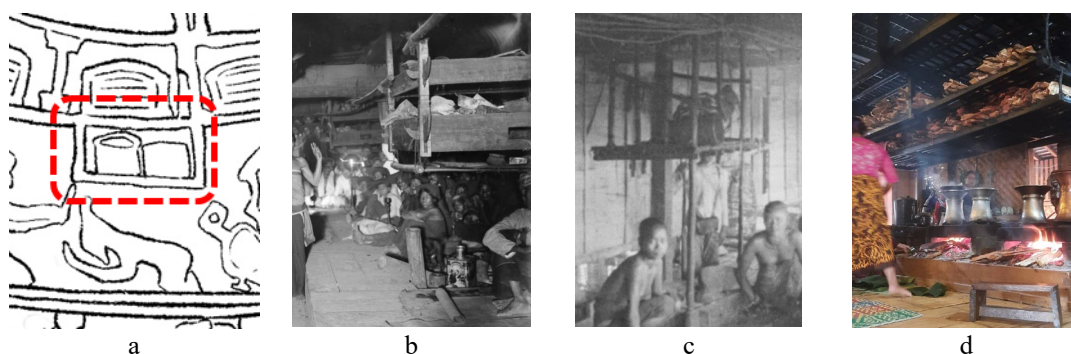


Fig. 9 a) Hanging *para* in H2 house of Makalamau. Hanging *para* in several Indonesian traditions: b) in a Karo Batak house, North Sumatra c) in a betang house of Pinoh region, central Kalimantan, d) in Kasepuhan village of Ciptagelar, West Java. Source: Ghina Amalia Yuhanida after van Heekeren (1958: plate 6), Tropenmuseum and Adam (1914), Tropenmuseum (1900), photo courtesy of Rebecca Victoria.



Fig. 10 Kitchen in Mohammad Hatta's birth house, Bukittinggi, Sumatra, installed with local 20th century *para* iteration consisting of long rectangular storage shelf hanging from the ceiling above several hearths. Source: Onyaso (2019).

On the attic of H1 house, one of the stored objects has been suggested as a bronze kettledrum (van Heekeren 1958: 25). The presence of kettledrum, undoubtedly seen as highly valued possession, parallels documented cases (e.g. Tjahjono and Miksic 2002: 39, 42; Waterson 1990: 46, 93, 174) in many Indonesian buildings where attics are not only used as mundane storeroom but also as repository for prized possessions and sacred heirlooms. Whereas the house's function as dwellings takes precedence in the Western world, traditional Indonesian houses frequently serve as ritual sites that elevates them from mere dwellings. In some societies, the ritual function of a house trumps

<sup>20</sup>No visual documentation of Tazo houses is known to exist and the last of these houses were demolished in the 1970s. Fortunately, formal characteristics of the house are still within living memory of one community elder named Petrus Regha, which allows a reasonable reconstruction of the house by Khambali & Lukito (2023: 32-33, 44).

<sup>21</sup>See figure in Asteria (2008: 146)

<sup>22</sup>Iqbal Prabawa (pers. comm., May 19, 2023), Muanas (1998: 50), Rebecca Victoria (pers. comm., May 19, 2023), Supriyatna (2014: 2). In Sundanese, they are often called *parasenu* 'fire loft.'

over its dwelling function. An example noted by Ellen (1986: 6) and recounted by Waterson (1990: 45) is the Nuaulu of Seram Island. The Nuaulu call their house *numa mone*, or ‘sacred houses’. The sacredness, however, is not ascribed to the house itself but rather to the heirlooms stored within the house’s attic. The house is seen more as a storage of heirlooms where human habitation is incidental.

The view of house as repository of heirlooms is also graphically illustrated in more recent artefacts. Kempers (1988:133-136) has argued that despite the large geographic and chronologic gap, architectural depictions that strongly reminisce Đông Sơn drum conventions can be seen among the Ngaju Dayak of southern Kalimantan. The Ngaju Dayak has on occasions produce sacred drawings that illustrate their religious beliefs.<sup>23</sup> One example produced in Schärer (1963: plate xii) is a depiction of the primeval village Batu Nindan Tarong where deceased souls are said to return in the afterlife. The house interiors in this village are not occupied by humans but are laden with all sorts of objects considered precious by the Ngaju Dayak, including gongs, jars, and drums. There are even some Western style chairs and tables. Presumably, their relative rarity at the time makes them as precious as ancient heirlooms to warrant inclusion in the primeval village. Similar depictions of houses can be observed for example in the painted wooden plank (*mamapas pali*) kept in Wereld Museum (Figure 11).



Fig. 11 Detail from Ngaju Dayak *mamapas pali* showing house images. Source: Wereldmuseum (1820)

## Conclusion

The house images in the Makalamau kettledrum, estimated to be made around the 3rd century CE, constitutes one of the earliest depictions of architectural edifice and interior space found in Indonesia. Makalamau’s house images showcase Austronesian style houses that would have been used both in ancient Vietnam and Indonesia. They have distinctive articulation of the interior space which is not found in other kettledrum house images. From our analysis, the most pertinent elements of Makalamau’s interior space include tripartite vertical division of the house, multi-purpose open space room, lack of loose furniture but use of built-in fixtures such as suspended *para* racks, and sacred aspect as repository of heirlooms. These elements can still be linked with traditional features in vernacular Indonesian houses from various region. This shows that some interior aspects in traditional Indonesian houses are not ahistorical and are surprisingly resilient. They are arguably present in the region since at least the 3rd century CE and their transformations can be the subject of further critical studies and appreciation to the region’s architectural history and cultural heritage.

<sup>23</sup>For further description, see Schärer (1963: 67-73).

## Postscript

On 16<sup>th</sup> September 2023, after the initial draft of this paper was sent for review, a fire broke out in the Museum Nasional. The fire significantly damaged and caused a roof collapse in Building A where Makalamau was displayed (Antara 2023, Suhenda 2023, Wienanto 2023). On 10<sup>th</sup> October, Museum Nasional's social media account released a short video reporting their recovery plans, in which a significantly damaged Makalamau seem to be shown among other evacuated artefacts.<sup>24</sup> The body has disintegrated into pieces while the tympan is split and warped. It is unclear whether the drum's delicate surface images have survived. As of writing, the Museum has not released an official report of affected artefacts (nor reply to the authors' query) to confirm Makalamau's status.

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<sup>24</sup> One of the authors has visited the museum a week before the fire occurred, and to the author's knowledge no other kettledrums beside Makalamau was displayed in the affected building. Therefore, the damaged kettledrum is very likely to be Makalamau.

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