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Noble and Commoner Bugis Houses in the Regency of Soppeng, South Sulawesi, Indonesia

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Wien, am 8 August 2019 .....

For my beloved mother, father and my son

Abstract

The largest ethnolinguistic group of South Sulawesi is the Bugis whose traditional family dwellings built on stilts can now be found in many places throughout Indonesia and even in Malaysia. The purpose of this research is to examine the architectural design and decor differences of Bugis dwellings of aristocrates and commoners as they relate to Bugis social standing, culture and beliefs from the past until now.

The research was carried out on 120 homes built before and after Indonesian independence from 1878 to 2006 in the Soppeng Regency of South Sulawesi province. Bugis house design elements signifying social rank were identified and compared. This was followed by how these design elements were an expression of and played a role in Bugis culture and beliefs. Finally, a comparison of the characteristics of spatial planning between the old and more modern dwellings was examined.

The results of the analysis demonstrate that Bugis social standing and culture strongly influence the size and shape of both the interior and exterior of their houses including ornamentation which practically disappeared from homes during the colonial era to reappear after Independence. Moreover, it is clear that the Bugis traditional beliefs which pre-date the introduction of Islam and Christianity still influence Bugis dwellings' overall design and ornamentation even in the 21st century.

It can be concluded that the dwellings that survive today still retain certain architectural attributes related to the Bugis social class system. Furthermore, eventhough structures have been modified to reflect the changing influences of culture and religion, the traditional beliefs unique to the Bugis culture used in the construction of their dwellings remains much the same.

keyword : *architectural design, traditional dwellings, dwellings on stilts, traditional decoration, Bugis houses, Bugis aristocracy, class system, traditional beliefs*

Abstrakt

Die größte ethnolinguistische Gruppe Süd-Sulawesis sind die Bugis, deren traditionelle Wohnbauten auf Stelzen heute an vielen Orten in ganz Indonesien und sogar in Malaysia zu finden sind. Der Zweck dieser Forschung ist es, die architektonischen Design- und Dekorunterschiede der Bugis-Wohnhäuser von Aristokraten und Bürgerlichen zu untersuchen, da sie sich auf die soziale Stellung, die Kultur und den Glauben der Bugis von der Vergangenheit bis heute beziehen.

Im Rahmen der Forschung wurden 120 Häusern untersucht, die vor und nach der Unabhängigkeit Indonesiens von 1878 bis 2006 in der Soppeng Regency der Provinz Südsulawesi errichtet wurden. Gestaltungselemente, welche den sozialen Rang bezeichnen, wurden identifiziert und verglichen. Danach wurde untersucht, in welcher Art diese Designelemente Ausdruck von Kultur und Glaube der Bugis waren und welche Rolle sie darin spielten. Abschließend wurde ein Vergleich der räumlichen Merkmale von alten und modernen Wohnungen gezogen.

Die Ergebnisse der Analyse zeigen, dass bei den Bugis soziale Stellung und Kultur einen starken Einfluss auf die Größe und Form des Innen- und Außenraums des Wohnhauses ausüben, einschließlich des Baudekors, der während der Kolonialzeit praktisch verschwunden ist, um nach der Unabhängigkeit von den europäischen Kolonisatoren wieder aufzutauchen. Darüber hinaus hat sich herausgestellt, dass die traditionellen Glaubensvorstellungen der Bugis, welche der Einführung des Islam und des Christentums vorausgingen, sogar noch im 21. Jahrhundert die Gesamtgestaltung und den Dekor der Bugis-Wohnhäuser beeinflussen.

Es kann der Schluss gezogen werden, dass die heute noch erhaltenen Wohnhäuser der Bugis bestimmte architektonische Attribute im Zusammenhang mit dem sozialen Rangsystem aufweisen. Obwohl die Strukturen entsprechend der im Lauf der Zeit sich verändernden Situation von Kultur und Religion modifiziert wurden, sind die charakteristischen traditionellen Grundlagen für den Wohnhausbau der Bugis weitgehend die gleichen geblieben.

Stichworte: *architektonisches Design, traditionelle Behausungen, Behausungen auf Stelzen, traditionelle Dekoration, Wohnhäuser der Bugis, Aristokratie und Klassensystem der Bugis, traditionelle Grundlagen*

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Andi Abidah, Wien Austria 2019

Contents

Chapter 1

Introduction

1.1 Background of Study

A traditional house marks the identity of a tribe not only because of its unique shape and special ornaments but also due to the practice traditional methods and local materials used in its construction.

The architecture of traditional houses throughout the world are a valuable cultural heritage in that the houses' elements and ornaments are the signs and symbols outlining who the owners are, how they conduct their daily lives, their beliefs and their social status.

As an archipelagic nation, Indonesia is occupied by many unique tribes that differ vastly from one another in culture, traditions and customs including their traditional houses of varying shapes, elements, ornaments and colours which are influenced by location and environment.

South Sulawesi is inhabited by five tribes. The Bugis, the Makassar and the Mandar who occupy the plains and coastal areas have built dwellings which are fairly similar to each other but which are strikingly different from those constructed by the Toraja, and the Mamasa tribes who live in the mountainous areas.

The overall building shape including the roof and construction height from the ground reflect the environment in which each tribe resides. On closer examination, however, unique identifiers in the architectural complexity and building ornamentation reveal many characteristics and cultural clues as to the identity of the owner including social position within the community as can be seen in the following photographs.

Figure 1.1: Toraja traditional house

Figure 1.2: Mamasa traditional house Source: Field survey 2016 Location Mamasa.

Figure 1.4: Makassar traditional House (Makassar-Gowa). Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

Figure 1.3: Makassar traditional house (Balla lompoa/palace king of Gowa). Source: http://pan*dua*nwisata.id

Figure 1.7: Mandar traditional house. Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

Figure 1.5: Makassar traditional House (Makassar-Kajang). Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

Figure 1.6: Makassar traditional House (Makassar-Bulukumba). Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

Figure 1.8: Mandar traditional house (Mandar-Majene) Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

Figure 1.9: Bugis traditional house Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

Figure 1.10: Bugis traditional house (Bugis-Soppeng/type of Bola soba) Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

Figure 1.11: Bugis traditional house (Bugis-Luwu) Field survey July 2019 Location: South Sulawesi traditional houses in Museum of Fort Somba Opu Makassar.

The photographs show that the traditional houses of the Toraja (Fig. 1.1) and Mamasa (Fig. 1.2) tribes that live in the mountainous areas have small rectangular houses with boat-like roofs with the floors raised to between 90 and 100 centimetres while those of the Makassar (Figs1.3 – 1.6), the Mandar (Figs. 1.7 – 1.8) and the Bugis (Figs. 1.9 – 1.11) have roofs that are rectangular in shape and extend backwards in the form of a gable with considerably higher floors which are raised to between 180 and 200 centimetres.

This study focuses on the application of both the Bugis aristocrats' and the Bugis commoners' cultures, traditions, and beliefs in their houses' architecture, in the Soppeng Regency. There are several reasons for choosing the Soppeng Regency as the object of this study. The first is that previous research was focused only on the Bugis house architecture, which included the general types of houses, roof saddles, and the number of house poles of the aristocrats' and commoners' houses but did not examine the houses' elements, ornamentation, and their relationship to the house owners. The second is that the regency is a small kingdom of the Bugis whose king has the title of *'Datu'* and as such, is a style of the past monarchy of the ancestral land of the Bugis whose last king married a Dutch woman.

The changes to Bugis houses are mainly due to the Dutch colonialism in Indonesia, the importance placed on local customs and Islamic influences.

Placement of a house and its elevation in relation to those around it plays a significant role. For example, the Soppeng palace was built by Latemmamala in 1261 in the heart of Soppeng city[1], when the Dutch colonialists came to Soppeng, Juliana Villa was built in 1905 east of the palace. Both residences are located on a higher level of land with the site of the Juliana villa being higher than the site of the Soppeng palace (*ke-Datu-an* Soppeng) indicating that the colonists' social rank was to be considered higher than that of the indigenous residents.

[1]Source: https://sultansinindonesieblog.wordpress.com/sulawesi/raja-of-soppeng/

Figure 1.12: Complex palace King (Datu) Soppeng. Source : Field survey 2015

Figure 1.13: Datu Soppeng's house using stilts on house. Source: Museum collection of local goverment Regency of Soppeng

Architectural elements and ornaments have also had a role in Bugis society. During the rule of the Dutch administration, aristocratic houses were not permitted to use any ornamentation that identified differing social ranks. In fact, all indigenous people were made to live at a similar social level, while the European colonizers possessed the highest social standing. Hence, at that time, existing aristocratic houses except for the king's dwelling had to be modified to become simpler to mirror the commoners' houses in their communities', according to local witnesses. Due to these changes to the design, structure and decorative elements of these Bugis dwellings during the Dutch colonial era and further changes after Indonesian independence, it is imperative that these architectural objects be researched.

Traditionally, the original shape of Bugis house is rectangular and extends backwards. The Bugis house consists of two spatial dimensions: vertical and horizontal. The

vertical dimension is divided into three parts: *rakkeang* (attic), *alebola* (body of the house) and *wasaubola* (the ground under the house). The Bugis believe that a house is like a human body where it has a head, body, and feet (Palemmui Nadji 2006)[2].

The horizontal consists of one main building with additions to its front, back and sides. The front part of the main house (*watangpola*) that is used as a verandah to the dwelling's main entrance is called a *lego-lego* in Bugis. The rear addition of the house for food preparation is called *jokke* in high Bugis language or *bola dapo* in common Bugis parlance (kitchen house). Any side addition to the main body of the house is called *tamping* which functions as a hallway to access the aforementioned additions as well as the main body of the house itself.

Furthermore, the main building of the house is divided into sections each of which has a different function in accordance with old Bugis beliefs based on Hinduism whose practices pre-date the time of colonialism and the adoption of the Islamic faith. In fact, it is the Hindu culture that continues to influence the Bugis people's beliefs, traditions, and customs even until now, as can be witnessed in the process of constructing a house which starts with special rituals performed even before construction begins.

House orientation changed when Islam was introduced to the Bugis land around the 17th century brought by the scholars from Minangkabau, West Sumatra. The Islamization in the Bugis used the method of approaching the kings, i.e. by converting the king of an area to Islam so that his people and kin would follow him (Abdullah2016)[3]. The Pajung of Luwu (one of the great kings in Bugis) became an Islam follower on the 4th or 5th of February, 1605 and changed his name to Sultan Muhammad (Pelras, 1985)[4]. Before Islam was introduced, Bugis houses faced north but afterwards their orientation changed to face west - the qiblah, which is the direction of prayer for Muslims.

Some elements and ornaments unique to Bugis dwellings have been lost during the many eras of the architectural development. Even today's generation does not know about them. The original architecture of Bugis house is now rarely found, because Bugis community members have not made much of an effort to preserve their own cultural heritage. They prefer to build new houses using modern designs that eliminate the *tamping* section (the interior hallway along the side of the house) and even combine brick with wood in the construction to produce a house whose architectural style is far simpler than the original architecture of a traditional Bugis house.

Inspite of these losses, the culture and traditions of the Bugis appear to be quite alive and well in that the performance of ancient rituals are still carried out nowadays by Bugis Moslems and Christians when constructing modern houses

A *panritabola* is a skilled senior house builder who acts as the construction foreman to manage the site during the construction process. He is in charge of selecting the site on which the house is to be built, the construction materials, how the house is to be built and the building schedule of when the house owner is to occupy the house. The *pan-*

[2]Shima, Nadji Palemmui. (2006). Arsitektur Rumah Tradisional Bugis Makassar (Traditional Bugis Makassar house) Badan Penerbit UNM.

[3]Anzar Abdullah 2016 Islamisasi di Sulawesi Selatan dalam perspektif sejarah Paramita Vol.26 No.1 tahun 2016 ISSN: 0854-0039, E-ISSN 2407-5825 page 86-94

[4]Cristian Pelras 1985 religion, Tradision and Dynamics of Islamization in South Sulawesi in: Archipel. Vol.29, 1985 L'Islam en Indonesie I . pp 107-135. http://www.persee.fr/doc/arch_0044-8613_1985_num_29_1_2226, doi : 10.3406/arch.1985.2226

ritabola has in-depth knowledge of many of the philosophies regarding house construction including: appropriate house structures and methods of construction as well as knowledge of symbols carved into the wood of the house that would bring harm or happiness to the occupants.

Another cultural application for house construction that has been preserved until today is about determining the size and proportions of the house based on anthropometry or the measurements of the house owner's body. According to the occupants of several of the houses in this study, the size of the main house structure was based on its original owner's body dimensions, whereas other parts of the house were not. The word used by the Bugis to refer to the size of the human body to determine the house's main structure's width and length is the "*passuke*" (measure).

The rationale for determining the locations of this research was based on a brief survey of the historical development of traditional houses in the regency of Soppeng. In this research, the regency of Soppeng is divided into three different zones based on each area's character. The first zone is an area where its community members are still applying the Bugis original old culture, traditions, customs, and religion. The second zone is an area where the number of modern societal members and their architectural developments are growing. The third zone is an area where many new villages are located with houses built in the era after the independence of Indonesia around the 1970's.

1.2 Objective Research

This research focuses on the comparison between the Bugis houses of the aristocrats and those of the commoners that were built according to the old Bugis' customs, traditions, cultures and beliefs.

The research objectives are as follows:

1. To identify the types of the Bugis houses and compare between the aristocratic houses and the commoners' houses
2. To identify the elements of the Bugis house that act as signs of social ranks that have survived until now.
3. To identify the application of cultural traditions and beliefs on the architecture of the Bugis house.
4. To identify the spatial planning of old and new model of the Bugis house.

The explanation of the comparative study will include the comparison between the aristocrats' houses and the commoners' houses not only in each zone but also among zones.

1.3 Research Methodology

The methodology employed in this research is the theory that uses a problem-solving approach on an automatic basis. As for the summary of this research process, it is made after the details of research method and engineering research are conducted (Kathori,

C.R 2015:8-10)[5]. The further discussion will explain the entire process of the research, including the research problems, the literature study, data retrieval, data analysis, and data interpretation.

The qualitative research is an approach related to the theory and data location, which are usually done by interviews, sketches, photographs, and so forth. This research uses primary and secondary data taken from research location of the regency of Soppeng.

The research locations consist of three zones. Each zone consists of 40 houses. Thus, there are 120 houses in the three zones. They were chosen randomly as the main research objects. They were built in the eras before and after the independence of Indonesia (1945). Each zone will be explained.

Each zone will explain the types of Bugis house according to their periods. There are three periods. One of them is the era when the houses were built before the independence of Indonesia, starting in 1850s. This period was chosen because of the availability data. The other period is the era when the houses were built after the independence of Indonesia. And the last period is the era when modern Bugis houses were built, starting in the early 1980's.

[5]Research Methodology: Methods & Techniques. New Age International (P) Ltd. https://doi.org/10.1017/CBO9781107415324.004

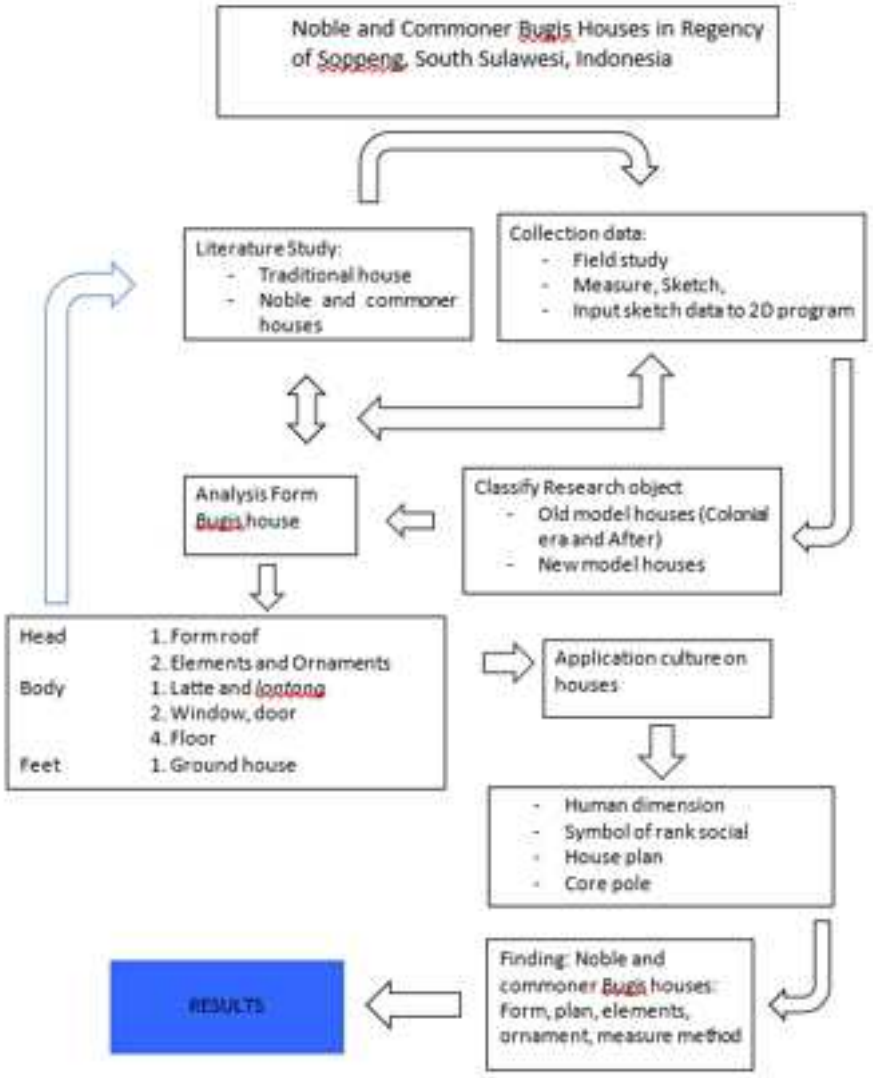

Figure 1.14: Process of Research, Sketch Andi Abidah 2014

1.4 Research Methods

It has been mentioned earlier that this research is about the comparison between the aristocrats' houses and the commoners' houses which includes the influence of cultures, traditions and religions of the house owners. Besides the comparison, this research uses a qualitative method that involves both a field study and a literature study about Bugis houses, cultures, traditions, and customs in the regency of Soppeng.

The field study was conducted from November 2015 to March 2017. The data collection was done by photography, measurements of width and length of the house, interviews, sketches, and 2D Auto Cad drawing. The houses that became the research objects are the ones that were built in the era before the independence of Indonesia or during the Dutch colonial administration era, although there are only a few research objects under this criteria. The other research objects are the houses that belong to not only the old model of houses that were built in the era after the independence of Indonesia

but also the new model of houses that are currently popular in the community. All of these objects are also analyzed according to their elements and ornaments that symbolize the social levels, that are resulted from the cultural adaptation, and that survive as house elements until now.

1.5 Data Collection

The collection of secondary data consists of two types. One is from the literature, and the other one is from the interviews with the experts on Bugis house. The collection of documentation were acquired from:

1. Leiden University Library (February 2015)
2. Regional library of Soppeng District
3. Library of the Juliana Villa Museum

Meanwhile, interviews with experts who are knowledgeable on Bugis house were done mostly with *panritabolas*, skilled house builders in the community. There are two types of *panritabola*. One of them is the one who is specialized in constructing both the house of aristocrats and the house of commoners. The other one is the one who is knowledgeable in measurement and dimensions. The interviewees are as follows:

1. Andi Syamsuddin (aged 70) has in-depth knowledge of Bugis culture,
2. Petta Munu (aged 70) knows the process of building a house and also knows the house-related measurements in relation to the social rank,
3. Andi Mappaona (aged 70) knows about the regulations related to the elements, ornaments and the architecture of a Bugis house in relation to the social rank,
4. Kandacong (aged 49) is a man who knows if the wood has either good or bad signs,
5. Marten (in his 50s) is a Christian who understands the process of making a house according to Bugis beliefs and knows the symbols on the wood that is formed from the knots in the wood,
6. Haji Mannawang (aged 80) understands about significance of the different sizes of *lontang,*
7. Hajja Andi Murni (aged 75) understands about regulations of a noble's house,
8. Andi Sulaiman (aged 48) is a blood relative of Datu Panttojo and also lives in the house of Datu Pattojo. He knows about elements and ornaments on the house of nobility.
9. Datu Harlianty (aged 58) is a grandchild of Datu Pattojo XII (the last Datu Pattojo) who knows about the customs, traditions and cultures of Bugis aristocracy,
10. Petta Lolo Dhamra, (aged 48) is a grandchild of Datu Pallawarukka,
11. Andi Mappaona (aged 66) has extensive knowledge about aristocratic houses,

12. Ambo Odding (aged 70) understands about wood knots,
13. Sendrima (aged 62) understands about commoners' houses.
14. H. Abu Bakar Syam (in his 80's) is a person who understands the various styles of architecture of Bugis houses

The data above were collected during the field study in several villages. The zoning was based on the character of each region. The zoning maps can be seen in picture 1.15

Figure 1.15: Map of Research Zones. Source : Regency of Soppeng Govenrment

Chapter 2

Literature Review

2.1 Traditional house

By using an anthropological approach, traditional houses can be clearly described through the examination of their architecture, type, interior decoration and use of symbols. There are several factors that affect the architecture of a traditional house, namely the patterns of behavior, culture, and beliefs of the local community[1]. The spatial patterns in settlements and houses are influenced by the beliefs, the kinship patterns, or the organizational structure of the community or the family. A traditional house, from the architectural point of view, involves technical analyses that include the detailed measurements in the field before they are transferred into scalable architectural drawings which illustrate the structure of the house's shapes, dimensions, construction methods, and the local material usage. The explanation about the basic house shape involves the analysis of proportional size and symmetricity of the house facade, plan house, and other parts of the house.

Traditional houses in Indonesia generally have three vertical parts, namely the attic, which is the area under the house roof, the living space for the house's residents, and the ground, which is under the raised floor of the house[2]. These parts are built and used in harmony. As Paul Oliver describes a home as a house that has three fundamental aspects to fulfill a feeling of being in a house namely, freedom, ritual and play[3].

Most often it is the interior of the attic that serves as a place to store heirlooms and sacred things but for some tribes such as the Toraja, the Minangkabau and the Sumba, the exterior of the roof is also important with the roofs of their houses constructed to be spectacular symbols of prestige.

The living space is self explainatory. However, kitchens are separated from the living space and almost always situated at the back of traditional dwellings. This is due to traditional communities preserving the old method of cooking by burning wood which causes a lot of smoke. In addition to cooking, traditional kitchens also serve as a place to store food and are built with these considerations in mind.

On the ground, the space is generally used to keep livestock such as chickens, pigs, ducks, and dogs.

[1] Paul oliver, 1997 Encyclopedia of vernacular architecture of the world Volume 1 Theories and Principles Cambridge university press ISBN 0 521 56422 0 pp : 6-15

[2] Jill Forshee 2006 Culture and Customs of Indonesia British Library Cataloguing London ISBN 0313305137 ISSN 87553449 pp:88

[3] Paul oliver, 1997 Encyclopedia of vernacular architecture of the world Volume 1 Theories and Principles Cambridge university press ISBN 0 521 56422 0 Pp: 87

D.K. Ching interprets a symmetrical form as consequences of the presence of an axis which will create a balance between shape and space[4].The symmetrical shape is divided into two types: bilateral symmetry and radial symmetry. Bilateral symmetry is a similar and offers a balanced arrangement of elements between one part and another. Radial symmetry is a balanced arrangement where similar elements rotate around a single point or a central axis.

The hierarchy in a building can be seen in the hierarchy of sizes, basic forms, and placements. A hierarchy of sizes is a measurement of a significant shape in a building. The hierarchy of forms or spaces is a measurement of differences between the dominant forms, such as differences in shape or changes in patterns. The hierarchy of placement is a form and space that are strategically placed and is the most important component in the composition. The placement of an important hierarchy of form or space is the elimination of a linear or axial organization, where the main feature of a symmetrical organization or the focus of a centralized or radial organization in a composition is either shifted up/down or placed in the foreground of the composition.

The *possibola* pole of a traditional Bugis house is the most important part. This pole is the core of house and is placed at the third place from the front and at the second place from the pole where the staircase lean. This pole is made of the best material, is perfect in size and has no defects[5].

The spatial organization of traditional houses has changed due to the Dutch colonial influence[6]. The basic form of traditional Malay houses arrange spaces by starting with the porch (*anjung*) followed by the main house and then kitchen. After the Dutch colonial administration era, some houses added space at the ground level under the house so the original arrangement of space changed. For example, the kitchen was moved to the side of the main house or in the area under the house. The main house consisted of two floors, namely the upper and ground floor. In addition, the anjung of some houses had been removed.

Traditional Malay houses can be grouped into the vernacular architecture like most of the houses. The houses in the community are designed according to the owners' wishes and were built traditionally[7] .

2.2 Culture

People in many cultures believe that a ritual, including the ritual orientation of the house, is a way to tap the supernatural forces for good fortune. In other words, such cultural rituals represent people's core values signifying a dependence upon supernatural forces.

[4]Francis D.K. Ching Architecture : Form, Spcae and order third edition 2007 Jhon Wiley & Sons, Inc. ISBN 978-0-471-75216-5 (pbk) pp 348-366

[5]Moh Yamin Data, M. Arief Mansyur, Abd Gabi Anta Bentuk-bentuk Rumah Bugis Makassar (forms of Bugis and makassar house) Proyek pengembangan Media kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidikan dan Kebudayaan RI 1977 : 38-39

[6]Soe Ryeung Ju, Kim, Bo Mi, Ariffin, Syed Iskandar Continuation and Transformation of Traditional Elements in Colonial Vernacular Houses in Kampong Bharu , Malaysia JAABE Vol.14 no 2 May 2015 p.339-346

[7]Seo Ryeung Ju, Saari Omar and Young Eun Ko Modernization of the Vernacular Malay House In Kampong Bharu, Kuala Lumpur Journal of Asian Architecture and Building Engineering Vol- 11 no.1 May 2012 ISSN 13467581 p. 95-102

Further, Amos Rapoport summarizes that the power of a clan will increase if this clan is more responsive to the supernatural forces[8].

Prior to construction, people in some regions of not only Indonesia but also throughout parts of Southeast Asia believe that a ritual must be performed in order to ask for permission from the unseen land owner of the spirit realm. Omitting this ritual will result in spirital interference during the work process, for example a disturbance to the house owner that may lead to a misfortune[9].The way to ask for this permission for an intended building is to leave a plugged bamboo stem which is filled to the top with water at the construction site. If the water is not reduced in the bamboo after three nights, then it means that the local spirit has given permission.

In the gathering and use of construction materials, house making must follow the orientation of planted beams when they are still a tree, where the lower tip that is close to the root must be placed at the bottom. This method is associated with the belief that beam orientation will affect the pattern of the next life. This rule has had a useful impact associated with the strength of wood structures[10] .

Another way of currying favor with the supernatural is the use of decorative forms on the roof. Horns on gable roofs in Southeast Asian architecture have this function. A cross shape that resembles a cross of horns is sometimes combined with carvings that can be found in Bugis or Malayu houses. The decorative shapes on the roof can be in the form of either horns or buffalo heads[11].. In some areas in Indonesia buffalo horns are installed at a certain point in the house which has a function to protect its inhabitants, such as with Karo Batak of North Sumatra. In other regions of Indonesia, the cross shape with carvings on the house roof are shaped like birds or dragons. Some communities outside Southeast Asia make horns as the main weapon for attacking and defending. Hence, it can be surmised that the buffalo horn functions as a symbol of protection. The buffalo plays an important role in the lives of Southeast Asian communities and has become a symbol of social rank. Besides its symbolic function as decorative form on a roof, the buffalo also functions as a symbol of wealth. For example, one's wealth might be seen from the number of buffaloes that a person provides for slaughter in a traditional ceremony.

Numbers also play and important role. The Bugis apply odd numbers for certain elements in their houses because they believe odd numbers are sources of good luck[12]. The use of odd numbers are applied to the number of modules of the main house, the multiple gables of a *timplaja* (roof), the number of spindles used as security bars on the lower part of a traditional house's shuttered windows, and the number of steps on a staircase. Odd

[8] Amos Rapoport 1969 House Form and Culture : *Socio – Culturefactorsandhouseform*Foundation of Culture Geography Series Prentice-Hall, Inc., Rnglewood Cliffs, N..J pp:196

[9] Roxana Waterson 1990 The Living house *AnAnthropologyofArchitectureinSouth – EastAsia*Oxford University Press Ptc.Ltd ISBN 0-500-28030-4 pp 122-123

[10] Gaudenz Domenig 2008 Timber Orientation in the Traditional Architecture of Indonesia Published Kitlv, Royal Netherlands Institute of Southeast Asia and caribbean Studies Source:Bijdragen tot de Taal-,Land-en Volkenkunde, Vol.164, No. 4 (2008), pp 450-470 and Roxana Waterson 1990 The Living house *AnAnthropologyofArchitectureinSouth – EastAsia*Oxford University Press Ptc.Ltd ISBN 0-500-28030-4 pp 124-6

[11] Roxana Waterson 1990 The Living house *AnAnthropologyofArchitectureinSouth – EastAsia*Oxford University Press Ptc.Ltd ISBN 0-500-28030-4 pp : 7-12

[12] Andi Abidah 2016 Applying Uneven Number (te'genebali) of certain elements in *bola* Ugi District of Soppeng South Sulawesi, Indonesia World Multidiciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, WMCAUS 2016 Procedia Engineering 161 (2016) pp 810-817.

numbers also serve as a symbol of social hierarchy. The more odd numbers that are used, the higher one's social status is. The number of *timplaja* incorporated into aristocrats roof can be three, five or seven while only one may be constructed in homes belonging to Bugis commoners. The number of steps for a staircase of an aristocrats dwelling can be 11 or 13, while commoners are permitted to construct five, seven or nine.

Traditional houses in Indonesia have been influenced through the adoption of other faiths like Hinduism and Islam. Peter J.M. Nas explains that during the era dominated by Hinduism, it was taboo to carry out activities while facing the direction of the sunset. Moreover, darkness was considered analogous to death whereas the sun indicated new life. However, in Aceh, Islamic influence is clearly seen from the orientation of the traditional houses which previously faced north-south then changed west to face the Kaaba in Mecca known as the qibla (the direction for prayer) for Moslems[13]. Islam also influenced house decoration with the application of Islamic calligraphy.

Islam was introduced to South Sulawesi through the arrival of three datuk (elders or leaders) from Sumatra who converted the King of Luwu to Islam around the 5th or 6th of February 1605 and then the King of Tallo - Gowa. Since then Islam has been recognized and continued to evolve in South Sulawesi[14]. Islam has influenced the culture of Bugis tribal society in that the Bugis integrated Islam into its culture thereby combining two sets of beliefs that of the religion with their traditions. Furthermore, Abdullah, A. mentioned that the way in which Islam was introduced to the inhabitants of South Sulawesi by these three datuk from Minangkabau was in peace without violence. The method of Islamization at that time began in the palaces where the kings were Islamized before converting their people into moslems [15]. Such methods have affected the growth of Islam to other regions in South Sulawesi. Such methods have affected the growth of Islam to other regions in South Sulawesi. In Makassar society, Islam and its local culture are inseparable so that Islam is integrated into the culture of the local community. The application of Islam to the local people's traditions and customs is usually in the practice of Islamic prayers.

However, prior to the introduction of organized religion and indeed even today, some traditional societies in Indonesia believe that the direction of house lay-out, floor plan, construction and the house ornaments are determined by the direction of sun. The east is the direction of life and birth, while west is the direction of sunset which is believed to be the direction of death. These beliefs have been held by the Toraja have built their traditional houses facing north. While other tribal societies like those in Flores, Indonesia have their traditional houses oriented to the peaks of high mountains[16].

Three guidelines based on the local wisdom of Bugis and Makassar tribes regarding the orientation of building to determine a good facing direction of houses, They are

[13] Peter J. M. Nas 1998 Journal Article The House Indonesian : betwen globalisation and localization Bijdragen tot de Taal-, Land-en Volkenkunde Vol. 154, No.2 published by Brill Stable URL: http//www.jstor.org/stable/27865433 (reading online) pp.335-360

[14] Christian Pelras 1985 Tradition and the Dynamics of Islamization in south-Sulawesi. in Archipel, volume 29, 1985. L'islam en Indonesie I. pp. 107-135; doi:10.3406/arch.1985.2226 http://www.persee.fr/doc/arch_0044-8613_1985-num_29_1_2226. downloaded 16/03/2016

[15] Islamisasi di Sulawesi Selatan dalam persepektif sejarah (Islamisation in South Sulawesi as history perspektive) Journal of Paramita Vol.26 No.1 2016 pp 86-94 ISSN : 0854-0039, E-ISSN:2407-2825)

[16] Yulianto Sumalyo 2001 *KosmologiDalamArchitectureToraja* Dimensi Teknik Architecture Vol.29.no1, Juli 2001 Jurusan Tejnik Arsitektur Fakultas Teknik Sipil dan Perencanaan-Universitas Kristen Petra http://puslit.petra.ac/journals/architecture/ pp 64-74

(1) facing to the direction of sunrise, which is considered as the birth or the beginning of life or source of life; (2) facing to high land, hills, or mountains, which is believed to enable the house owner to elevate their dignity; and (3) facing to one of the compass points (east, south, west and north), which is believed to face a large dragon that circulates the earth from top to bottom according to the conception of the universe. When Islamic teachings were adopted by this local people, the belief about the direction of the house changed to the qibla[17].

Makassar people assume that they may choose one of the four compass points for the direction of their house, but the best direction is towards either the North or the East[18]. The east direction is considered good, because it is the direction of sunrise. There is an assumption in the society that both the first appearance and the disappearance of *To Manurung* (the first god on earth) was on the east and His reappearance was in the north. Based on this assumption that the direction a house faces at that time was either north or east. The direction of the house is also closely related to the state of land where the house will be constructed. If the land is tilted to the north, then the house must face east. This is based on the belief that water from the reservoir must flow to the left. If it flows to the south, it washes away the inhabitants of the house. Thus, the direction is considered unsuitable.

An architectural symbols that mark both the location and the occupation of a house on the construction site are determined by the rituals. A ritual is always carried out at each stage of house construction whose aim is to avoid obstacles during the construction process[19].

It is noteable that the cosmological orientation is no longer used in the traditions of Austronesia house construction. Instead, either the house's fixed order or the house's certain features has become the point of reference in the tradition of Austronesia's house construction[20].

2.3 Antropometry

Anthropometry is the study of the measurements and proportions of human body and, in Bugis culture, is used in constructing every building[21]. Whether in a large building or in a house, humans require any architectural design to provide an ideal volume of space that is fitted to human dimensions in order to carry out various activities, such as moving about or resting.

Suitability between the shape and dimensions of space of human dimension can occur in either static form or dynamic form. The static compatibility might be in the form of sitting on a chair, leaning against a fence, or living in a small space while the dynamic

[17] Ama Saing, 2010 Architecture Tradisional Rumah Adat Bugis Makassar (tinjauan archeology) / Architecture tradisional Bugis Makassar (a archeology approach) : Indhira Art 978-602-96641-0-2

[18] Mardanas 1985 Arsitektur Tradisional Daerah Sulawesi Selatan. Jakarta: Direktorat Jenderal Kebudayaan Departement pendidikan dan kebudayaan, proyek inventarisasi dan dokumentasi kebudayaan daerah Sulawesi selatan. pp 19-39

[19] Oliver, P. (Ed.). (1997a). Encyclopedia Of Vernacular Architecture Of The World Cambridge University Press pp 11

[20] Fox, J. J. (2006). InsIde. In J. J.fox (Ed.), Inside Austronesian House PersPectives on domestic designs for living. Canberra ACT 0200, Australia: ANU E Press. pp : 14

[21] Francis D.K. Ching Architecture : Form, Spcae and order third edition 2007 Jhon Wiley & Sons, Inc. ISBN 978-0-471-75216-5 (pbk) pp 326-327

suitability might be in the form of entering the foyer of a building, climbing the stairs, and moving through the rooms and spaces as long as it can meet the occupants' needs to maintain their social distances while regulating their private space.

Measurements in traditional houses of the Bugis use human dimensions with the perspective of establishing an interconnection with the occupants ensuring their comfort. The parts of body that are used as for the measurements of houses are the span from the fingertip of the little finger (pinkie) of one hand to the fingertip of the little finger of the other hand while the arms are outstretched (armspan), leg length, hand span, fingers, and thumbs[22].

The process of constructing a house is connected to human body in order to produce balance and harmony between nature and humans[23]. This way of measurment is also used by the Balinese. The parts of human body that are used as the dimensions of traditional Balinese houses are the distance between the thumb and the middle finger, the distance between the tip of thumb and the tip of index finger, the length of the index finger, the length of the sole, the width of the sole, the length of the little finger, the length of the middle finger, the length of the armspan, the width of the palm, the width of the fist, the width of four fists with thumb standing, and several other measurements.

Balinese traditional houses and how they are situated such as the size of the house area, the distance between building and its surrounding area are always based on the measurements from Balinese anthropometry. The size of the human body will differ according to gender, ethnicity, and occupation[24]. Therefore, it was necessary to develop a standardized anthropometry which takes the typical size of Balinese body with its standard deviation that any Balinese can use to build a traditional Balinese house where its residents may remain comfortable.

2.4 Bugis House

The cosmological orientation has no longer been used in the traditions of Austronesia's house construction. Either the house's fixed order or the house's certain features has become the point of reference in the tradition of Austronesia's house construction[25].

Vertically, Bugis house is divided into three parts which are associated with cosmology. The upper part is called *rakkeang* (attic), which is the place for benign spirits and valuable things such as rice and heirloom objects. The middle part is called *kale-bola or alebola*, which is the living space. The bottom part is called *wasaubola*, which is the place for relaxing and gathering with neighbors[26]. This place is a dirty part, and cosmologically

[22] Oliver, P. (Ed.). (1997a). Encyclopedia Of Vernacular Architecture Of The World Vol.1 Cambridge University Press

[23] I made Bidja 2000 Asta kosala-kosali Asta Bumi publisher BP Jl. kepundung 67A Denpasar 80232

[24] I Wayan Prawata 2011 Rumah Tinggal Tradisional Bali dari Aspek Budaya dan Antropometri (Bali traditional housing approach aspect of Balinese Culture and Antropometric) Journal MUDRA Vol. 26, Number 1, January 2011 ISSN 0854-3461 pp 95-106

[25] Paul Oliver 1997 Encyclopedia of Vernacular Architecture of the world Volume 2 Culture and habitats Cambridge University Press. pp 1088-9 and James, J Fox 2006 Inside. In J. J.fox (Ed.), Inside Austronesian House PersPectives on domestic designs for living. Canberra ACT 0200, Australia: ANU E Press. pp 14

[26] Wan Hashimah Wan Ismail 2012 Culture Determinants in the Design of Bugis Houses AcE-BS 2012 Bangkok: ASEAN Conference on Environmentt-Behavior Studies, Bangkok, Tailand, 16-18 July 2012 Procedia: Social Behavioral Science 50 (2012) pp 771-780

this part is the place of evil spirit.

Horizontallly, the Bugis house is divided into *lontang* which is measured from the first set of stilts that support the front of the main body of the house to the following set of stilts. A simple house of a Bugis commoner uses two *lontang*, while the houses for aristocrats use up to eight *lontang'*.

Bugis houses and Malay houses share more than a few similarities. For example, stage shapes include H-frames and rectangular shapes; roofs are saddle shaped; the addition of poles to easily enlarge a house; and the ease in spatial organization, which is done by dividing public and private space. The number of poles used in the main house depends on the size of the main house itself and social behaviors in it. Bugis houses for the aristocrats use odd numbers of columns, while those for the commoners do not. The rooms in Bugis house are divided into public and private. The front space is for guests and for men during the day, and the back space is bedrooms for women and girls[27].

Vertically, the house is divided into three sections according to cosmology, namely *rakkeang* or attic, also referred to as *bottingrilangi* in high Bugis language, is used to store heirlooms, rice and other staple foods, *alebola* also called *alebola* in high Bugis is the place to do daily activities (*urilu*), and *awabola* or *paretiwi* in high Bugis is the place to store not only the livestock, such as chickens and ducks, but also agricultural equipment[28]. Horizontally, Bugis house has the alebola or main living section that is separated into three sections namely, the *lontang ri saliweng* (the front area where all guests, especially men, are received and entertained), the *lontang ri-tengnga-e* (the area for sleeping i.e. bedroom(s)), and the *lontang ri-laleng* (another sleeping area for daughters and grandparents). In addition, in the front of the house, there is an additional section, called *lego-lego* or veranda which there is a kitchen which is connected to *tamping* section. Cosmologically, *lontang* ri saliweng is a room to welcome guests and *lontang* ri-tengnga-e is a bedroom.

Further explanation about Bugis house according to the book written by B.F. Matthes (1874), entitled "Ethnographische Atlas", in a sketch, Bugis house consists of two different floors: *watangpola* and *tamping*. The roof of both the main house and the *watangpola* section is a saddle shape.

The three parts of Bugis house symbolize the parts of the world. The attic symbolizes the upper world; the lower part of house symbolizes the underworld; and the raised floor symbolizes the middle world, the place for human to live. Both the upper and lower world are the invisible places, or the places of the goddess. The part of house that is close to the *tamping* is called *toddang* or the leg of the house, while the opposite side represents is caled *ulu* or the head of the house[29] .

Traditional Bugis house is called *bola* in Bugis language; it occupies the lowlands of South Sulawesi region. Bugis house has four of seven characteristics of Southeast Asian

[27] Irene Doubrawa and Ferenc G Zamolyi 2010 Sulawesi and Beyond The Frantisek Czurda Collection: *Transformation and change in Bugis Architecture in South Sulawesi* Published by Museum für Völkerkunde Neue Burg, 1010 Wien, Austria ISBN 978-3-85497-189-4 pp 90-95

[28] Halilintar Latief 2010 Sulawesi and Beyond The Frantisek Czurda Collection: *Bugis Belief about the calssification of the cosmos* Published by Museum für Völkerkunde Neue Burg, 1010 Wien, Austria ISBN 978-3-85497-189-4 pp 70-73

[29] Paul oliver, 1997 Encyclopedia of vernacular architecture of the world Volume 1 Theories and Principles Cambridge university press ISBN 0 521 56422 0 pp 598

houses, as described by Schefol. They are the tripartite house, the multileveled-floor house, the gable finial house, and house that treat roots and timber's tip end of treatment. Dumarcy also explains that the houses in Southeast Asia have similarities with the houses in the lowlands of South Sulawesi[30]. Indonesian traditional houses that resemble the traditional houses in the lowlands of South Sulawesi can also be found in southern Sumatra and East Kalimantan. The Malay house has an H-frame shape. Bugis house's poles are the one-whole tree trunks. Furthermore, Pelras, in his sketch, draws Bugis house, in a sketch, that consists of sixteen poles or pillars (twelve pillars on the main house and four pillars on the *tamping*). The positions of the poles are on II-3. The third row from the front and the second row from the first pole (the pole that borders between the pole and the *tamping*). The house space is divided into two parts, namely *isaliweng* which is the place for men and *rilaleng* is the space for women. The position of kitchen is in alignment with the third *lontang*. The *lego-lego* part is at the front of the *tamping*.

Bugis people have a cosmological view of three layers of world, namely: the above world, the middle world, and the underworld. These three layers are applied to a house, where the above world is in the *rakkeang* section; the middle world is the body of house; and the underworld is space under the floor (the ground level). As for the structure of Bugis house, it is divided into three parts: head, body, and legs. Apart from the world layers and the structure that relate to a house, Bugis tribe also believes in a rectangular shape. This shape is the analogy of four compass directions: north, south, west and east. The direction of compass represents the rectangular *lawasuji* form which is in Bugis philosophy projecting the four principles of human life. They are life about the human birth, life as a phenomenon of human presence, the existence of human dedication in the macrocosm, and the life of human death. Both the Bugis tribe's beliefs in the three world layers and their belief in the rectangular shape are then applied in form of Bugis house[31].

[30] Christian Pelras 2004 Bugis and Makassar Houses Variation and evolution, INDONESIAN HOUSES VOL. 1 Tradition and transformation in vernacular architecture Singapore University Press Singapore 2004 ISBN 9971 69 276 7 p: 251-281

[31] Pangeran Paita Yunus Makna Simbol Bentuk Dan Seni Hias Pada Rumah Bugis Sulawesi Selatan (The Meaning of from and decoration form in Bugis house, South Sulawesi) Jurnal Seni & Budaya Panggung Vol. 22. No.3 July- September 2012 : 225-350

Chapter 3

Geographical of South Sulawesi and Soppeng Regency

3.1 South Sulawesi

The Republic of Indonesia is an equatorial nation that stretches between the continents of Asia and Australia in Southeast Asia. It is located between the Pacific Ocean and the Indian Ocean. This position has made Indonesia rich in its natural reSources both on land and in the sea.

In addition to its strategic position, Indonesia is also an archipelago which consists of large and small islands. There are 17,504 islands with names and 9,634 islands without names. The five largest islands are Java, Sumatra, Kalimantan, Sulawesi and Papua. These large number of islands has made Indonesia rich in culture and traditions. There are 1,340 distinct ethnic groups spread throughout Indonesian archipelago (see figure of tribal maps in Indonesia) 3.1[1]. Each tribal group has its own culture, traditions and customs, including types of houses. All of these have characterized each of the tribe[2]

Figure 3.1: Map Tribes in Indonesia. Source: https://min.wikipedia.org

Sulawesi is one of the largest islands in Indonesia, and is known for its unique shape, which is like the letter "K" (see the map of Sulawesi) 3.2[3]. Sulawesi Island consists

[1]Source: http://www.wowshack.com/6-eye-opening-maps-of-indonesia-you-probably-havent-seen-before/
[2]https://id.wikipedia.org/wiki/Indonesia
[3]Source: https://id.wikipedia.org/wiki/Berkas:Peta_Sulawesi.jpg

of several provinces each of which is occupied by three or more different tribes or ethnic groups. The object of this research takes place in South Sulawesi which is outlined in figure 3.2 where the Bugis tribe is located. Bugis is the largest tribe in South Sulawesi. Makassar tribe is the second largest tribe. Other tribes are categorized as small tribes, such as the Toraja, Mamandar, Mawasa, Maiwa, Konjo, Duri, and Kajang.

Figure 3.2: Map of Sulawesi island. Source: https://gpswisataindonesia.

Geographically, the latitude and longitude positions of South Sulawesi are 4°20'S 120°15'E with its total area of 45,764.53 km2. It is bordered by Central Sulawesi and West Sulawesi on the North, the Gulf of Boni and Southeast Sulawesi on the East, Makassar Strait on the West and Flores Sea on the South[4].

Makassar is the capital city of South Sulawesi, and has had the historical position of the main gatway to the eastern Indonesia until the present. This important position made colonialists attempt to overthrow and control part of the kingdom of Gowa. The fall of Gowa kingdom made the Dutch colonial administration more victorious in getting reSources and products from the eastern part of the Indonesian archipelago. Excluding

[4]https://id.wikipedia.org/wiki/Sulawesi_Selatan

part of the Kingdom of Gowa, some regions of the Bugis Kingdom were also occupied by the Dutch colonial administration including the Soppeng district, where evidence of several colonial buildings can be found such as a villa of Queen Wilhelmina - named villa Juliana and the demolished former regent's office which was converted to a city park.

Today, South Sulawesi has twenty-one districts and three cities, as listed in table 3.2 as follows[5].

No	Regencies and Cities	Large (km2)
1	Kepulauan Selayar	90.350,00
2	Bulukumba	1.154,67
3	Bantaeng	395,83
4	Jeneponto	903,35
5	Takalar	566,51
6	Gowa	1.883,32
7	Sinjai	819,96
8	Maros	1.619,12
9	Pangkep	1.112,29
10	Barru	1.112,29
11	Bone	4.559,00
12	Soppeng	1.500,00
13	Wajo	2.506,20
14	Sidrap	1.883,25
15	Pinrang	1.961,17
16	Enrekang	1.786,01
17	Luwu	3.000,25
18	Tanah Toraja	2.054,30
19	Luwu Utara	7.502,68
20	Luwu Timur	6.944,88
21	Toraja Utara	1.151,47
22	Makassar	175,77
23	Pare-Pare	99,77
24	Palopo	247,52

Table 3.2: Area sizes of regencies and cities of South Sulawesi. Source : Local goverment of Soppeng

As previously mentioned, the largest tribes in South Sulawesi are the Bugis, the Makassar and the Toraja. The first two tribes are the ones that have similar customs, traditions, and cultures, including the types of houses as they occupy similar environments. However, there are several main differences between these two tribes including their respective languages. On the other hand, the Toraja tribe that inhabits the mountainous regions has its unique culture, custom and houses which are far different from the Bugis and Makassar tribes.

The Bugis and Makassar tribes consider their houses analogous to human with head, body and legs, while the Toraja tribe liken their houses to a boat on land. The Toraja house is considered a boat where the occupants travel from their origin to find a new place.

[5]South Sulawesi has twenty-one districts and three cities, as listed in the following table

Different backgrounds and philosophies of the Bugis, Makassar and Toraja tribes about house come from each of their ancestors' influence and origins. The Toraja tribe is also called Proto Malay, an ethnic group that originates from the mainland of Asia, the Malay Peninsula and the Malay islands. These groups began to immigrate around 2500 and 1500 BC. They entered the Proto Malay regions in Indonesia such as those inhabited today by the Dayak of Borneo, the Batak of North Sumatra and the Nias of Nias island which were hilly or mountainous. The Deutro Malay is the second tribe to emmigrate through the Malay Peninsula and Malay Islands occupying the coastal areas in houses raised on stilts along the Indonesian archipelago. Bugis and Makassar tribes are two samples of the Deutro Malay tribes.

3.2 Soppeng Regency

Soppeng was one of largest kingdoms inhabiting Bugis land hundreds of years ago and is now a regency. The Soppeng regency is located between 4o06'S and 4o32'S and 119o47'18"E and 120o07'13"E. The Soppeng regency is bordered by Sidenreng Rappang regency and Wajo District in the north, Bone and Wajo regencies in the south, and Bone and Barru Regencies are on the western boundary.[6].

Figure 3.3: Map Indonesia and position South Sulawesi. Source: https://www.nationsonline.org/

[6]source: https://disbudpar.soppengkab.go.id/gambaran-umum/

Figure 3.4: Map Sout South Sulawesi and posistion of Regency of Soppeng. Source : http://peta-sm.blogspot.com/2015/04/sulawesi-selatan.html

Figure 3.5: Map Regency of Soppeng. Source : Pemda Soppeng

Soppeng Regency has an area of 1,500 km2, consisting of flat lands and low hills. Its area of terrain is 700 km2 with an average altitude of 60 meters above sea level and its area of hill is 800 km2 at an average altitude of 200 meters above sea level, while the capital district's height is about 120 meters above sea level. The population of Soppeng district, according to the 2016 census, was 226,116 people, consisting of 106,391 males and 119,725 females with its population growth was 0.08 percent in the previous year[7].

The history of Soppeng regency has its own uniqueness, which has been known long before the formation of Soppeng kingdom. According to *lontara* literature (the historical literature of the Bugis), before the formation of the Soppeng kingdom, the territory of Soppeng was ruled by several kings of small kingdoms with democratic system bonded by an agreement of 60 community leaders. Soon after the Soppeng Kingdom empire was formed, it was led by the first king named Latemmamala, who held the title of *Manurungerisekkajili* and ruled the kingdom in the 1300s[8].

During the Dutch colonial period, the Indonesian archipelago, including the territory of Soppeng, were occupied by the Dutch colonial administration. There is no clear information about the year when the Dutch colonial administratio began to occupy the Soppeng regency. However, there are a few important objects that prove that the Dutch colonial administration ruled the district of Soppeng in the past. The evidence of the presence of Dutch colonial ruler were in the form of buildings and offices. For instance, the Dutch colonial building functioning as the Regent's office, which was demolished and converted into an open space now functions as a city park. Yuliana villa is another Dutch building which still stands today as the landmark in the Soppeng district. This villa was built in 1905 in honour of Queen Wilhelmina and was named as Villa Juliana, which was the name of the Dutch Crown Princess at that time.

[7]Statistik Daerah kabupaten Soppeng 2017 .Source: https://soppengkab.bps.go.id/publication/download.html?
[8]https://id.wikipedia.org/wiki/Kesultanan_Soppeng

Chapter 4

Architecture Tradition and Culture

The Bugis house forms have a direct connection with the social status of its inhabitants. Prior to the Dutch inhabiting Bugis territory, there were numurous social levels in Bugis society which have all but disappeared today. The types of Bugis dwellings have noticable differences between those belonging to nobles and those belonging to commoners[1]. The number of poles, sizes, elements and ornaments on the house depends on the social level of the owner. The rules, traditions and culture governing these buildings are generally passed down from generation to generation orally.Therefore, for the purpose of this study, it is important to begin with a general understanding of Bugis social hierarchy.

4.1 Traditional Bugis Social Structure

Generally, Bugis nobility can be separated into three levels with the title of *Datu* given to both male and female children who are the progeny both parents holding this title. The highest cast of royalty is the king whose dwelling is called a *sauraja* in the Bugis language. The sauraja is characterized by its comparatively large size, great width and a grand staircase called *sapana* which is sometimes constructed with a roof. The next level of nobility are those who have continued their noble line through marriage with other nobility. The houses built for this level of nobility are called the *saopitti* which are smaller in scale, simpler in design with less ornamentation. Houses for the third level of nobility are for those who have married with commoners. Their houses are even more simplistic with fewer architectural features indicating their noble descent. The commoners' houses, called *bola*, can be found intermingled among houses belonging to nobility and alongside the ordinary houses of today.

4.2 Prototype of Bugis Houses

The old style of Bugis houses had different names according to the social rank of the owner but nowadays, all forms of Bugis houses which are in the new style are referred to as *bola.* Before the Bugis came under the Dutch colonial administration, houses belonging to the nobility were quite different in shape and form from those of the commoners. While under Dutch rule, the outward signs of social hierarchy were forcibly removed. Then, from the time of Indonesian independence until now all levels of Bugis society have been moving

[1]Lathief, Halilintar 2010, Bugis Belief about the Clarication of the Cosmos. Sulawesi and Beyond (Wien, Austria: Museum für Völkerkunde Neue Burg, 1010 Wien, Austria, 2010), pp. 70--72.

toward the same type of house shape referred to as the new style which was first built around the 1980s.

Irene Doubrawa and Ferenc Gabor Zamolyi mention that according to Pelras in South Sulawesi that traditional house forms are easy to find in the homeland of the Bugis and Makassar tribes[2]. The Bugis houses also occupy the islands around Southern Sulawesi. Furthermore, traditional houses in South Sulawesi share many of similarities in regards to principles of form in both eastern and western parts of Indonesia. This is due to the development of relationships over trade and politics. History points to the kingdom in South Sulawesi having a close relationship with other places and regions not only inside Indonesia' borders but beyond as well.

However, some areas in western Indonesia have no connection with the forms of traditional architecture in South Sulawesi namely, Java, Central Kalimantan and Central Sumatra.

4.2.1 Bugis house forms

The basic shape and construction of a traditional Bugis house is similar in form to traditional houses built by the Malay, the Mandar and the Makassar in that they share the following attributes:

- rectangular in shape,
- the floor of the house is raised off the ground,
- the poles used as stilts go directly from the ground to the roof without any connections,
- the structure of the beam supports for the floor and the roof of the house,
- gable roof for the main house,
- flat roof over the other structures,
- verandah used as a foyer attached to the front of the house,
- kitchen is an additional structure located at the back of the main house structure, and
- division of public and private space.

Every structure can be divided into vertical and horizontal spaces. The vertial space of all Bugis houses in both the old and the new style consists of three basic parts:

- *rakkeang* (attic),
- *alebola* (body of the house), and
- *wasaubola* (ground space directly below the body of the house

[2]Irene Doubrawa and Ferenc Gabor Zamolyi 2010, Transformation and Change in Bugis Architecture in South Sulawesi, Sulawesi and Beyond (Museum für Völkerkunde Neue Burg, 1010 Wien Austria, p. 90-95

rakkeang serves as a place to store ancestral heirlooms and ceremonial items, agricultural products like sacks of rice and other goods that are not used in everyday life. In the past, the *rakkeang* also served as a place for weaving sarongs and as a place for unmarried women.

Alebola serves as the main living space where the family's daily activities are performed such as eating and sleeping.

Wasaubola may be used as a storage area for agricultural equipment as well as carpentry tools and place to keep livestock but may also function as a resting place during the day or as an informal gathering area.

The horizontal space of a traditional Bugis house consists of three main structures:

- *lego-lego* (veranda),
- *watangpola* (main house), and
- *jokke* or *bola dapo* (kitchen).

Lego-lego is where the main staircase to the front of the house is placed. The *lego-lego* is in the form of a verandah that might sometimes be covered by a permanent roof which serves as an open-air foyer to the house entrance.

Watangpola is the main structure of the house upon which depend all the other structural additions. *Jokke* or bola dapo is the place that serves as the kitchen as well as a place to store food.

The other structures which characterize the old style of Bugis houses are not usually found used in the new style. They are:

- *tamping* (hallway),
- *tala-tala* (dining room),
- *timplaja* (decorative roof extension),
- massusungeng coppona (a roof to cover the outdoor path built out from the stairs to the front gate), and
- *anjong* (decoration on the gable ridge)

Tamping (hallway) characterizes the old style of Bugis houses which was originally constructed in houses belonging to every social strata in the Bugis community. It can be either incorporated into the *watangpola* or added as an addition. Before Dutch colonization, it was always situated along one side of the house. Its function was two-fold namely, it gave access from the *lego-lego* at the front of the house all the way to the *jokke* at the back of the house and, moreover, to provide an area for less distinguished guests to sit.

There are two ways that a *tamping* might be identified. The first way is that the level of the floor from the front to the back of one side of the house is slightly lower at the same level as the *lego-lego*. This is the main identifier of the old style. In fact, when the *tamping* is incorporated into the *watangpola* under a single roof, the difference in floor levels might be the only *telltale* sign. However, there are instances when the *tamping* floor has been renovated to be at the same level as that of the *watangpola*. The other way of

identifying the presence of a *tamping* is much easier when it has been added after the *watangpola* has been built. The *tamping* can be clearly seen from the exterior as a walled addition that is covered by its own almost flat roof along one side of the house.

Tala-tala is found only in houses of the Bugis nobility built prior to the colonial occupation of Bugis lands. This dining area reserved for those of the highest level of society is located at the very back of the house within the structure of the *watangpola.* When the *tala-tala* is present, the *jokke* is then moved to the side of the house so that the floor plan takes on an 'I' or an 'L' shape.

Timplaja is an external architectural design element that is a unique identifier of Bugis aristocracy and even commoners with aristocratic heritage. It is always located at the front of a dwelling in the form of an odd number of layers attached to the front gable wall. See figure 4.16for one of the most dramatic examples of *timplaja* construction at on the gable wall of the *massusungeng coppona.*

Massusungeng coppona is found only in houses belonging to the highest levels of aristocracy. It functions as a roof over the path from the front gate to meet the roof that covers the stairs. This may be designed and placed in layers in a stacked formation in the old style of Bugis houses as seen in 4.16or may occur as a single roof covering the driveway in the new style of Bugis houses (see figure 5.192).

Anjong is a decorative wood carving which has ritualistic meaning. It is a stylistic representation of either flora or fauna which is commonly placed at one or both ends on the ridge of the gabled roof. It was originally intended to adorn only the houses of the aristocracy but has been since adopted by all strata of the Bugis community.

There are no standard measurements in traditional Bugis architectural design since the size and characteristics of the main body of the house house i.e. the *watangpola* are based on the dimensions of the owner's body so there are two words which must be explained here – *lontang* and *latte.*

Lontang is a length measurement that is the distance from one stilt that supports the *watangpola* to the next one behind it in the direction from the front of the house to the back. Moreover each *lontang* is uniquely identified by a name referencing its position and function in the *watangpola.*

Latte which is also referred to as *karateng*, is a width measurement that is thedistance from one stilt that supports the *watangpola* to the next beside it.

The number of *lontang* and *latte* of a house identifies the social position of the owner. Generally, the greater number of *lontang* and *latte,* the higher the social standing the owner has in the community.

Prior to Soppeng being colonized, most Bugis houses' *watangpola* were only two or three *latte* wide. Moreover, ornamentation and elements like the *timplaja* were prevalent on houses belonging to the aristocracy. All that changed though during the Dutch colonial administration of the Bugis lands. The houses belonging to nobility were no longer permitted to embellish their houses signifying their level of nobility so they began to incorporate European designs most notably by changing the *tamping* to the front of the *watangpola.* However, there was also a backlash to these influences as some Bugis nobles started applying special ornamentation and elements to their homes during this time.

Houses belonging to nobility during the era of colonization that have undergone

changes and are not using any special elements and ornaments are called *bodo* see figure4.1. Petta Munu, a local Bugis elder, mentioned that the last Datu (Queen) Pattojo XII built a home without following the traditional forms of a Bugis house.

Figure 4.1: Datu Pattojo's house has been influenced by colonial architecture. This house was built by Datu Pattojo XI. Source : Field survey 2015

Figure 4.2: Datu Pallawarukka's house (Brother of Datu Pattojo X). Source : Field survey 2015

Standing today, in figure see figure 4.2 , is another example of architecural style of a high noble's house built during the colonial era. The house does not use *timplaja* as a symbol of nobility, but the *anjong* is clearly visible on the crown of the house. The *tamping*, instead of running along the length of side of the house, is placed inside at the front of the house at the same level as the *lego-lego* as can be seen in the step-like structure below the first window.

The old traditional houses whose *tamping* remain at the side can be divided into two styles - old and new. The old style is where the *tamping*'s floor is lower than the *watangpola*'s floor, while the new *tamping* style is where the owners have raised the *tamping* floor to match the height of the floor of the *watangpola*. According to one owner, the reason for switching to the new style was so that it would open up the space and be easier to arrange the furniture inside the house. Nowadays, it is common to find *tamping*

floors raised in houses in urban areas while the old style is prevalent in the rural areas regardless of whether or not they still practice the old hierarchical seating arrangements

Figure 4.3: Commoner house :old model house use three *karateng/latte* or modul. Source : Field survey 2015

Figure 4.4: Commoner house: old model house use two *karateng/latte* or modul

Figure 4.5: Commoner house: New model bugis house

Using three *watangpola*, the house in figure 4.5 above illustrates the stark differences of the new styles of Bugis houses. The most remarkable changes in the Bugis dwellings built in the new style are the total absence of *tamping*, the shape change to the roof, the enlarged *lego-lego* and the position of the stairs as seen in figure 4.5 This houses of this simpler modern style are outnumbering those of the old style.

The old traditional Bugis houses measuring two *latte* by two *lontang* are now almost exclusively found in rural areas where they are slowly disappearing. For the Bugis who have relocated far from their ancestral land, the large homes they prefer to build are in some ways like those of their aristocratic ancestors but the architectural elements and ornaments unique to the Bugis culture appear to be absent.

Nevertheless, some native villages still hold on to the traditional size and shape of their home based on their social level. A house that was renovated in the Bunne village, located quite far from the city, still uses the old *tamping* style and house size according to their social standing in their community. They have chosen to hold on to their traditions even though they were economically capable of building a larger house. There remain many Bugis in the rural areas who continue to practice the traditions and customs of their ancestors. Ancient beliefs of the Bugis that have been passed down from generation to generation are founded in an awareness of a spiritual world that offers fortune to its followers and misfortune to those who turn their backs on this unseen realm. This is why the owners of the house in Bunne chose to renovate the original house according to its original style and dimensions rather than rebuild – in order to avoid punishment in the form of bad luck if they had built a house not equal to their social level. The old style of *tamping* in figure 4.10 is still being used while many others houses have switched to the new *tamping* style during renovations.

Figure 4.6: Floor *tamping* more slightly than *watangpola* (main house). Source : Field survey 2015

Figure 4.7: Structure old model *tamping*. Source : Field survey 2015

Figure 4.8: applying flat floor on *watangpola* and *tamping* but floor of *lego-lego* low slightly. Source : Field survey 2015

Figure 4.9: The hole in the pole is a former construction hole for old model *tamping,* homeowners have turned old model to new model *tamping.* Source : Field survey 2015

Figure 4.10: A house still preserve the old *tamping* although the house has renovated. Source : Field survey 2015

The *wasaubola* (ground floor) is located directly under the *alebola* (main living space) of the house and is characterized by its lack of walls and unfinished floor. It is quite literally the ground floor of a traditional Bugis house where the border of the rooms above can be readily made out. The *wasaubola* may be used as a storage area for agricultural equipment as well as carpentry tools and place to keep livestock but may also function as a resting place during the day or as an informal area to gather with neighbors for coffee or tea and a place where children may play. Guests and neighbours can visit or rest under the house without having to seek permission from the owner. It is even used as a place to hold family meetings or parties or to carry out rituals.

Often a wide bench made of bamboo or wood is placed in the *wasaubola* called a *panrung*. Measuring 150cm x 200cm by 90 centimeters in height, the *panrung* is used as a chair, a day bed for afternoon naps or as a table for playing cards or for enjoying refreshments with friends and neighbours.

Figure 4.11: The community having fun. Source : Field survey 2015

Nowadays, many owners add a room under the house which is constructed of bamboo or even brick to be used as a living quarters.The materials used depend on the economic capacity of the occupant. According to some locals who have added a room on

the ground floor, the room functions as a resting place at noon, and when the resting place out in the open on a *panrung* is no longer safe for them. At noon, the hot weather can be felt inside the house while below the house it is much cooler. In this area under the house, they can rest well during the hottest time of the day.

Another local said that they had added additional living space under the house because they need extra room for additional family members. For example, the owner's children already had families of their own and extra rooms were needed.

There were instances of the *wasaubola* also being converted into a *warung* (small shop), where small quantities of groceries like sugar, oil, rice, shampoo, cigarettes can be bought. Now it is more and more common to see that many *wasaubola* have been modified thereby changing its functions from a public to a private area, where neighbors need to ask for permission before entering

Acording to Oliver, Paul 1997[3], the *lego-lego* is also considered a napping area during the day where a bench is sometimes placed.

Figure 4.12: Facade Bugis house Bugis house according to Oliver 2010:1089

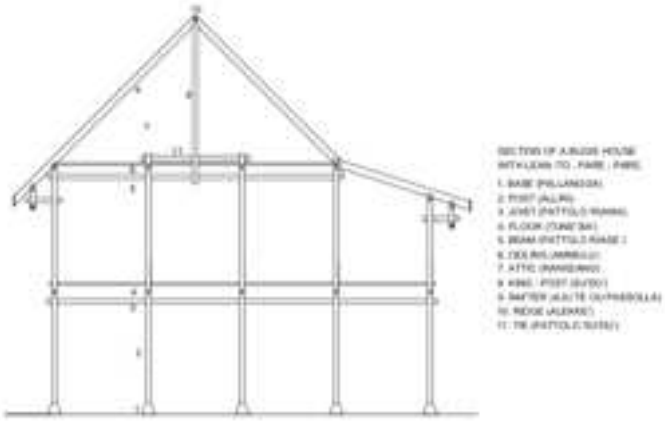

Figure 4.13: Structure of Bugis house Bugis house according to Oliver 2010

From the Bugis point of view, a house is analogous to a human being with a head,

[3]Paul Oliver 1997 (ed) Encyclopedia of Vernacular Architecture of the World, Vol.II Culture Camridge: Cambridge University Press p: 1089.

body and legs[4].The roof is like the human head, the *alebola* is analogous to the human torso and the wasaubola is like human legs.

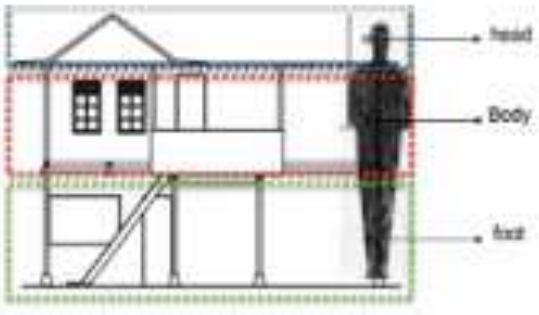

Figure 4.14: Form of house is like Human being (palemmui Nadji, 2006) Re-sketch by Andi Abidah, 2015

Lathief, Halilintar[5] explains that according to B.F.Matthes that a Bugis House form at 1874 with a hand-drawn picture in a book titled "Ethno-graphische Atlas" 'Voorwerpen Uit Het Leven En De Huishouldig Der Booginezen' 4.15. That picture shows the roof shape in the 19th century with a 45o angle, using a *tamping* in one side of the house, and the *tamping* floor is lower by around 50 centimeters.

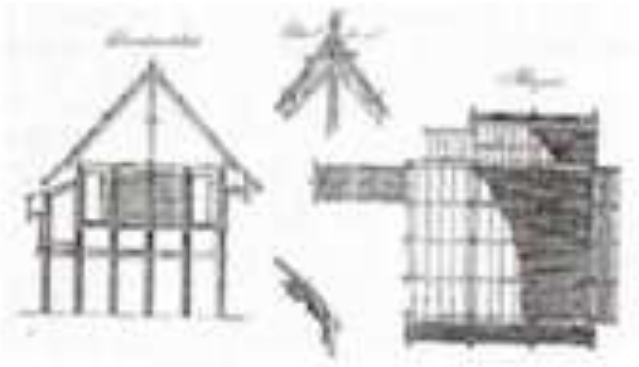

Figure 4.15: Sketch drawing form Bugis house on 18 century by BF.Marthes (source: Halilintar 2010 : 70-72)

The Bugis house forms are divided into the old and the new styles. The old style is also divided into two, namely houses built before Dutch occupation of Bugis land and houses built during the Dutch colonial administration. Before the Dutch era, there were many levels of aristocracy and a plethora of architectural elements and decorations used. According to an elder who cares deeply about the Bugis culture in the Soppeng region being a native of Pattojo and a close relative of Datu Pattojo, Andi Samsudding explains that Bugis houses are separated by their social levels; noble and common. There are three levels of social rank which can be identified by the number of *timplaja* (decorative roof layers in a stacked formation built out from the façade) of a noble's house which are seven, five and

[4]Palemmui Nadji 2006, Arsitektur Rumah Tradisional Bugis, Badan Penerbit Universitas Negeri Makassar
[5]Lathief, Halilintar 2010, Bugis Belief about the Clarication of the Cosmos. Sulawesi and Beyond (Museum für Völkerkunde Neue Burg, 1010 Wien, Austria, 2010), pp. 70--72.

three *timplaja*. Seven *timplaja* (fig. 4.16) are reserved for use of the king's residence. Five *timplaja* (fig 4.17) are found on the homes of nobles who hold the title of 'Datu'[6]. While those who have houses with three *timplaja* (fig. 4.18) are nobles, whose ranks have been lowered due to marrying someone with a lower social status. Commoners' houses may use one or no *timplaja* at all. Moreover, Haji Mannawang, a native who is knowledgeable of Bugis culture, explains that the Bugis house shape is a rectangle extending backwards whose size, elements and ornaments differentiate a noble's house from a commoner's house. A commoner's house uses two sections (*latte*) in the main house, which is referred to as a *dua karateng* house, while the noble house uses three sections (*latte*) in the main house which is referred to as a *tellu karateng* house. The old style has many other distinctions between the houses of the nobles and those of the commoners which include the number of poles, *lontang*, *latte* in the main house (*watangpola*), and the roof and ladder elements (Abidah, Andi:2016)[7]

However, as Andi Sulaiman explains further, while the Bugis were under Dutch rule, it was decreed that all nobles must remove any elements and ornaments that displayed their elevated social level. A noble's house was not permitted to be different from a commoner's house.

Figure 4.16: Noble house use seven *timpaajas* Gate of komplex ke-datu-an of Soppeng. Source : Field survey 2015

[6]Those who can become king are those entitled 'Datu'. But not all nobles titled Datu can become king

[7]Abidah, Andi (2016) "Applying Uneven Number (Te'gennebali) of Certain Elements in *bola* Ugi District of Soppeng South Sulawesi, Indonesia", in Procedia Engineering vol. 161. p. 810-812

Figure 4.17: Noble house use Five *timplajas in Bone.* Source : Field survey 2015

Figure 4.18: Noble house use three *timplajas,* where the last king of Soppeng born. Source : Field survey 2015

The new style refers to Bugis houses built in the 1980s. While the old style is identified by having a *tamping* located on one side of the main house, the new style of the Bugis house is one without a *tamping.*

The social class system as practiced by the Bugis community affects the form of their homes and still is respected and appreciated in the rural areas today. Modern societies in big cities do not see social levels anymore in line with their off spring; nobility or not, but are respected for their position in government, economic level, and education level[8].

4.2.2 Philosophies Guiding Bugis House Construction

Bugis culture and beliefs remain tightly woven into the structure of the Bugis house eventhough it has undergone many changes over a long period of time from one generation

[8]Rahmat Hidayat, Lisa Amalia, and Maulana Sakti, "The Expression of Social Status on House Form (Case : Bugis-Makassar Modern House)", 4, (2013), pp. 1--5.

to the next due to the shifting perspectives of the Bugis social levels and the changes in the availability of natural resources for building materials. Thus the once completely wooden structures of the old style have been modified by incorporating modern materials like brick. Nevertheless, both the old and the new styles of Bugis houses today are built on a wood frame that follow a set of ancient Bugis philosophies and traditions that govern their wooden structures to ensure not only structural integrity but spiritual protection in this world and the next. The knowledge of the Bugis construction philosophies and their symbolic meanings along with the skill of how wood is to be connected are only known to the *panritabola* (Bugis master builder) and carpenters who specialize in house construction. Even until now, whether city dwellers or village residents, the Bugis have not changed their beliefs about how their houses are constructed and will use a *panritabola* whose duty is to ensure that every joint, connection, pole and beam is cut, shaped and placed in accordance with these philosophies.

As illustrated in figure 4.19the type (A) wood connection is to ensure that the construction of the roof does not touch the bottom a part of the beam. The meaning behind this is so that the house will be protected against disasters like fire and natural disasters. Type (B) is an example of a poor connection. Inserting one post into a hole of another will make a weak and unstable connection. According to Bugis beliefs, if one was to apply this connection, then the occupants will always be gossiped about by their neighbours. Type (C) in figure 4.19 illustrates another poor connection. If it is used, the occupants will have a lot of troubles and young girls will have a hard time finding a life partner. However, type (D) in Figure 4.19is very good. The meaning of this wood connection is that being supported by the main structure will be very strong and the construction will be stable. According to the Bugis beliefs, that if one was to apply this structural system, then all their planned wishes and hopes will be achieved.

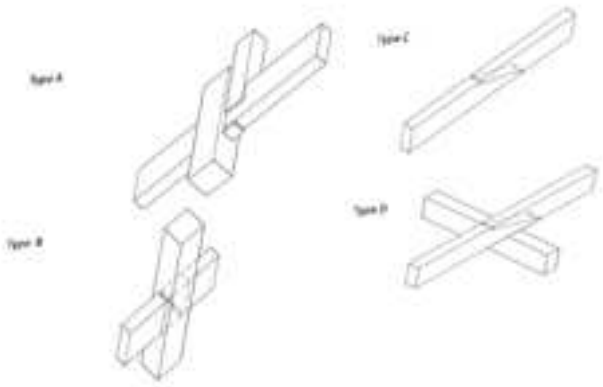

Figure 4.19: Connection wood according to Bugis Philoshopy. Source : result intervewed

Figure 4.20: Connection wood according to picture 4.19. a Source : Field survey 2015

Figure 4.21: : Knots in beams should not be parallel to the arateng beams because it will affect the homeowner, and is always associated with death. Source : Field survey 2015

Marten is a native of the village of Batupute and also a *panritabola*[9] and carpenters. Although he is a Christian, he understands the Bugis philosophy of wood connections and the process of building a house. He explains that the signs of a good and bad materials are sometimes identified from the location of the knots in the beams of the house. Furthermore, Marten explained that the knot of the wood should never be in line with the

[9]expert people who understand built Bugis house and all regulation of the house

pattolo beam (horizontal floor support beam). A good solution is to move the pole hole a few centimeters until the beam is not parallel with the knot.

Figure 4.22: Knot in a beam of wood : Field survey 2015

According to the beliefs connected with the knowledge of wood construction techniques, the pole hole that is parallel with a knot would not be strong enough. The knot would break under the load that is received by the pole. The knot would make a new hole which would cause the beam to move.

Structural integrity and load baring are governed by ancient beliefs. According to old Bugis texts called *Lontara*, the goddess of the rice paddy has passed on message from Bugis ancestors stating that it is the duty of the home owner to care for the poor by offering food, water and clothing therefore the load baring capacity of the attic must be able to store a lot of food like sacks of rice and other items as well. Natural resources are connected with the availability of building materials at the location, while the aspect of structural integrity, the method used is free-placement, which is the special characteristic of the Bugis house[10]. While the main structure system uses a form connection and free-placement. The rigid connections are placed in the pole connections and the upper *pattolo* beam. The connections on the floor structure and the attic structural floor system use the free-placement system. Changes to the Bugis house structural system are mainly found at the top part of the house in the structure of the attic.

[10]Hartawan at.al 2015 Perubahan Sistem Structur Bangunan rumah Bugis di Sulawesi Selatan, Forum Teknik Vol. 36 No.1 p: 1-12

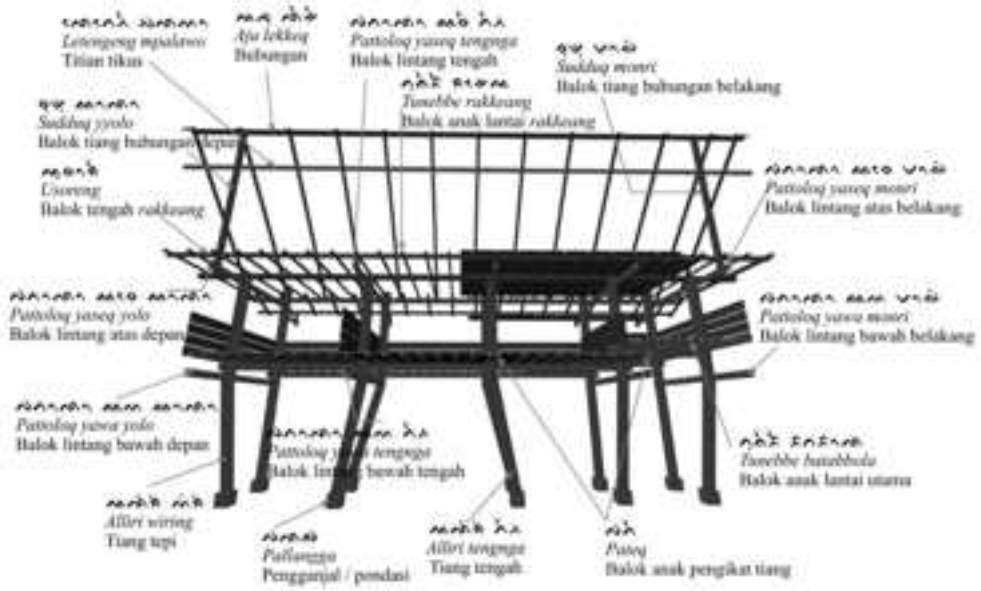

Figure 4.23: Structural parts system of Bugis Houses (hartawan et al 2015)

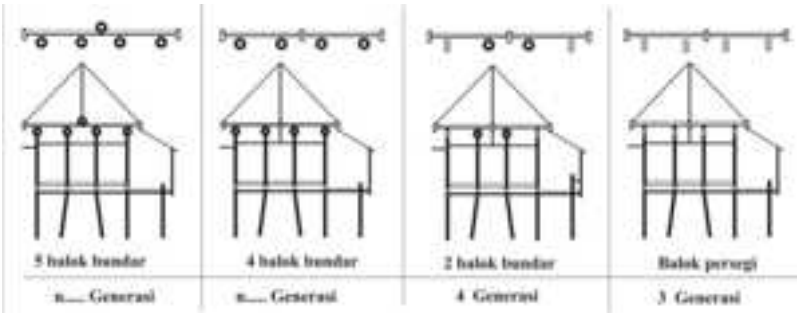

Figure 4.24: Transformation of Structure system (Hartawan et.al 2015)

The construction of the Bugis house are, a pole are hollowed out and then a horizontal beam is inserted through the hole. Then, the beam goes through the back and is inserted into the next pole hole until it makes a rigid structure[11]. The pole holes are made perfectly sized so that there is no space for the beam to move.

[11] Oliver, Paul 1997b (ed) Encyclopedia of Vernacular Architecture of the World, Vol.II Culture Camridge: Cambridge University Press p: 1089

Figure 4.25: Structure of house Source : Field survey 2015

Figure 4.26: Roof construction. Source : Field survey 2015

Figure 4.27: Floor construction. Source : Field survey 2015

4.2.3 Bugis house floor plans

The study location survey shows that there are a few houses that use the number of *lontang*) (length of measurement of a stilt that supports the *watangpola* to the one behind) and *latte* (*karateng*) (length measurement that is the distance from one stilt that supports the house to the one beside it) according to their social level within the community they reside even though economically they can afford to build a larger house.

The social status in a Bugis house can be seen from the number of *lontang* and *latte* that it has. A house with two *lontang* and two *latte* is usually used by commoners. A three *lontang* (*tellu karateng*) house is usually inhabited by the nobles whose nobility has been reduced by marriage. A house with four *lontang* is usually used by the nobles and the rich.

The main part of a Bugis house is the *watangpola* which functions as a place where the family carries out their daily activities. It is divided into a semi-public area which is situated closest to the front door and is followed by a private area in the way of bedrooms for the occupants. Every *watangpola* consists of at least two sections or *lontang* each of which has a special function.

The first *lontang* has a function as a livingroom, a space to recieve guests (visitors who do not have kinship relation with either the male or the female house owner), and a family meeting area and a sleeping area for boys over the age of seven years old. It may also be used as temporary place for a corpse before it is taken for burial.

The second *lontang* is the beginning of the private area where only blood relatives are permitted to enter with some restrictions according to gender as will be covered futher on. This second *lontang* functions as a bedroom for the father and mother as well as for children under seven years old. In the past, the second *lontang* also functioned as a space to give birth. However, nowadays women no longer give birth at home

The third *lontang* is a room for the girls. Only women, and the father may enter this room. Male siblings are forbidden to enter this room when the girls are sleeping. Even if the girls are awake, male siblings cannot enter this room unless they get permission from the girls. This room is also used as a bedroom for grandparents. Bugis consider girls and grandparents to be weak and therefore they must be protected. This view is the basis for the reason why they are placed in the back room. It also functions as a dining room for the family (Palemmui, Nadji : 2006)[12]

This layout and the construction practices associated with Bugis dwellings have spread to other regions. According to Wan Ismail 2013[13]and Abidah, Andi (2012[14] and 2016[15]), the houses in Malaysia still have a great deal of similarities to the Bugis house that are in South Sulawesi. They house have two or more *lontang* and one *tamping* for air circulation, in front of the house is placed a *lego-lego* and in the back is placed a kitchen

[12]Palemmui Nadji, Arsitektur Rumah Tradisional Bugis (Makassar: Badan Penerbit Universitas Negeri Makassar., 2006).

[13]Ismail, Wan Hashimah (2013) Adoption of Culture in Bugis houses in Johor, Malaysia Journal of ASIAN Behavioural Studies Vol:3 p.1-14

[14]Abidah, Andi 2012, "Rumah Tradisional Duri dan Bugis ", Journal Forum bangunan 10 (2012), pp. 73--78

[15]Abidah, A. (2016). Applying Uneven number (Te'gennebali) of Certain Elements in Bola Ugi District of Soppeng South Sulawesi, Indonesia.. In Procedia Engineering (Vol. 161). https://doi.org/10.1016/j.proeng.2016.08.717

called a *jokke* which is considered a separate structure.

As mentioned before, the *lontang* and *latte* are distances between the Bugis house posts. Whether the posts planted in the ground reach to the roof in the old style or stop at the attic floor in the new style of construction, there are two important posts which are used in the construction of every Bugis house namely, the *posibola* and the tiang *duppamata.*

Posibola is the core support post of the house and is considered the physical and spiritual center of a Bugis house. It is the first post to be planted with the structure of the *watangpola* built out from it so in fact it is located off to one side closest to the center. This post chosen for its beauty, straightness as well as for its strength. The *posibola* is analogous to a wife. The Bugis community believes that the house has a soul that is represented by the *posibola*, and the wife is believed to be the soul of a household.

Tiang duppamata (duppamata pole) is situated in the second row from the front and the first row from *tamping* in the old style of Bugis house, while in the new style house of Bugis house, it is in the second row from the front and in the second row from the side. The function of this pole is well known to the Bugis community as a marker to visitors without blood kinship not to enter the house beyond the boundary of this pole. See figures 4.28 and 4.29.

It appears that societies of Southeast Asia share similar building philosophies concerning the use of wood pillars where their roots are always 'planted' or are placed as the base as done in some Indonesian societies where such a technique is highly developed, particularly in the ground up (non-stilt) house types[16]. In addition, Indonesian society believes that the bottom up wood pillar in the house construction is oriented like a tree or is considered as a pillar resembling the flow of life. In addition, in terms of house structural strength, this bottom up method is believed to make the house construction strong[17]

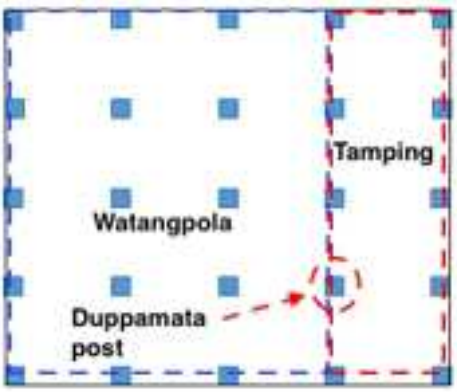

Figure 4.28: position *duppamata* post on old bugis house. Sketch by Andi Abidah 2016

[16] Roxana Waterson 1990 The living house page:124

[17] Gaundenz Domenig 2008 Timber orientation in the traditional architecture of Indonesia published: KITLV, Royal Netherlands Institute of Southeast Asian and Caribbean Studies by URL:http://www.jstor.org/stabel/27868519 accessed:18/07/2013 pp. 450-474.

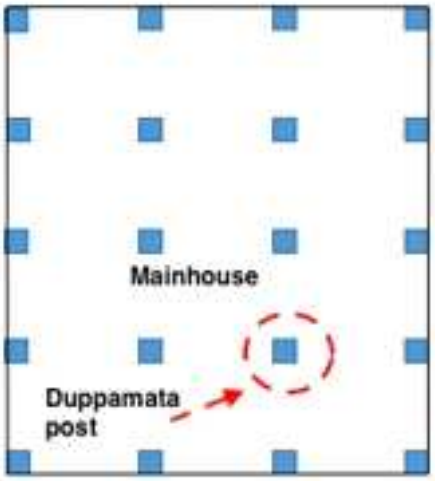

Figure 4.29: position duppamata post on modern bugis house. Sketch by Andi Abidah 2016

The division of zones of a Bugis house is based on the horizontal and vertical. The horizontal main living area in figures 4.30and 4.31. that follow illustrate the public and private nature of these zones. Vertically, every Bugis house is divided into three zones increasing in degrees of privacy as well in figure 4.32

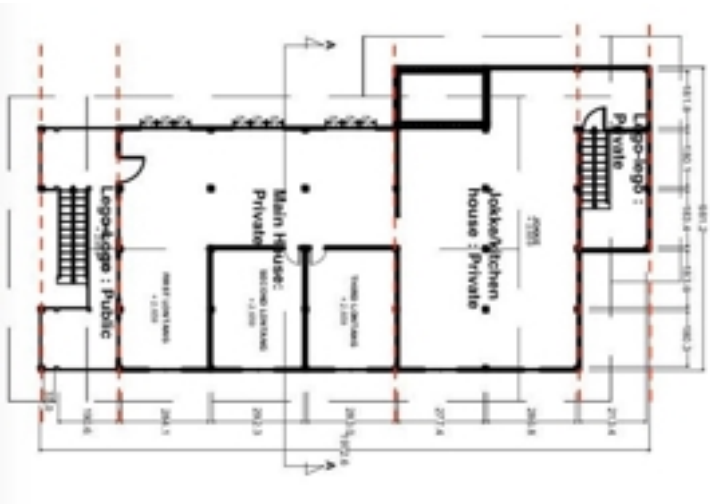

Figure 4.30: Zoning of horisontal form. Source : Field survey 2015

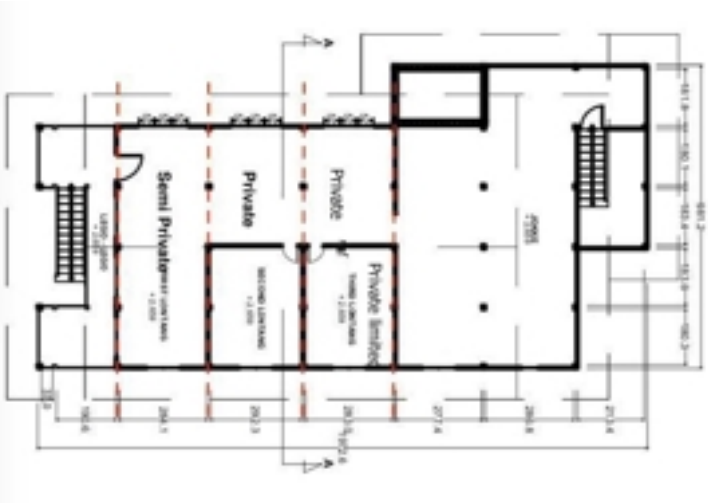

Figure 4.31: Zoning of Main house. Source : Field survey 2015

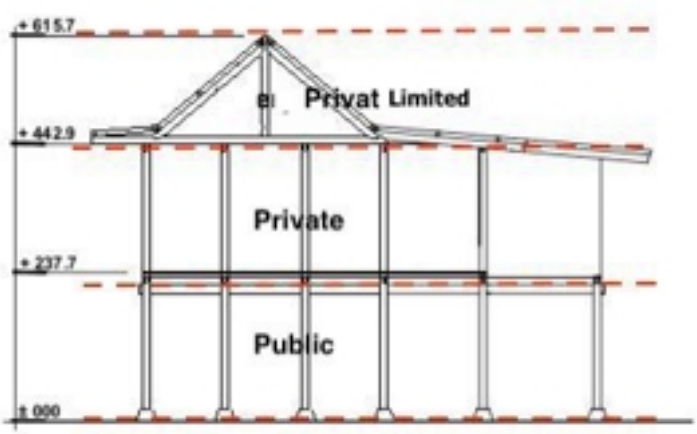

Figure 4.32: Vertical zoning of Bugis house. Source : Field survey 2015

Picture 4.33is an old style Bugis house. The house uses three *latte* and four *lontang* with a *tamping*. The kitchen (*jokke*) is placed behind the main house (*watangpola*). The rooms in this house follow the old Bugis rules and hierarchy.

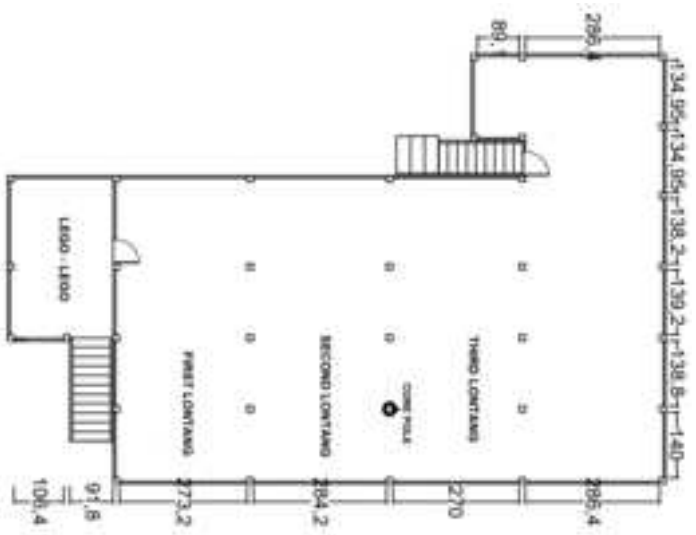

Figure 4.33: Floor plan of an old style house for a commoner (four *latte* main house, one *latte tamping* and *four lontang*). Source :Sketch of field survey 2015

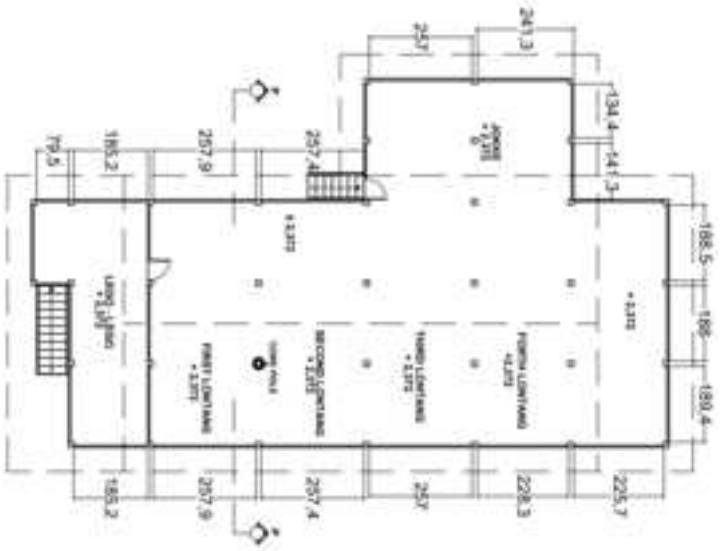

Figure 4.34: Floor plan of the new style of Bugis house with three *latte* and no *tamping.* Source : Sketch of field survey 2015

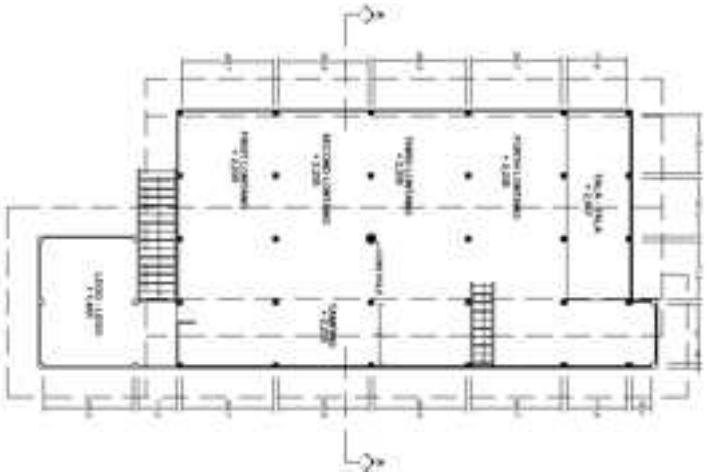

Figure 4.35: Plan old style house for nobility with a *tala-tala* (*Soraja* Coppobukkang). Source : Sketch of field survey 2015

Tala-tala, as can be seen in figure 4.35, is a structure added on to the back of the *watangpola* replacing the *jokke* which can be found moved to the side of the house. The *tala-tala* floor is elevated 50 centimeters higher than the floor of the main house. A native in the village of Batu-batu, Andi Syarifudding explains that this room existed in Bugis houses prior to Dutch occupation functioning as the dining room for the nobles of the highest rank to sit down together and eat while the lower ranks would eat in the *watangpola* and the servants (*ata*) would eat in the *tamping.*

A native in Madello village, H.Abu Bakar Syam, explains that the noble houses of the past used a *tala-tala* behind the main house. The colonials decreed that all natives were to be consider as having the same rank with the highest social rank belonging to the the Dutch colonists so until now, nobles do not use *tala-tala* in their houses anymore.

Only three houses belonging to nobility were found to have a *tala-tala*, two houses in Batu-batu village and one in Bila village (Coppobukang). As seen in figure 4.35, the house has lost its *jokke* due to age and decay. At the time, the position of the *jokke* was beside the main house where it was connected by the *lego-lego* and a staircase. This was the access for women to enter the house.

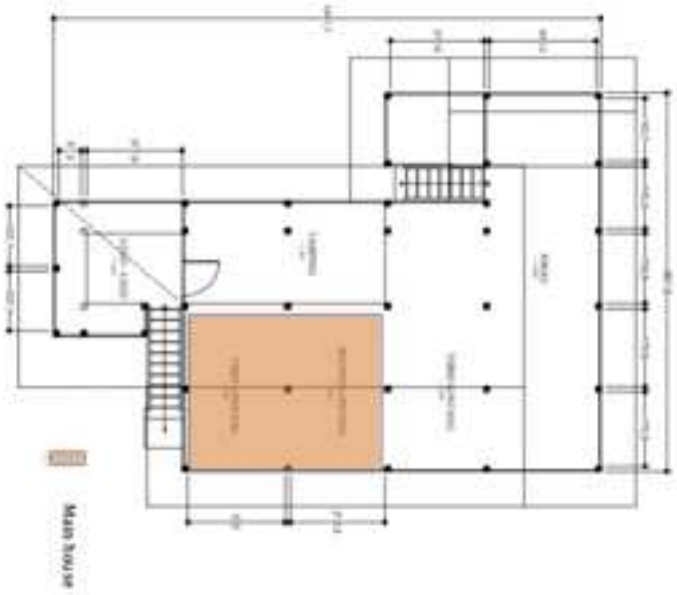

Figure 4.36: The old model house used two *latte* (*dua latte*) and two *lontang* (*dua lontang*). the field survey 2017, location kampong Bunne

Figure 4.37: Interior of house use old model *tamping* Source : Field survey 2017

Figure 4.38: New model home interiors where rooms face each other Source : Field survey 2017

The horizontal spaces for the new style of Bugis houses no longer include the hallway (*tamping*) so that only three main structures of the house remain, the front verandah (*lego-lego*), the main living area (*watangpola*) and the kitchen (*jokke*). The dimensions and number of poles used to construct Bugis houses most commonly found in the new three by three *(tellu karateng - tellu lontang*) style have practically erased the differences between houses of the aristocracy and the commoners. The only indications of social rank that may occur are in the exterior elements and ornaments. For example, there are a wide variety of designs of the *lego-lego* which now can be seen enlarged as well as the *timplaja* which may be highly ornate in form. However, the traditional beliefs and rituals for house construction are practiced even today no matter the house shape.

4.2.4 Bugis house elements and ornaments

Throughout the world, tribes are characterized by the unique types of dwellings they construct which differ not only from tribe to tribe but also within a tribe. No matter what ethnicity or culture or even era, differences in the style, scale, elements and ornamentation of a dwelling's interior and exterior within a tribal community are used to signify the dweller's position in his indigenous society such as whether he is a high ranking leader like a king or a noble or a commoner along with clues to the mores, beliefs and rituals which are practiced. The dwellings of the Bugis are certainly examples of this phenomena not only in the old style but also in the new style albeit to a lesser degree.

In houses of Bugis nobility, there were once many symbols representing dozens of levels aristocracy which are now seldom used so that today's generation has little understanding of the true meaning and purpose of the original forms of Bugis houses.

Indicative of the Bugis social rank system, culture and traditions, besides what has been discussed previously about the size and structure of Bugis houses, is the use of particular structural elements, décor and ornaments in conjunction with their respective locations on the interior and the exterior of Bugis houses.

For the Bugis, ornamentation is not just an aesthetic enhancement but every

aspect from its placement to what it looks like to the material it is made from can indicate the owner's social rank and what areas visitors may occupy according to their rank. It may also be used as a talisman to bring good fortune or to ward off bad luck, or to act as a prayer to deities or even to almighty God depending on the beliefs of the householder.

Décorative elements may appear in the form of flora, fauna, celestial bodies like the sun, mystical creatures like the snake dragon, *lawasuji* (a rectangular wicker weaving pattern of the Bugis) or Islamic script and are traditionally left unpainted.

Flora may be in the form of the following:

- a flower bud symbolizes the wish that people will love the house owner and his offspring,
- a *parenreng* which is creeping flowering vine common to the Bugis area that symbolizes the owner's desire to have many grandchildren who will scatter far and wide like the *parenreng* flowers,
- a pineapple symbolizes the hope of the house owner to enjoy the sweetness of pineapple fruit, and
- bamboo shoots represent the hope of the house owner to be a helpful person to others.

Fauna may be in the form of the following:

- a rooster symbolizes courage, diligence and perseverance, and
- a pair of buffalo horns or a buffalo head symbolizes courage and wealth and represents the hope of house owner to have descendents who are courageous, truthful and wealthy so that can be helpful themselves and others.

Celestial bodies like the sun symbolize the hope that the owner and his descendants will shine like the sun in whatever they do.

The mystical Snake dragon is usually placed along the length of the gable of the *watangpola* and symbolizes courage and house owner's hope that his descendants will become brave indivi*dua*ls.

The *lawasuji* represents the four directions of the compass north, south, east and west and their four winds and symbolizes the hope of attaining perfect courage, nobility, wealth and good looks.

Islamic calligraphy represents the house owner's devotion and is considered a blessing to the house and its occupants. These forms may occur as stylized representations or be fairly realistic and carved into parts of the house or permanently attached as additions fitted into parts of the house in the forms of the number of bars on the windows or hand-carved decorative plaques covering the gable walls, under the eaves of the house, on transoms over windows or on vents under window sills (see figure 4.39 to 4.42). There are some rather spectacular decorations situated along the top of the gable ridge of the roof called an *anjong* (crown) and the aforementioned tampalaja as well as around doors and stairs.

Window

Although the house depicted in figures4.39 to 4.42, was located within the study area, it was not an object of study itself as it was being demolished due to decay in order to build a new dwelling in its place. The research team was fortunate enough to photograph these beautiful carvings on the transoms over each window as well as on the vents under each window sill showing these highly stylized representations of the *parenreng* flower and the *lawasuji*. The *parenreng* is a flowering vine common to the Bugis area that creeps along the ground and up trees. It is symbolic of the owner's desire to have many grandchildren who will scatter far and wide like the *parenreng* flowers. The rectangular representation of the *lawasuji* (Figure 4.40) symbolizes perfection in the hope of attaining perfect courage, nobility, wealth and good looks. According to the owner, the house belonged to their grandmother and was estimated to be over 150 years old. The carvings on this house indicate that the owner of the house was rich in his time.

Figure 4.39: Bugis traditional house in Soppeng using carved decorative elements indicative of great wealth and high social rank. The picture was taken just before the house (estimated to be 150 years old) was pulled down. Source : Field survey 2016

Figure 4.40: Carving of the rectangular representation of the *lawasuji* under the window sill. Source : Field survey 2016

Figure 4.41: Carving of the *parenreng* flowering vine on a transom. Source : Field survey 2015

Figure 4.42: Carving of a *parereng* flowering vine on a transom. Source : Field survey 2016

The windows of a Bugis house do not serve only for lighting or air circulation but also as a marker of person's social level which can be identified from the number of vertical bars which never occur in even amounts and the addition decoration in the form of *parenreng* flowers or sun symbols. Houses belonging to high ranking aristocracy use nine

and seven bars like the delicately shaped spindles in figures 4.43 and 4.44 respectively. For commoner's houses usually only one, three and five bars are installed in the window (see figures 4.45 and 4.46). In the Bugis tribe, the social level of a person can be seen from the specific elements that are located in the house.

However, these symbols of social rank are being eliminated. In Bugis houses built right up to the 1970s, these traditional windows were still quite common. With the introduction of modern materials, the shape of traditional Bugis windows which were originally just simple openings with bars changed under Malay influence to include shutters and changed again to incorporate glass and metal grills to keep out intruders as those who were living in the Soppeng regency welcomed technological developments and embraced modern designs. With the phasing out of the original carved wooden spindles, there is one more cultural connection lost to future generations.

Figure 4.43: Nine delicate spindles installed in a noble's window. Source : Field survey 2015

Figure 4.44: Seven ornate spindles on a noble's windows. Source : Field survey 2015

Figure 4.45: Five stylish bars in each window of a commoner's house. Source : Field survey 2015

Figure 4.46: Bugis traditional window with three simple bars on a commoner's house. Source : Field survey 2015

Figure 4.47: Modern windows where symbols of social rank have been lost. . Source : Field survey 2015

Stairs

Bugis houses are built on stilts at around 180-200 centimetres from the ground thus stairs are needed to enter the main living area of the home. Like the number of bars on the windows of a Bugis house, the greater numbers of steps of a staircase, the higher the social rank of the owner. Moreover, there are three more features pointing to social rank namely, the presence of a *tuka* (landing half way up the staircase and now rare), the use of a *parinawang* (separator down the center of the staircase which was eliminated after Indonesian independence), and the installation of a banister with a balustrade. There were 21 houses built by noblemen that became the objects of this study. Among these, only four houses used *tuka*. One was found in zone one; it was a house that was built in the colonial era. In zone two, two houses used *tuka* and both are in the new house styles, built around 1980s. While in zone three, there was one house which used a *tuka*. It was built in the colonial era and the homeowners had renovated the house but had saved the main structures, stairs and the floor.

Figure 4.48 is a picture of noble's front staircase that uses thirteen steps with a banister and balustrade which was not used in many noble's houses at this time. Except for the number of steps, it was more frequent to find staircases of the aristocracy much like the stairs belonging to commoners i.e. without *parinawang, tuka* or bannister.

Figure 4.48: Staircase of a noble (Source:Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977) page 51

Figure 4.49: Stairs at a noble's house constructed with a parinawang down the center of the staircase (Source: Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977)page 50

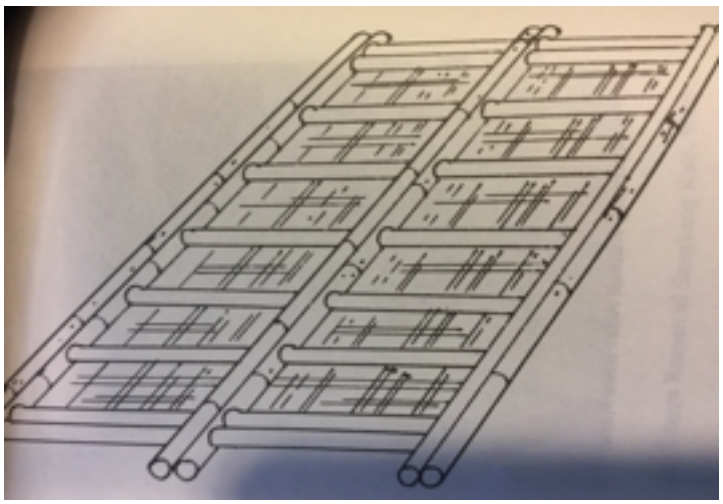

Figure 4.50: Bamboo stairs for a noble's house which most likely inspired the use of the parinawang in wood (Source: Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977) page 52

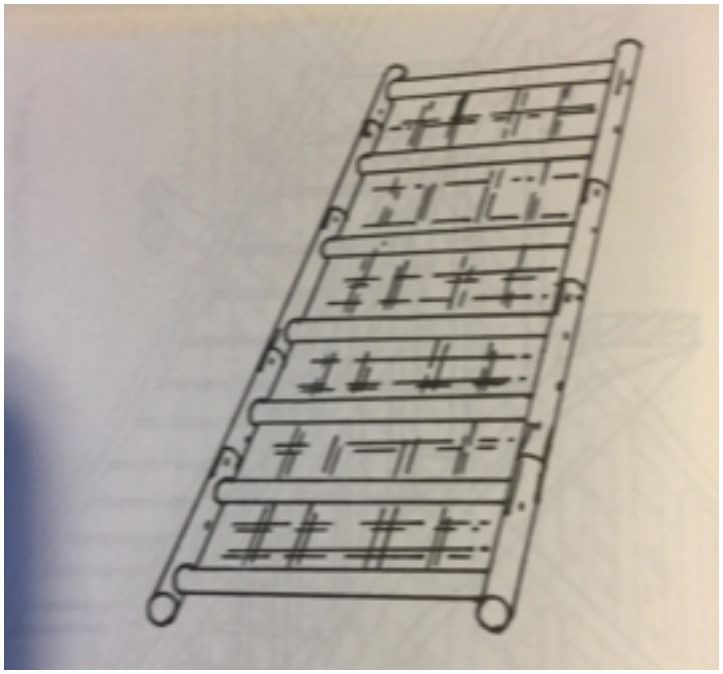

Figure 4.51: Bamboo stair for a commoner's house (Source: Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977)

Figure 4.52: Thirteen-step staircase at a noble's house Source: field survey 2015

Figure 4.53: Eleven-step staircase of a commoner's house. Source: field survey 2015

Figure 4.54: Nine-step staircase of a commoner's house. Source : field survey 2015

Figure 4.55: Eleven-step staircase of a high ranking noble's house with all elements symbolic of high social standing present. Source : field survey 2015

Figure 4.56: Seven-step staircase of a commoner's house: Field survey 2015

Interior social markers

According to tradition, the inside of a Bugis house's (*watangpola*) seating area is sectioned according to social rank. The virtual lines that denote the seating arrangements for the upper and lower classes, can be found in houses of the old style as they are no longer incorporated in the new style. Old style Bugis houses direct visitors to the appropriate seating by using markers located on the floor and ceiling[18]. Besides the most obvious marker being the lower floor of the *tamping,* as since the old days, people understood that those with lower rank always sat in the *tamping* section while the upper classes sat in the *watangpola.* There are also the rather rare markers which look like bulging blocks of wood rising up form the floor that are used as virtual line to section off seating arrangements according to level of nobility or social level according to the locals.

Furthermore, author explains that the rectangular beams are bulged on floor, directly connected to the ground but do not reach the roof level. Another marker on the floor are wooden beams that appeared vertically and horizontally between the poles.

[18] Andi Abidah 2017b, SYMBOLS OF SOCIAL STRATA BORDER IN TRADITIONAL HOUSE Architecture (Vol. 149, pp. 227–229). Atlantis Press.

Persons in the room with the highest social level will take the highest square marks see figure 4.57 Meanwhile, the virtual line marker on the ceiling is a beam that protrudes between the ends of the main house and the *tamping*. The floor closest to the *ulu*[19] pole and the *posibola* pole is reserved sitting space for nobles, who have high social level in the community, or honoured individuals[20]. Visitors are positioned facing the *tamping* section while those sitting within the *tamping* section are faced in the direction of the more honoured people's seats.

Figure 4.57: The *aliritelletu* determine differences social rank (source: Andi Abidah 2016 page 227-229

In figures 4.58 and 4.59, a protruding beam across the ceiling with its decoratively carved ends hanging down is another element that is has information that indicated an invisible boundary that indicates the seating arrangements of the upper and low classes.

Figure 4.58: Virtual line on old noble house that built before Indonesia independent. Source : Result of survey 2015

[19] *Ulu* pole: the most edge pole. When sleeping, the head position will be at this house pole. Ulu *bola* is usually on the South side or qibla, if the house is near the hill, the house will be oriented to montain.

[20] Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidikan dan Kebudayaan RI, 1977

Figure 4.59: Virtual line on old commoner house. Source : Result of survey 2015

Doors

In the past,the main door of the house used wooden hinges in figure 4.60, which was the oldest style of door that this research was able to document. The door was hung several centimeters from the bottom edge of the door to the door frame's threshold because wooden hinges would not allow the door to swing straight but to scrape along the floor. The other notable characteristic of very old Bugis doorways was that this gap at the bottom was closed off with the use of two wooden planks set on edge on top of each other which were slid into guides in the doorframe itself to remain a permanent feature that at times was decorated (now rarely seen) with a carving of the sun. This wooden barrier is referred to by the Bugis as *kappang-kappang* is 30 to 50 centimeters in height and was widely used in homes built prior to 1950 and still used in remote areas today. It has the practical uses of preventing the floor from being damaged by the opening and closing of the door and to keep the household's animals like puppies, ducklings and baby chickens from wandering into the house as it is common to have the door open during daylight to keep the house cool.

Figure 4.60: Old style door with wooden hinge in Z2-PA-17. Source : Result of survey 2015

Figure 4.61: New style door where the floors inside and outside are flish with the door sill. Source : Result of survey 2015

The *kappang-kappang* forces everyone who comes to the house to lift their legs in order to enter. The purpose of this style is so that visitors will be prevented from going straight into the house, but will have to take a moment to enter. It is believed that this will also prevent people with evil intent carry out their plans.

In the new style of Bugis houses, the *kappang-kappang* is not used andy more. Instead, the front door is hung on metal hinges and the bottom edge of the door shuts flush on top of the door sill wich is the same level as the *watangpola*'s floor while the *lego-lego* floor and it is required to lift the foot up to enter, as shown in figure 4.62 Again this forces visitors to stop for a second before stepping into the main house.

Figure 4.62: *lego-lego* floor is slightly lower than floor of the main house. Source : field survey 2015

Figure 4.63: *lego-lego* and *tamping* floors are at the same level. Source : field survey 2015

Figure 4.64: *lego-lego* adopted a two level floor. Source : field survey 2015

Nowadays, as shown in figure 4.60, it is common have the interior and exterior floors flush with the door sill. This style makes it easier for everyone who passes through the doorway while the decorative elements carved on the door which were an expression of the hopes and prayers of the home owner are no longer found today.

Roof Decorative Elements

There are two types of decorative elements originally placed on houses belonging to Bugis aristocracy prior to Dutch occupation of the Bugis land namely the *tampalaja* and the *anjong.*

Timplaja identifies the specific rank of a Bugis noble's house. It is located at the front of a dwelling in the form of additional roof layers attached to the front gable wall or house façade in a stacked formation.

Anjong, meaning crown, is a decorative wood carving placed at one or both ends or along the entire ridge of a gabled roof and might even be attached to the ends of each tampalaja. Whether the *anjong* is in the shape of flora, fauna or a mystical creature, there is a specific meaning attached to every stylistic representation.

Both these elements were originally only to be used on the houses of the aristocracy but these markers of Bugis heritage are seldom seen in the Bugis communities that once held them with such reverence. This is because there was a time that their usage was banned under the Dutch colonial administration so that the transfer of knowledge from the older generation to the next generation had been interrupted and today there is with less value being placed on the role of nobility in the Bugis communities. However, the tampalaja and the *anjong* are now being incorporated into the modern architecture forms like modern houses (fig. 4.65), office buildings and government buildings (fig. 4.66) in South Sulawesi, particularly in the Soppeng regency.

The number of *timplaja* indicates the social status of a noble's house. Always appearing in an odd numbered for one or three *timplaja* are used for the low ranking nobles' houses while five or seven *timplaja* are for the most presigious. Commoners' houses may use one if there is a person of nobility in their ancestery or no *timplaja* at all.

Figure 4.65: Modern architectural use of the timpalaja (Andi Kaswadi Razak's home- one of the direct decendents of Datu Sade). Source : Field survey 2015

Figure 4.66: *Timpalaja* and *anjong* on the Regency's head office. . Source : Field survey 2015

The purpose of applying the engravings on a house is as an identity of a tribe, the art of decoration, a symbol of prestige and also as a symbol that can reflect black magic. In contrast to the Bugis, Toraja tribes apply carvings to their houses with carved paintings in which each color has different meanings[21]. The four colors that are used in Toraja's house carvings are: white, which means 'Puang Matoa' or god; Yellow, located in the north signifying god; Red, as a symbol of the sun that are placed on the east and west; and black which acts as a sign of their ancestors and also as a sign of death and is placed to the south.

[21] Waterson, Roxana (1997) Roxana Waterson, The Living House an Anthropology of Architecture in South-East Asia (OxfordUnlverslty Press Pte Ltd, 1997). pp. 94

While the *timplaja* is a sign of rank expressed as a stylistic roof addition, the *anjong* has a more mystical meaning depending on what form it takes the aspirations of the owner

In the Southeast Asian architecture, the horn shape on the end of the gable is a type of roof decoration[22]. The cross-shaped roof can be a carved horn. This shape can be found in Bugis houses or in Malay houses. In addition to a pair of buffalo horns, a buffalo head is also used for roof decoration. In some areas in Indonesia, a pair of buffalo horns installed at a certain part of a house offers protection for its inhabitants as in the Sumatra region, namely the Batak Karo tribe. In several other regions in Indonesia the cross-shape roof carved either like a bird or like a dragon is also found. Some communities outside Southeast Asia use a buffalo horn as the main weapon for attack and for defence. In elation to its weaponry function, the use of buffalo horn as the roof decoration may symbolize protection. In the Southeast Asian community, buffalo is an important commodity in their lives. Besides symbolizing protection, a buffalo symbolizes wealth and social status. The richer and higher the social level of a person, the more buffalos the person can sacrifice at a traditional ceremony.

The form of a rooster that is mounted on the top of the roof of the house also has a meaning that the owner of the house will always be happy, and also means welcoming the sun. Where the rooster will sound every morning when the sun begins to appear. In addition, male chickens are a symbol of courage, power, and patience and as blessings from god and his ancestors.The shape of the dragon snake has been famous since the Hindu age. This motif can be found throughout the Indonesian archipelago. The form of a dragon is placed on the roof ridge. The dragon has a very strong force and when it is angry, it will eat the sun and even the moon [23] see figure 4.67 and 4.68

Figure 4.67: Bufallo horn on house Source P.yunus 2012:273

[22] Waterson, Roxana (1997) Roxana Waterson, The Living House an Anthropology of Architecture in South-East Asia (OxfordUnlverslty Press Pte Ltd, 1997). pp. 94

[23] Yunus, Pangeran Paita: 2012 Makna Simbol Bentuk Dan Seni Hias Pada Rumah Bugis Sulawesi Selatan Journal articel Jurnal Seni & Budaya Panggung Vol. 22, No. 3, Juli - September 2012. pp.267-282.

Figure 4.68: Transformation of *anjong* from original buffalo horn to wood representation Source P.yunus 2012:273

Figure 4.69: Type of *anjong* with flora motive (Source:Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977)

Figure 4.70: *Dragon* snake *anjong* on the ridge of a Bugis house. Museum *bola seratue* Soppeng

Figure 4.71: Floral motif *anjong* (Source:Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977)

Figure 4.72: Bufallo motif *anjong (*Source:Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977)

Figure 4.73: Flora motif *anjong* (Source:Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977)

Figure 4.74: Rooster motif *anjong* (Source:Moh. Yamin Data, M.Arief Mansyur, and Abd.Gani Anta, Bentuk Rumah Bugis Makassar (Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI, 1977)

4.3 Bugis Construction Customs and Culture

The house is a concrete symbol that represents a society's shared accepted goals and life values at a given time[24]. The values are related to such things as climate, location selection, choices of the available house materials and methods of house construction. This claim also applies to the house of the primitive and vernacular society.

Culture is a developing way of life that is shared by a group that is passed down from generation to generation both orally and through behaviors. The application

[24]Rapoport, Amos 1989, Socio-culture factors and house form House form and culture Foundations of culture Geography Series editor Philip L. Wagner Prentice-hall, Inc. Englewood Cliffs, N.J. pp 47

of traditions carried out from generation to generation is not only one's cultural wealth but also a world's heritage in general. The Bugis community has been practicing their culture and traditions even though some of their customs and traditions have changed due to the introduction of different religions such as Christianity and Islam. In addition, the governement regulations with their introduction of public services like roads, water and sewage systems have also changed the traditional patterns of Bugis communities. One example is the change in the orientation of Bugis settlements, which are no longer oriented according to geographical features like a mountain or a spring. Although, according to a local, Petta Munu, some Bugis community members living in remote villages still build their houses to face either a mountain or a hill as they believe if their houses face a mountain, it will increase their lives longevity like the mountain's height.

The change in Bugis house orientation from north and/or geographical features to qiblah took place after Islam had spread to Bugis lands at the beginning of the 17th century. Then in the 1970s, local government regulations required houses to be oriented to face the roads being built.

However, even until now the Bugis still follow certain traditions and rituals associated with the architecture. For example, conducting rituals before building a house not only for the purpose of determining the appropriate location for building the house but also for the purpose of asking a permission from the supernatural being who owns the land. This tradition is not only carried out by the Bugis community but also by other tribes as explained by Roxana Waterson (1990: 122-123). The ritual of asking for permission from the supernatural being before building a house is also carried out by the Toraja community. The ritual process uses a bamboo media which is filled with water and which is positioned vertically for three days. If the water is not reduced, then the supernatural being who is regarded as the owner of the land gives permission to the person who wants to build a house. It was further explained that this ritual process is not only carried out by the Indonesian people but also carried out by the people of Southeast Asia.

The specific types of materials that are considered good for house materials by Bugis are teak wood (tectona grandis), Ipi wood (local wood), seppu wood, bitti wood (vite cofassus), ebony wood, and old coconut tree trunks. These wood types are considered strong for house structures and house construction. However, at this time only teak wood (Tectona grandis) is easy to obtain either in the form of trees or in the form of logs. Moreover, its price is affordable.

The specific types of materials that are considered good for house materials by Bugis people are teak wood (Tectona grandis), *Ipi* wood (local wood), *seppu* wood, *bitti* wood (vite cofassus), ebony wood, and old coconut trunks. These wood types are considered strong for house structures and house construction. However, at this time only teak wood (Tectona grandis) is easy to obtain either in the form of trees or in the form of logs. Moreover, its price is affordable.

The nature of a wooden pole for a house must be examined. For example, the parts of a wooden pole are treated in the same manner as the parts of a tree, Thus, the part of a pole that shares the same charateristic as the part that is near the tree root must be placed in the ground, while the top part of the pole that shares the same characteristic as the top part of the tree must be placed at the top, in other words, the standing position

of a pole must resemble that of a tree. The traditional belief says that if the installation of a pole is reversed, the house owner will experience problems in his life. In terms of strength, the root part is strong. Thus, if the root part of a tree that is used as a pole is placed at the bottom, this pole can accomodate loads from above.

Figure 4.75: Orientation of trees mirrored in pole orientation as applied to house construction Source : Field survey 2015

Bugis have mastered the method to find out whether one tip of a pole has the same characteristic of the tree part that is near the root. They do this by placing both ends of a pole at the same distance. For example, if the length of a pole is 11 meters, then its shaft line is at 5.5 meters. Then the pole shaft is placed on a beam. The part of the pole that has the same characteristic as the part of a tree that is near the tree root will receive a heavier load than the part of the pole that has the same characteristic as the top part of a tree. Thus, the *latte*r will become the pole's top part, while the former will become the pole's bottom part.The above-mentioned knowledge is passed on from one generation to another generation verbally. And also, the Bugis still maintain their belief on the concept of a vertical pole. See figure 4.76 .

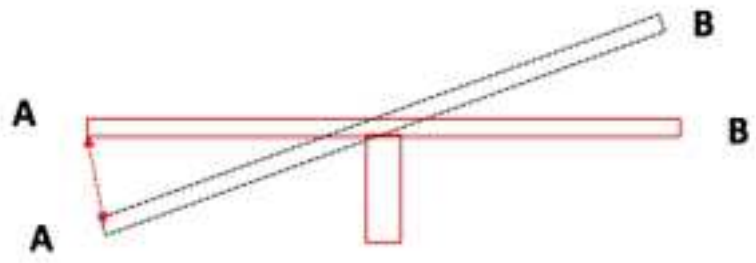

Figure 4.76: The Bugis method of finding the base of a piece of timber. Source : result of interview

Another house construction rule of the old Bugis tradition, which is still main-

tained by the Bugis, is about the placement of floor beams. This placement will give either good or bad effects to the house owner depending on the degree of obidience the house owner follows the house construction rules of the old Bugis traditions. For example, rules about the installation of floor beams which must be firmly attached to the first house pole and parallel with the door's entrance as illustrated in figure 4.65. In general, the Bugis apply such floor beam placements. When looked at from a structural point of view, attaching of the floor beam to the pole allows for the weight of the end of the board to be transfered to the floor beam.

Figure 4.77: Placement of the floor beam must be tight to the pole to prevent thieves from entering the house. Source : Field survey 2015

The natives in the location also explained that before build a house need a permition, the process of requesting for permission from the unseen beings, are done by the *panritabola*. The process that is done by the Bugis and the Sa'dan are nearly the same but are using different media's. The Bugis use the maja fruit *(Crescentia Cuteje)* whose insides have been removed and dried. The hollowed maja fruit are then filled with water as a media and then placed in the location where the house will be built. After three nights, if the water does not decrease, then the residents have given permission to build a house. The maja fruit is now rarely found, so the community or *panritabola* replace this, with small bowls of water

In the study location, a *panritabola* explained that the process of building a house always starts with a search for the core pole (*posibola*) which is used as an example what material the house will be built. The *posibola* is the first to be raised and the in the location of where it is to be placed is where the ritual is held.

Figure 4.78 depicts a process that is done before set up the pole. The location is covered with a white sheet and is filled with two bowls filled with food. This ritual is to get rid of spirits that will disturb the process of building a house.

Figure 4.78: Ritual prosess before raising the *posibola* (core pole) in Batu-Batu village in the Regency of Soppeng . Source : Field survey 2015

This ritual is done with the chosen core pole nearby. The white sheet is placed where the core pole will be placed as an appreciation and as a sign that the corepole is a sacred part of the house. The spirits of the house will be in the core pole.

The ritual in building a house has been influenced by Islam or Christianity depending on the religion of the house owner. The ritual process still follows the old Bugis rules and beliefs but uses Islamic or Christian prayers. The community has long combined old and new beliefs.

The white sheet is tied to the corepole for 40 days, but that depends in the person's beliefs (figure 4.79) According to a *panritabola* of the Madello village Kandacong explained that the house has a close relationship with the well-being of its occupants. With this in mind, the house must always be treated like a human being, with every part examined carefully one by one.

Some people place a pasibola between the first and the second *lontang*, because they still perform the traditional thanksgiving ceremony where close relatives and close neighbors are invited to participate in the activity which is conducted near the posibola pole. The *posibola* is considered to be the most sacred pole and house's part where the soul of the house resides.

Figure 4.79: *Posibola* tied with white sheet is a sign that the pole is highly respected and sacred. Source : Field survey 2015

The Bugis houses in Malaysia still protect their ancestor's culture in the pro-cess of building and shaping a house, room positioning, and in the elevation of the floor from the ground. These people migrate to Malaysia to defend their culture even though it is far from their birth place [25].

Many tribes that apply crossed wood pieces on the top of both gable ends of the roof similar to those of the Bugis and the Malay, are still found in the Middle Asian region. Usually the wood shape looks like buffallo horns which are combined with other carvings. This is called an *anjong* which functions as a protector for the occupants from dark magic[26].

According to a native in the location, the *anjong* also functions as a status of social level in the community. The shape of an *anjong* is not always a buffalo's horn, but there is also the shape of a rooster. This shows that the occupant is a knight and someone brave. Another function of the *anjong* is to reflect all black magic which is given to the occupants.

Furthermore, Waterson, Roxana explained that another cultural application that is applied in the process of building a house is the location selection. The first step to decide a location is to ask for permission from the residents of the location. The spot may be occupied by beings that are unseen to the human eye. There are many possible methods of asking for permission to build a house in a location. One of them that is used by the Torajan Sa'dan community is by using bamboo and water as a media to request permission from the unseen residents. Water is placed inside the bamboo that has been placed in the location for three nights. If the water does not decrease, then the unseen residents have given permission. Before building the pole structures of a house, a ritual

[25] W. H. Wan Ismail (2013), "Adoption of Culture in Bugis houses in Johor, Malaysia. Journal of ASIAN Behavioural Studies 3, pp. 1--14.

[26] Roxana Waterson, The Living House An Antrhropology of Architecture in South-EastAsia (Oxford University Press Pte Ltd, 1990) p.7

is done. The main pole (*posibola)* of the Malay house is the spiritual power of the house. While in Thailand, the ritual is done before placing the poles in the ground. This is to get rid of the sprits that will disturb the process.

4.3.1 Bugis House Gender Zones

As explained before, that the main components of the Bugis house are the *lego-lego* (verandah), the *watangpola* (main house) and the *jokke* (kitchen). The Bugis house has strict social mores about areas that can be visited by males over the age of seven and females.

The front *lego-lego* and the front stairs are for the adult men. The poles on which the stairs rest are analogous to men. Men will always leave and enter the house via the front staircase every day to go to work.

The front of the watangbola is considered public space so that any male visitor who is invited is allowed to sit inside the house as far as the first *lontang* even if he has no ties by blood or marriage to any member of the household.

On the other hand, the *lego-lego* to access the *jokke* at the back of the house is strictly a female realm. The *jokke* is used as a kitchen and pantry and is a private space which can be accessed only by females. Any male over the age of seven including husbands and sons are not permitted to enter this area as it is considered taboo, especially while meals are being prepared. Moreover, men are strictly prohibited from using the back staircase which accesses the kitchen.

In the survey location, some houses use a back *lego-lego* that is placed in the *jokke,* and some houses didn't but placed stairs that went directly to the *jokke* as an access for women. It was also found that some houses didn't use any back *lego-lego* for security reasons. In this case, the stairs and *lego-lego* at the front were accessed by all genders. This made the house more secure if a stranger entered.

4.3.2 Position of the Core Pole *(possi-bola / Tiang Seri)*

The *posibola* is the core pole that is very important to the Bugis community, that it uses materials that is better than every other pole in the house. The corepole must be very straight and must not have any flaws in its original form or from any damage from building process.

In the past, the materials used to make the core pole is from the wood from the jackfruit tree *(artocarpus heterophyllus).* This has a special meaning that is the house owners will have many descendants that are loved by the community just like the tree that bears an abundance of sweet fruit as seen in figure 4.80

Figure 4.80: Jackfruit timber the first choice for corepole material when building a house(jackfruit : artocarpus heterophyllus : latin). Souce : Internet

Data et al explained that at this time, the jackfruit tree is now rarely found. Because of this, the community replaced with other types of timber but jackfruit is often placed near the corepole when the house is built. Even when the house is being moved-into, jackfruit is also placed near the corepole [27].

Furthermore, Palemmui Nadji explained that the *posibola* pole is a very sacred pole and is an important part of the house[28]. This pole is usually a jackfruit tree trunk. When using a supplier, the timber must be purchased with the bark still attached.

Survey shows, the position of the posibola is commonly located on the second row of poles because in this part, the pole makes the room stand straight. But some people place the posibola in the third row with the intention, so that visitors won't see the rituals for the well-being of the occupants that are performed in the house. The Bugis perform rituals to thank god. Usually in this ritual, the occupants place food near the posibola and light a bowl of incense. The food placed near the posibola is considered to be for the spirits of the house. In Bugis, they are considered to be house angels called *Malaikanna Bolae.*

4.3.3 Construction Schedule and House Orientation

The Bugis believe that location and the performing of activities should start and end on certain days or be done during the correct season so attention must paid to these. It is strongly believed by the Bugis dwelling in cities as well as those in villages and remote areas that time selection is a very important matter that affects the success of an activity. It also applies to when and where house construction should start in a good time according to the explanations the ancient Bugis texts called the *Ugi lontara* times which is consulted by the Bugis in the study location.

These construction times are also now influenced by the Islamic calendar as well which has been adopted into the old Bugis beliefs and rituals. According to Data et.al the time that is not good to start building a houss is as shown[29]:

[27] Data et al (1977) Bentuk Rumah Bugis Makassar, Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI.
[28] Arsitektur Rumah Tradisional Bugis, Badan Penerbit Universitas Negeri Makassar 2006.
[29] Moh. Yamin Data , Moh. Arief Mansyur and Abdul Gani Anta (1977) Bentuk Rumah Bugis Makassar

1. *Muharram*
2. Every first Thursday of every month
3. Every last Wednesday of every month
4. Mondays that is the 13th, 14th, 15th, and 16th of every month.

Ambo Odding shared some data which was a script about the good and bad times to build a house. This data can be found on the internet where people have shared this information on the World Wide Web. The text used the traditional language of the Bugis called Lontara and Arabic. Looking at the form of this writing, it became a proof that the process of building a house in the Bugis land has been influenced by Islam. The Bugis received new teachings and combined it with the Bugis tradition and culture. The script explained the time that is good and bad to build a house, which are[30]:

1. *Muharram* is not a good time to build a house. If someone was to build a house in this month, then the owner will have a lot of trouble in his life.
2. *Safar* is a good time to build a house because the owner will alwas feel the happiness as long as he lives there.
3. *Rabiul-Awal* is not a good time to build a house because the owner will always get trouble with their neighbors who will grow to be jealous to the occupants. Other than that, there will always be death in the house.
4. *Rabiul-Akhir* is a good time to build a house because the owner will always feel happy.
5. *Jumadil awal* during the early part of the month is a good time to build a house as the owner will always receive good fortune.
6. *Jumadil-Akhir* is not a good time to build a house because the occupants will always get sick.

Other than the good and bad times according to Islam, the time according to the date also becomes a consideration. A *panritabola*, Petta Munu, explained that the date and time has a correlation with the birth of the owner. Usually, the birth date is taken from the birth day of the wife. The Bugis house orientation in the Soppeng region has been influenced by the Islamic culture and the local government. According to the natives in the location, around the 1970s, the local government applied a rule stating that houses should always face the main road. A house is not allowed to face any other direction. Despite this, some people don't follow the rule so some houses don't face the main road instead they changed the orientation to the qiblah. The Qiblah is the orientation of the Muslims in which they do their prayers. Islamic influnces have been absorbed into local culture, traditions and customs of the Bugis as well as other tribes of South Sulawesi who have accepted Islam as their religion except for the Toraja and Mamasa tribes who accepted Christianity.

Proyek Pengembangan Media Kebudayaan Direktorat Jenderal Kebudayaan Departemen Pendidkan dan Kebudayaan RI. p.122

[30] Source : result interview with kommunity and a panrita *bola*

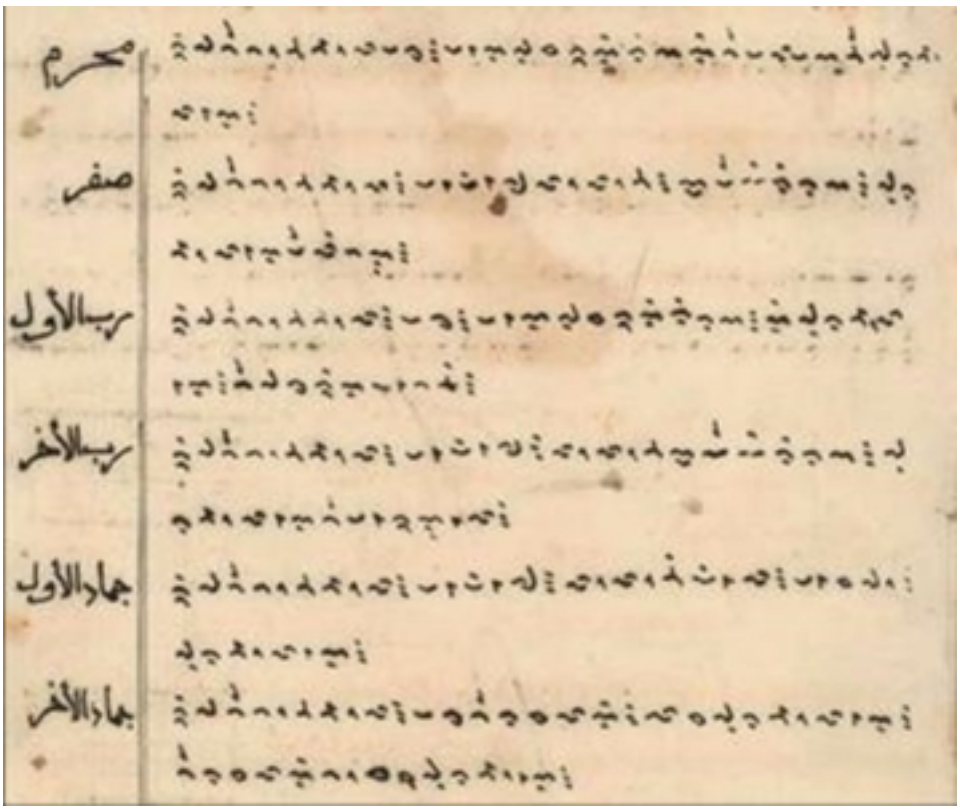

Figure 4.81: Script bad and good times according to *Lontara*

The *watangpola* or main house is the most important part and all rules and beliefs of the Bugis apply to its construction and occupation. For example, the length of the *lontang*, the placement of the posibola, not using wood that has bad signs or markings and avoiding wood and connections that are wrong in the main house or structure. Other than that, the natural signs also need to be taken into consideration include: elevation, steepness and rotation of the ground. The position of the main house is of the uttmost importance so that it is not placed incorrectly. Other parts do not apply those rules and beliefs like the *lego-lego* and *jokke* because there are considered separate additions and not part of the main house.

The Bugis believe that the placement of the main house must be in the right position so that the occupants are always happy and lucky. If the main house faces Mekkah (qiblah) then the *tamping* of the house should be located on either the northern or eastern side of the house. This is because the Bugis always place their beds oriented to the qiblah or south. The good sleeping position that Bugis believe is that the head is facing the qiblah which is west or south while the feet are pointed east or north.

Figure 4.82 and figure 4.83 show a few villages that became the study objects. These villages were built before the Independence of Indonesia. In the picture, it shows that the orientation of houses is the qiblah, even though some houses face the main road.

Figure 4.82: The orientation of houses in kampong Madello (old settlement). Source : aplication qibla

Figure 4.83: The orientation houses in kampong Jampuserenge (old settlement). Source : aplication of qibla

The new villages in the Soppeng district are villages that were formed after the Independence of Indonesia. The people, who lived in the mountains and hills during the war and resistance, left the mountainside and built a new village after it was safe. Usually, the orientation of these new houses are more sorted and neat. The houses in the new villages prefer to face the main road according to the local government regulations rather than facing the qiblah. These houses that face the main road are located in the Bulue and the Laringgi villages in figure 4.84 and 4.85.

Figure 4.84: The orientation of houses in kampong Bulue (new settlement). source : aplication of qibla

Figure 4.85: The orientation of houses in kampong Laringgi (new settlement). source: aplication of qibla

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4.4 Measuring Methods of Bugis Houses in the Soppeng Regency

The most interesting thing in this research is that no two Bugis houses share the same dimensions of *lontang* and *latte* which are based on dimensions of the house owners' body measurements. The Bugis ancient belief in the anthropomorphic traits of their dwellings remain deeply ingrained into Bugis culture even today.

The application of human dimensions to house construction is not only applied to Bugis house but also applied to several regions in the Indonesian archipelago, as explained by Zairin Sairin (2012: 265-269) who describes that Dayak traditional houses or long houses use human dimensions to calculate the house size. For example, the size of rooms of Dayak house is between two and three armspans, while the size of space for the householders to take a rest takes the length of the human body when lying down. The house's sizes are taken from the sizes of the house owner's body parts. The book, Asta Kosala-Asti kosali by I Made Bidja (2000) describes a Balinese house that is still influenced by Hindu culture, where their houses use the measurements that are based on the sizes of the human's body parts, such as depa, ruas (segment), palm and so on. This belief

is based on the fact that a house can be harmonious with its owner as is a forest with its animals that inhabit it. And that any violations of these beliefs will have a negative impacts on the house owner.

According to Bugis traditions, the measurements of the human body that are used include the span from the fingertip of the little finger (pinkie) of one hand to the fingertip of the little finger of the other hand while the arms are outstretched (armspan) referred to as depa, leg length, hand span, fingers, and thumbs.

In determining the width of a Bugis house, the steps are as follows:

1. The length of the depa (armspan) of either the husband or the wife is taken (fig. 4.86 (1)).
2. A single depa is then divided by three and 2/3 of this is taken (fig. 4.86 (2)).
3. The 2/3 length is then divided by eight (fig. 4.86 (3)).
4. As many as 1/8 of the division result in step 3 is taken to be the *pengukkuru,* i.e. the standard size to measure the width of the house.

If someone plans to build a house with a width of 7 meters, all timbers will be re-measured by using the previously made *pangukkuru.* In the picture, the H section of the pengukkuru is longer than the timber, so the H section as seen in figure 4.86(4) is discarded. Thus, the length of the timber is no longer a standard 7 meters. However, according to Bugis, the width of the house is 7 meters in length, so the length of the house is the size stated from A to A in figure 4.86 (4). Then the timber in A-A is divided by the number of *latte* that will be used see the picture.

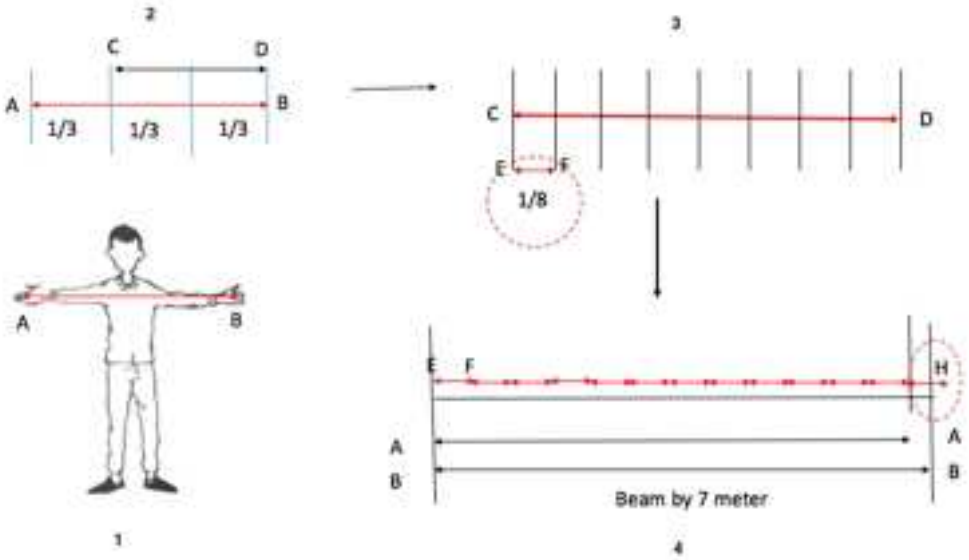

Figure 4.86: Measurement method of width of a Bugis house. Source: Interviews in the field 2016

The method to measure the length of a Bugis house that is used up to now is as follows:

1. The depa of either the husband or the wife is analogous to one meter. If a house owner wants to build a house with a length of 7 meters, then the size is 7 depa.

2. Seven depa are divided by the number of *lontang* that will be used. For example, if someone wants to build four *lontang*, 7 depas are divided by four *lontang*.

3. 3. Modifications to several or even one *lontang* will function as a talisman to invite good luck and ward off bad luck. These additions are as follows:

- the width of three fingers means that the house owner will be rich, have a good position at work and live long
- the width of the wife's body means that the occupants will be protected from black magic.
- the length from the neck to the epigastrium of the wife means that the house owner will always live happily and never lack any materials.
- the circumference of the wife's body means that the house owner will not die young
- the distance between the right and the left ears means that the house owner's daughters will marry nobles, someone with high social level or attain a good position at their workplace.
- the distance between the epigastrium and the thigh of the wife means that the house owner will prosper, never lack any material thing and will not suffer in his life.
- the measurement from the left to the right breast of the wife means that the house owner will not suffer in his life.

Fingers are used as a special measurement. A house owners usually distinguish the number of fingers on each *lontang*. For example, the first lotang uses one finger, the second one uses three fingers, the fourth one uses five fingers. The purpose of adding this special measurement to the house measurement system is that it is hoped that the house owner will be better in the future, including their grandchildren. The previously mentioned special measurements symbolize the hopes and prayers for not only the house owners themselves but also for their offspring. For the addition of this special size, homeowners will consult a *panritabola* who has knowledge about traditional house construction rules.

Another method for determining the length of the house is to divide one depa by 7. Then, 1/7 is applied to the pengukkuru (as the measurement tool). For example, if a house owner would like to build a house nine meters long, then the depa of either the husband or the wife is divided by seven. Then, 1/7 is taken as the standard to measure a house nine meters in length. If this standard is applied, then planks of wood whose length is more than half of the set standard is maintained. However, if the length of wood is less than half of the the measurement standard, the *pangukkuru* is used and the length that is beyond the *pangukkuru*'s applicable standard measurement is removed. See figure 4.87

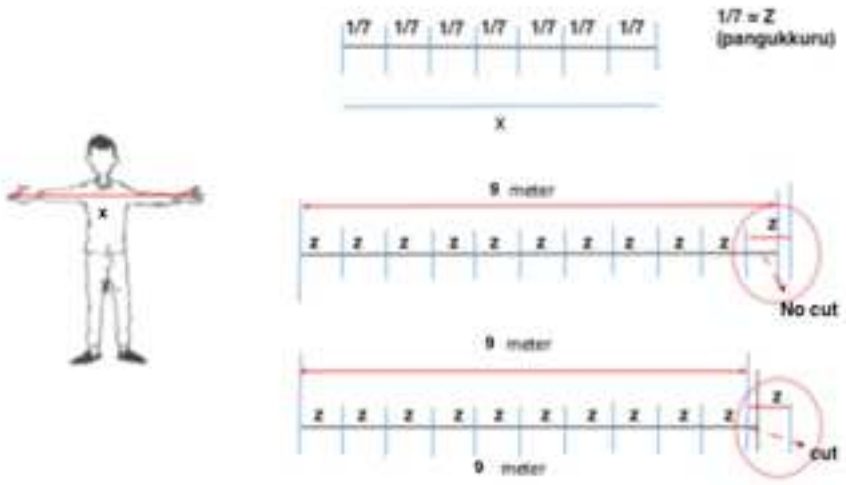

Figure 4.87: Method *petu – petu*for measure of *lontang.* Source: interview 2016

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At the research site, data was recorded from 120 houses as research objects, and no house shared the same size. Table 4.1,4.2, and 4.3shows that the community members of Bugis tribe, especially in Soppeng district, still apply the body size of a house owner as the basis for measuring both the width and the length of the main house.

No	Village	Code	Built year	size of *latte* (cm)				size of *lontang* (cm)			
				I	II	III	IV	I	II	III	IV
1	Batuputi	Z1-BT-01	1960	122,8	130,1	129,2		256,9	272,6	283,6	
2	Batuputi	Z1 BT 02	2001	180,1	183,4	183,6	180,3	284,1	292,3	283	277,4
3	Batuputi	Z1 BT 03	1995	189,1	187,6	190		287,6	287,3	287,3	292,9
4	Batuputi	Z1 TT 04	1940	138,7	142,4	141		252,2	257,1	247,9	243,9
5	tettikenrarae	Z1 TT 05	1974	130	132,4	130,5		374	383,6	271,3	
6	Tettikenrarae	Z1 TT 06	1969	128,5	133,2	132,7		255,1	261,9	259,2	185,2
7	Tettikenrarae	Z1 TT 07	1969	129,8	131,9	133,2		261,3	262,2	273	266,8
8	Tettikenrarae	Z1 TT 08	1968	115,1	111,1	114,2		230,1	228,6	224,6	
9	Tettikenrarae	Z1 TT 09	1970	136,4	133,2	140,3		241,6	250,4	250	
10	P. Rompegading	Z1 PR 10	1975	199,1	210,3	197,7		362,5	360,5	375,2	
11	P. .Rompegading	Z1 PR 11	1977	132,7	135,7	126,7		274,1	279,8	276,6	
12	P. Rompegading	Z1 PR 12	1979	140,2	123,7	126,8		249,1	245,1	258,1	
13	P. Rompegading	Z1 PR 13	1980	136	214,2	135,1		214,2	214,9	227,1	
14	P. Rompegading	Z1 PR 14	1989	237,1	238,3	236,5		285,4	292,5	285,4	341
15	P. Rompegading	Z1 PR 15	1979	142,5	141,3	135,8		265,6	272,6	266,49	
16	P. Rompegading	Z1 PR 16	1978	186,4	192,5	180,8		315,9	306,3	316,3	
17	P. Rompegading	Z1 PR 17	1999	236,8	234,4	226,6		287,7	291,3	282,9	
18	P. Rompegading	Z1 PR 18	1905	175,7	175,4	176,7	172,9	270,9	276,8	281,7	276,6
19	P. Rompegading	Z1 PR 19	1977	144,5	145,8	132,4		289,8	282	284,9	
10	P. Rompegading	Z1 PR 20	1969	141	141,4	141,6		276,3	280,2	271,2	
21	P. Rompegading	Z1 PR 21	1979	137,6	138,6	137,3		293	298,7	293,2	
22	*timplaja*	Z1 TL 22	1993	185	183,1	186,3	-	262	249,2	251,4	-
23	*timplaja*	Z1 TL 23	1978	183,5	181,5	185,6	-	294	276	295,1	295,5
24	Galung	Z1 GL 24	1907	167	167	159	174	306	316	321	-
25	Jampuserenge	Z1 JS 25	1985	165,3	153,4	160,6	-	244,5	238,3	244	-
26	Jampuserenge	Z1 JS 26	1987	128,8	126,6	130,7	-	242,1	244,9	242,3	-
27	Jampuserenge	Z1 Js 27	1998	274,1	283,6	275,7	-	385	378,4	389,7	-
28	Jampuserenge	Z1 JS 28	1967	179,4	183,6	275,7	-	234,3	232,3	235,78	234,1
29	Jampuserenge	Z1 JS 29	2007	249,1	255,1	150,9	-	355,9	387,2	367,6	-
30	Palangiseng	Z1 PL 30	1947	189,01	189	190	-	275	281	275	271
31	Palangiseng	Z1 PL 31	1947	185,3	186,6	187,5	-	281,8	284,9	280,2	279,8
32	Palangiseng	Z1 PL 32	1975	128,6	128,2	134	-	227,7	222,1	226,3	243,2
33	Palangiseng	Z1 PL 33	1985	105,6	114,1	105,1	-	224,5	220	239	-
34	Palangiseng	Z1 PL 34	1967	114,5	117,1	113,5	-	237,2	239,2	232,1	-
35	Palangiseng	Z1 PL 35	1965	110	109	111	-	198	201	196	-
36	Bunne	Z1 BN 36	1955	141,9	140,3	-	-	229,1	237,5	-	-
37	Bunne	Z1 BN 37	1940	178,6	170,5	-	-	222	216,3	-	-
38	Bunne	Z1 BN 38	1980	164,4	163,2	-	-	278,4	278,4	-	-
39	Bunne	Z1 BN 39	1989	179,08	165,11	-	-	325,7	323,4	334	-
40	Bunne	Z1 BN 40	1985	159,9	160,1	-	-	259,6	191,6	-	-

Table 4.1: zone one : size of *latte* and *lontang*. Source : Field survey 2015

No	Village	Code of Picture	Built(Year)	size of *latte*				size of *lontang*			
				I	II	III	IV	I	II	III	IV
1	Panicong	Z2 PN 01	1974	134,8	138,5	140		279,4	280,5	281,1	-
2	Panicong	Z2 PN 02	1973	117,5	121,9	122,5		236,2	249	236,6	287,4
3	Panicong	Z2 PN 03	1995	240,4	241,1	236,9		302.0	304	303,8	288,4
4	Panicong	Z2 PN 04	1973	216,3	215,1	-	-	311,7	315	-	-
5	Madello-ompo	Z2-MD-05	1994	215	215	213		289,3	290	288	
6	Madello-ompo	Z2 MD 06	1991	239,2	238,8	140		273,2	284,2	270	
7	Madello-ompo	Z2 MD 07	2001								
8	Madello-ompo	Z2 MD 08	1985	164,3	175,1	190,6		278,7	280,9	278	287,9
9	Madello-ompo	Z2 MD 09	1965		119,9	122,7		223,1	227,3	246,3	-
10	Madello-ompo	Z2 MD 10	1982	188,4	186	-	-	290,4	305,7	230,7	-
11	Madello-ompo	Z2 MD 11	2001	209,1	207,6	-	-	235,1	235,6	240,8	-
12	Madello-ompo	Z2 MD 12	2003	204,7	207,3	206,2		293,7	282,7	286,7	286,4
13	Madello-ompo	Z2 MD 13	2002	188,4	188	189,4		257,9	257,4	257	228,3
14	Madello-ompo	Z2 MD 14	1986	244,4	256,7	244,7		377,9	382,2	383,8	391,8
15	Madello-ompo	Z2 MD 15	1991	134,2	136,2	136,1		260,8	265,2	256,1	260,8
16	Madello-ompo	Z2 MD 16	1974	*134,2*	*136,2*	*136,1*		260,8	265,2	256,1	260,8
17	Paoe	Z2 PA 17	1940	141,7	141	142,6		229,3	217,6	223,3	197,3
18	Paoe	Z2 PA 18	1948	145,5	145,6	-	-	201,3	202,2	207,2	-
19	Paoe	Z2 PA 19	1969	161,3	165,6	164,1		245,2	261,2	349,2	-
20	Paoe	Z2 PA 20	1953	139	134	137		236,5	236,5	239	-
21	Paoe	Z2 PA 21	1964	139	138	140		240,1	240,9	235,6	-
22	Paoe	Z2-PA-22	1965	151	152	152		318,9	319,2	323,7	
23	Paoe	Z2 PA 23	1969	148	149	148		217,1	322,4	318,4	-
24	Paoe	Z2 PA 24	1958	143	145	145		287,8	287,2	285,9	
25	Paoe	Z2 PA 25	1959	151	152	152		287,9	289	288,9	-
26	Paoe	Z2 PA 26	1957	155	140	140		275,6	269,9	273,7	-
27	Paoe	Z2 PA 27	1973	126	127	123		260,3	262;8	245,8	-
28	Paoe	Z2 PA 28	2005	244	244	244		334,0	253	249	-
29	Paoe	Z2 PA 29	2006	150	156	152		280,6	285,5	281,4	283,9
30	Paoe	Z2 PA 30	1965	120	123	121	-	224	236	234	-
31	Paoe	Z2 PA 31	1955	138	140	137		242,7	238,8	237,7	
32	Bila	Z2 BL 32	1940	134,4	142,2	146,9		225,3	236,8	217,8	-
33	Bila	Z2 BL 33	1907	171,3	167,4	170,1		265,7	263,8	266,9	264,7
34	Tinco	Z2 TC 34	2008	218	215	212		288	292	286	238
35	Tinco	Z2 TC 35	1987	217,7	223,3	223,3		289,2	285,6	285,6	281,5
36	Tinco	Z2 TC 36	1994	132	136	139		289	288	290	299
37	Tinco	Z2 TC37	2001	137	140	139		262	264	263	
38	Talagae	Z2 TA 38	1982	173,6	177,1	177,4	177,9	276,4	281,6	279,7	276,8
39	Talagae	Z2 TA 39	1981	193,1	200,8	206,1	244,4	289,1	284,5	287,4	287,4
40	Talagae	Z2 TA 40		184,5	182,4	184,2	184,5	278,2	278	278,5	278,7

Table 4.2: Zone two: size of *latte* and *lontang*. Source : Field survey 2015

No.	Village	Code of House	BuiltYear	*latte*				*lontang*			
				I	II	III	IV	I	II	III	IV
1	Tajuncu	Z3 TJ 01	1972	153,0	140,0	141,0	-	288,0	291,0	293,0	217,0
2	Tajuncu	Z3 TJ 02	1968	132,0	136,0	135,0	-	248,0	254,0	246,0	-
3	Tajuncu	Z3 TJ 03	1975	129,0	131,0	133,0	-	255,0	245,0	247,0	214,0
4	Tajuncu	Z3 TJ 04	1973	128,0	129,0	127,0	-	269,0	271,0	272,0	-
5	Tajuncu	Z3 TJ 05	1971	127,0	134,0	130,0	-	252,0	249,0	252,0	-
6	Tajuncu	Z3 TJ 06	1968	135,9	130,8	133,0	-	274,6	281,1	205,6	-
7	Tajuncu	Z3 TJ 07	1968	140,0	140,0	140,0	-	269,0	266,0	267,0	-
8	Tajuncu	Z3 TJ 08	1969	134,0	136,0	159,0	-	274,0	278,0	276,0	-
9	Tajuncu	Z3 TJ 09	1906	184,0	186,0	184,0	-	379,0	252,0	250,0	250,0
10	Tajuncu	Z3 TJ 10	1975	188,1	190,0	185.0	-	311,0	315,0	312,0	314,0
11	Tajuncu	Z3 TJ 11	1970	280,0	287,0	285,0	-	135,0	136,0	137,0	-
12	Tajuncu	Z3 TJ 12	1965	145.0	143.0	146.0	-	290.0	292,0	290,0	-
13	Tajuncu	Z3 TJ 13	1978	139.0	149.0	136.0	-	289.0	295.0	290.0	-
14	Tajuncu	Z3 TJ 14	1967	116.0	117.0	113.0	-	238.0	232.0	230.0	-
15	Tajuncu	Z3 TJ 15	1975	94,7	100,8	96.5	-	195.6	199.0	196.4	166.0
16	Tajuncu	Z3 TJ 16	1995	136.0	148.0	141.0	-	305.0	303.0	299.0	240
17	Tajuncu	Z3 TJ 17	1976	243.0	245.0	244.0	-	342.0	332.0	366.0	-
18	Tajuncu	Z3 TJ 18	1970	185.0	134.0	182.0	-	239.0	238.0		-
19	Tajuncu	Z3 TJ 19	1978	146.0	139.0	138.0	-	279.0	281.0	281.0	-
20	Tajuncu	Z3 TJ 20	1969	121.0	128.0	124.0	-	251.6	280.0	275.0	-
21	Bulue	Z3 BL 21	1970	133.2	141.1	135.1	-	255.9	258.8	252.2	-
22	Bulue	Z3 BL 22	1975	134.3	131.3	134.3	-	240.8	246.0	194.4	-
23	Bulue	Z3 BL 23	1972	161.4	161.5	167.4	-	290.9	329.3	325.2	-
24	Bulue	Z3 BL 24	2011	215.8	218.0	219.1	-	380.8	385.7	376.6	-
25	Bulue	Z3 BL 25	1978	159.8	222.2	-	-	264.5	286.0	272.6	-
26	Batu-batu	Z3 BT 26	1895	158.0	206.5	194.9	-	242.1	246.7	244.1	296.4
27	Batu-batu	Z3 BT 27	1890	153.3	203.6	175.9	-	210.1	246.8	242.5	302.7
28	Batu-batu	Z3 BT 28	1899	114.5	143.0	124.0	-	260.3	291.0	267.7	180.5
29	Laringgi	Z3 LR 29	1995	135.9	131.9	131.9	-	209.6	228.7	219.4	199.5
30	Laringgi	Z3 LR 30	1996	190.1	187.6	186.6	187.4	341.7	314.4	318.9	375.1
31	Laringgi	Z3 LR 31	1978	137.2	144.8	141.6	-	236.5	247.3	236.0	-
32	Laringgi	Z3 LR 32	1977	130.5	141.5	143.8	-	241.7	239.9	260.8	-
33	Laringgi	Z3 LR 33	1978	144.8	144.2	138.9	-	278.8	292.5	295.4	297.7
34	Laringgi	Z3 LR 34	1989	212.3	208.8		-	253.8	259.9	256.3	-
35	Labokong	Z3 LB 35	1970	115.0	113.0	113.0	-	245.0	244.0	245.0	136.0
36	Labokong	Z3 LB 36	1972	116.0	121.0	119.0	-	225.0	221.0	220.0	-
37	Labokong	Z3 LB 37	1971	166.0	165.0	163.0	-	313.0	318.0	318.0	-
38	Labokong	Z3 LB 38	1972	143.0	150.0	144.0	-	249.0	263.0	260.0	-
39	Labokong	Z3 LB 39	1972	122.0	119.0	116.0	-	240.0	244.0	238.0	-
40	Labokong	Z3 LB 40	1971	178.0	186.0	129.0	-	251.0	251.0	249.0	-

Table 4.3: Zone three: size of *latte* and *lontang*

The height of the roof of a Bugis noble's house is different from that of a commoner's house. This difference is caused by difference in the measurement system. This height of the roof of a Bugis house serves as a marker of who owns the house. The method for determining the roof height is as follows:

- for a house belonging to Bugis aristocracy is equal to ½ width of the o house + 1 elbow + 1 breadth of pointing finger + 3 fingers of the house owner,

- for a commoner's house is equal to ½ width of the house + 1 palm, and
- for an "ata" (servant class) house is equal to ½ width of house + 1 elbow + height of head + the house owner's fist.

The width of the stairs at the Bugis house also uses the measurement of the homeowner's limb. The method to construct the width of a stair is the size of the head circumference + eye circumference + ear circumference equals the width of the stair.

For determining the height of the floor from the ground, depends on the height of the husband because men will do a lot of activities under the house so the size that is used is 1 ½ times the height of the husband. For the height of a house starting from the under floor to the attic floor is 1 1/ 2 times the height of the wife. This is because the wife will do more activities inside the house so that the wife's size becomes a benchmark for the house's internal dimensions so that the wife will be able to reach things in the house easily.

Taking into consideration the methods for measuring houses mentioned above, it can be concluded that these give credence to the Bugis belief that a house is analogous to a human. The sizes of the house owner's body parts become the parts of the house so that the owner's and home's soul will be united according to the old beliefs of Bugis. Applying the size of the human body for the house measurement results in no house sharing the same dimensions, as seen in tables 4.1, 4.2 and 4.3.

Chapter 5

Noble and Commoner Houses in Soppeng Regency

In this chapter, a detailed analysis of the research objects will be discussed. Comparisons between the old and new styles of traditional Bugis houses built for the aristocracy and the commoners will be made. The Bugis dwellings researched are located in Soppeng regency which was divided into 3 zones. Each zone has 40 houses which comes to 120 randomly chosen houses in this study. Each zone consists of several villages or kampong. The number of houses per village is uneven, depending on the size of the kampong. Each region was then named zone one, two and three respectively. The charactistics of each zone are listed as follows:

Zone one ;

1. It is inhabited by an agrarian society.
2. In the past, this area was ruled by several small kingdoms led by a king who holds the Datu title like, Pattojo, Lumpulle, and Marioriwawo.
3. Some houses of the nobility which were built during the Dutch colonization of the area have clearly been influenced in their shapes by the concepts of Dutch architecture.
4. There is evidence that the communities in this zone still retain the old culture, traditions and customs of the Bugis tribe.
5. There is the presence of the old settlement which existed before the arrival of the Dutch to the area.
6. It is located in a remote area, far from the central government and urban settlements.

Zone two:

1. It is inhabited by a modern society.
2. The majority of the population works in government and private offices.
3. The old settlements that have been identified in this area have existed before Dutch colonization.
4. Many modern settlements have been built by government or private companies.
5. It is located close to the seat of the central government and the downtown district.

Zone three:

1. The communities generally consist of farmers and fishermen.
2. The majority of the settlements are built after Indonesia's independence.
3. Generally, the population is not a native of this area.
4. Many societies ignore the symbols of nobility in the home.
5. It is located far from the city center.

Regions are grouped based on the characters of villages, then codes are given to the chosen houses. The codes are written with three identifiers namely, zone, village name and house number, which are listed in table 5.1 as follows:

No	Code Pincture	Subject
1	Z1	Zone 1
2	Z2	Zone 2
3	Z3	Zone 3
4	BT	Kampong Batu pute (Bugis cristian's village)
5	TT	Kampong Tettikenrarae
6	PR	Kampong Pattojo-Rompegading
7	TL	Kampong Timpalaja
8	GL	Kampong Galung
9	JS	Kampong Jampuserenge
10	PL	Kampong Palangiseng
11	BN	Kampong Bunne
12	PN	Kampong Panincong
13	MD	Kampong Madello
14	PA	Kampong Pao'e
15	BL	Kampong Bila
16	TC	Kampong Tinco
17	TL	Kampong Talagae
18	TJ	Kapong Tajuncu
19	BU	Kampong Bulue
20	BT	Kampong Batu-Batu
21	LR	Kampong Laringgi
22	LB	Kampong Labokong

Table 5.1: Coding for picture in the research area

5.1 Zone One

The inhabitants in zone one still hold on to their Bugis culture and traditions tightly. Their admiration of descendants of the aristocracy is still preserved. In addition, communities in the villages still maintain the form of Bugis houses according to their traditional social ranks. In Kampong Bunne (Bunne village), people still occupy houses with two *latte* and two *lontang* which are rarely found in other zones. However, houses of commoners living beside provincial main roads or close to subdistrict towns build their houses with three or four *lontang*, though houses with four *lontang* are normally for nobles.

5.1.1 The house of Nobility

A noble's house is a house that uses additional elements as symbols of nobility. These elements of ornamentation may be placed both on the interior and the exterior of the house as symbols of high social rank and luxury. Ornaments on the exterior of the house is usually carvings in form of flowers, certain animals and Islamic calligraphy. These have symbolic significance in the form of prayers or hopes that the owner and his family will be protected by God or other spiritual entities or have many decendants, etc.

The noble house in regency of Soppeng consists of old and new styles of bugis house. The old style consists of two types: houses built prior to and during Dutch occupation of Bugis land. These houses are built with a *tamping* (hallway) and are divided into two styles, namely old and new *tamping*. *tampings* of the old style has a slightly lower floor than the *watangpola* (main house) floor, while the new style *tamping* floor is raised to the same height of *watangpola* floor.

Next is the new style of Bugis house which has undergone changes in the shape of the *watangpola* roof, and has been built without a *tamping* or has been modified by removing the *tamping*. This new style became widely adopted by this community around early 1980s and has been popular ever since.

As mentioned earlier, zone one is the location of noble houses built during the colonial government. Both houses are estimated to be around 100 years old. The other buildings were built after Indonesia's independence.

During the Dutch colonial rule, a noble ruler's house was not allowed to apply elements and ornaments as markers of social rank but had to be as simple as an ordinary man's house.

At that time, the colonizers were the highest rank and the indigenous were the second group. Nobles and commers had the same position. Since then the shape of the noble house has changed the shape of the roof. The roof of the nobility does not use the saddle roof and additional elements like the *timplaja* as signs of rank.

Today's indigenous communities, both noble and commoners tend to have houses in simple forms. Traditionally, houses were built to distinguish house owners, whether noble or common people.The *bolabodo*[1] 1 as symbol of noble houses had undergone changes to be simpler in shape. The roof of this house is symmetric without a saddle roof and *tamping*.

After the Indonesian independence, the nobility began to build houses using the traditional Bugis forms by adding elements and ornaments like the *timplaja* and the *tamping* that are symbols of nobility. Eventhough some elements and ornaments are not used anymore because this generation has no memory of it as the artist who were skilled at making these have since died without passing on their knowledge.

A. Noble houses built at the era before Independen of Indonesia

A1. The Type of *eppalatte- eppalontang*

[1]Type of noble house changed the roof model and making simple form. The type came in colonial era

1. Z1-PR-18

Figure 5.1: Noble house influenced by Dutch colonial architecture

Figure 5.2: Z1-PR-18 : Left side. source : Field survey

Figure 5.3: Z1-PR-18 : *lego-lego*. source : Field survey

Figure 5.4: Z1-PR-18 : Aditional room at ground level. source : Field survey

Figure 5.5: Z1-PR-18 : Floor construction. source : Field survey

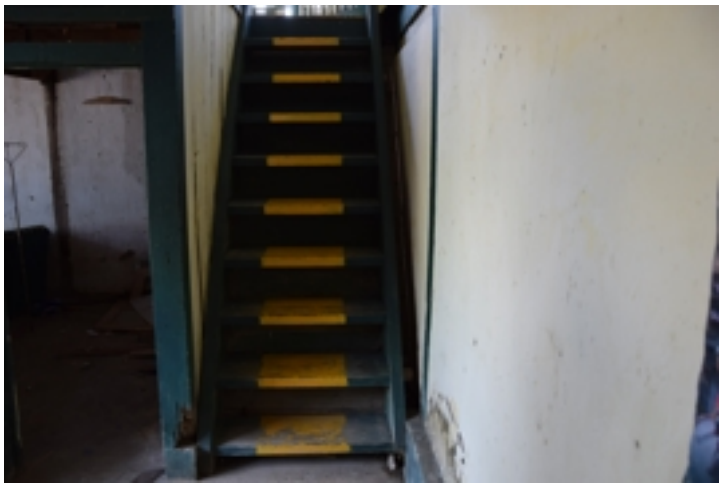

Figure 5.6: Z1-PR-18 : Stairs. source : Field survey

Figure 5.7: Z1-PR-18 : Entrance toward stairs. source : Field survey

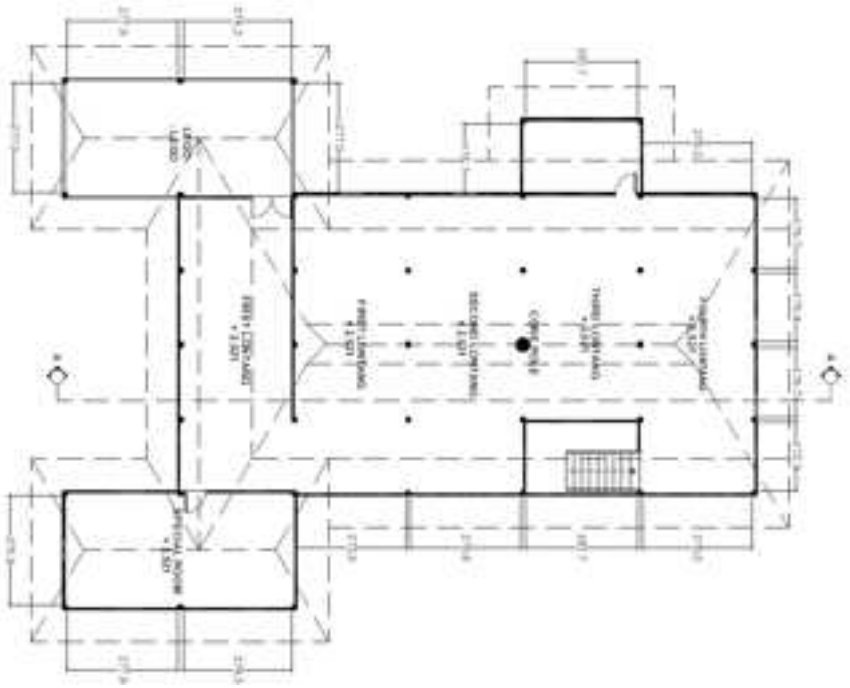

Figure 5.8: Z1-PR-18 : Floorplan. source : Field survey

This house is commonly called Saoraja Pattojo which was the private residence of Datu Pattojo XI and has now been passed down to his daughter, the last Datu Pattojo namely, Datu I Pancaitana (also called Queen Pattojo XII)[2]. Datu Pattojo XI previous residence was inside the Pattojo Fortress which is called kampong Alepattojo. Later, Datu Pattojo XI built a house blending colonial and Bugis architectural styles outside the fortress area (see figures 5.1 to 5.8).

[2] According to family of Datu pattojo who lived at the home that this house was built during colonial belanda. This house was built by datu Sumangerukka Petta Patolae, second Datuk from the last King (King of Pattojo XI). It is Estimated that this house was founded more than 100 years ago. With assumption of the only child Datu Sumangerukka (Datu IPancaitana) was born in 1912. The house is aged 105 years (2017-1912) while this house was built by the father of Datu Pancaitana. So, this house is estimated to have been aged between 105-120 years.

Figure 5.9: The gate of the fort Ale-pattojo

Figure 5.10: The ruins of the remaining Ale-pattojo fortress

The home facade of Z1-PR-18 is symmetrical in shape and has additional buildings on the left and on the right which were built out in more prominent positions in relation to the main house. Both of these additions are not part of the core house. While the position of the *watangpola* or main house is in the middle where the area of this house is not parallel from the two additional parts of the houseas seen in figure 5.8.

The shape of the roof on the additional part is a saddle roof without the application of any symbol of nobility. Meanwhile on the roof of the *watangpola* is without a saddle.

The position of the *lego-lego* of the house extends from the right side of the main house to the left and protrudes forward so that the house is balanced with the additions on either side. The *lego-lego* faces an open field which is where the Pattojo community gathered at that time. Currently the field has become a playing field for the local community. The *lego-lego* at the front of the house over looks the field as a symbol of openness and closeness to the community. Datu Pattojo and the community can clearly see each other.

The stairs that rest on the *lego-lego* are accessed from under the house (wasaubola). House placement is very different from other Bugis house belonging to the aristocracy which usually place the stairs outside in front of or at the side of the *lego-lego*.

The stairs rests on the *lego-lego*, accessed from under the house (*wasaubola*). House placement is very different from noble bugis house in general. Generally, the stairs placement on the noble Buginese house is on the outside of the house where his position is in front of the *lego-lego* or side *lego-lego*.

To access the stairs, it is necessary to enter under the house through the form of an arch between the house's support poles. The arch is an element that functions as an entrance that leads visitors to the stairs. The arch is only in installed in the front under the house. The shape of the arch and the window is wide and uses two door leaves which are commonly used in Dutch colonial buildings in Indonesia.

At the Z1-PR-18 House is a mix of the Dutch colonial and Bugis traditional styles. The basic form of the house is on stilts using the Dutch gable roof style and a European façade. Although it is the house of the king of that region, it still looks like the home of a high nobleman as there is no application of any decorative elements that signify Bugis aristocracy except for its large size, and roof height which is higher than those houses in the surrounding community houses.

The *watangpola* (main house) uses four *latte* which is reserved for houses of royalty as explained by many previously. Bugis houses generally use only three *latte* but from the results of interviews, some nobles explained that the nobleman's house may use up to eight *latte*. A house with eight *latte* constructed in the form of two *watangpola* is used only by the highest nobles or so-called Bocco akkarungenna. Arung Bocco is a nobleman who retains the designated title of Datu, as his ancestors both from his mother's side and father's side never diluted their noble ancestry as they always married nobility at the level of Datu.

Usually the *tamping* is placed on one side of the *watangpola*. However, Z1-PR-18 has the *tamping* at the front before the *lego-lego*. This changes in *tamping* positions indicate that the Dutch colonial rule influence.

The *jokke* at the Z1-PR-18 house has been torn down due to damage and a kitchen is built at the space under the house. According to interviews with Datu Pattojo XII's grandchild, the floor of the original *jokke* was lower by about 30 centimeters than the floor of the *watangpola*. The materials used for the floor of the *jokke* are bamboo and wood, while the wall is woven bamboo (See figure 5.11). The position of the *jokke*'s ladder is in the middle of the *jokke*'s width. The width of the *jokke* are three *latte* / *karateng* and the length of the *jokke* are six *lontang*.

The shape of the window on the front house uses a modern window style with glass. While the windows on the left and right side of the house uses two windows with wood and has a form of blinds (jalusi). The shape of the window is again a blend of the European with the local traditional architecture. The shape of wide openings windows are suitable for tropical climates which promote air circulation. The shape of existing window on the side of house which is the trend at that time, proves that the window on the front of the house has undergone changes from shuttered windows to glass windows.

Nowadays, the private house of Datu Pattojo (queen of Pattojo) is occupied by her kin. There is an added a space under the house using plank construction. This additional space is made after the house's jokke was damaged due to decay.

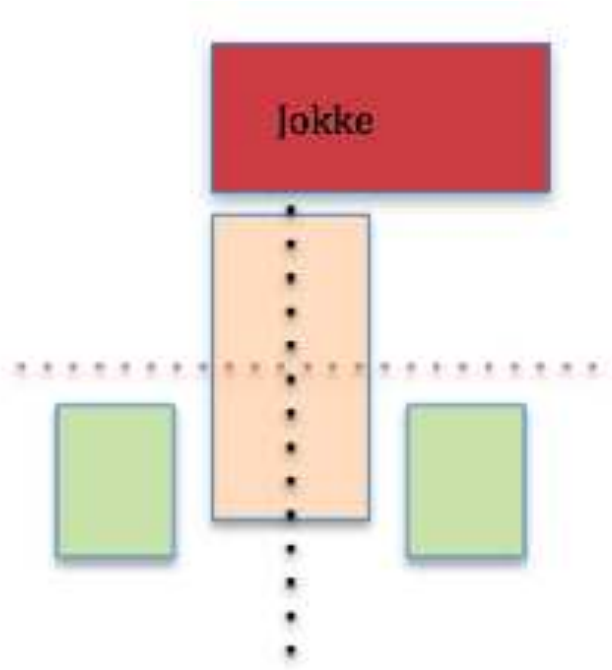

Figure 5.11: Position *jokke* Source: result interview from Datu Andi Harlianty (grandchild of Queen of Pattojo XII) Z1-PR-18

2. Z1-GL-24

Figure 5.12: Z1-GL_24 : Facade. source : Field survey

Figure 5.13: Z1-GL_24 : Left side. source : Field survey

Figure 5.14: Z1-GL_24 : Other view. source : Field survey

Figure 5.15: Z1-GL_24 :*tamping.* source : Field survey

Figure 5.16: Z1-GL_24 : *lego-lego.* source : Field survey

Figure 5.17: Z1-GL_24 :Window. source : Field survey

Figure 5.18: Z1-GL_24 : Stairs. source : Field survey

Figure 5.19: Z1-GL_24 : Three step access from *tamping* to main house. source : Field survey

Figure 5.20: Z1-GL-24 : *watangpola* (main house). source : Field survey

Figure 5.21: Z1-GL_24 : *anjong*. source : Field survey

Figure 5.22: Z1-GL_24 : *anjong.* source : Field survey

Figure 5.23: Z1-GL_24 : Ornament 1. source : Field survey

Figure 5.24: Z1-GL_24 : Ornament 2. source : Field survey

Figure 5.25: Z1-GL_24 : Ornament 3. source : Field survey

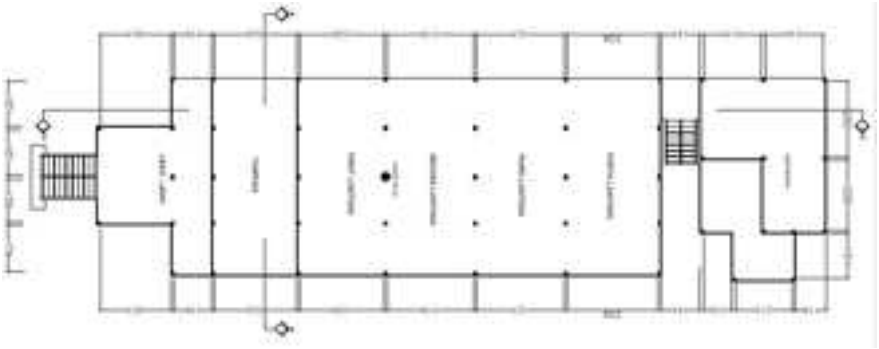

Figure 5.26: Z1-GL_24 : Floorplan. source : Field survey

Figures 5.23 to 5.25 are ornaments on the interior of the house located in the rafters of the attic. The shape of the ornament in this house is a flower carved directly into the end of the beams.

The home of a high nobleman who holds the title of Datu is called Saoraja seng. This house is owned by Datu Pallawarukka, father of Datu Rumpang. According to the family of home owners, this house was established during the reign of the Dutch, one of the descendants of the owners estimates the age of building is more than 100 years old[3].

The shape of the facade of this house is very different from the previous house. Both from the shape of roof, the position of stairs and most interestingly, the ornaments which were installed recently around 2012.

The roof of house is a combination of saddle and pyramid roof. The saddle is used on the *lego-lego* and the pyramid is for the main house. The roof shape of this house looks similar to four rectanges, *anjong* are placed on every gable end. This level signifies that the four social levels in Bugis society are 'ata' (servants) or to-biasa (commoners), the nobles and the ulema, where the highest rank is the reigning king or queen.

The roof form in the main house has two levels, where the roof of the bottom part covers the *lontang*. Meanwhile the pyramid-shaped roof is located above the *watangpola*.

[3] souraja seng Z1-GL-24 was built by the parents of Datu Rumpang. whom from interview, Datu Rumpang was born in 1929. This house was built by Datu Pallawaruka, parents of Datu Rumpang. Datu Rumpang is the fourth of four siblings, his oldest brother was born in 1920. By assumption that the birth distance of 2017-1920 = 97 years (age of house generally equal to the first child). So, this house is estimated to be around 100 years old. Assuming Datu Pallawarukka is married in 1915 and builds house before his first child born. Datu Sumangerukka is the brother of Datu Pattojo X.

This roof shape shows clearly the position of the main house and the *tamping*. The *tamping* on this house is on the front of the main house with a slightly lower floor than the main house, as seen in figure 5.27

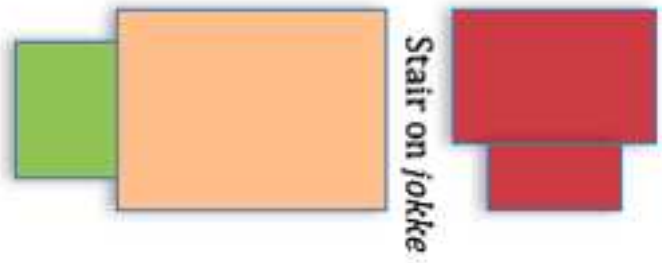

Figure 5.27: Posisition of *tamping* on noble house Z1-GL-24

Sauraja seng uses four modules supported by five poles from left to right and five poles from front to back so, the number of poles in the main house is twenty-five. While the homes of a noble Bugis use at least twenty-four or more poles for the structure of the *watangpola*.

The position of the stairs is located in the middle attached to the front of the buliding. Social aspects of cultural position of this staircase symbolizes openness. While in terms of architecture, the position of the staircase is symmetrical, giving the impression of grandeur, luxury and sturdiness. The staircase consists of two parts that are seperated by a parinawang (either one or two beams mounted in the middle so that the staircase is divided into two) with seven steps (see figure 5.18). The stairway has a roof covering, a parinawang and a bannister with a balustrade that are reserved only for houses of the royalty.

According to a native, Andi Mappona who lived in Pattojo village, there are 13 steps used for staircases of the nobility, while ordinary people are permitted to use five, seven, nine or eleven steps - with eleven steps used by high level of commoners. The number of stairs as a symbol of social rank in society is still maintained today in zone one.

The window on house Z1-GL-24 is a combination of bars built into the window frame and shutters that are closed at night. The shutters, a Malay influence, are positioned on hinges on either side of the window and consist of wood panels installed on the bottom half of the shutter under the mid rail and the wooden slats which are fixed to the shutter's frame. This window style itself was commonly used in traditional Bugis houses in the past. Eventhough this house has undergone modifications to its façade, it still retains its nine bars in the shape of delicate spindles on the windows which is the greatest number that may be used in homes of high noblity who possess the title of Datu or are the direct descendants of a Datu. see figure 5.28.

Figure 5.28: The window of Z1-GL-24 uses nine bars.

In front of the house are mounted three windows, while there are four windows mounted at intervals along the left and right sides of the house. These windows allow sunlight and air into the house so that the inhabitants will not feel the heat and humidity of the tropical climate.

Ornaments on the house's exterior are attached along the eaves of the roof as shown in figures 5.15 and 5.285.28. The *anjong* on the both ends of the main roof gable and at the front end of the gable of the roof covering the *lego-lego* are shaped like rectangles resembling a crown (see figures 5.21 and 5.22). This highlights the house's luxury and signifies the owner's power.

The *anjong* on the corners of the roof used are a stylistic representation of the *parenreng*, a flowering vine, combined with the walasuji in the form of a rhombus which occurs in the Bugis wicker weavings. The walasuji is a representaion of the four directions of the winds of north, south, east and west which signifies perfection (see figures 5.29, 5.30, and 5.31

Figure 5.29: The Ornament on the front house Z1-GL-24

Figure 5.30: Ornamentation under the eaves of Z1-GL-24

Figure 5.31: Ornament on corner of roof Z1-GL-24

On the staircase and its pedestal stair are also found carvings in the form of flowers and leaves which signifies happiness and popularity.

For the house Z1-GL-24, the difference between the floor of *watangpola* and the floor of *tamping* still applies. To access the *watangpola*, three steps must be ascended see figure 5.19

Currently this house is not inhabitied by family members nor any relatives except by a married couple acting as care takers who live in the *jokke* section. The house is used only for special family ceremonies like when the Datu's grandchildren conduct traditional marriage ceremonies.

B. Noble house built after the Independence of Indonesia

After the independence of Indonesia, the original form of the Bugis houses belonging to the nobility began using *timplaja* and *tamping* as well as other ornaments in their construction.

B1. The type of *tellulatte* - *eppa lontang*

1. Z1-PR-10

Figure 5.32: Z1-PR-10 : Facade. Source : Field survey 2015

Figure 5.33: Z1-PR-10 : Stairscase. Source : Field survey 2015

Figure 5.34: Z1-PR-10 : Floorplan. Source : Field survey 2015

This is the original archtecture of Bugis house that belongs to a Bugis aristocrat. It is a three-*latte* width house with the addition of a one *latte* for the *tamping*. The watangbola is four *lontang* in length.

The roof of the main house has a straight gable with a *timplaja* on it symbolizing the house owner's high social rank. The three *timplaja* used in this house indicate that the owner does not have the title of Datu.

The roof of both the *jokke* and the *lego-lego* belongs to *paturungeng*g type which is charaterized by an almost flat with a roof slope of between 10 and 15 degrees and used only by commoners. The roof of this *jokke* has a slightly curved gable.

This type of roof belongs to the new style of Bugis house. See figure 5.32.

The walls of both the main house and the kitchen of this house use boards. The main house (*watangpola*) has windows on its front and sides. The locations of the windows are between the poles. The kitchen has no windows. However, the one centimeter gaps between the planks used for the kitchen's walls allows sunlight to enter the house and air to circulate.

The windows of this house use a modern design and modern material. Each module (*latte*) has a double wooden frame window with panes of glass. The front side of the main house, i.e. the second and third *latte*, has two windows. On the first *latte*, the front door is installed. Before the house was renovated, its door was situated in the *tamping* section. The window type of the front of the *tamping* is the same as that of the main house.

The position of the *lego-lego* is in front of the *tamping* and the first *latte*. On the side of the *lego-lego*, there is a staircase with thirteen steps and a bannister. Both this number of steps and bannister are aristocratic symbols. See figure 5.33.

The house plan in Z1-PR-10 is based on the Bugis tribe‘s old beliefs because its first *lontang* serves to receive guests. In this house, the first *lontang* does not use any partition. There are two sleeping areas with no partition in the second and third *lontang*. The fourth *lontang* is used as the dining room, and it also does not have a partition.

The *jokke* (kitchen) of this house is situated behind the main house behind the fourth *lontang*. In the kitchen, there is a staircase whose use is for women only.

The location of the posibola pole (core-pole) is in the middle, or between the front and the back of the house, or in the third place of the five poles (see figure 5.34).

2. Z1-JS-28.

Figure 5.35: Z1-PR-28 : Facade of the house. Source : Field survey 2015

Figure 5.36: Z1-PR-28 : : Front and side jalousie windows Source : Field survey 2015

Figure 5.37: Z1-PR-28 : *jokke* window. Source : Field survey 2015

Figure 5.38: Z1-PR-28 : : Floor beams of an old style of a noble's house. Source : Field survey 2015

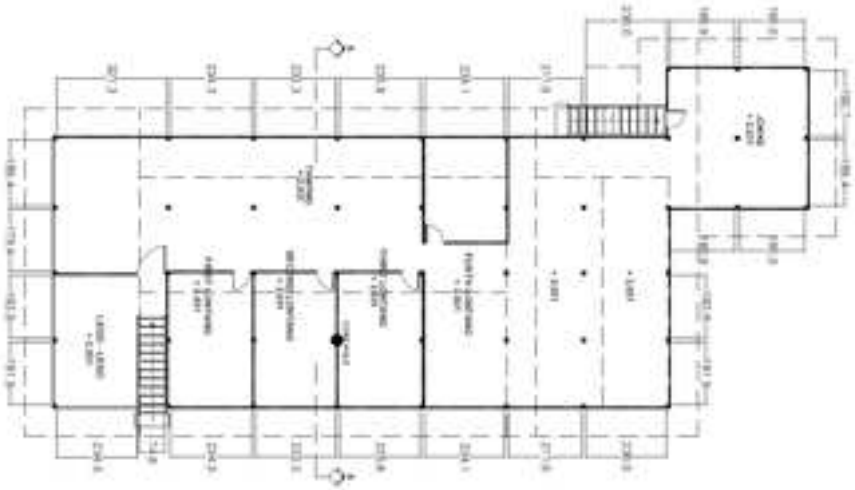

Figure 5.39: Z1-PR-28 : Floorplan. Source : Field survey 2015

This house belongs to the original architectural style of Bugis house even though its façade has changed. The roof of the *watangpola* of Z1-JS-28 is saddle style, and the roof of the *jokke* (kitchen) of the house uses a two-roof formation: the lean-to-roof (*paturungeng*) and the gable roof. As for the roof of the *lego-lego* and the *tamping* of the house, the lean-to roof (*paturungeng*) type is used. This house applies the original architectural style of Bugis house, because the house uses three *timplaja* with a single patukkus (similar to a *timplaja* but not referred as a *timplaja* as an even number would be unlucky). These symbols represent the social level of the house's owner.

The house in Z1-JS-28 was built around the 1970s and was installed with a windows on the front, left and the right sides. The position of the window is located between the two house's poles. The jalousie windows also referred to as louvre windows consisting of adjustable horizontal glass slats are installed on the *watangpola* while wooden shutters are installed in the *jokke* (see picture 5.37). The glass jalousie style belongs to the 1980s (see figure 5.36), while the wooden shutters in the *jokke* indicate that this was the older original window style of the house.

The position of the door of this house is facing the staircase. The door used to be positioned at the *tamping* of the house, and it faced out. The positions of the rooms have

also changed. The present living room used to be the *lego-lego*, and the present *lego-lego* occupies the unused space located at the front of the main house (see picture 5.35).

The four *lontang* of this house indicates the financial capability of the owner. Generally, aristocrats build their houses with at least four *lontang* usually supported by twenty-five or more poles. As for the *jokke* (kitchen), no fixed number of poles are specified. The original Bugis architecture of *watangpola* of this house has not changed, because the house still has a space allocated for public. The roof elements representing the social level are still applied. In addition, the roof of the house in Z1-PR-10 and the roof of the house in Z1-JS-28 do not use any ornaments. Therefore, these houses look simple and large.

The materials and modern design styles have changed the original architecture of this Bugis house, including its elements and the ornaments. However, the traditional pattern of the Bugis house structure will likely survive as the original function of each section is still used in accordance with Bugis traditional practices and culture.

The first *lontang* of this house has installed a partition to separate the guest bedroom which is traditional used by boys over seven years old from the room for men to gather. Furthermore, both the second *lontang* and the third *lontang* have a bedroom, while the fourth has no bedroom and no partition. However, opposite the fourth *lontang*, there is a room that serves to keep clean clothes, and also there is a divan for anyone to take a nap during the day. This room is situated in the *tamping* whose original function was as a hallway.

The position of posibola (corepole) of this house is in 3-III. The owner of this house chooses the third pole of a total of five poles from the front of the house as the posibola which is situated at the room between the second and third *lontang* so that when the house owner performs a ritual, visitors cannot not see this activity see figure 5.34

C. New Model of Buginese Aristocrate's Houses in the Early 1980's

In this first zone, one of the three new styles of Bugis aristocrat's houses is the object of this study. Some local people explained that this new style appeared around the 1980s. This style is adopted by both the houses of the aristocrats and the houses of the commoners.

One difference between the old style and the new style of Bugis house is that the tamping is eliminated from the new style.

C1. The Type of *tellulatte* – *tellulontang* (three *latte* – three *lontang*)

1. Z1-TL-22

Figure 5.40: Z1-TL-22 : Façade with three *timplaja*. Source : Field survey 2015

Figure 5.41: Z1-TL-22 :Private *lego-lego* on the side of the house. Source : Field survey 2015

The facade of this house has undergone changes. The changes occur in the roof type. The old roof of the Bugis house is a straight gable, but the roof of house Z1-TL-22 is a slightly curved gable which is commonly used on the new style of Bugis houses. The width of the main house is three *latte* without a *tamping*.

In this new style of Bugis house, three timpalaja are still used as a symbol of rank. In the watangbola has no symbols of social rank even on the windows. The window at the front side of the house is placed in the second and third latte. The first latte was for the door of the house.

On the side of the house, there is a private *lego-lego* which is only for females who have close kinship with the house owner. The *lego-lego* addition to the side of the house can only be applied to an aristocrat's house. It functions as a daytime sitting room for children and women or for close female relatives of the house owner. The length of this private *lego-lego* is the same as that of the two *lontang* of the house, and its width is about 90 centimeters. As for the *lego-lego* constructed at the front of the house, it is situated in

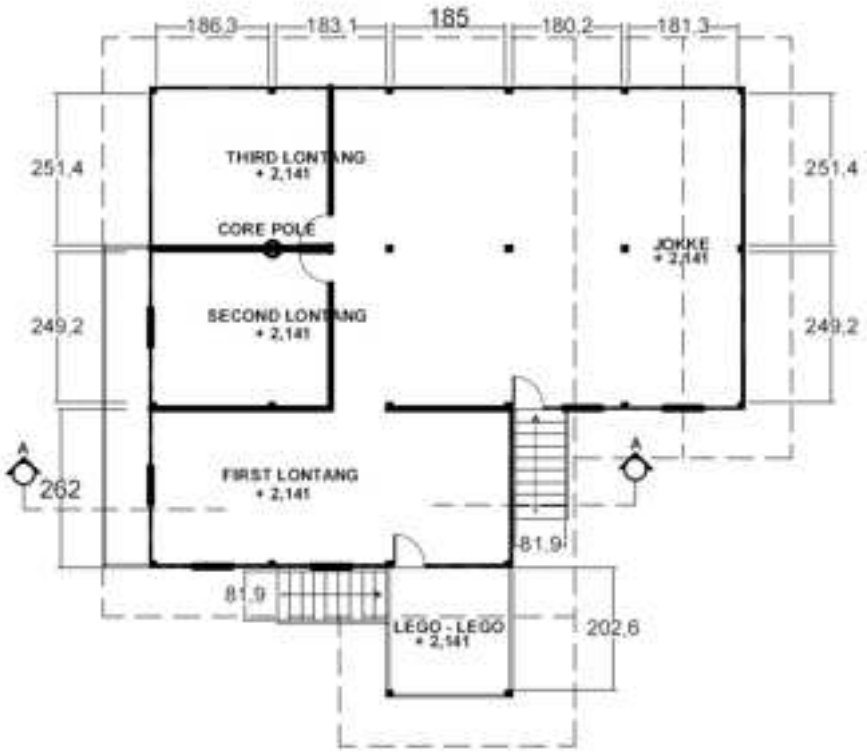

Figure 5.42: Z1-TL-22 : Floorplan. Source : Field survey 2015

front of the first *latte*, and is not wide.

The positions of the staircases of this house adhere to the rules of the old style of Bugis house, because they are situated at the front of the main house and at the side of the *lego-lego*. The number of each staircase's steps is eleven.

The interesting thing about this house is that the *lego-lego* and the *watangpola* are under one roof. The house owner does not separate the *lego-lego*'s roof from the main house's roof. As explained previously, the Bugis house consists of three parts, namely the *lego-lego*, the *watangpola* and the *jokke* with each part having its own roof.

The space under the main house functions as a public space. For example, it is used as a space to sit during the day. The space under the kitchen serves as a space for storing carpentry and agricultural tools and for keeping livestock such as chickens.

The placement of rooms in this house adheres to the functions as embodied in the old beliefs of the Bugis tribe. Between the first and the second *lontang*, there is a partition. The position of the *jokke* is parallel to the second and third *lontang* so that the space of the *jokke* looks broad.

2. Z1-JS-27

Figure 5.43: Z1-JS-27 : Facade. Source : Field survey 2015

Figure 5.44: Z1-JS-27 : Stairs with *tuka* (landing) and a modern metal bannister and balustrade. Source : Field survey 2015

Figure 5.45: Z1-JS-27 : New window style using glass with faux shutters using jalousie. Source : Field survey 2015

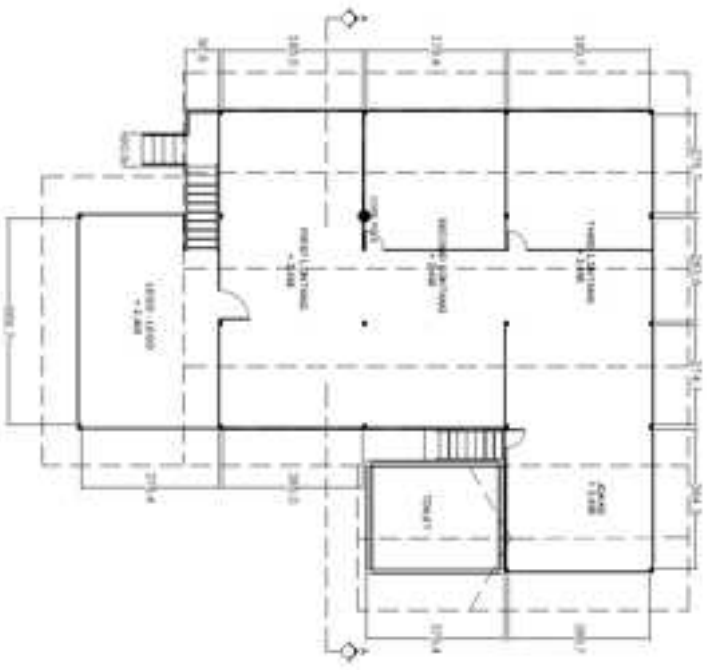

Figure 5.46: Z1-JS-27 : Floor plan. Source : Field survey 2015

The façade of this house is very different from that of a traditional Bugis house as can be seen from the shape of its roof, its *lego-lego* and the position of its door. The roof of this house has a slightly curved gable. This house applies symbols of rank such as three *timplaja* and an additional patukku on the bottom of the *timplaja*. They indicate the social level of the house owner.

The windows at the front of the house is a combination of a pair of glass windows bordered by a faux shutter on either side with jalousie on the upper part of each shutter. On the right and left side of the house are shutters with jalousie windows on their upper part to ensure air circulation.

The location of the windows at the front of the house are at the first and the third *latte*, while the location of the house door is at the second *latte*. In the new style of Bugis house, there is no rule for the location of house door.

Under this house, a room with permanent walls has been built. In addition, there is also a bathroom at the rear of the room.

It is interesting to note that Z1-JS-27 still applies aristocratic symbols even though the house belongs to the new style. For example, first, the staircase has thirteen steps, while at present rarely do aristocratic houses apply such a staircase. Second, the staircase has a *tuka* made of red stone and a bannister and balustrade made of aluminum. The application of *tuka* to this staircase indicates that aristocratic rank of the house owner has been promoted because of marriage.

The width of this house is three *latte* or *karateng*, and its length is three *lontang*. At the first *lontang*, there is no partition to separate the guest/male adult bedroom from the room for guests to sit. The placement of rooms in this house adheres to the original rules of Bugis house. The positions of the bedrooms are in the ulu or the third *latte*. In the first *latte*, there is a partition between the second and third *lontang*. And the circulation area for the people in the house is in the second *latte*.

The position of the *jokke* of this house is on the side of the *watangpola* and parallel to the third *lontang*. Between the main house and the kitchen, there is a door that connects the staircase to the back of the house. This house has added a bathroom with a toilet with ceramic walls and floors. This house belongs to the category of modern house.

The size of the *lego-lego* is quite wide as its width is the same as the width of a two-*latte* house, and its length is the same as the length of one *lontang*. The house owner places a set of chairs in the *lego-lego* as a section for people in the house to sit during the day and for guests to sit before being invited into the house.

The position of this house's posibola (corepole) is in 3-II, or it is located between the first and the second *lontang*.

C2. The Type of *tellulatte - eppalontang*

1. Z1-JS-29

Figure 5.47: Z1-JS-29 : Facade. Source : Field survey 2015

Figure 5.48: Z1-JS-29 : *lari-lariang*. Source : Field survey 2015

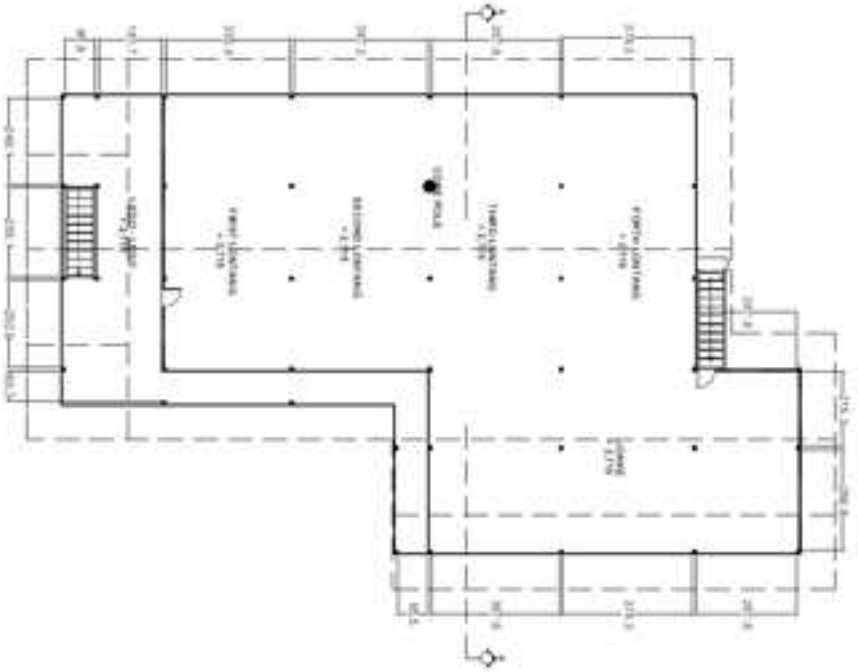

Figure 5.49: Z1-JS-29 : Floorplan. Source : Field survey 2015

The facade of this house consists of four roofs: one roof for the main house, two roofs for the *lego-lego* and one roof for the kitchen. All of these roofs use a modern gable (a slightly curved gable). The symbols of aristocracy that are installed on the roof of this house are three *timplaja* and one patukku, while the symbol that is installed at one end of the gable of the roof is a buffalo horn-shaped *anjong*.

An additional section on the side of the *watangpola* connects the *lego-lego* at the front of the house and the *lego-lego* of the kitchen. This part is called *lari-lariang*, which functions as an alternative corridor to the kitchen so as not to disturb the activities conducted in either the first *lontang* or the main house. The activities may be family gatherings, rituals, thanksgiving, marriage proposal events, death-related events and others. The house in Z1-JS-29 has a temporary wall. The house owner plans to build the house's permanent wall that is made of wood and glass when the funds for that purpose are available.

The *lego-lego* of this house has the same width as the one of the house. The position of this house's staircase is in front of the *lego-lego*. The aristocracy symbol at this staircase applies only on the number of steps, i.e., thirteen.

The width of the house is three *latte*, and the length of the house covers the four *lontang* of the watangbola. The *jokke* on the side of the main house is parallel to the third and fourth *lontang*. A staircase with thirteen steps is installed in the *jokke* that provides an access for women.

The position of the posibola of this is in 3-III, where it is located between the second and the third *lontang*. The posibola is located in the back of the house so that thanksgiving rituals can be performed on the second *lontang*. Seeing the position of the posibola, the house owner likely performs the thanksgiving rituals with his close relatives.

5.1.2 Houses of Commoners

In this zone, no house of the commoners was built during the colonial rule, the existing houses were built after the era of the independence of Indonesia. The oldest house was the one that was built at the beginning of the Indonesia's independence. The shapes of the commoners' houses in this zone share the shape of the Bugis original houses. As explained by Oliver (1997), Abidah (2016) and Palemmui (2006), the shape of Bugis original house is a stilt rectangle extending backward with an additional spatial section at the side of the house.

B. Old Bugis House at the Era after the Independence of Indonesia

B1. The Type of *tellulatte – eppalontang* (three *latte* – four *lontang*)

Houses of the commoners that belong to this category are built three *latte* and four *lontang* as seen in the following objects of study: Z1-TT-04, Z1-TT-07, Z1-PR-15, Z1-PL-31, Z1-PL-32, Z1-PL-33 and Z1-PL-34.

1. Z1-TT-04

Figure 5.50: Z1-TT-04 : Facade. Source : Field survey 2015

Figure 5.51: Z1-TT-04 : Hole in post showing the original *tamping* floor level. Source : Field survey 2015

Figure 5.52: Z1-TT-04 : Five-bar window. Source : Field survey 2015

Figure 5.53: Z1-TT-04 : Interior living room. Source : Field survey 2015

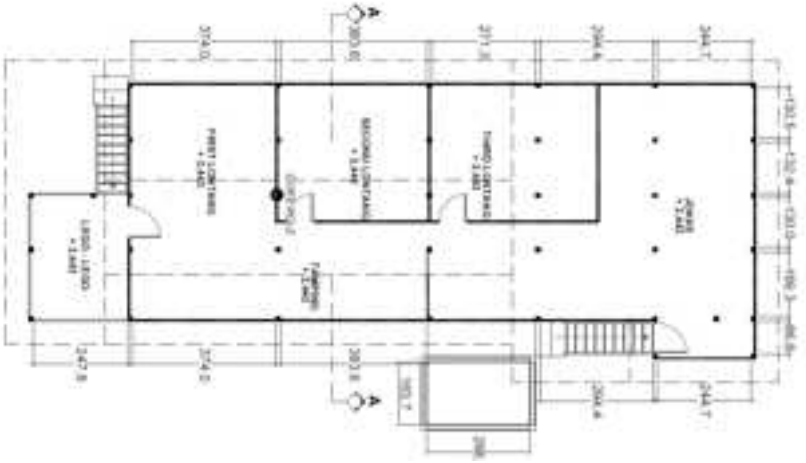

Figure 5.54: Z1-TT-04 : Floorplan. Source : Field survey 2015

This house has the original architecture of Bugis house. The façade is typical of a Bugis house. The shape of the roof of this house is saddle shaped and without any *timplaja*. The slope of the roof is 45 degrees indicating that the house owner has higher social level in his community. As for the roof of the additional building on the front, which is called *lego-lego*, uses a peturungen (local language) roof. This roof has a slope of between 5 and 15 degrees so that the roof of the house looks flat, while the additional roof for the back of the *watangpola* (main house) is gabled.

This house uses glass jalousie windows on its front and barred windows on its sides without shutters. Each window has five bars.

The *tamping* of this house belongs to the old style where the floor of the *tamping* is lower than the floor of *watangpola* (main house). When the house was renovated, the floor of the *tamping* was raised so that it is now equal in height to the floor of the *watangpola*. This change has made access to the *watangpola* easier from the *tamping*,

The *lego-lego* of this house has both a low and a high floor. The low floor functions as a place to clean one's feet before entering the house. At the present, this low floor serves as a place for sandals and shoes. While the high floor has been raised by about 45 centimeters to sit on. This floor difference also indicates that the low floor is the part for the dirty things, while the high floor is the part for the clean things.

Another function of *lego-lego* is as a base for the staircase to lean on. The number of steps of this house's staircase is seven. The number of steps of this staircase indicate that the house owner adheres to the old style of Bugis house.

This house is a three *latte*-four *lontang* type. The function of each *lontang* still follows the old Bugis belief, except for the second *lontang* that has been converted into a living room since the youngest child of the owner got married and no longer stays at the house. Due to the shifting of the function of the second *lontang*, the owner of the house made the third *lontang* to be his own bedroom. The merger of the first and the second *lontang* has been converted into a living room and is used a bedroom for the house owner's grandchildren when they come to visit. In addition, the owner of the house has partitioned both the third and fourth *lontang* so that each of these two *lontang* has rooms that face each other. These rooms serve as temporary bedrooms for visiting relatives.

The position of the posibola in this house is in 2-III or between the second and

third post. This position of the posibola creates a large space. Also, when performing a ritual, it is not immediately visible to the guests.

2. Z1-TT- 07

Figure 5.55: Z1-TT-07 : Facade. Source : Field survey 2015

Figure 5.56: Z1-TT-07 : Floor construction. Source : Field survey 2015

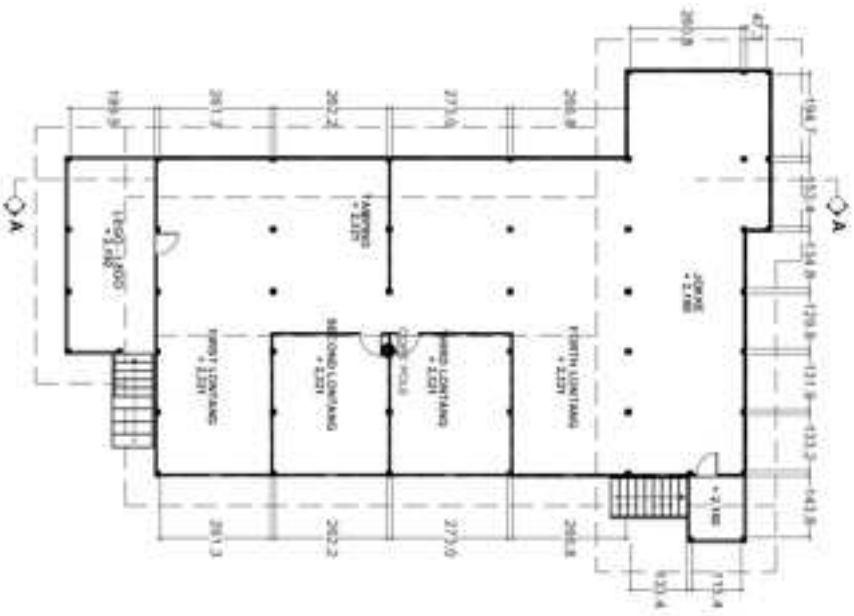

Figure 5.57: Z1-TT-07 : Floorplan. Source : Field survey 2015

The facade in this house share the original facade of Bugis house, because the roof of this house is saddle-shaped type with a slope of 45 degrees and without *timplaja*. The roof of the *lego-lego* is *paturungeng* type, and the roof of its kitchen is gabled. This house has three windows with five bars each. The door of this house is a combination using a panel and thirteen jalousie slats. Each window is placed in every *latte* between the poles of this house, while the door is placed at the *tamping*.

At the front of the *tamping* and the first *latte*, there is an additional building called *lego-lego*. This *lego-lego* still applies two different floors. One is a low floor that is parallel to the staircase. The other one is the 30-cm raised floor which serves as a seat. Generally, the Bugis community will sit down at the *lego-lego* during the day with their families and friends.

The staircase of this house is a combination of the wooden steps and stone steps. The total number of the steps is eleven. The number of *timplaja* and the number of its steps represents the social level of the house owner.

This house has three *latte* and four *lontang*. Its room placement follows the *lontang* function of the original Bugis house. In the *tamping* section, situated between the second and third *lontang*, there is a partition that serves as a wall so that visitors or guests cannot immediately see the activities in the kitchen. The fourth *lontang* is without a partition which functions as a family dining room.

The position of the posibola (corepole) is in 2-III. The house owner regularly performs thanksgiving rituals at the front part of the section situated at the third *lontang*. The family members also use this area for various activities, including watching television. Although there is no rule about this section being used exclusively for conducting a thanksgiving ritual as long as it is close to the posibola (corepole).

3. Z1-PL-30

Figure 5.58: Z1-PL-30 : Facade. Source : Field survey 2015

Figure 5.59: Z1-PL-30 : Circle pole. Source : Field survey 2015

Figure 5.60: Z1-PL-30 : *lego-lego* with a raised bench and a floor lower than the *watangpola* floor. Source : Field survey 2015

Figure 5.61: Z1-PL-30 :*tamping* floor at its original position i.e. lower than the watanpola floor. Source : Field survey 2015

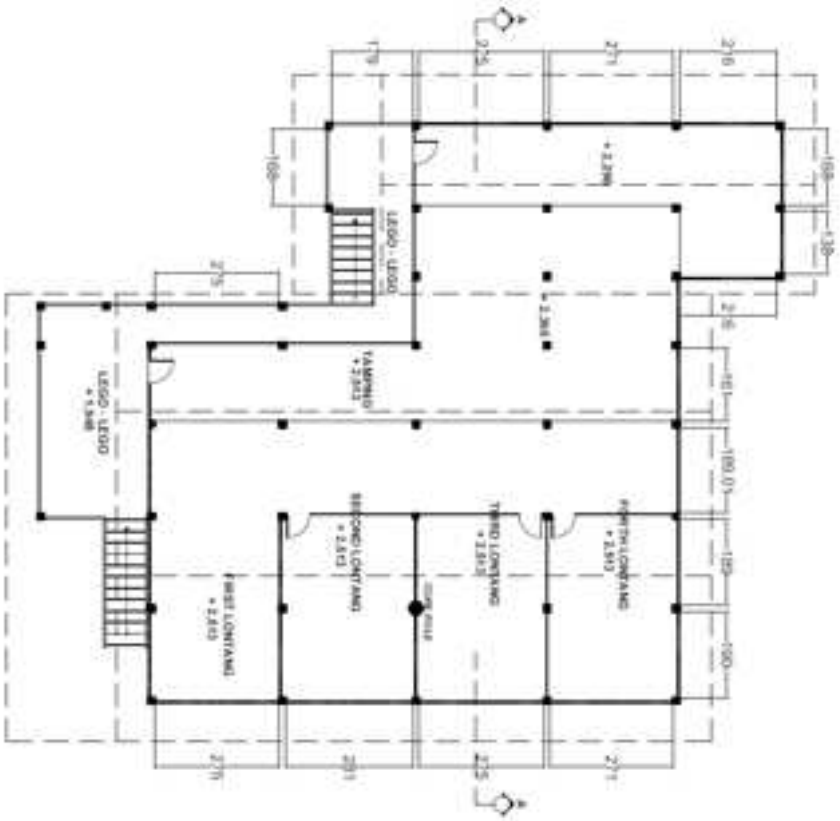

Figure 5.62: Z1-PL-30 : Floorplan. Source : Field survey 2015

The roof of the house in Z1-PL-30 is gabled with a slope of 45 degrees and has one *timplaja*. The roof of the *jokke* is also the gabled, while the roof of the *lego-lego* is *paturungeng* which extends to the side so that it covers the house's staircase.

On the left side of the house's *tamping*, there is an additional section called *lari-lariang*, which serves as the outdoor connector between the house's *lego-lego* of the main house and the house's *lego-lego* of the *jokke*. The most notable characteristics about this house is that one of the poles of this house is circular. This pole is located near the house's door or at pole 1-I while the *posibola* is at 3-III.

The ornaments are placed at the *timplaja* and at the end of the roof. The shape is *belaketupat* (a Bugis term referring to a trapezoid shape). This shape is considered a perfect shape for the Bugis tribe. The *anjong* on the corners and at the top of the roof are rooster-shaped.

4. Z1-PL-31

Figure 5.63: Z1-PL-31 : Facade. Source : Field survey 2015

Figure 5.64: Z1-PL-31 : Floor construction. Source : Field survey 2015

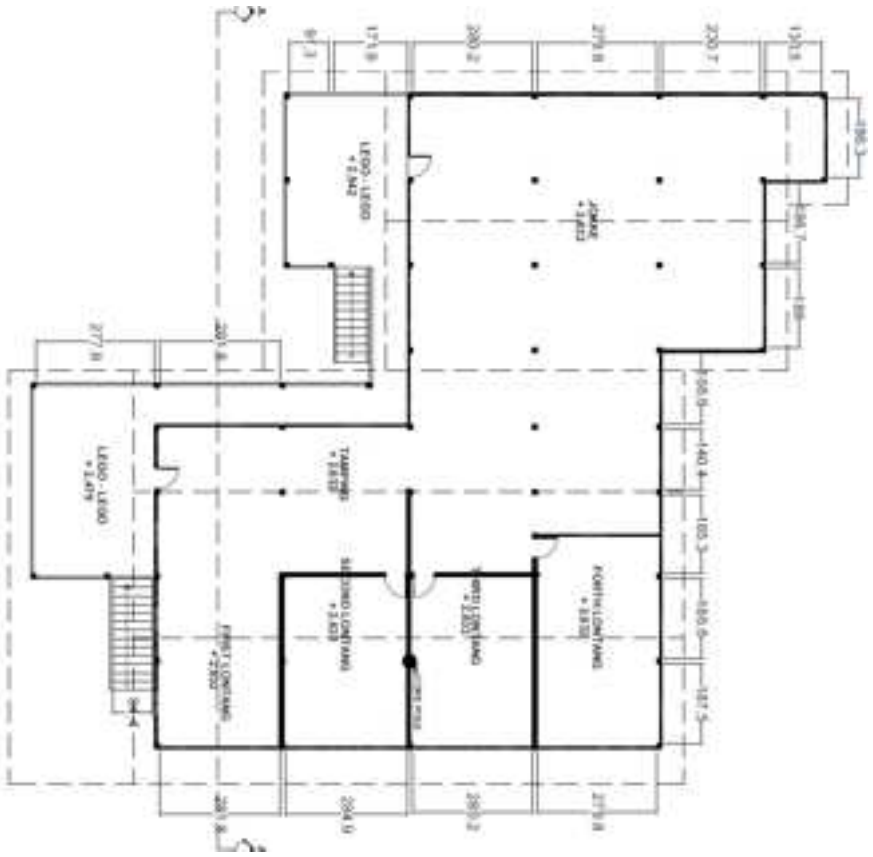

Figure 5.65: Z1-PL-31 : Floor plan. Source : Field survey 2015

This house is large because its *jokke* almost matches the size of the watangbola. The *jokke* of this house is on the side of the main house that is parallel to the third and fourth *lontang*. The shape of this house's roof is gabled without a *timplaja*. The height of the roof is not low and constructed at a 45 degree angle which indicates that the owner of this house has a higher social level than the commoners. The *anjong* on the roof of the *jokke* are carvings in the form of a *lawasuji* and a *parenreng* flower.

This house uses glass jalousie windows, so the indication of the social level of the owner has disappeared. The windows are placed at the first, second and third *latte*, respectively. The door of the house is placed at the *tamping*. Next to the the *tamping*, there is an additional section called *lari-lariang* which connects the *lego-lego* of the main house and the *lego-lego* of the *jokke*.

The staircase of this house has thirteen steps. This number of staircase'steps is the highest number and is usually used in Bugis aristocrats' houses.

The area below this house's floor called the wasubola has not changed. The house owner keeps this function of this area as a public space. During the day the house owner will stay in this area to relax and socialize with his neighbors, and even make fishing nets.

The *posibola* of this house is located at pole 3-III. The location is between the second and third *lontang* where they are partitioned thus creating two rooms. One room is the outer room, and the other one is the inner room. The inner room is wider than the outer room. Thanksgiving rituals are held in the inner room, so the house guests cannot see this activity.

The *tamping* section is situated outside this house remains to function as the

Figure 5.66: Facade. Source : Field Survey 2015

Figure 5.67: Z2-PL-32 : Connection between pole and beams of *pattolo* and *arateng*.Source : Field survey 2015

area for people to move around in this house. The purpose of constructing this *tamping* is to minimize the circulation of people through the sections of the main house. The construction of is based on the belief that the main house is a sacred section that it can only be accessed by those who have done a physical cleansing. Therefore, those who come from outside the house are required to do physical cleansing before accessing the sections of the main house.

5. Z1-PL-32

The roof of this house is gabled with a slope of between 35 and 45 degrees for both the main house and the *jokke*. This house's roof is plain, because it does not use either elements or ornaments as symbols of social level of the owner of this house. The windows of this house uses glass jalousie, and show no symbols representing the social rank of the owner. The symbols of social rank are found only on the house's staircase where it has seven wooden steps and two stone steps.

This house has three *latte* and four *lontang*. Each *lontang* has a bedroom except for the first *lontang*. The location of the *posibola* (corepole) is in 2-III or between the

Figure 5.68: Z2-PL-32 : *lego-lego* floor construction..Source : Field survey 2015

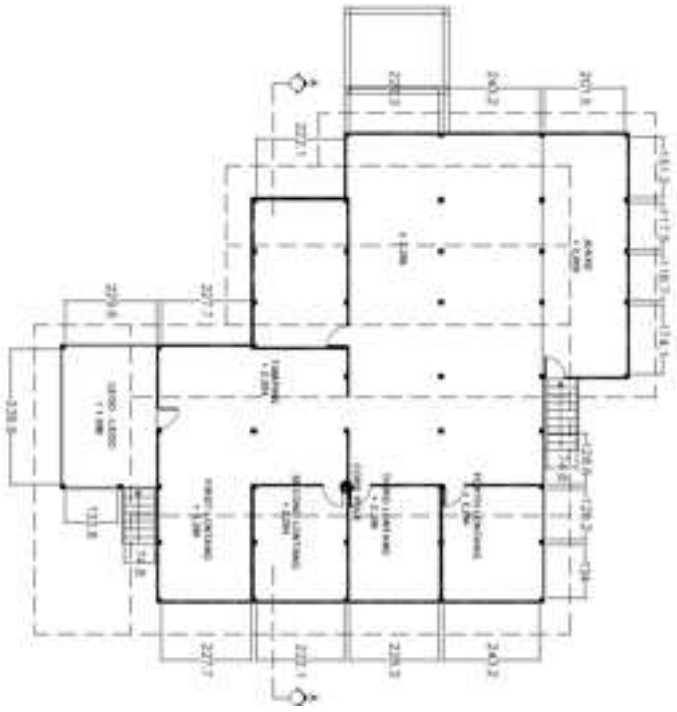

Figure 5.69: Z2-PL-32 : Floor plan. Source : Field survey 2015

Figure 5.70: Z1-PL-33 : Facade. Source : Field survey 2015

Figure 5.71: Z1-PL-33 :Watangpola floor construction. Source . Source : Field survey 2015

second and third *lontang*. Ritual activities are carried out outside the bedroom at the third *lontang*. The kitchen area, the third *lontang* and the fourth *lontang* are continuous so that their inner space is a wider than their outer space.

6. Z1-PL-33

This house is not wide. The shape of its roof is saddle-shaped with a slope of 45 degrees. This house's windows on the first and third *latte* are smaller than the window installed at the second *latte*. This house's door is installed at the *tamping* section.

The *lego-lego* of this house is an additional section to the front part of the *watangpola*. The width of the *lego-lego* is as wide as the *tamping* of this house. The floor of the *lego-lego* is lower than that of the *watangpola*. The nine-step staircase of this house rests on the *lego-lego*.

Figure 5.72: Z1-PL-33 :*lego-lego* and *tamping* floor construction. Source : Field survey 2015

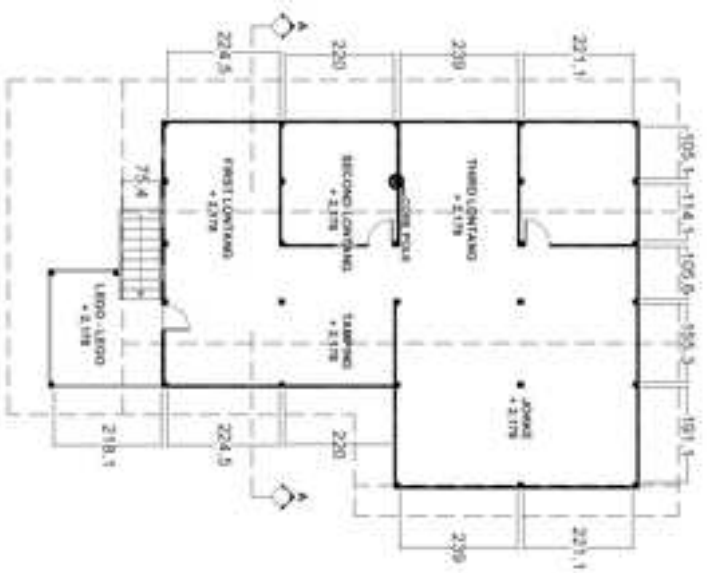

Figure 5.73: Z1-PL-33 : Floorplan Source : Field survey 2015

7. Z1-PL-34

Figure 5.74: Z1-PL-34 : Facade. Source : Field survey 2015

Figure 5.75: Z1-PL-34 : *lego-lego* with a bench and a floor lower than the *watangpola* Source : Field survey 2015

Figure 5.76: Z1-TL-34 : *lego-lego* with new stairs being installed. Source : Field survey 2015

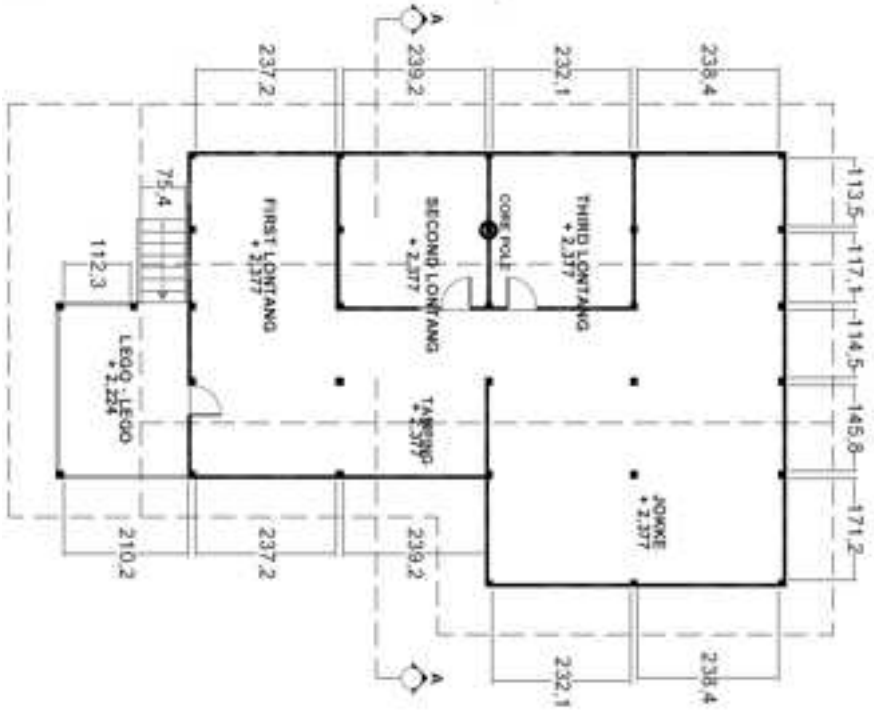

Figure 5.77: Z1-TL-34 : Floorplan. Source : Field survey 2015

The roof of this house is saddle without additional elements and ornaments. The roof has a slope of 45 degrees. This house does not use modern windows but uses woven bamboo windows. The walls of this house use tabba (local language). The small holes in the walls not only allow the air circulation but also allows the sunlight to enter into the house. The windows of this house are installed only at the second and the third *latte*, while for the first *latte* has no window. The door of this house is placed on the *tamping*.

The *lego-lego* of this house is situated at the front of the *tamping* and the first *latte*. The *lego-lego* has a low floor and a raised floor like a bench. To the left of *lego-lego* is the staircase with seven steps.

The symbols indicating rank can be seen on both the high roof and the number of the staircase's steps this house has.

The width of this house is three *latte* and four *lontang*. Both the second and third *lontang* have a temporary bedroom. In contrast, both the first and the fourth *lontang* have no partitions. The location of the corepole is at 3-III. This pole is situated inside the bedroom. Therefore, the ceremonial objects used for the thanksgiving ritual are kept in the bedroom, while the ritual is held outside the bedroom.

B2. The type of *tellulatte-tellulontang*

There are 14 houses that share the type of three *latte*-three *lontang*. Each of the houses is coded as follows: Z1-BT-01, Z1-TT-05, Z1-TT-06, Z1-TT-08, Z1-TT-09, Z1-PR-11, Z1-PR-15, Z1-PR-12, Z1- PR-19, Z1-PR-20, Z1-PR-21, Z1-PR-23, Z1-JS-26 and Z1-PL-30.

Figure 5.79: Z1-BT-01 : Connection beam. Source : Field survey 2015

Figure 5.80: Z1-BT-01 : *lego-lego* and stairs. Source : Field survey 2015

1. Z1-BT-01

Figure 5.78: Z1-BT-01 : Facade. Source : Field survey 2015

Figure 5.81: Z1-BT-01 : Pole direct from ground to roof. Source : Field survey 2015

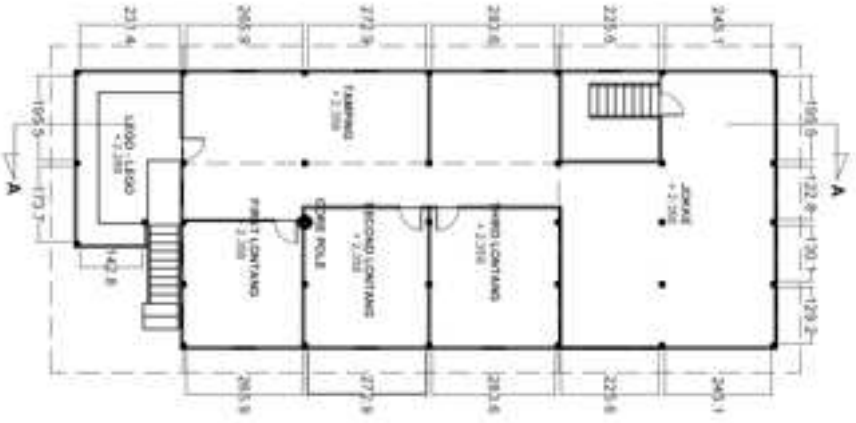

Figure 5.82: Z1-BT-01 : Floorplan. Source : Field survey 2015

The roof of this house is saddle-shaped with a slope of between 30 and 35 degrees. The gable roof is only used in its main house. Its *lego-lego* and *jokke* use the *paturungeng* roof. Glass jalousie windows are installed in every *latte* of this house. The position of the door is installed in the *tamping* section. The space under the main house still functions as storage for agricultural and carpentry tools while the space under the *jokke* still serves as a space to keep livestock such as chickens and ducks.

This house has a *lego-lego* situated at the front of its main house, at the front of its *tamping* and at the first *latte*. The *lego-lego* has is a two level floor. The nine-step staircase of the house is installed at the *lego-lego* and is parallel to the second pole of the *watangpola*.

This house uses three *latte* and three *lontang*. Each *lontang* has a bedroom. The *tamping* of this house has been partitioned so that the main house is separated from the kitchen. The house owner is a Christian and still follows the old Bugis beliefs. Thanksgiving rituals are usually done during major Christian festivals and at other events that are deemed necessary. The position of this house's corepole is in 2-II, so the ritual events are usually held in the living room or at the first and second *lontang* outside the bedroom.

2. Z1-TT-05

Figure 5.83: Z1-TT-05 : Facade. Source : Field survey 2015

Figure 5.84: Z1-TT-05 : Jalousie window surrounded by plate glass inserts and open doorway Source : Field survey 2015

Figure 5.85: Z1-TT-05 : Floor construction. Source : Field survey 2015

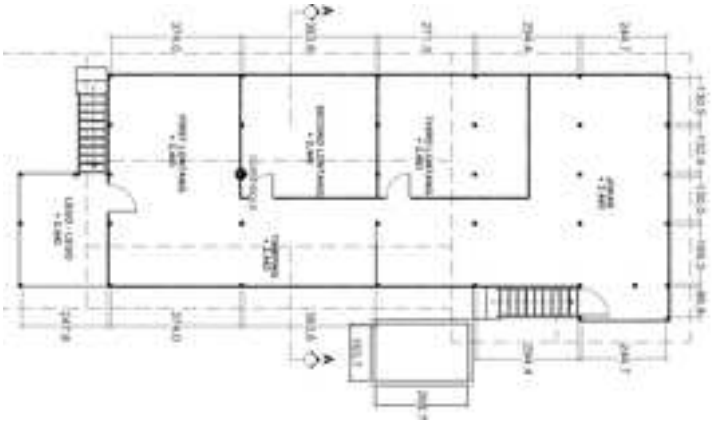

Figure 5.86: Z1-TT-05 : Floorplan. Source : Field survey 2015

From the perspective of the house's roof, the house facade looks shorter. The roof is the gable-shaped with a slope of 30 degrees. The house's additional buildings, such as the *lego-lego* situated at the front of the main house and the *jokke* (kitchen) situated at the back of the main house, use the paturungen roof. This house has glass jalousie windows which are placed at the second and the third *latte*. At the first *latte*, a door is installed at the house's *tamping* which has no window.

This house has a *lego-lego* that is situated at the front of the house's *tamping* and the house's first *latte*. This *lego-lego* floor is one level. Nevertheless, the house owner use this *lego-lego* as as a place to sit and to relax. The staircase of this house has nine steps and uses a bannister. Such a staircase is usually used in aristocrats' houses. However, the staircase's bannister does not represent any particular social level, but was installed for practical reasons so that the elderly may climb the stairs safely.

A short gate is installed at the staircase to prevent livestock and dogs from entering the house. It is also intended to prevent thevies from entering the house, particularly when it is locked from the inside. The noise of someone trying to open the gate will alert the occupants.

This house has three *lontang*. Each *lontang* has a bedroom except for the first *lontang*. At the *tamping* of this house, a partition is placed, so people in the house cannot move through the *watangpola*. This shift of the pedestrian traffic has made the *watangpola* no longer a sacred section.

3. Z1-TT-06

Figure 5.87: Z1-TT-06 : Facade. Source : Field survey 2015

Figure 5.88: Z1-TT-06 : Closed shutters with each using plain boards below the mid rail and fixed slats above in the Malay style : Field survey 2015

Figure 5.89: Z1-TT-06 : A traditional Bugis window using five bars installed on an exterior bamboo wall. Source: Field survey 2015

Figure 5.90: Z1-TT-06 : floor contruction between *tamping* and *lego-lego.* Source : Field survey 2015

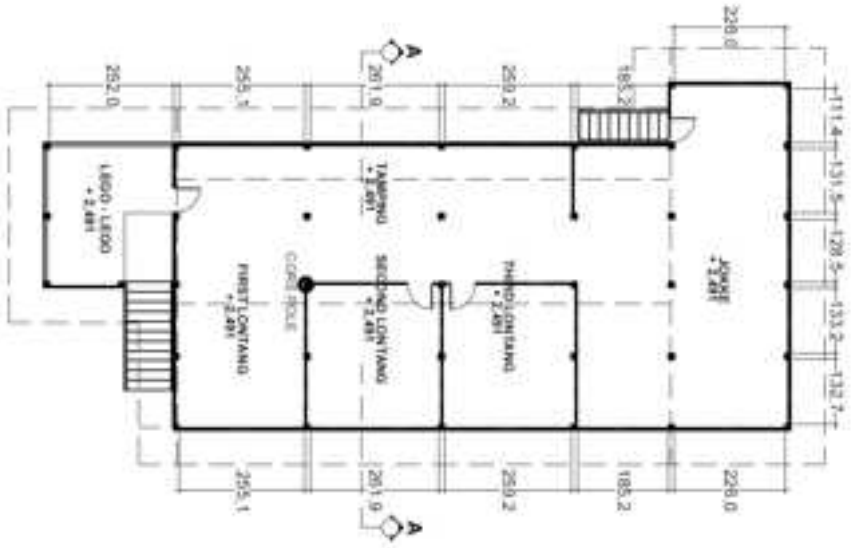

Figure 5.91: Z1-TT-06 : Floorplan. Source : Field survey 2015

The façade of this house appears higher due to its high gable-shaped roof with an angle of 45 degrees. The roof of the *lego-lego* is *paturungeng*, while the roof of the *jokke* is a gable.

This house has installed five bars in each window with two shutters. The front part of this house has five tresllis windows, each of which is installed at each *latte*, while the door of this house open into the *tamping.* On the sides of this house, the windows with five bars are installed without shutters.

The *lego-lego* is situated at the front part of the house's *tamping* at the first *latte*, The floor of the *lego-lego* is flush with the floor of the *watangpola.* However, the floor of the *lego-lego* that is at the top of the nine-step staircase is slightly lower than the rest of the floor which serves as an area where sandals are removed and left so that everyone may enter the house barefoot.

Every *lontang* of this house has a bedroom, except for the first *lontang.* The first *lontang* has no partition that separates the sleeping area for males over the age of seven from the room where adult male guests are recieved. The *posibola* pole is in 2-II, which

is between the first and second *lontang*. The *jokke* is situated at the back of the main house. The staircase to the *jokke* of this house is unique as it is installed under the house. Usually the staircase to the *jokke* is situated behind the house.

4. Z1-TT-08

Figure 5.92: Z1-TT- 08 :Facade. Source : Field survey 2015

Figure 5.93: Z1-TT-08 : : Shuttered Malay window style using five bars across the opening.. Source : Field survey 2015

Figure 5.94: Z1-TT-08 : Additional room. Source : Field survey 2015

Figure 5.95: Z1-TT-08 : Stairs. Source : Field survey 2015

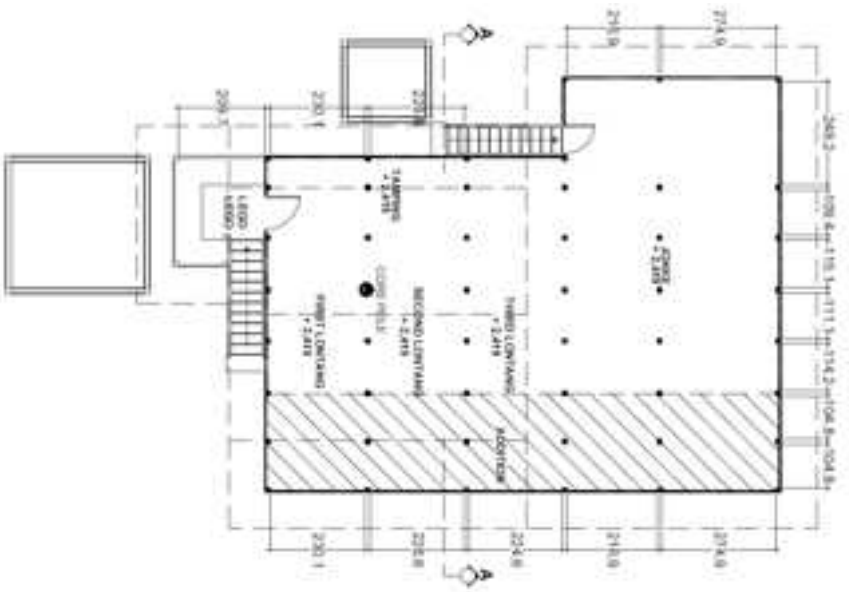

Figure 5.96: Z1-TT-08 : Floorplan. Source : Field survey 2015

The *watangpola* appears tall due to its gabled roof of 45 degrees and stands out as it is situated in the middle with additional modules built on either side. The roofs of the *lego-lego*, the *jokke* and the two additional modules are paturungen.

The additions to the *watangpola* either side of the main house are not considered extensions, because each module is not covered by the roof of the *watangpola*. The house owner does not change the roof of the main house but only adds the paturungen roof.

Each window of this house has five bars with two shutters. This window has similarities to the window of the Malay house. A barred window is installed at each *latte*, while plate glass windows are installed in the additions.

This house's *lego-lego* is situated at the front of the *tamping*. This *lego-lego*'s width is half the width of the first *latte*. This *lego-lego* has a low floor that is the same level as the *tamping* floor. The floor at the edge of the *lego-lego*'s wall is raised about 30 centimeters. One end of the house's staircase rests on the *lego-lego*'s lower floor. The number of this staircase's steps is eleven.

The width of the house in Z1-TT-08 is three *latte* even though there is an additional module on each side of the main house. In the first *lontang*, the additional module has a bedroom, while the bedroom in the second *lontang* is still alloted for the head of the household. On the third *lontang*, there is also a bedroom. The bedroom in each *lontang* is broad except for the one in the first *lontang*. The position of the posibola is in 2-II or between the first and second *lontang*. The *jokke* situated at the back of the main house is larger in size than the dimensions of the main house.

5. Z1-TT-09

Figure 5.97: Z1-TT-09 : facade. Source : Field survey 2015

Figure 5.98: Z1-TT-09 : left side. Source : Field survey 2015

Figure 5.99: Z1-TT-09 : Right side. Source : Field survey 2015

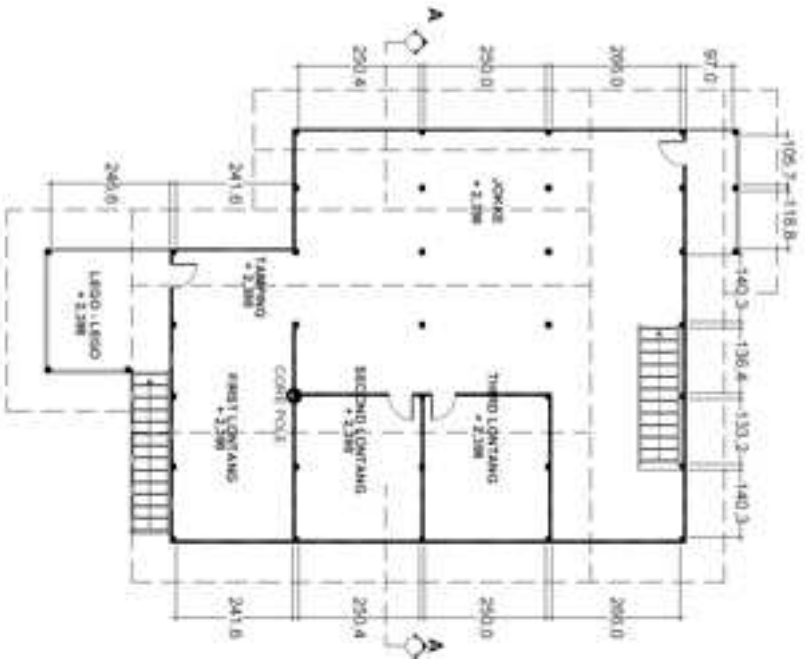

Figure 5.100: Z1-TT-09 : Floorplan. Source : Field survey 2015

This house looks shorter due to its low gabled roof with a slope of 30 degrees. Both the *lego-lego* and the *jokke* use a *paturungeng* roof. Every *latte* of this house has a window installed. A glass jalousie window is installed at the first and the third *latte*. In the second *latte*, a plate glass window wider than the jalousie windows is installed. The door of this house is placed at the *tamping*.

The *lego-lego* of this house is placed at the front of the *tamping* and at the first *latte*. The floor height of the *lego-lego* is flush to the *watangpola* floor. The front eleven step staircase is installed at the side of the *lego-lego* and rests on the *lego-lego*.

The function of the space under the *jokke* of this house has undergone changes. The functions of this space have been changed. One function is to do clothes tailoring assigned by a company that sells school uniforms. The other function is as a kitchen. The staircase to the *jokke* has been moved to the inside facilitating access to the area under the house.

This house has three *lontang*. There is bedroom or cubicle only at the second and third *lontang*, while at the first *lontang*, there is no partition.

The *jokke* of this house functions as a room for family members, as a room for watching the television and a room to take a rest during the day and a room to have meals as the cooking activities have been moved to under the house.

The position of posibola is at pole 2-II. The activities of thanksgiving rituals are held outside the bedroom of the second *lontang*. Based on the floorplan of this house, the room at the furthest back is wider than the other rooms, because the *jokke* has been incorporated into to the second and third *lontang*.

6. Z1-PR-11

Figure 5.101: Z1-PR-11 : facade. Source : Field survey 2015

Figure 5.102: Z1-PR-11 : Right side

Figure 5.103: Z1-PR-11 : Left side

Figure 5.106: Z1-PR-11 : Kitchen below the house with stairs to the *jokke*. Source : Field survey 2015

Figure 5.104: Z1-PR-11 : Connection of the pole and beams. Source : Field survey 2015

Figure 5.105: Z1-PR-11 : Jalousie window with fixed plate glass leaves on either side.

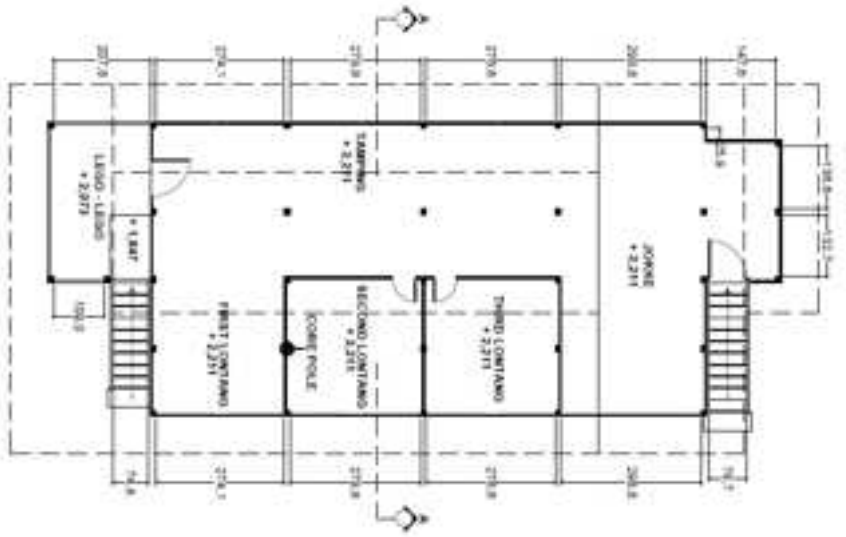

Figure 5.107: Z1-PR-11 : Floorplan Source : Field survey 2015

The roof of the *watangpola* of Z1-PR-11 is gabled while the roofs of the *lego-lego* and the *jokke* are *paturungeng*. The *lego-lego* of this house is situated at the front of this house's *tamping* and first *latte*. The *lego-lego* has two different floors levels. Its high floor is at the same height as the floors of both the *tamping* and the *watangpola*. In contrast, its low floor is a place where this house's staircase rests. This staircase has nine steps.

The dimensions of the *watangpola* is three *lontang* by three *latte*. The *jokke* is located behind the *watangpola* which has a staircase parallel to the staircase situated at the front of the house. It should be noted that cooking activities are no longer conducted in the *jokke* but in a semi-permanent kitchen built outside this house.

7. Z1-PR-15

Figure 5.108: Z1-PR-15 : Facade. Source : Field survey 2015

Figure 5.109: Z1-PR-15 : Jalousie windows with plate glass leaves installed across the top and at either side. . Source : Field survey 2015

Figure 5.110: Z1-PR-15 : Eleven step staircase. Source : Field survey 2015

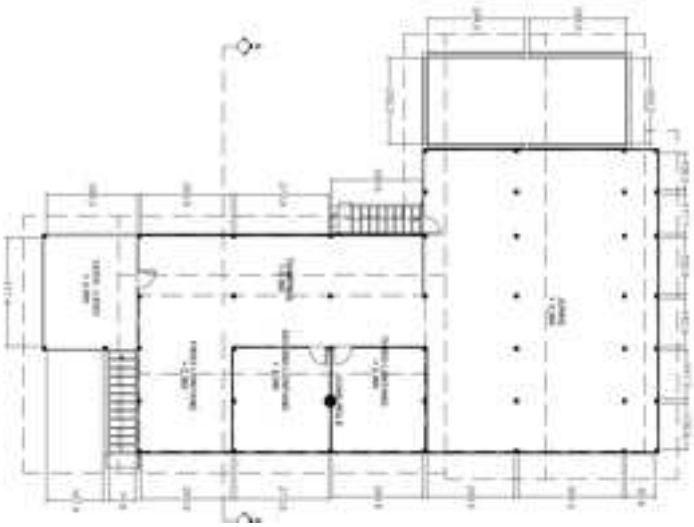

Figure 5.111: Z1-PR-15 : Floorplan. Source : Field survey 2015

A single *timplaja* is installed on Z1-PR-15 which is the symbol of the highest social level for a commoner. The roofs of both the *watangpola* and the *jokke* are gabled with a slope of 45 degrees respectively while the roof of the *lego-lego* is paturungen. This house has

jalousie windows installed in every *latte*. The door of this house is installed at its *tamping*. Both the floor of the *lego-lego* and the floor of the *tamping* are at the same height. The staircase of this house has eleven steps. This number of staircase's steps is the highest number used among the commoners' houses. The base of this staircase is parallel to the fourth pole of the main house. At the sixth step from the bottom of the staircase, a gate has been installed whose function is to prevent animals from entering the *lego-lego*.

This house has three *lontang*. Both the second and the third *lontang* of this house have a partitioned sleeping area, while the sleeping area at this house's first *lontang* has no partition. The function of each *lontang* of this house still follows the original architecture of a Bugis house. However, the function of this house's *tamping* has undergone a change where a partition has been installed at the fourth *lontang*. The placement of this partition separates the *tamping* from the kitchen. Hence, the main house (*watangpola*) serves as access to the *jokke*.

The *jokke* is slightly smaller than the *watangpola* and also has additional permanent modules that function as a bathroom and a lavatory.

8. Z1-PR-12

Figure 5.112: Z1-PR-12 : Facade. Source : Field survey 2015

Figure 5.113: Z1-PR-12 : Eleven-step staircase. Source : Field survey 2015

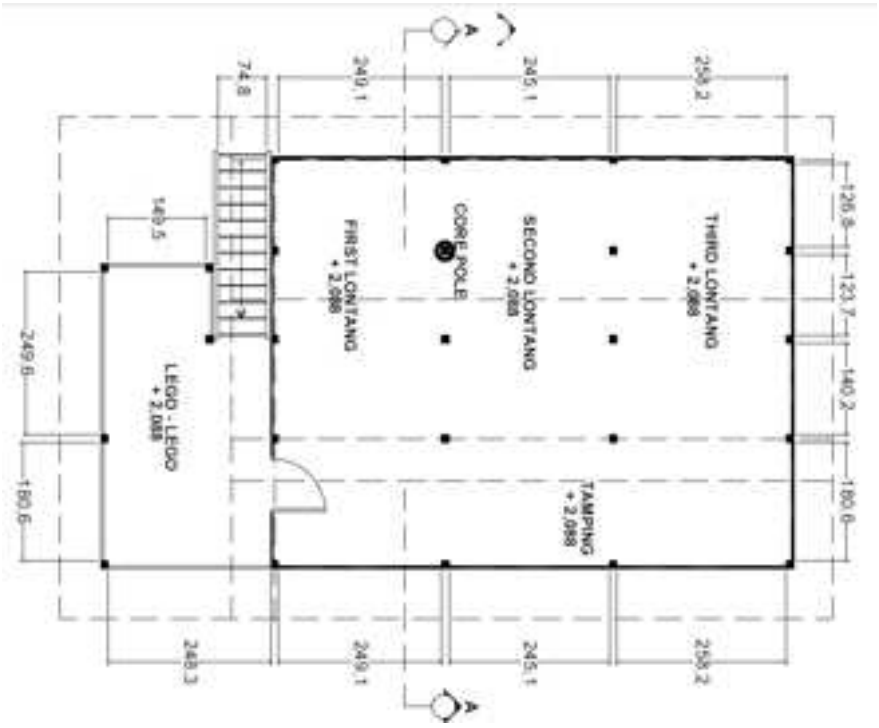

Figure 5.115: Z1-PR-12 Floorplan Source : Field survey 2015

Figure 5.114: Z1-PR-12 : Connection between pole ad beams. Source : Field survey 2015

The roof of Z1-PR-12 is gabled with a slope of 45 degrees and there is no *timplaja*. This house does not use any windows. Both sunlight and air circulation are gained through the woven bamboo (gamacca in Indonesian) walls.

This house has three *lontang*, and without a *jokke*. Cooking activities are carried out in the *tamping* situated at the third *lontang*.

The pole of the *tamping* does not reach the roof, but reaches the floor of the house. The pole that reaches the roof of this house is the one that is fixed at the end of the cantilever beam. The length of the cantilever beam is 50 centimeters.

9. Z1- PR-19

Figure 5.116: Z1-PR-19 : Facade. Source : Field survey 2015

Figure 5.117: Z1-PR-19 : Bamboo wall enclosing *wasaubola*. Source : Field survey 2015

Figure 5.118: Z1-PR-19 : Closed shuttered windows. Source : Field survey 2015

Figure 5.120: Z1-PR-20 : Facade. Source : Field survey 2015

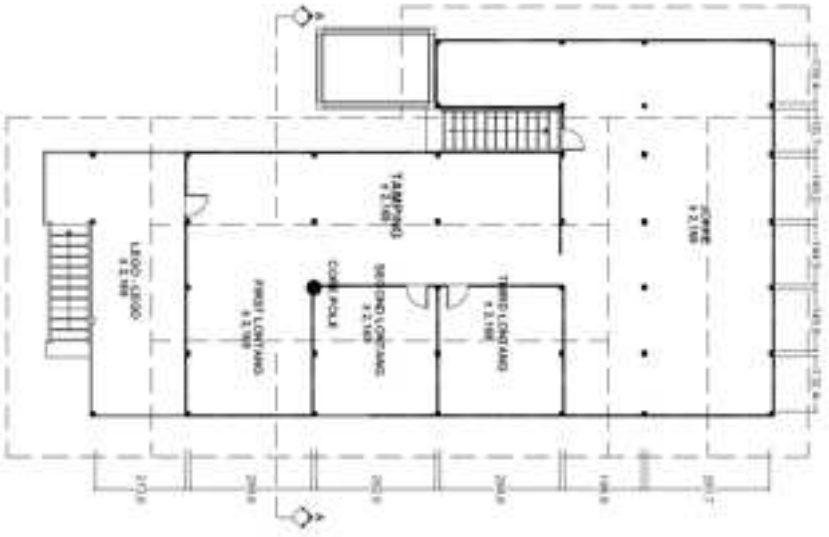

Figure 5.119: Z1-PR-19 : Floor plan. Source : Field survey 2015

This façade of Z1-PR-19 is different from that of the original architecture of Bugis house. Both the roof or the *watangpola* and the roof of the *jokke* are saddle-shaped. The roof of the *lego-lego* is *paturungeng*. The differences between this house and the original architecture of Bugis house are as follows. The *lego-lego* and the *watangpola* have the same width. The position of the staircase is at the front of the *lego-lego* of this house which is parallel to the road. Z1-PR-19 has undergone some changes. One of the changes is at front part of its additional module. This change is intended to widen both the *lego-lego* so that the space under it can function as a public area for socializing with the neighbors. The area under the *watangpola* has been enclosed with a semi-permanent bamboo wall become a private area to rest during the day and for cooking.

10. Z1-PR-20

This house still has a façade which is like most original Bugis houses. The roof of this house has a high gable at a 45 degree angle. The height of this roof shows the high social status of this house owner. The roof of the *jokke* is also a gable, while the roof of the *lego-lego* is the *paturungeng* type.

Figure 5.121: Z1-PR-20 Gabled roof with a window on the gable wall. . Source : Field survey 2015

Figure 5.122: Z1-PR-20 : Window. Source : Field survey 2015

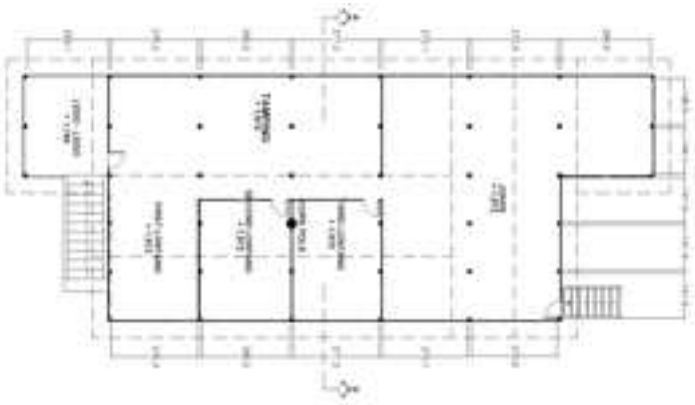

Figure 5.123: Z1-PR-20 : Floorplan. Source : Field survey 2015

This house has glass jalousie windows that are installed at each *latte*. The *lego-lego* is positioned at the front of the *tamping*. The stairscase has been switched from wood to stone but still retains its original eleven steps. It is placed parallel to the third pole of the *watangpola*.

The location of the rooms still uses the Bugis philosophy with the exception of the partition in the *tamping* which changes the foot traffic to the *watangpola* at the first *latte* in order to access the *jokke*.

11. Z1-PR-21

Figure 5.124: Z1-PR-21 : facade. Source : Field survey 2015

Figure 5.125: Z1-PR-21 : stairs. Source : Field survey 2015

Figure 5.126: Z1-PR-21 : Window. Source : Field survey 2015

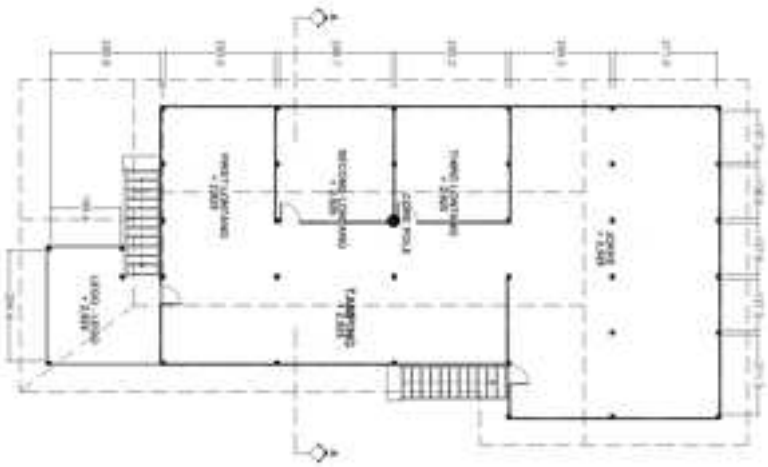

Figure 5.127: Figure Z1-PR-21 : Floorplan. Source : Field survey 2015

The façade of Z1-PR-21 has been changed, because the roof of the *lego-lego* has been extended sideways adjoining the end of another roof. There is also a roof over the staircase to prevent rainwater from falling onto it. Traditionally, the *lego-lego* roof of a Bugis house only covers the *lego-lego* itself. The main house of this house has low gable roof. The function of each *lontang* of this house adheres to the old beliefs of the Bugis tribe. The thing that changes in this house is the area for the circulation of people inside this house. The *tamping* of this house has been partitioned, so the access to the *jokke* is via the *watangpola* at the first *latte* and at the third *lontang*. Even though it is believed that the *watangpola* is the most sacred part of the house, this status has now been lost due to the partition in the *tamping*.

12. Z1-TL-23

Figure 5.128: Z1-TL-23 : Facade. Source : Field survey 2015

Figure 5.129: Z1-TL-23 : Glass jalousie windows - each with fixed wooden slats above. . Source : Field survey 2015

Figure 5.130: Z1-TL-23 : Former hole used for the original *tamping* floor. Source : Field survey 2015

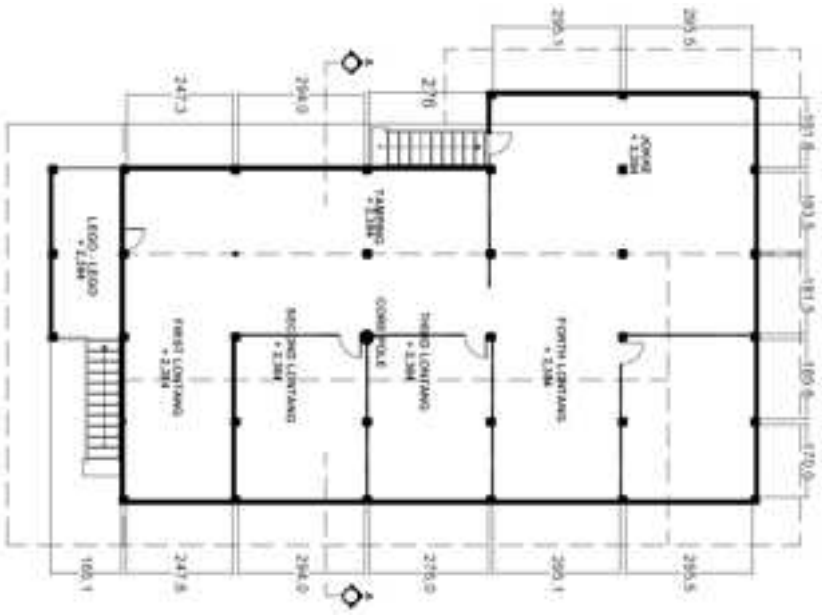

Figure 5.131: Z1-PR-23 Floorplan. Source : Field survey 2015

This house looks low because the space under the house is slightly low, and the roof of Z1-PR-23 is a little low. The slope of the roof is 30 degrees. In proportion, this house is disproportionate when the space under the house is likened to the human's feet, the body of the house is likened to the human body and the house roof is likened to the human head. The roof of the *jokke* is gabled, while the roof of this house's *lego-lego* is *paturungen.*

The interesting thing about this house is that its *lego-lego* has poles, each of which has thirteen sides at its end and does not reach the ground. The end of each pole has a decorative value and is not pointed. This house used to have the old style of *tamping*, because the present *tamping* floor is now flush with the floor of the *watangpola*, resulting from renovations which can be seen by the empty holes where the beams of the original *tamping* used to rest.

In this house, foot traffic has also been shifted to the *watangpola* due to a partition being installed which re-directs access to the *jokke*.

13. Z1-JS-26

Figure 5.132: Z1-JS-26 : Facade. Source : Field survey 2015

Figure 5.133: Z1-JS-26 : Jalousie window. Source : Field survey 2015

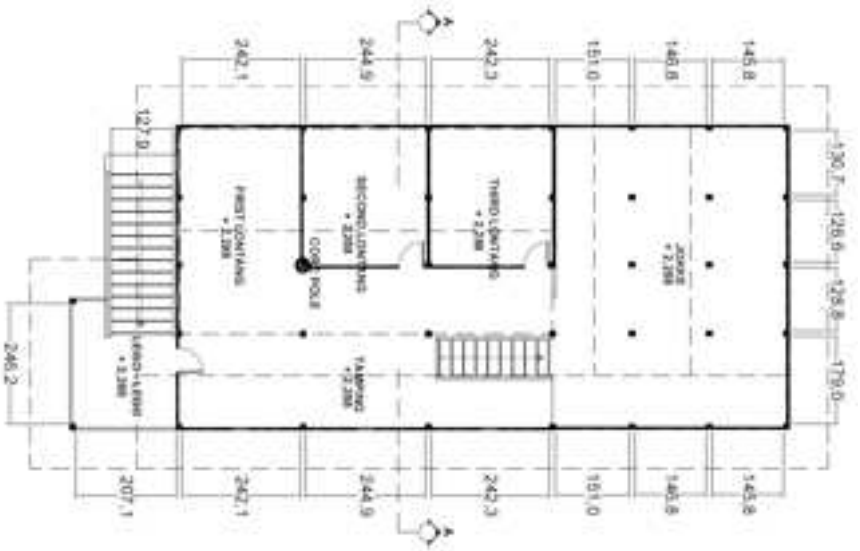

Figure 5.134: Z1-JS-26 : Floorplan. Source : Field survey 2015

Figure 5.135: Z1-JS-25 : Facade. Source : Field survey 2015

Figure 5.136: Z1-JS-25 : Seven-step stairs. Source : Field survey 2015

In Z1-JS-26, the change occurs at the *tamping* where an interior staircase has been installed to access the area of under this house. Foot traffic from the *lego-lego* to the *jokke* has been diverted through the *tamping*, around the second staircase into the *watangpola*. This staircase is mounted at the front part of the *tamping* is situated at the third *lontang* to make it easier for anyone to access the area of under this house safely at night.

Some areas under this house have had bamboo walls installed. The area under the house, starting from the third *lontang* to the area under the *jokke*, is used as a place to cook during the day.

B3. The Type of *dualatte-tellulontang*

The houses that belong to the category of type two *latte*-three *lontang* are the house in Z1-JS-25, Z1-BN-38 and Z1-BN-39

1. Z1-JS-25

The roof of the *watangbola* is gable-shaped with a slope of 45 degrees. Both the *lego-lego* and *jokke* use a *paturungeng* roof. The roof of the main house is very prominent between the roofs of the additional modules, i.e., the *lego-lego* and the *jokke*. The facade of this

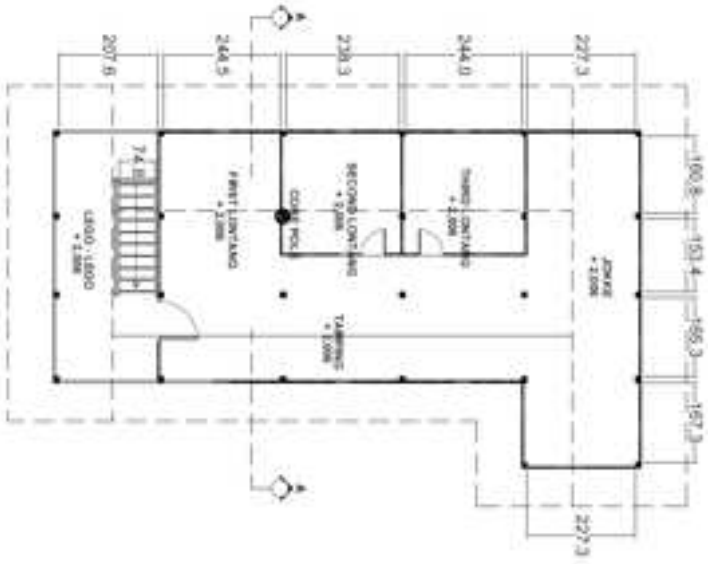

Figure 5.137: Z1-JS-25 : Floorplan. Source : Field survey 2015

house is no longer like that of the original Bugis house, because its *lego-lego* has been widened so that it has the same width as that of the the main house. Widening this *lego-lego* has resulted in the clear position of the staircase which lies between the *lego-lego* and the *watangpola*. In addition, the position of the staircase is parallel to the first pole (in 1-I) of the main house.

This two-*latte* house has installed a partition. One is at the second *lontang*, and the other is at the third *lontang*. This partitioned space is a place for sleeping. The rooms of the house in Z1-JS-25 still adhere to the original room functions of a Bugis house.

2. Z1-BN-38

Figure 5.138: Z1-BN-38 : Facade. Source : Field survey 2015

Figure 5.139: Z1-BN-38 : kitchen house. Source : Field survey 2015

Figure 5.140: Z1-BN-38 : Partially walled *wasaubola* used as a work space Source : Field survey 2015

Figure 5.141: Z1-BN-38 : Interior. Source : Field survey 2015

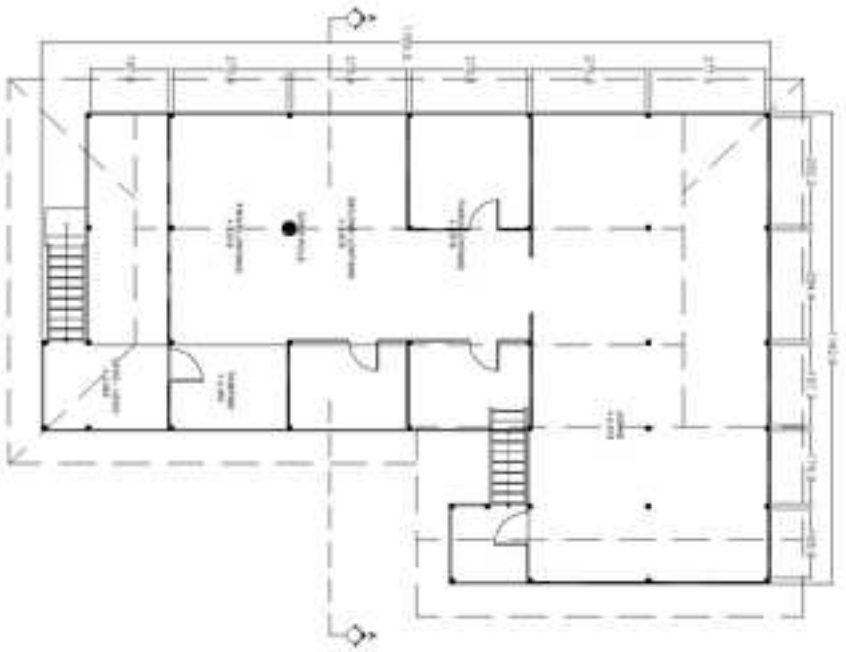

Figure 5.142: Z1-BN-38 : Floorplan. Source : Field survey 2015

Z1-BN-38 has been modified so that the width of the *lego-lego* matches the width of the façade. Consequently, the the *lego-lego*'s roof has the same width as that of the house. The *paturungeng* roof is used for the *lego-lego*, *tamping* and *jokke* while a gable roof covers the *watangpola*.

Another change has occurred moving the main bedroom to the third *lontang* along with the use of a partition installed in the *tamping* to create more sleeping space. Since this house owner's children are all married, a partition at the second *lontang* has not been installed so that the space at the front is wider to create a larger area for when children and grandchildren visit.

The *tamping* of this house has two levels of floor. At the first *lontang*, the *tamping*'s floor is slightly lower than the floor of the *watangpola* but it has been raised to be flush at the second and third *lontang* to the floor of the *watangpola*.

3. Z1-BN-39

This house has undergone a change where the *paturungeng* roof of the *lego-lego* is extended to cover the staircase. The the gable-shaped roof of the *watangpola* is slightly lower - under 45 degrees. The *tamping* roof is *paturungeng*.

When the survey was conducted, this house was being renovated. The reno-vation included both widening the *jokke* and broadening the section that is parallel the second and third *lontang* so that they have the same size. The house owner does not add both the number of *lontang* and *latte* to his house.

There is one pole on the left side of the house that is neither fixed to the ground nor fixed to the roof so that it looks like a cantilever. This method is done so that there is an additional width on the house *tamping*, which is between 50cm and 100cm.

Figure 5.143: Z1-BN-39 : Facade. Source : Field survey 2015

Figure 5.144: Z1-BN-39 : Floor construction. Source : Field survey 2015

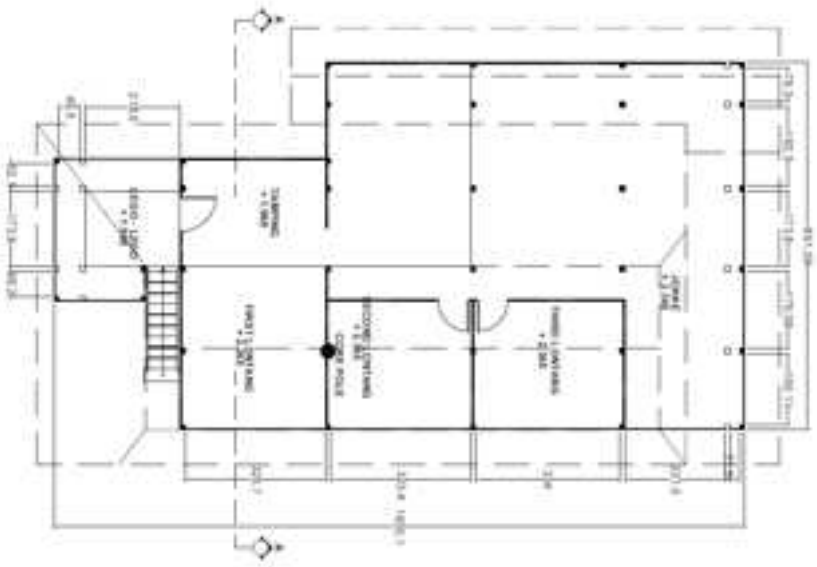

Figure 5.145: Z1-BN-39 : Floorplan. Source : Field survey 2015

B4. The type of *dualatte-dualontang*

There are 3 houses that share the type of two *latte*-two *lontang*. Each of the houses is coded as follows: Z1-BN-36, Z1-BN-37, Z1-BN-40

1. Z1-BN-36

Figure 5.146: Z1-BN-36 : Facade. Source : Field survey 2015

Figure 5.147: Z1-BN-36 : *lego-lego* roof construction. Source : Field survey 2015

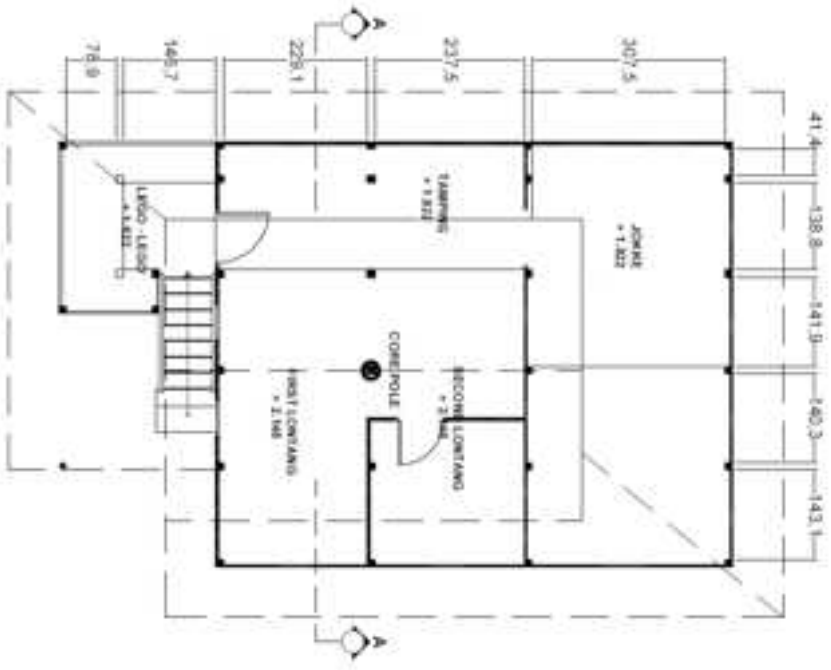

Figure 5.148: Z1-BN-36 : Floorplan. Source : Field survey 2015

This house has undergone some changes. One of them is the addition of one *latte* to the right of the *watangpola* of this house. This is done to broaden the section of *watangpola*. Although there is one *karateng*/one *latte* addition to the *watangpola*, the house still belongs to the two *latte* type. This is because the additional section was not covered by the roof of the *watangpola*. Instead, the roof of the additional section is the paturungen, while the roof of the *watangpola* is gable-shaped. The roof of the *jokke* of this house is also the paturungen. Another change is at the *lego-lego*'s roof of this house where it is widened to cover the staircase of this house so that the rainwater does not go directly to the staircase. The number of this staircase's steps is seven.

The *tamping* floor is slightly lower than that of the *watangpola*. The difference between them is about 30 centimeters. As for the *jokke*, there are two floors with different levels. The floor for dining room is slightly higher than the area for cooking and both floors are made of bamboo.

2. Z1-BN-37

Figure 5.149: Z1-BN-37 : Facade. Source : Field survey 2015

Figure 5.150: Z1-BN-37 : *Lego-lego* with a bench installed. Source : Field survey 2015

Figure 5.151: Z1-BN-37 : Border between the tamping and the watangbola as can be seen from the shape of the roofs. Source : Field survey 2015

Figure 5.152: Z1-BN-37 : Ornament 1. Source : Field survey 2015

Figure 5.153: Z1-BN-37 : Ornamnet 2 Source : Field survey 2015

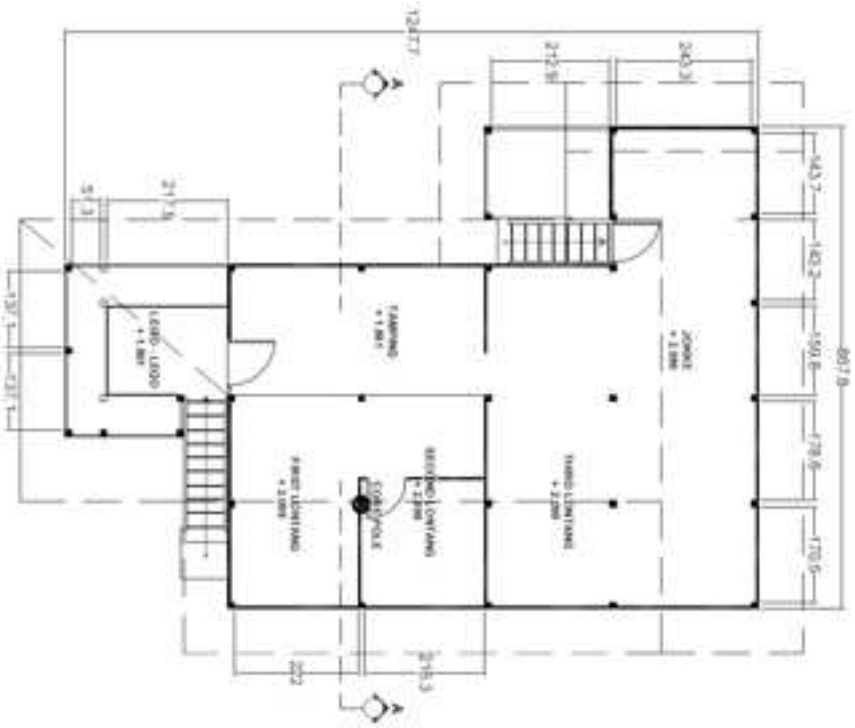

Figure 5.154: Z1-BN-37 : Floorplan. Source : Field survey 2015

The architecture of Z1-BN-37 still adheres to the original architecture of Bugis house. The roof of its main house is the gable-shaped with a 45-degree slope. The roof of the *lego-lego* has not been widened to cover the front staircase. The *jokke* uses a gable-shaped roof.

The interesting thing about this house is its *tamping* floor which is still in the old style as it is slightly lower than the floor of *watangpola*. The floor of the *jokke* is the same height as that of the floor of the *watangpola* whereas the floor of the *jokke* is usually the same height as that of the *tamping*. On the floorplan of Z1-BN-37, the *watangpola* is narrower than that of the *jokke*. Its *lego-lego* has two different floor levels.

This house still applies several elements of Bugis house. Nowadays, they are rarely found such as board. This house also still uses the ornaments of Bugis house that are rarely found such as the binder between the transverse beams and the horizontal beams. The binder of these two beams is made of wood measuring 10 centimeters x 10 centimeters x 50 centimeters. Each of the binder's ends is formed into a thirteen-square shape thereby softening the structure's appearance.

3. Z1-BN-40

Figure 5.155: Z1-BN-40 : Facade. Source : Field survey 2017

Figure 5.156: Z1-BN-40 : Front gable wall and roof of the watangbola.. Source : Field survey 2017

Figure 5.157: Z1-BN-40 : Attanri-tanriangeng (storage) of the watangpola. Source : Field survey 2015

Figure 5.158: Z1-PR-40 : *Lego-lego* with a built-in bench . Source : Field survey 2017

Figure 5.159: Z1-BN-40 : Washroom on a raised platform beside a five-stair staircase behind the wood planks. . Source : Field survey 2017

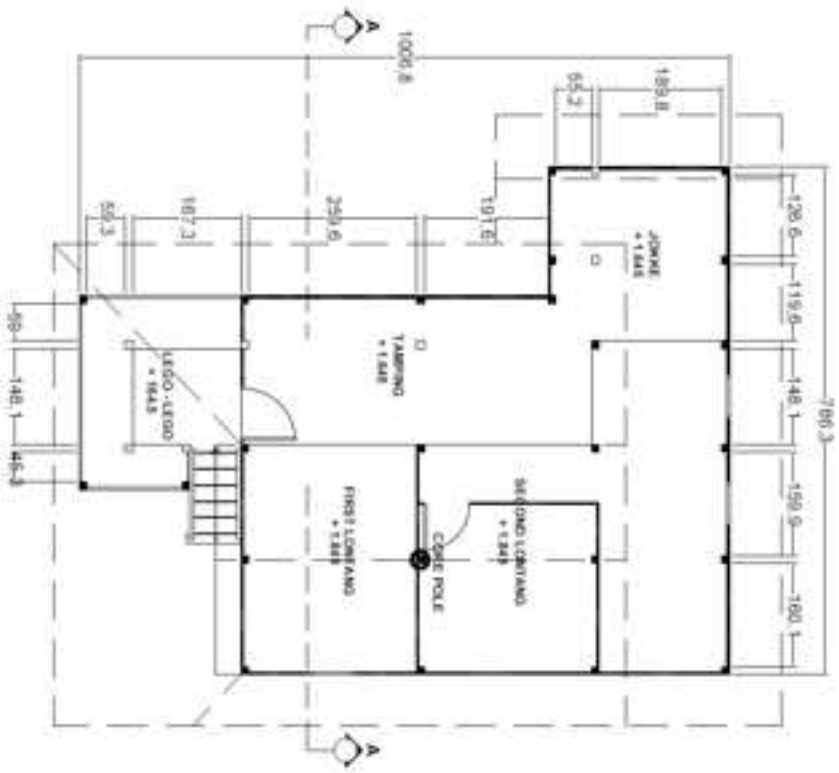

Figure 5.160: Z1-BN-40 : Floorplan. Source : Field survey 2017

The facade of this house has changed, because the roof of the *lego-lego* has been widened so that the staircase of this house is also covered. This house does not have windows. The walls are made of tightly arranged boards with a 5x80 centimeter hole on each *latte*'s wall.

The interesting thing about this house is that the house still maintains its antanri-tanriang at the *watangpola*. This antanria-tanriangen is usually located outside the house and can only be accessed from inside the house. It functions as a place to store items such as mattresses, clothes, mats etc.. In the past, the Bugis community did not know about cupboards, so they kept their belongings at the antanria-tanriangen. There are two types of antanria-tanriangen one for clothing and household goods is attached to the *watangpola*, and the other is for the storage of kitchen equipment and food and is attached to the *jokke*.

C. New style of commoner Bugis houses appearing around the early 1980s

C1. Type *empalatte-empalontang* (four *latte* – four *lontang*)

Figure 5.161: Z1-BT-02 : Facade. Source : Field survey 2015

Figure 5.162: Z1-BT-02 : Kitchen house. Source : Field survey 2015

Figure 5.163: Z1-BT-02 : Stairs. Source : Field survey 2015

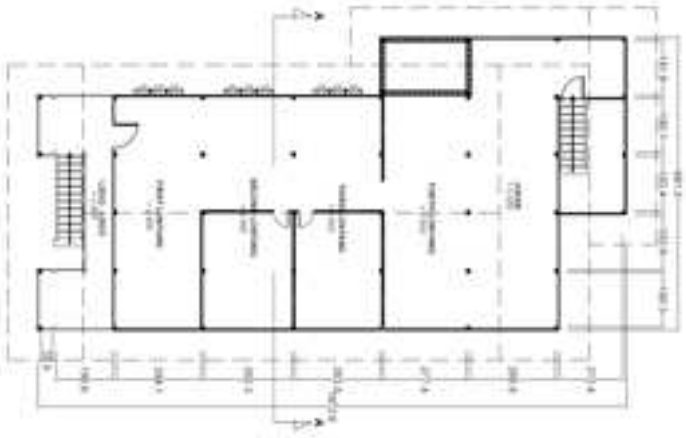

Figure 5.164: Z1-BT-02 : Floorplan. Source : Field survey 2015

1. Z1-BT-02 The house belongs to modern Bugis house, because it does not adhere to the original architecture of the Bugis house. Its width is four *latte*, and its *lego-lego*'s width has been modified to the size of the body of the house, its shape has been changed into a "U" shape. In addition, under the house has been built a permanent module that

functions as a shop and a space for sleeping.

The roof of its main house has also been modified into a slightly curved gable roof, which is not like the roof of the original Bugis house. The *lego-lego*'s roof of this house is the *paturungeng*. This roof has been extended so that it covers the staircase of this house. As a result of this extention, the staircase has been moved to the front of the *lego-lego*.

The width of this house is four *latte*. The first *latte* has the front door which serves as the access to the inside of this house. The second, third and fourth *latte* have windows made of glass. At the top of the window, there is a jalousie of fixed wooden slats which serve to ventilate the house.

The length of this house is four *lontang* coupled with the length of the *jokke*, located at the back of the main house. The second and third *lontang* has a partition for the bedroom, while the first and fourth *lontang* have no a partition even though they are used for sleeping. The fourth *lontang* of this house is equipped with a bed for the grandparents of the house owner's children.

Under the main house, a permanent module has been built. The space under the *jokke* has been used as a place for keeping agricultural equipment and firewood for cooking.

At the top of the roof, there is an ornament, called *anjong*, whose shape is like the horns of a buffalo which has been carved from wood.

C2. Type *of tellu latte empa lontang (three latte – four lontang)*

1. Z1-BT-03

Figure 5.165: Z1-BT-03 : Facade. Source : Field survey 2015

Figure 5.166: Z1-BT-03 : *lego-lego* of the jokke. Source : Field survey 2015

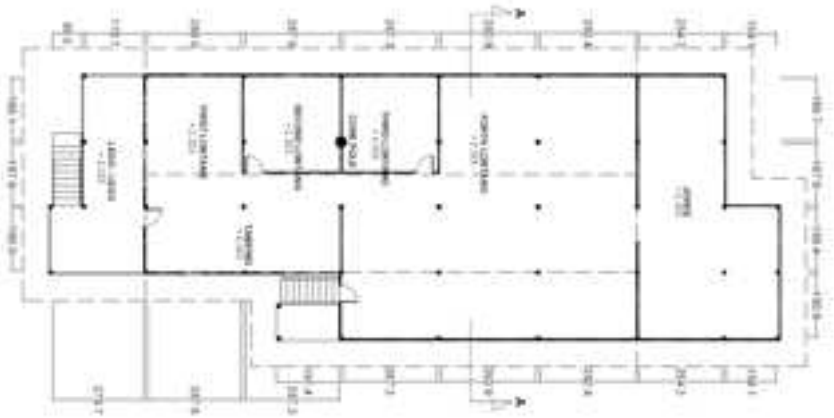

Figure 5.167: Z1-BT-03 : Floorplan. Source : Field survey 2015

This house has symetrical gable roof which is slightly curved, while the *lego-lego* uses the flat *paturungeng* roof which covers the staircase.

The width of this house is three *latte*. The position of the door is at the first *latte*. At the second and third *latte*, a window is installed. The owner of this house has widened the *lego-lego* to match the *watangpola* so that the position of the staircase is shifted to the front of the *lego-lego*.

The length of the house is four *lontang* coupled with the length of the *jokke* situated at the back of the main house. At the first *latte*, there is a partition between the second *lontang* and the third *lontang*. At the second *lontang*, a partition is installed to create a bedroom as well as at the third *lontang*. The third *lontang*, the fourth *lontang* and the *jokke* are private areas therefore, a partition has been installed between them. In other words, this partition serves as a barrier to prevent the guests from immediately looking at the activities done in these three areas.

One of the ornaments of this house buffalo horn shaped *anjong* made of wood that is installed on its roof. Another decoration is a blooming flower-shaped ornament located on the front and rear 100cm high *lego-lego* walls.

2. Z1-PR-14

Figure 5.168: Z1-PR-14 : Facade. Source : Field survey 2015

Figure 5.169: Z1-BT-14 : Ornament. Source : Field survey 2015

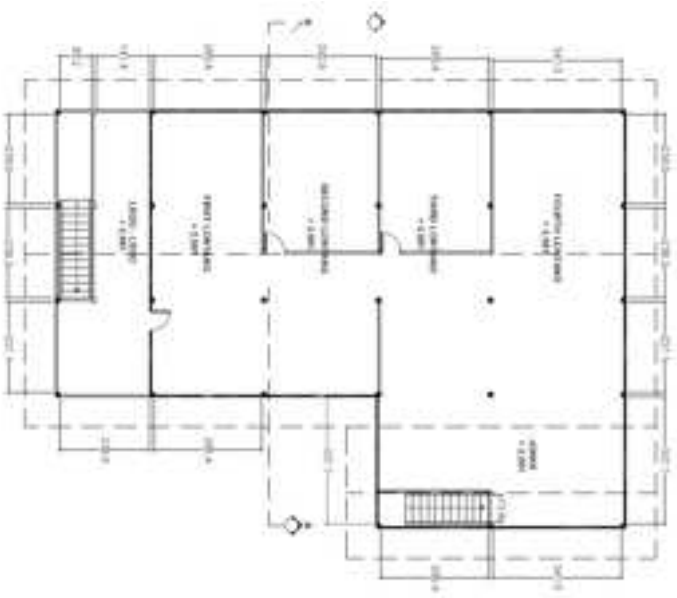

Figure 5.170: Z1-PR-14 : Floorplan. Source : Field survey 2015

This house belongs to the modern Bugis house whose original architecture has been modified. One main modification found in the new style is that the roof of the watangbola has been extended so that it covers the *lego-lego* and its staircase. In other words, this house has only one roof with a slightly curved gable.

The width of Z1-PR-14 is three *latte*. At the first *latte*, the front door is installed. At the second and third *latte*, a window of plate glass on a wood frame is installed. The space under the main house and under the *jokke* has undergone some changes in their functions.

The shape and the size of the *lego-lego* module of this house have changed, because the *lego-lego* has been expanded as wide as the body of the house. With this change, the position of the staircase of this house has been moved to the front of the *lego-lego*. Another change is that a decorative cast iron (steel) bannister and balustrade with a transparent acrylic layer attached have been used to replace the 100 cm high boards that were once used for the walls of the *lego-lego*. This iron cast is also carved so that it can serve as a house ornament. The shapes of the ornaments that are installed are the *lawasuji*, the *parenreng* flower and the blooming flower.

The length of this house is four *latte*. The *jokke* is situated at the side of the main house which is parallel to the third and fourth *lontang*. At the second and third *lontang*, partitions are installed to create two bedrooms. At the fourth *lontang*, there is no partition even though there is a bed.

In the first *latte*, there is a partition between the second and third *lontang* which serves to prevent the private space for women from being immediately visible to any male guests that come into this house.

3. Z1-PR-17

Figure 5.171: Z1-PR-17 : Facade. Source : Field survey 2015

Figure 5.172: Z1-PR-17 : Triple wood frame window with plate glass with wood grill alont the top. Source : Field survey 2015

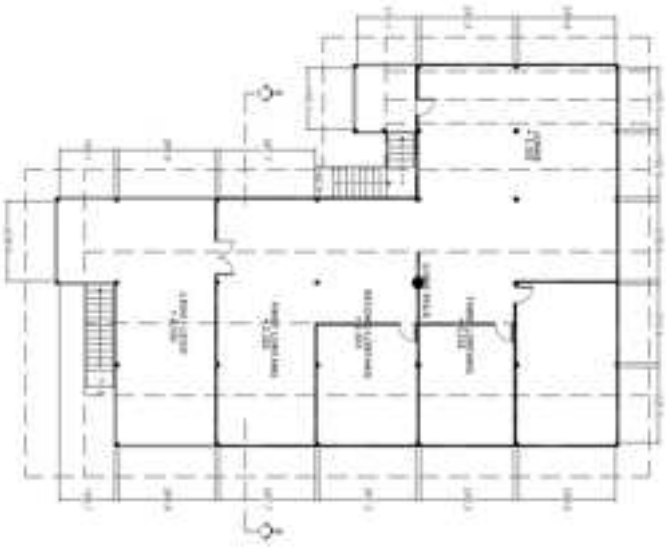

Figure 5.173: Z1-PR-17 : Floorplan. Source : Field survey 2015

This house is classified as a modern Bugis house, because the roof of its main house, *paturungeng*, has been expanded to cover the staircase. Also, the *lego-lego*'s roof of this house has been united with the roof of the main house. In addition, the *tamping* module of this house has been removed so that the house's staircase rests on the *lego-lego*.

Furthermore, the roof of this main house has one *timplaja*. This house has three *latte*. The first *latte* where the front door is placed. Some modern windows made of modern materials are installed at the second *latte* and at the third *latte*. Each *latte* has triple windows of plate glass in wood frames with a ventilation grill along the top.

The length of the main house is four *lontang*. The *jokke* is on the side of the main house or parallel to the third and the fourth *lontang*. At each *lontang*, there is a partition for the bedroom except at the first *lontang*. On the fourth *lontang*, there is a room larger than those of the other *lontang*. The location of the corepole is on the outside of the room, which facilitates thanksgiving ritual activities in the house. In addition, at the second *latte*, there is a partition that is located between the second and third *lontang*.

C3 The type of *tellulatte-lellulontang*

1. Z1-PR-16

Figure 5.174: Z1-PR-16 : Facade. Source : Field survey 2015

Figure 5.175: Z1-PR-16 : Long staircase Source : Field survey 2015

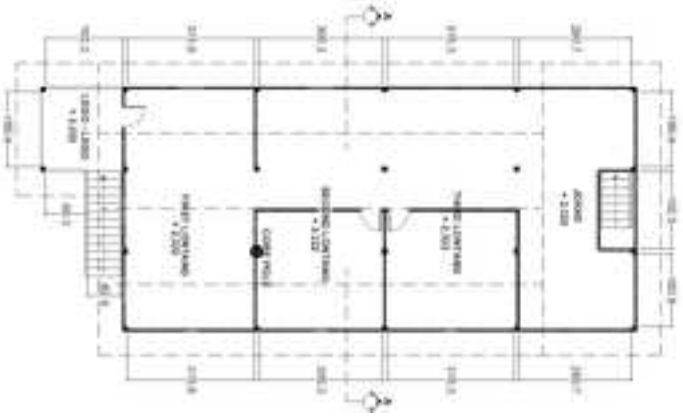

Figure 5.176: Z1-PR-16 : Floorplan. Source : Field survey 2015

This house has undergone some changes. The roof of Z1-PR-16 is a Dutch gable. Another modification to this house is that it no longer has a *tamping*. On the other hand, the roof of the *lego-lego* has not been modified to be as wide as the width of the main house nor has it been extended to cover the staircase, as some houses in the new style do. The width of this house is three *latte*. Its first *latte* has the door installed. There is a window in the second and in the third *latte* respectively.

The change that occurs in this house is at the space under the *watangpola* and *latte* where there are additional rooms for receiving guests, for watching a television, for cooking and even for sleeping. As a result of the change in both the function and the additional modules under the house, the stairscase of the *jokke* has been moved to the inner section of this house so that it can be accessed from the space under the house. The length of this house is three *latte* coupled with the length of the *jokke* at the back of its main house. There is a bedroom in the second *lontang* and in the third *lontang*. Commonly, there is a partition at the first *latte* of a house to separate every *lontang* from the others, and the *jokke*. However, the owner of this house has installed a partition in this house for the purpose of separating the semi-public rooms and the private rooms.

Summary of Zone one In zone one, the houses built during the Dutch colonial administration use the *eppa-latte* and *eppa-lontang* type. There are two houses that belong to this type. One of them is owned by a high aristocrat with the title Datu, while the other one belongs to King Pattojo XI. These houses do not retain the original architecture of Bugis house anymore. The changes that occur in the houses are on their roofs, their covers, and their staircase positions. In addition, they do not use the elements and ornaments symbolizing the aristocratic status, so they look simple. They can be seen in Z1-PR-18.

These changes indicate that the aristocrats in zone one followed the regulations about house construction enforced by the Dutch colonial administration, by the absence and/or removal of aristocratic symbols to their houses. These rules changed the architecture and characteristics of the houses of the high-ranking aristocrats in this zone. In contrast, the houses of the commoners built during the Dutch colonial administration no longer exist. One of the main reasons for this is that they were made of the poor quality wood due to the commoners' poverty at the time. The house owners in Z1-PR-18 still apply the old rules of the Bugis tribe's house construction, except for its *tamping* where it has been moved to the front position of the *watangpola* from its original position at one side of the *watangpola*.

In the era after the independence of Indonesia, the Bugis aristocrats once again began to construct the *tellu-latte* and *eppa-lontang* type of houses and also reapplied the aristocratic symbols into the roofs of their houses. Although the carvings of the aristocratic houses look simple, they are all but lost as there is no one that has the knowledge and skills to make such carvings in this era. As for the commoners, their houses consist of four types, such as (1) *tellu latte-eppa lontang*, (2) *tellu latte-tellu lontang*, (3) *dua latte-tellu lontang*, and (4) *dua latte-dua lontang*.

The smallest of these is the *dua latte-dua lontang* type which is rarely found at this time except in remote villages where the communities have not been influenced by

modernization. These communities still maintain their customs, such as maintaining the application of the number of *latte* and *lontang* into their houses in accordance with the social levels of the house owners, although there are a variety of ornaments and other elements which are found on the exterior of their houses.

In contrast, the people who live close to the the capital city of both the sub-district and the regency have eliminated some the Bugis tribe's traditions of house construction, such as the application of the number of both *latte* and *lontang* according to social rank. The Bugis houses that were constructed in 1980s are categorized as the new style of Bugis houses. Both the aristocrats' and commoners' houses that were constructed in this era share some similarities. They have no *tamping* and they are of the *eppalatte-eppalontang* type, even though this type can only be used for aristocrats' houses according to Bugis tradition.

In this era, people were free to innovate to beautify their houses. In addition, the most prominent changes in this era are the *lego-lego* and the stair positions. For example, the owners of the houses were free to determine the positions and dimensions of the *lego-lego*. These changes occurred not only in the aristocrats' houses but also in the commoners' houses. However, the spatial functions of the houses of the Bugis community in the Soppeng regency have not changed either for the houses that belong to the era after Indonesian independence or the era of modern Bugis houses. The community members still strongly believe in the rules of spatial functions that have been applied by their ancestors. Referring to the above-mentioned facts, it can be concluded that the members of the Bugis community are open to accept and modernize their lives, especially their houses. Also, based on the facts, it can be predicted that the traditional style of Bugis architecture are being diminished. Thus, differences between the types of houses belonging to the aristocrats' houses and those of the commoners' may no longer exist.

Although the current members of the Bugis community still maintain the old beliefs about the house's spatial functions and the customs associated with the structural elements like the placement of posibola, future generations have already lost touch with their heritage and may no longer know or fully understand the significance of different aspects of the original architecture of Bugis houses.

5.2 Zone Two

Zone two contains the villages that are close to the city center of the regency. One village that became the research location is closer to a more modern community in the region. The occupations of the people in this area are government employees, private employees and farmers.

Some of the people in this area occupy non-stilt modern architectural houses. Modern architectural houses are very easy to find in this zone. The houses were built by either the government or private companies. In this zone, someone can easily get a mortgage for a modern house. The development of modern architecture has made many people demolish the traditional architecture houses and replace them with modern houses, which use red stone bricks.

Also, there are some people who combine the traditional architecture (using stilts) with the modern architecture in their houses. One of the examples is the people convert

the original function of the under floor (wasaubola) area of their stilt houses as an area for rest during day time into either a living room or an additional bedroom.

In this zone, there are some people who still maintain their traditional houses (stilt houses) even though both their ornaments and their elements that have certain meanings have been removed. The traditional Bugis houses that belong to the high nobles with the title of Datu in this zone were no longer found. The high nobles have occupied non-stilt modern houses with red stone bricks. The area is the complex of the Soppeng Datu palace (built in 126)[4]

Since there has been no high noble house found in this zone, the object of the research was focused on the noble houses that were built in the era before the independence of Indonesia, which were characterized by three *timplaja*. In other words, the houses were unlike the Datu's house, which is located in zone one. Nevertheless, the houses were built during the Dutch colonial rule, and they still use the elements and ornaments that symbolize their social ranks[5].

5.2.1 Noble houses

The noble houses that were built during the Dutch colonial administration did not ad-here to the rules set by Dutch therefore, the house owners still maintained the original elements that characterize traditional Bugis houses through the application of ornaments. On the other hand, after the independence of Indonesia, the old style of Bugis houses that were built no longer used the ornaments that made the houses look luxurious; they were as simple as the commoners' houses. These have a length of four *lontang* and use *timplaja* as symbols of nobility. The many of the nobility who built in the new style in this zone again started to use aristocratic symbols such as *anjong* on the roof and *tuka* on the stairs.

[4]Source: https://sultansinindonesieblog.wordpress.com/sulawesi/raja-of-soppeng/

[5]The title of higest noble in Bugis land is different, the Soppeng kingdom called Datu, Gowa-Tallo kingdom was called Somba, the Bone region was called Mangkau and the Luwu region was called Pajung and Marandia for the Mandar region.

A. Noble houses at the era before the independent of the Indonesia

A1. Type of *tellulatte - eppalontang (three latte – four lontang)*

1. Z2. BL-33

Figure 5.177: Z2-BL-33 : Facade. Source : Field survey 2015

Figure 5.178: Z2-BL-33 : *tala-tala* (formal dining room) Source : Field survey 2015

Figure 5.179: Z2-BL-33 : Figure 5.179: Z2-BL-33 *:* Empty holes showing the original floor level of the old style *tamping.* Source : Field survey 2015

Figure 5.180: Z2-BL-33 : Ornament on list plank of *lego-lego.* Source : Field survey 2015

Figure 5.181: Z2-BL-33 Ornaments of under eaves and the list plank of the *timplaja..* Source : Field survey 2015

Figure 5.182: Z2-BL-33 : Ornaments attached to the eaves Source : Field survey 2015

Figure 5.183: Z2-BT-33 : Detailed ornamental wood carving on the gable wall. Source : Field survey 2015

Figure 5.184: Z2-BL-33 : Two wood carvings of Islamic calligraphy 'Allah' on the middle of the gable wall. Source : Field survey 2015

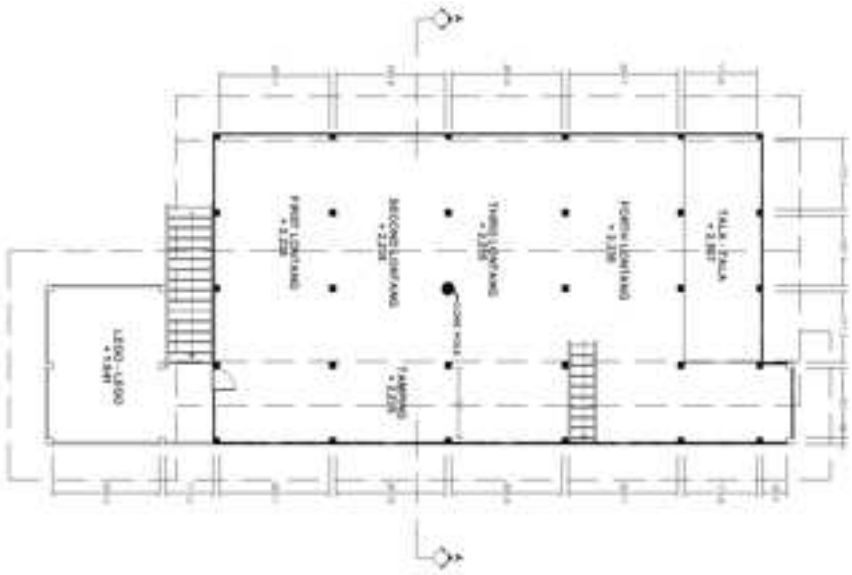

Figure 5.185: Z2-BL-33 : Floorplan. Source : Field survey 2015

This house was built during the colonial administration. It still maintains the original architecture of Bugis house unlike the houses in zone one. The façade of Z2-BL-33 still maintains its original characteristics. The roof of the main house is the gable-shaped with its additional element, *timplaja*, which symbolizes the social level of the owner of this house. Unlike its main house, this house itself has three *timplaja* that represent the house owner's social status.

The local people call this house Saoraja Coppobukkang. The roof of the *lego-lego* of uses the *paturungeng*. Unfortunately, the *jokke* of this house has been torn down due to weathering. The result of the interview shows that the *jokke* used a gable-shaped roof with three *timplaja*.

The dimensions of the pillars and beams used in the house are slightly larger than the pillars and the beams of the houses of the surrounding community. This indicates that house owner has economic abilities. The aristocrats' houses in the past generally used larger and higher quality materials. The use of strong materials and construction is required, because the aristocrats usually gather, throw parties and host banquets and receive many guests every day.

The interesting thing about this house is that this house still uses a *tala-tala* (dining room) which is positioned behind the *watangpola* and functions as a place for the high aristocrats to sit when they have meals or parties. The floor of *tala-tala* is slightly higher than that of the *watangpola*. The floor of *watangpola* is slightly higher than that of the *tamping* of this house. In this house, the *tamping* floor has been raised so that it is the same height as the *watangpola*'s floor.

The element that still survives in this house is the *timplaja* and the elements are located under the eaves. A beam carved with a bud of flower at its end measuring 5 x 5 x 50 cm is installed there. Another ornament is the *timplaja* that is installed at the roof, on the gable wall of the watangbola and at the *lego-lego*.

The front part and the back of this house uses *parenreng* flower ornaments, rectangular *lawasuji* and flower buds each of which has a symbolic meaning.

In the second layer, the ornament that is installed is Koran calligraphy which is surrounded by *parenreng* flowers. The Quran calligraphy reads "Allah". The meaning of this calligraphy is that Allah is the supreme and most protective. Ornaments found on the main and *lego-lego* houses are buds and rectangular *lawasuji* flowers.

B. Aristocratic Houses at the Era after the Independence of Indonesia

B1. The type of *tellulatte - eppalontang*

1. Z2-MD-16

Figure 5.186: Z2-MD-16 : View from main road. Source : Field survey 2015

Figure 5.187: Z2-MD-16 : Front side. Source : Field survey 2015

Figure 5.188: Z2-MD-16 Stairs. Source : Field survey 2015

Figure 5.189: Z2-MD-16 : *lego-lego*, main house and kitchen house. Source : Field survey 2015

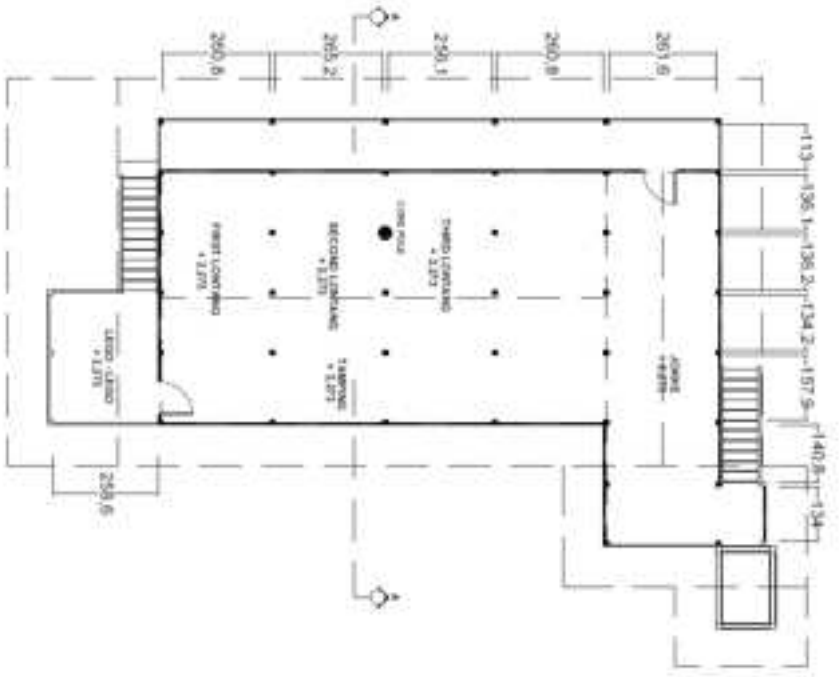

Figure 5.190: Z2-MD-16 : floorplan. Source : Field survey 2015

The houses built in the early 1970s have undergone a change of shape due to the local government regulations, where all houses are required to be oriented to the main road, especially those around the provincial road lane. The facade of the house faces the Qiblah (the direction of the Kaaba to which Muslims turn when performing their prayer), but with additional cantilever on the side of the main house gives the impression that the house is facing the main road.

Changes to this house can be seen from the additional cantilever, and the widening of the *lego-lego*'s roof which covers the staircase of the house. For the main house, the kitchen and *tamping* of this house, changes do not occur. Both the main house's roof and the *jokke*'s roof are in the gable-shape, while the *tamping*'s roof has the *paturungeng* type.

The roof of this house uses three *timplaja* which symbolizes the social level of the owner. In addition to the roof, which is a symbol of the social level, the owner of the house applies a social symbol on the staircase's bannister of the house. The staircase of this house uses eleven steps and two additional steps which are made of red stone.

C. Noble Houses in 1980's

C1. The type of *eppalatte - eppalontang*

1. Z2-TA-38

Figure 5.191: Z2-TA-38 : Facade. Source : Field survey 2015

Figure 5.192: Z2-TA-38 Other view. Source : Field survey 2015

Figure 5.193: Z2-TA-38 : Floor construction. Source : Field survey 2015

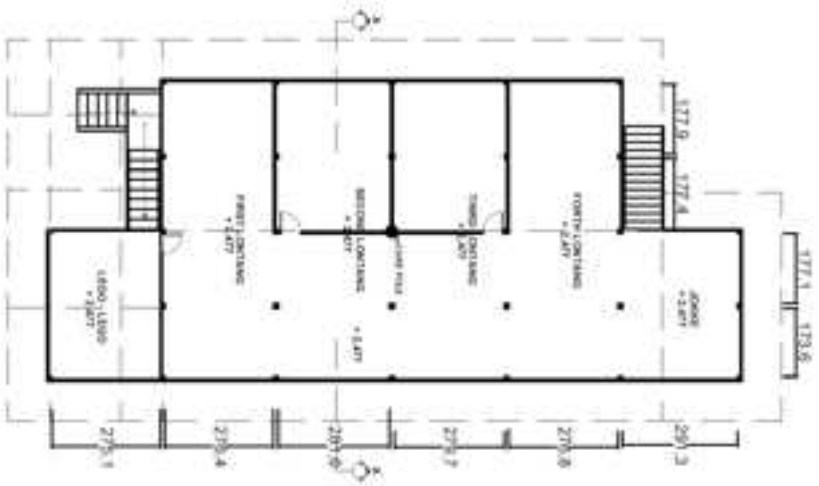

Figure 5.194: Z2-TA-38 : Floorplan. Source : Field survey 2015

The Façade of this house represents an aristocratic house, because its roof is gable-shaped type, starting from its main house and its the *lego-lego* and its kitchen. The façade has

several open roofs. The lowest roof is a guide that directs visitors to the staircase. The roof at the second level is the roof for both the staircase and the *lego-lego*. The highest roof of all belongs to the main house. This roof is straight gable (old style of saddle). It has the social status symbol of three *timplaja*. This status symbol is also installed at the roof of the *lego-lego*, staircase and the entrance to the staircase of this house.

Its main house has four *latte* and four *lontang*. Like the houses in zone one, this house was built during the colonial administration. In the previous chapter, it was explained that an aristocratic house can use seven *latte* at the most, eight poles and for unlimited number of *lontang*. The first *latte*, three and four of this house are fitted with glass windows with a modern design. For its second *latte*, it has a door that becomes an access to the inside of the house.

The staircase of this house also applies a symbol of social level. This staircase uses *tuka*, bannister and thirteen steps. This staircase is commonly used by aristo-crats in the past,

The ornament uses in this house is *anjong* which resembles the rooster. This *anjong* is installed on the roof top of the front end and back in the main house. Besides that *anjong* also applied to the roof *lego-lego*, stairs and roof entrance.

2. Z2-TA-39

Figure 5.195: Z2-TA-39 : Facade. Source : Field survey 2015

Figure 5.196: Z2-TA-39 : Other view. Source : Field survey 2015

Figure 5.197: Z2-TA-39 : Additional room at ground level (*wasaubola*). Source : Field survey 2015

Figure 5.198: Z2-TA-39 : *lego-lego*. Source : Field survey 2015

Figure 5.199: Z2-TA-39 : Window. Source : Field survey 2015

Figure 5.200: Z2-TA-39 : Stairs and *tuka*. Source : Field survey 2015

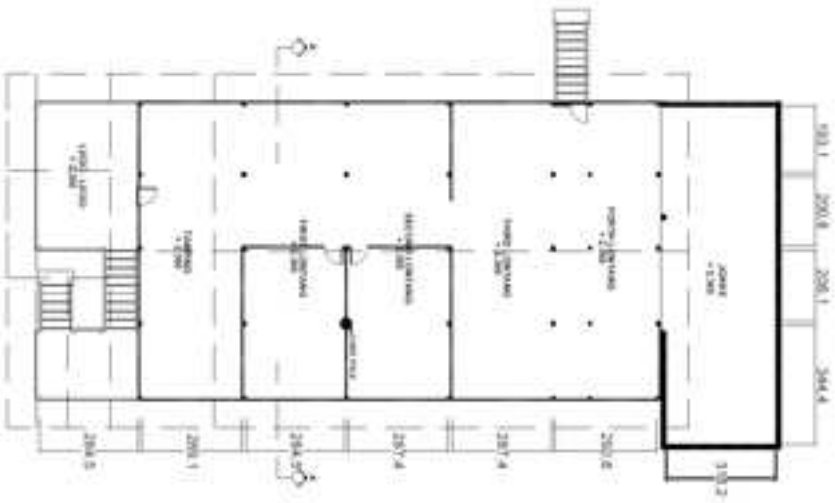

Figure 5.201: Z2-TA-39 : Floorplan. Source : Field survey 2015

The facade of this house indicates an aristocratic house, because it has certain elements that charateriz an aristocratic house. The roof of the main house uses the old style of straight gable with three *timplaja* and one patukku. For the *lego-lego* of this house, it uses the gable roof. The roof of the staircase of this house uses a three-layered paturungen. This house is very different from the other houses, not only because its main house's roof

looks well stacked but also because at the front of its main house there is a *tamping*. The house owner uses different roofs for the *tamping* and the *watangpola*.

This house has a kitchen that is situated at the back of the main house and under the house. Besides the kitchen, there is a dining room. The kitchen uses a modern material such as red stone, has two different floors and has the paturungen roof.

Under the house has undergone a change, especially at the section under the third and the fourth *lontang*. At this section, a permanent module has been built which serves as a space to receive guests from the neighbourhood and as a space to eat and cook.

The floorplan of this house is the same as that of the aristocratic house which was built during the colonial government as shown in zone one. This house has four *latte* and four *lontang*, and at the front its main house is a *tamping* module.

The staircase of the house in Z2-TA-39 uses the symbols representing the social level such as *tuka* and bannister. The number of its steps is thirteen. For the staircase situated at the back of this house resides at the *watangpola* at the front of the fourth bridge. This staircase connects the kitchen under the house and the upper part of the house.

The ornament of this house that is attached to the top part of the roof is called *anjong*. The shape of the *anjong* is the rooster made of zinc.

The applying of certain elements and certain ornaments to this house have made it looks luxurious and have made this house to have its own characteristic as a Bugis house even though it has been combined with modern modules.

3. Z2-TA-40

Figure 5.202: Z2-TA-40 : Facade. Source : Field survey 2015

Figure 5.203: Z2-TA-40 : Other view. Source : Field survey 2015

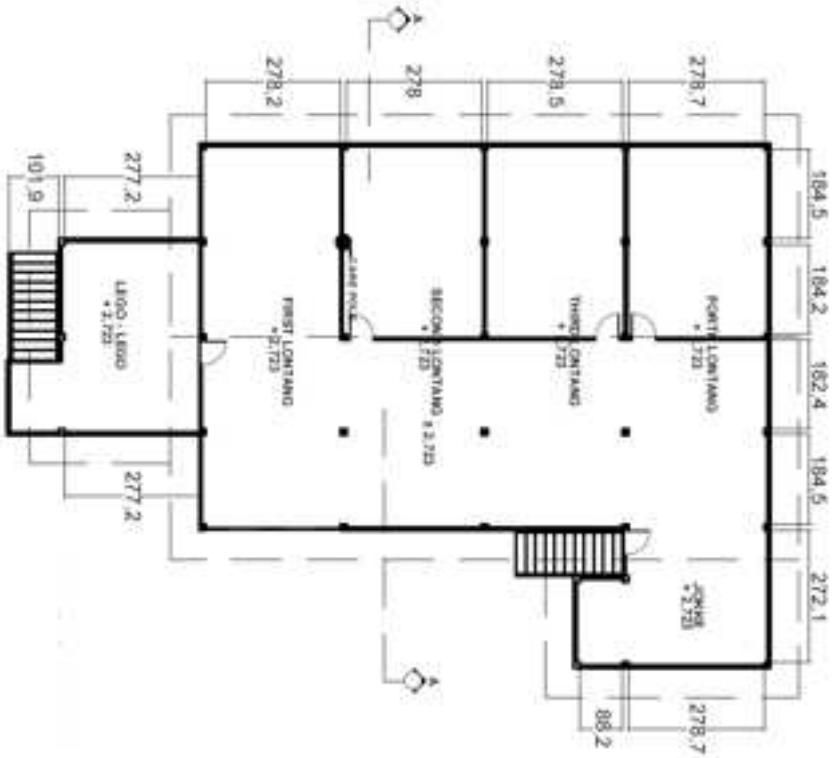

Figure 5.204: Z2-TA-40 : Floorplan. Source : Field survey 2015

This house uses a multi-layered roof. The roof at the bottom layer is the roof of the *lego-lego* that directs guests to the staircase. The roof at the next layer belongs to the *lego-lego*. The roof at the last layer or at the top of the staircase is the roof that blends with the roof of the main house. The roof of the main house is slightly curved gabble. The roof of this house has three *timplaja* as an aristocratic symbol.

This house consists of four *latte* where a modern design window is installed in the first *latte*, third and fourth. The second *latte* is connected to the entrance. This house has four *lontang*, each of which has a bedroom.

The location of the *lego-lego* of this house is at the front of the second and third *latte*, while the position of the staircase of this house, which is parallel to the main road,

is at the front of the *lego-lego*. This staircase only has a bannister, and the number of its stairs is thirteen.

C2. Type of *tellulatte - eppalontang*

1. Z2-TC-35

Figure 5.205: Z2-TC-35 : Facade. Source : Field survey 2015

Figure 5.206: Z2-TC-35 : *lego-lego*. Source : Field survey 2015

Figure 5.207: Z2-TC-35 : Window. Source : Field survey 2015

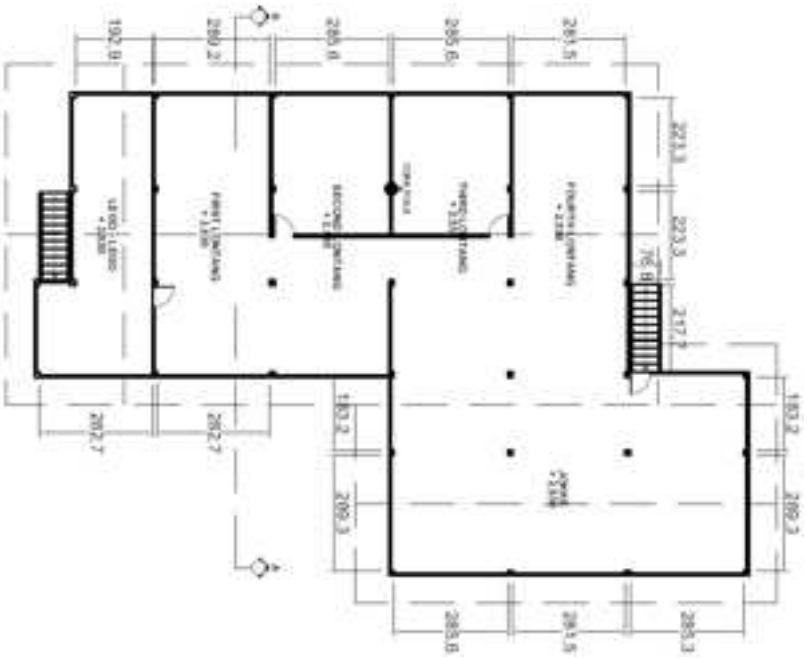

Figure 5.208: Z2-TC-35 : Floorplan. Source : Field survey 2015

Some of the original architectural aspects of Bugis house no longer exist in this house. The first change occurs at the roof of this house.This house look as if it has one roof only, because the roof of its main house, the roof of its *lego-lego* and the roof of its staircase touch to one another. The roof of its main house and the roof of the front of its *lego-lego* share the same type. The kitchen's roof of this house, a slightly curved gable roof, is different from the main house's roof so that the kitchen and the main house look separated from each other. Another change that occurs to this house is on the *lego-lego* where the roof of its *lego-lego* has been expanded as wide as the body of this house. The position of the staircase of this house is in front of the *lego lego.*

In addition to the roof, the bannister and the steps of the staircase of this house also has the aristocratic symbol. The number of steps of this staircase is thirteen.

C3. The type *tellulatte - tellulontang*

1. Z2-PA-28

Figure 5.209: Z2-PA-28 : Facade. Source : Field survey 2015

Figure 5.210: Z2-PA-28 : Other view. Source : Field survey 2015

Figure 5.211: Z2-PA-28 Private *lego-lego*. Source : Field survey 2015

Figure 5.212: Z2-PA-28 : Kitchen house. Source : Field survey 2015

Figure 5.213: Z2-PA-28 : Window. Source : Field survey 2015

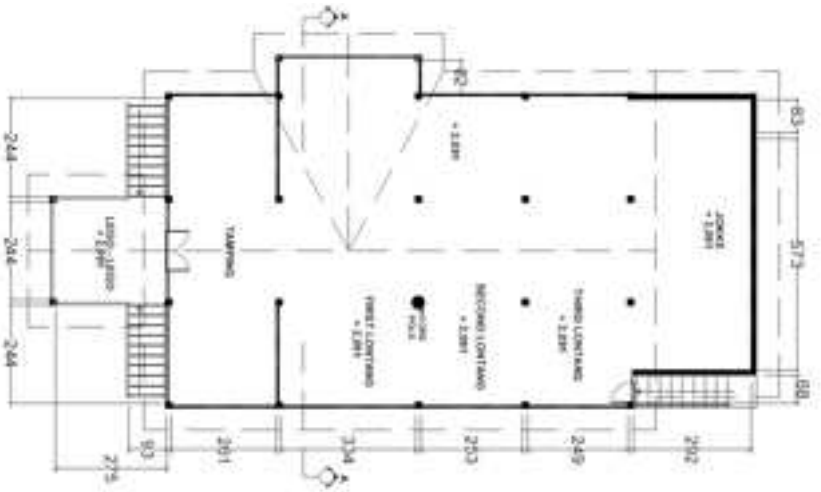

Figure 5.214: Z2-PA-28 : Floorplan. Source : Field survey 2015

The façade of this house is very different from the original form of the Bugis house, although the two roofs of the house use a straight gable. The roof of the main house and *lego-lego* uses a gable roof, while the roof of a kitchen house uses the roof of a *paturungeng* style. The change in this house relates to the *lego-lego*'s position where this *lego-lego* lies

in front of the second *latte* and uses two stairs installed on the front of the house. The other change is the placement of the *tamping* on the front of the main house (*watangpola*). At the *tamping*, which is in parallel with the first *lontang*, there is the other *lego-lego* that is private, because this *lego-lego* can only be accessed by the owner of this house and his close family members.

The placement of the windows of this house is in the first and third part of the *latte*. The house door with two shutters is installed at the second *latte*. The slope style in this house is the jalousie window. The use of this style window is very suitable for the tropics so that fresh air can enter the house.

The element symbolizing the social level of the owner of this house lies on the roof and on this house's staircase. The main house's roof of this house has three *timplaja* and one patukku, and the *lego-lego*'s roof of this house also has three *timplaja*. The aristocratic symbol is also installed at the staircase's bannister. While the number of its steps is seven. This number of steps is generally used at the commoners' houses.

5.2.2 Commoner Houses

In this zone, the houses that were chosen to be the objects of this research were the two houses that were built during the Dutch colonial administration, twenty-three houses that were built at the era after the independence of Indonesia and eight houses that belong to new style that were constructed in the 1980s. The houses of the commoners built during the Dutch colonial administration used kappang-kappang at the bottom part of the door so that those who want to go through the door way have to lift their legs over the kappang-kappang. The houses that belong to the old style and were built at the era after the independence of Indonesia no longer used *kappa-kappang*.

A. Commoner House Built at Era before the Independence of Indonesia

A1. The type of *telllulatte - eppalontang*

1. Z2-PA-17

Figure 5.215: Z2-PA-17 : Facade. Source : Field survey 2015

Figure 5.216: Z2-PA-17 : *lego-lego*. Source : Field survey 2015

Figure 5.217: Z2-PA-17 Ground house. Source : Field survey 2015

Figure 5.218: Z2-PA-17 : Foundation. Source : Field survey 2015

Figure 5.219: Z2-PA-17 *tamping* floor low slighly than *watangpola* (main house. Source : Field survey 2015)

Figure 5.220: Z2-PA-17 : Second *lontang.* Source : Field survey 2015

Figure 5.221: Z2-PA-17 : Window. Source : Field survey 2015

Figure 5.222: Z2-PA-17 : Old style hinge. Source : Field survey 2015

Figure 5.223: Z2-PA-17 : Door by *kappa-kappang.* Source : Field survey 2015

Figure 5.224: Z2-PA-17 : *Tanri-tanriang.* Source : Field survey 2015

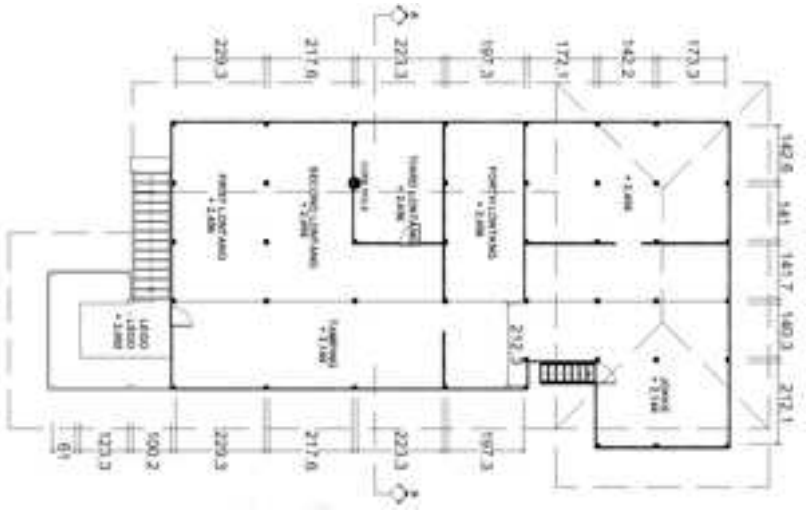

Figure 5.225: Z2-PA-17 : Floorplan. Source : Field survey 2015

This house is an interesting object because the shape of the house, the window style and the old style of the *tamping* are still retained and does not change into a more modern one. The façade of this house still greatly highlights the original character of the Bugis house, where the main house uses a gable roof with an angle of 45-degree. For the body of the house, each *latte* is installed with a Malay window style.

This house is an interesting object because the shape of the house, the window style and the old style of the *tamping* that are still retained and does not change into a more modern one. The façade of this house still greatly highlights the original character of the Bugis house, where the main house uses a gable with an angle of 45-degree. For the body of the house, each *latte* is installed with a Malay window style.

The house in Z2-PA-17 still preserves the old style of *tamping*, where the *tamping*'s floor is slightly lower by around 30 centimeters than the main house's floor. The *tamping* functions as a circulation area and is also a connector between the main house and the other two additional modules called *lego-lego* and kitchen.

The *watangpola* uses three *latte* and four *lontang*. The purpose of each *lontang* still adheres to the old Bugis rules, except for the second one. The second *lontang* functions as a bedroom for guests or visiting families, not for the owner of the house. The owner's bedroom is now located on the third *lontang*, since their child has got married and left the house. There is no separation between the first and the second bedroom, despite the different functions of each bedroom. This adjustment also makes it easier for the owner to greet their families when visiting, as they have a wide space for doing much activity.

The adjustment on the second *lontang* does not violate the Bugis rules, for now they did not have any children to look out for. Some Bugis also do the same thing once their children are getting married. The first and the second *lontang* becomes a room for their visiting families to gather and to sleep. They will sleep on the first and the second *lontang* using a mat.

The element of the house that still symbolizes the social level of the house owner is a single *timplaja* installed on the main house's roof and the windows that are using five trellises. It is the number used by the commoners. The staircase uses thirteen steps. This number is normally used in the aristocratic house. Another element that still exists in

this house is atanri-tanriangeng at the kitchen, which is commonly used in Bugis houses in the past.

In addition, this house still uses the old style of the door where *kappa-kappang* is used. Kappa- kappang is usually located between the door's bottom and the floor, and it functions as a barrier, so people cannot go directly into the house. With the *kappa-kappang* installed, visitor needs time to pass over the *kappa-kappang*.

The interesting thing about this house's door is its hinges, where they are made of wood. These hinges have been rarely used by the Bugis nowadays. They prefer the manufactured hinges.

At the *tamping*, the illusory lines function as the limits for those who have a higher social level and those who have the lower social level to sit. In the past, the *tamping* was a place for people with low social level sits. Furthermore, the real line on the wooden joint functions to direct the people to circulate in the circulation area.

There is no ornament both on the outside and on the inside of this house, except for the kappa- kappang. It has a sunlight-shape. The shape symbolizes that the owner of this house hopes that his offspring could shine like a sun.

A2. The type of *tellulatte - tellu lontang*

1. Z2-BL-32

Figure 5.226: Z2-BL-32 : Facade. Source : Field survey 2015

Figure 5.227: Z2-BL-32 : Left side. Source : Field survey 2015

Figure 5.228: Z2-BL-32 : *lego-lego*. Source : Field survey 2015

Figure 5.229: Z2-BL-32 : Foundation. Source : Field survey 2015

Figure 5.230: Z2-BL-32 : Window. Source : Field survey 2015

Figure 5.231: Z2-BL-32 : Stairs. Source : Field survey 2015

Figure 5.232: Z2-BL-32 : *kappa-kappang* under the door. Source : Field survey 2015

Figure 5.233: Z2-BL-32 : Ornament under eaves. Source : Field survey 2015

Figure 5.234: Z2-BL-32 : Ornament detail. Source : Field survey 2015

Figure 5.235: Z2-BL-32 : Ornament on stairscase. Source : Field survey 2015

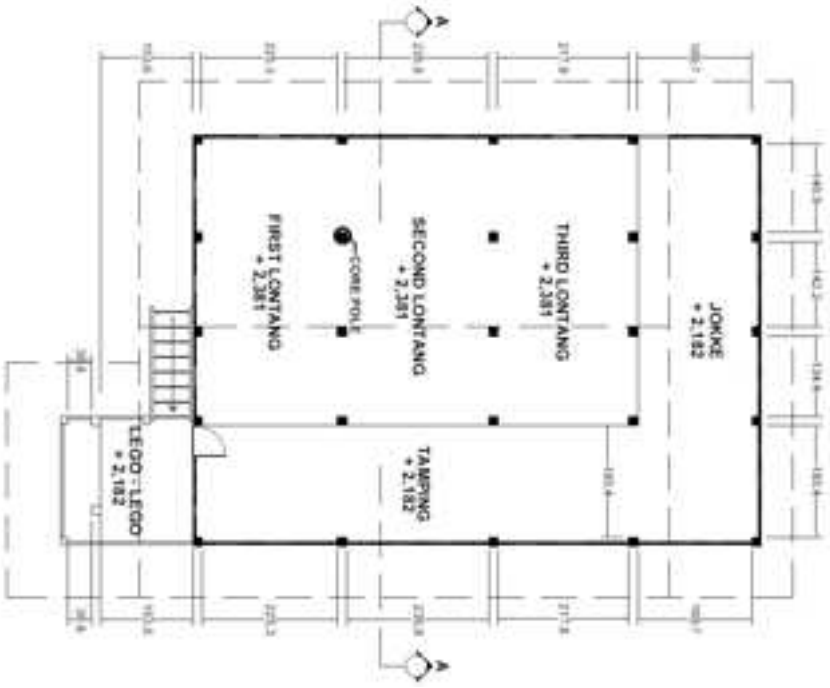

Figure 5.236: Z2-BL-32 : Floorplan : Field survey 2015

The house in Z2-BL-32 still shows the original façade of the Buginese house, because the roof of the house is a gable with a slope of 45-degree angleThe house Z2-BL-32 still shows the original façade of the Bugis house, because the roof of the house is a gable with a slope of 45-degrees, so it looks tall. There is no *timplaja* installed on the roof. The roof that does not use a *timplaja* is called tempa-tempa (local language).

This house has the main house with three *latte*, each of which has a barred window. The window uses three bars without any shutter. There is a door at the *tamping* of this house as an access to get inside the house or go out of the house. To pass through the door, you need to lift your left and right foot one at a time over the kappang-kappang. The *tamping* belongs to the old style.

The interesting thing is that this house uses round-shaped pillars unlike the today's people who frequently use the rectangular shaped timber.

The symbol for the social level of the owner of this house is applied on the roof, the windows and the staircase of this house. Although the roof of this house does not use any *timplaja*, it is high. This house has three-bar windows and has a staircase with seven steps. Another element used in this house is to enhance its aesthetic value but not to represent the social rank of the owner is the beam whose function is to connect the padongko beam and the ware beam. This binding beam is carved on its end so that it resembles the shape of a blooming flower.

The only ornament applied in this house is a carving of a flower that blooms in an ascending order along the staircase of this house. The blooming flower carvings represent the ability of the house owner to make other people happy, while the ascending *parenreng* flowers express the hopes of the house owner for their offspring to achieve a higher social level.

B. Commoners' Houses after the Independence of Indonesia.

B1. Type of *tellulatte eppalontang*

The houses that belong to the three *latte* and four *lontang* style that were built at the era after the independence of Indonesia are Z2-MD-08, Z2-PA-29 and Z2-TC-36.

1. Z2-MD-08

Figure 5.237: Z2-MD-08 : Facade. Source : Field survey 2015

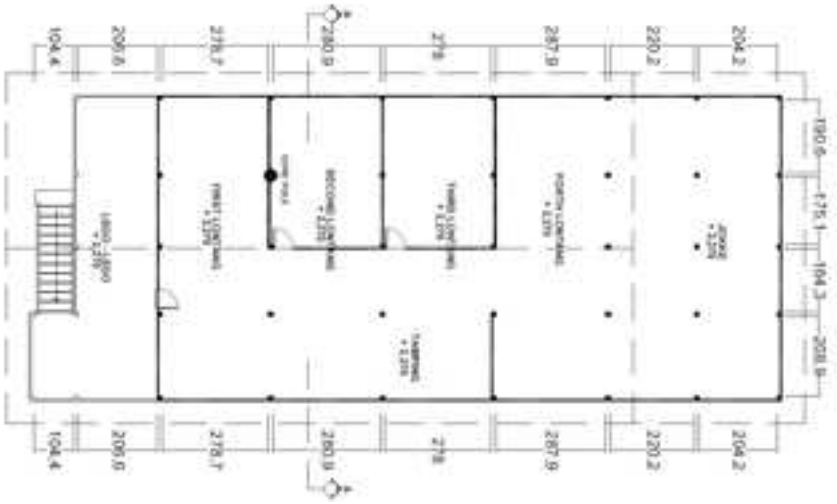

Figure 5.238: Z2-MD-08 :Floorplan. Source : Field survey 2015

This house belongs to the old style. The roof of the old style of Bugis house is a straight gable. However, having been renovated, the roof of Z2-MD-08 has been turned into a slightly bent gable. The roof of the main house, the *lego-lego* and the *tamping* of the old style are different from one another, but here the main house, the *tamping* and the *lego-lego* are under one roof. Other changes include the placement of the door, which is now placed at the first *latte*; the placement of a window made of modern materials, which is now installed on the side of the *tamping* exactly between the second and third *latte*.

The door of this house is now placed at the *watangpola*, so the circulation area in this house has moved from the *tamping* to the *watangpola*. With this circulation alteration, the owner of the house no longer distinguishes the *tamping* from the *watangpola*, especially now that they are under the same roof. The *lego-lego* of this house has also been modified, where the *lego-lego* and the house are now the same width.

The house owner's purpose of making the main house and its additional modules under the same roof was to minimize material usage, because there is no connector needed between the main house and its additional modules.

There is no other element that exists on this house's roof, except for the element of *timplaja*, which symbolizes the social level of the house owner.

2. Z2-TC-36

Figure 5.239: Z2-TC-36 Facade. Source : Field survey 2015

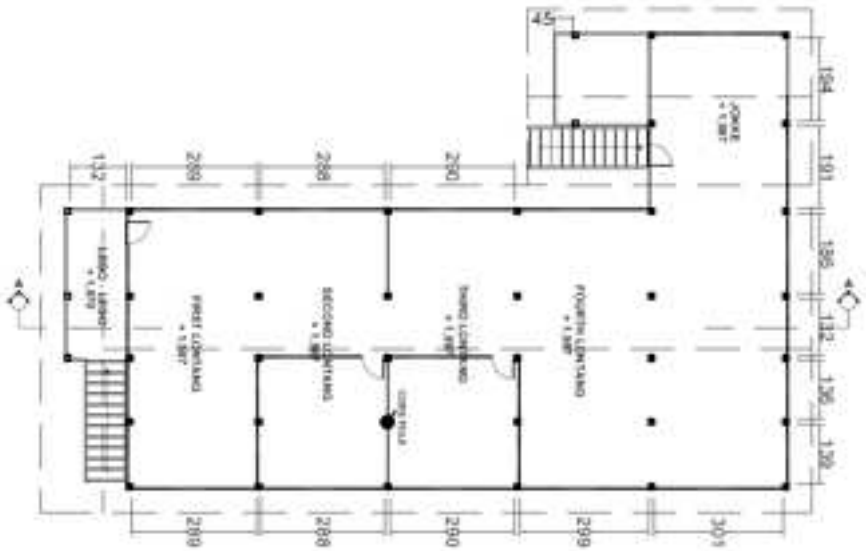

Figure 5.240: Z2-TC-36 Facade. Source : Field survey 2015

The façade of this house has changed. Its straight gable roof and the difference between its *watangpola*'s roof and *tamping*'s roof have been modified. However, the owner of the house still separates the *watangpola* roof from the *lego-lego* roof. The width of this house is three *latte* and the width of the *tamping* is one *latte*. The door is placed at the *tamping*. There is a window using a modern material in each *latte* of this house.

B2. The type of *tellulatte tellulontang*

In the second zone, the houses that belong to this type are Z2- PN-01, Z2-PN-02, Z2-MD-06, Z2- MD-09, Z2-PA-19, Z2-PA-20, Z2-PA-21, Z2-PA-22, Z2-PA-23, Z2-PA-24, Z2-PA-25, Z2- PA-26, Z2-PA-27, Z2-PA30, Z2-PA-31 and Z2-TC-37

1. Z2-PN-01

Figure 5.241: Z2-PN-01 : facade. Source : Field survey 2015

Figure 5.242: Z2-PN-01 : Right side. Source : Field survey 2015

Figure 5.243: Z2-PN-01 *lego-lego* and *tamping* floor. Source : Field survey 2015

Figure 5.244: Z2-PN-01 Cantilever. Source : Field survey 2015

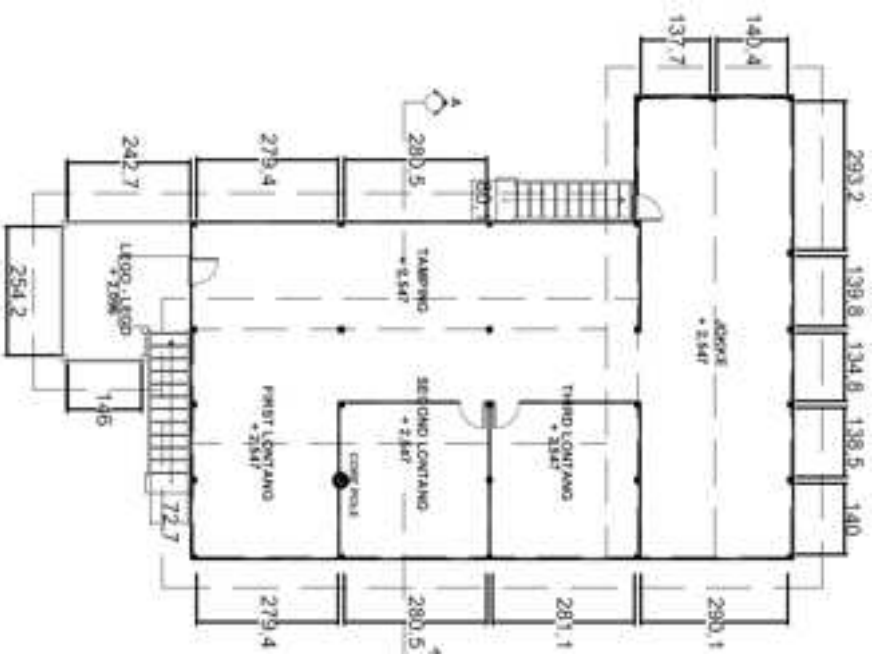

Figure 5.245: Z2-PN-01 Floorplan. Source : Field survey 2015

This house belongs to the old style of Bugis house. This house has a straight gable roof. There is a window at each *latte*, even though the window is jalousie and uses modern materials.

This house has undergone some modification at the circulation area. There is a partition installed between the *tamping* and the *jokke*, so the *watangpola* must be used to get to the *jokke*.

2. Z2-PN-02

Figure 5.246: Z2-PN-02 : Facade. Source : Field survey 2015

Figure 5.247: Z2-PN-02 : *lego-lego* floor. Source : Field survey 2015

Figure 5.248: Z2-PN-02 : Window. Source : Field survey 2015

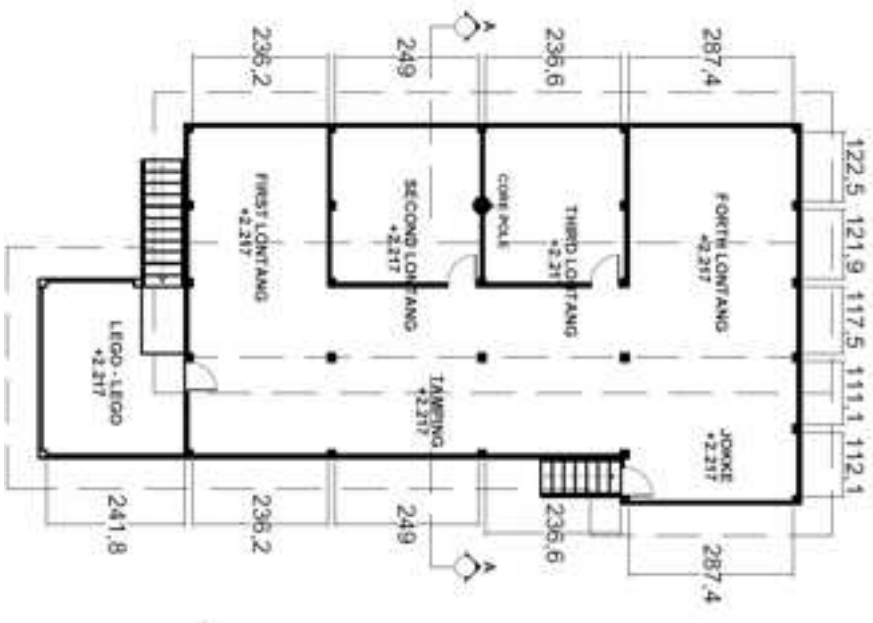

Figure 5.249: Z2-PN-02 : Floorplan. Source : Field survey 2015

This house still maintains its original architecture of Bugis house and its circulation area. Its roof is a gable with a slope of 45 degrees, so that the roof looks high. The placement of windows and doors are the same as the old Bugis houses, even though the windows in this house belong to the modern style and use modern materials.

3. Z2-MD-06

Figure 5.250: Z2-MD-06 :Facade. Source : Field survey 2015

Figure 5.251: Z2-MD-06 : Ground. Source : Field survey 2015

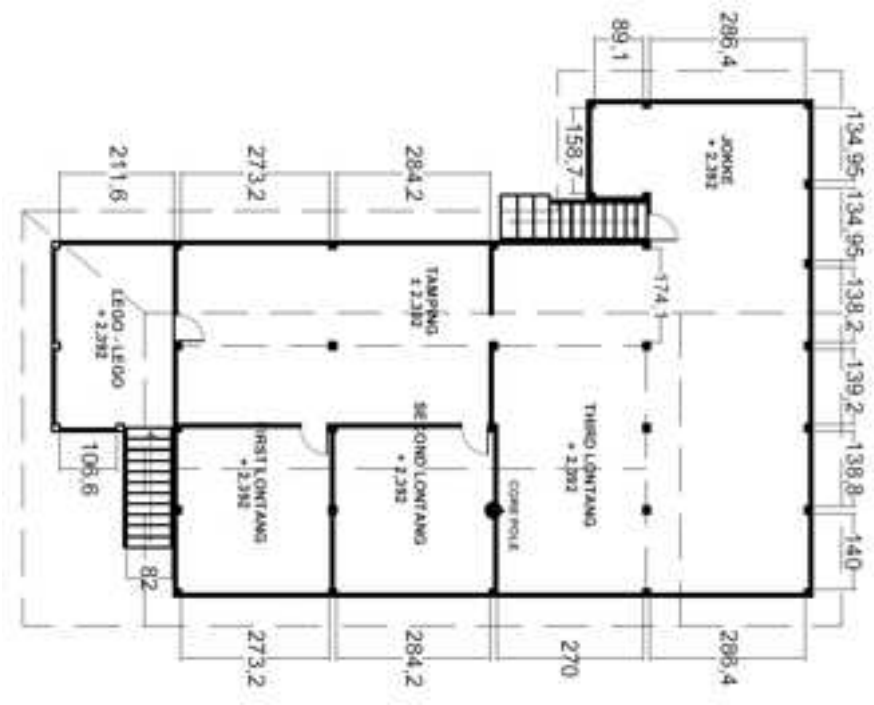

Figure 5.252: Z2-MD-06 : Floorplan : Field survey 2015

This house has not undergone any changes. Its main house has a gable roof. Both its *lego-lego* and its *tamping* have *paturungeng* roofs. The gable looks low because it is less than 45 degrees. The watangbola uses three *latte* and one *latte* at its *tamping*. A barred window is installed at the first *latte*, and the second window is installed between the second and the third *latte*.

4. Z2-MD-09

Figure 5.253: Z2-MD-09 Facade. Source : Field survey 2015

Figure 5.254: Z2-MD-09 : *tamping* floor low slightly than *watangpola*. Source : Field survey 2015

Figure 5.255: Z2-MD-09 : Corepole. Source : Field survey 2015

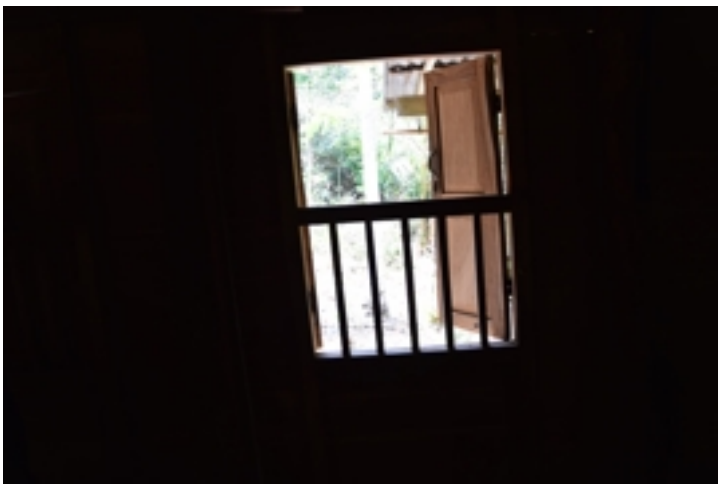

Figure 5.256: Z2-MD-09 : Window. Source : Field survey 2015

Figure 5.257: Z2-MD-09 : Stairs. Source : Field survey 2015

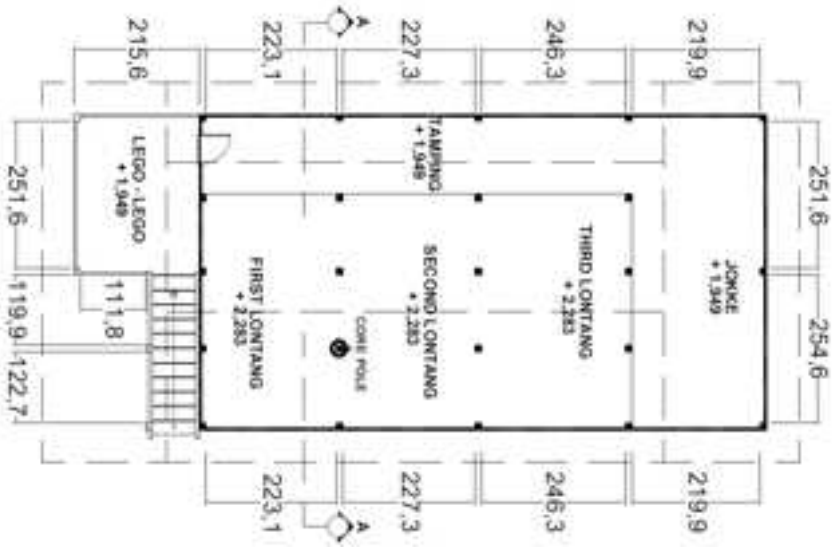

Figure 5.258: Z2-MD-09 : Floorplan. Source : Field survey 2015

This house is not occupied by the house owner at night. The house owner occupies it only during the day or on some certain days. This house is left as it is, and nothing has changed since it was abandoned by the house owner. It is because the house owner has built a modern house about 500 meters from this house.

This house still maintains its original architecture of Bugis house, because its main house uses a straight gable roof. The slope of the roof shows the social level of the house owner. Both of its *tamping* and its *lego-lego* use *paturungeng* roofs. The roof of the *lego-lego* is not extended to cover the staircase.

This *watangpola* is constructed with three *latte* and one *latte* for its *tamping*. A Malay style window is installed at each *latte*. Each window has five bars and two shutters.

This house has the old *tamping* style, where the floor of the *tamping* is slightly lower than the floor of the *watangpola*. The gaps between the boards at the *tamping*'s floor are around 1 cm. The gaps are made because the *tamping* functions not only as a hallway but also as an air circulation area. In addition, dishwater or garbage from inside the house is disposed through the gaps between the boards at the *tamping*. In contrast, the boards at the *watangpola*'s floor have no gaps to prevent wind from entering the house. Besides that, Bugis usually sleep on the floor of the *watangpola* using a mattress or a mat.

The *antari-tanriangeng* element of this house is still applied. It is located on the side of the *watangpola*, yet it is only accessible from the inside of the house. The function of antari-tanriangeng has been explained previously. On the binding beam, between the padongko beam and the ware beam located at the *watangpola*, there is an ornament even though it is not seen clearly.

5. Z2-PA-19

Figure 5.259: Z2-PA-19 : Facade. Source : Field survey 2015

Figure 5.260: Z2-PA-19 : Floor structure. Source : Field survey 2015

Figure 5.261: Z2-PA-19 : Support beam for the staircase. Source : Field survey 2015

Figure 5.262: Z2-PA-19 : Jalousie windows with wooden slat transoms. Source : Field survey 2015

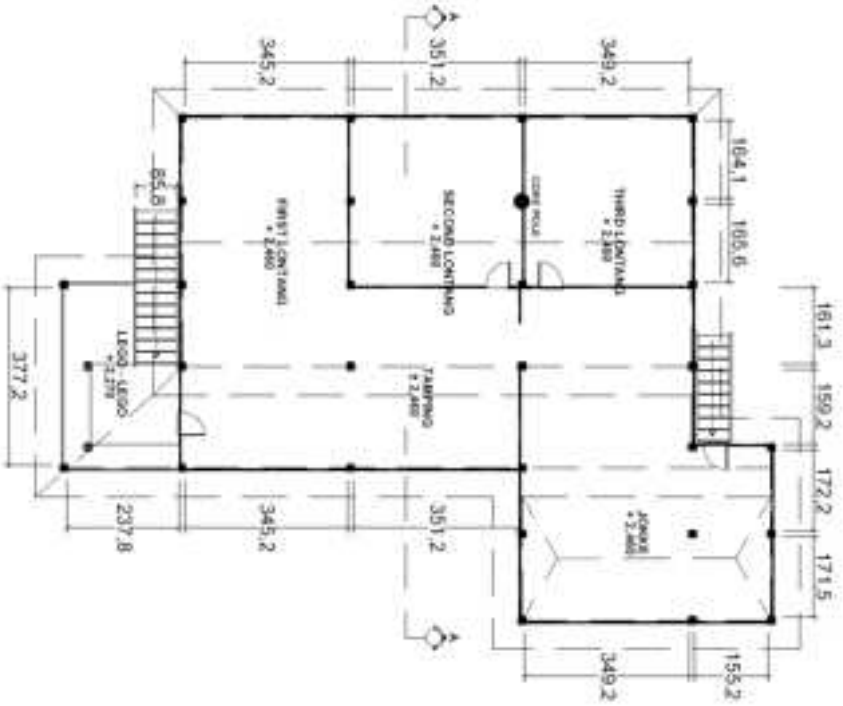

Figure 5.263: Z2-PA-19 : Floorplan. Source : Field survey 2015

The *watangpola* of Z2-PA-19 uses a gable roof with an angle of 45 degrees. The *tamping* of this house is uses a paturungen roof angled between 5 and 10 degrees. This house still retains the original façade of the Bugis house even though it has modern windows.

The *watangpola* consists of three *latte/karateng* and one *latte* at its *tamping*. There is a jalousie window at each *latte*. At the *tamping*, there is a door. The *tamping* functions as an air circulation area. The air from the outside that goes through it flows to the *watangpola* and the *jokke*. There is a partition installed at the *tamping* so those who pass through it would be directed to the second and third *lontang* before they can enter the *jokke*. The *tamping* of this house no longer carries out its original function.

Under the house, there is space that has been partitioned using bamboo walls. This space serves as a place for cooking during the day and also as a place to store items that are not used.

6. Z2-PA-20

Figure 5.264: Z2-PA-20 : Facade. Source : Field survey 2015

Figure 5.265: Z2-PA-20 : Left side. Source : Field survey 2015

Figure 5.266: Z2-PA-20 : Shutters in the style of French windows. . Source : Field survey 2015

Figure 5.267: Z2-PA-20 : Ornament on the roof. Source : Field survey 2015

Figure 5.268: Z2-PA-20 : Empty holes identifying the original height of the tamping floor. . Source : Field survey 2015

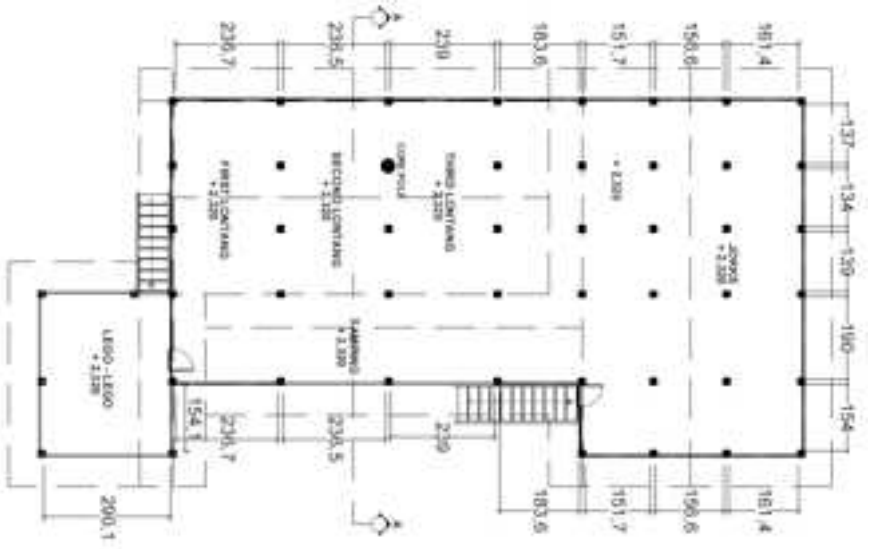

Figure 5.269: Z2-PA-20 : Floorplan. Source : Field survey 2015

This house is very interesting because it stands out among the other houses. Its main house uses a gable roof with an angle of 45-degrees. Both of its *lego-lego* and its *tamping*

use parutungeng roofs, while its *jokke* uses a gable roof.

The *watangpola* has three *latte* and one *latte* at its *tamping*. There is a jalousie window installed at each *latte* whose size is the same as the size of the door commonly referred to as french doors. The front door of this house is installed at the *tamping*. This house used to have the old *tamping* style. However, the floor was raised to the same level as that of the *watangpola*, so holes have been left on the pillars supporting the *tamping*.

The *lego-lego* of this house looks different from the previous houses. The *lego-lego* is has been extended to one side so that the *lego-lego* is not situated directly in the front of the *watangpola*.

This house uses an additional element on the roof called a *timplaja*. The houses that use one *timplaja* show that the house owner has a higher social rank among others in the community.

The interesting part of this house is its windows which are different from the rest in the survey location. The windows of this house have the same size as that of its door. Based on the information from the locals, the windows and the door have the same width and height so that a dead body can be passed through the window. Bugis believes that dead people do not go through the door because the door is only for the people who are alive, not for the dead. This belief is also shared by the community of Bugis *To-lotang*.

There is an ornament at the roof of this house that gives aesthetical value, besides its specific purpose. There is a *parenreng* flower ornament on the top of the roof. On the list plank, there is a flower-shaped ornament and a square *lawasuji*. At the *timplaja*, there are flower and rooster ornaments. The ornaments at this house are dominated by the *parenreng* flower and the square *lawasuji*.

7. Z2-PA-21

Figure 5.270: Z2-PA-21 : Facade. Source : Field survey 2015

Figure 5.271: Z2-PA-21 : Coonection pole and beam. Source : Field survey 2015

Figure 5.272: Z2-PA-21 : Jalousie window with leaves of plate glass on both sides with a wooden slat transom above. Source : Field survey 2015

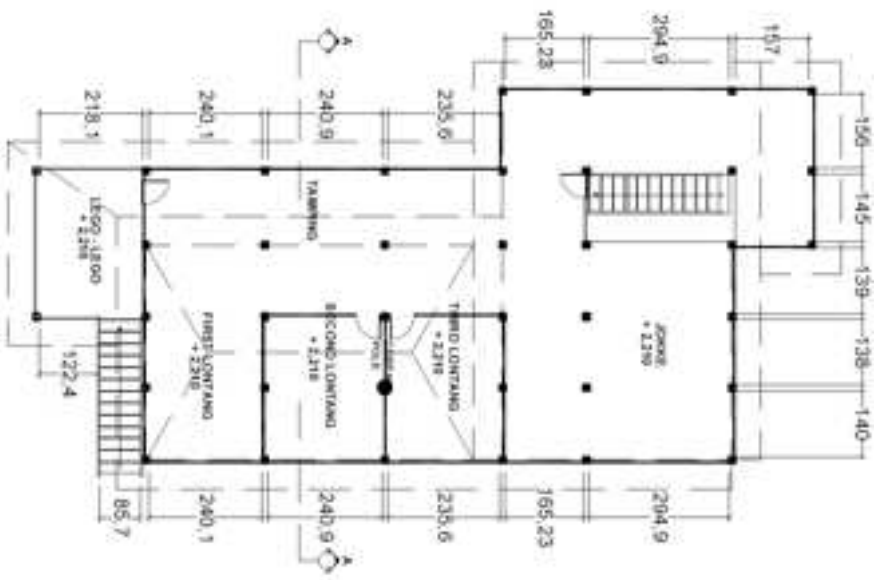

Figure 5.273: Z2-PA-21 : Floorplan. Source : Field survey 2015

The original architecture of this house has not changed, except for its under part. In fact, this house still uses five bars on its windows that represent the owner the social standing in the community. The changes that occur are under the house which includes an addition of a room for resting during the day, a living room, a kitchen and a dining room. Also, the staircase at the back of this house has been moved into the inside of the house so that it is now easier to access the space under the house.

These changes were implemented due to additional family members such as the presence of in-laws and grandchildren. Therefore, the *jokke* has been turned into a bedroom. There is also another bedroom at the under part of this house.

8. Z2-PA-22

Figure 5.274: Z2-PA-22 : Facade. Source : Field survey 2015

Figure 5.275: Z2-PA-22 : Right side. Source : Field survey 2015

Figure 5.276: Z2-PA-22 : Foundation. Source : Field survey 2015

Figure 5.277: Z2-PA-22 : Front shuttered windows. Source : Field survey 2015

Figure 5.278: Z2-PA-22 : Wall and window made of woven bamboo. Source : Field survey 2015

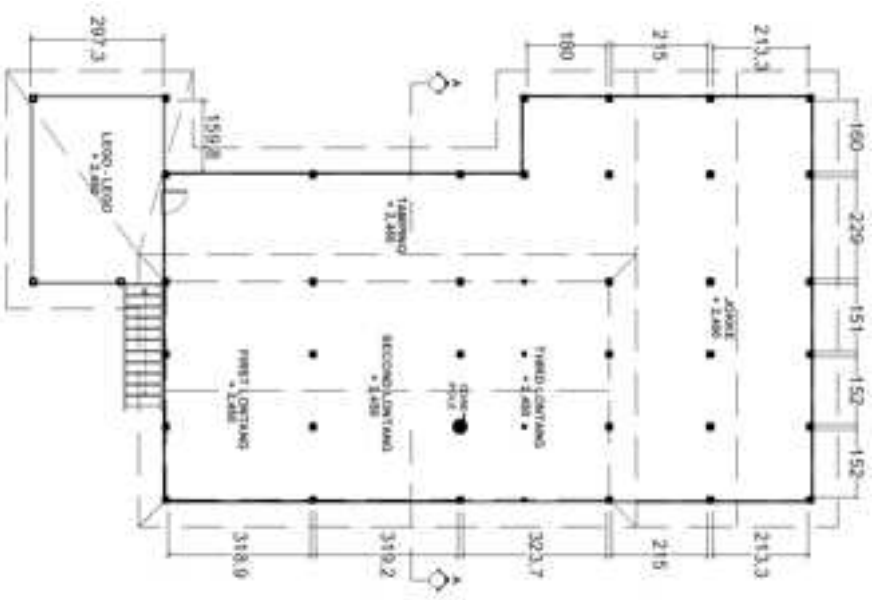

Figure 5.279: Z2-PA-22 : Wall and windoww by bamboo material. Source : Field survey 2015

In this house, the original architecture of Bugis *watangpola* is still maintained. However, the modification has been made to its *lego-lego* where it has been widened out to the side. The gound level of this house has not changed. It still functions as a public space to socialize with neighbors and also a place to store carpentry and agricultural tools.

9. Z2-PA-23

Figure 5.280: Z2-PA-23 : Facade. Source : Field survey 2015

Figure 5.281: Z2-PA-23 : : Shuttered window with jalousie (fixed wooden slats) on top and wooden boards below. Source : Field survey 2015

Figure 5.282: Z2-PA-23 : Shuttered window with plate glass on top and jalousie (fixed wooden slats) below. Source : Field survey 2015

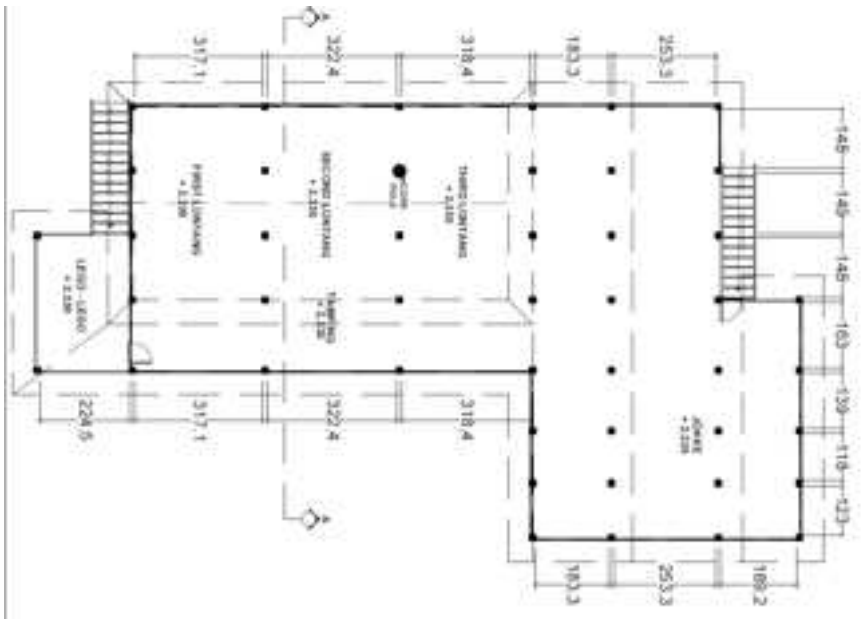

Figure 5.283: Z2-PA-23 : Floorplan. Source : Field survey 2015

This house has not changed both in its façade and its rooms. The *tamping* module still serves its original function, which is as a circulation area. The interesting part of this house is its windows, where the windows on the first and the third *latte* have the same style, while the window on the second *latte* is different from the other windows. It shows the architectural rhythm on the façade of this house. The first *latte* and the third *latte* use a combination of jalousie window and glass window, while the second *latte* only uses a glass window.

Under this house, there is a *panrung* which serves as a place to sit during the day, and sometimes it serves as a place to nap.

10. Z2-PA-24

Figure 5.284: Z2-PA-24 Facade. Source : Field survey 2015

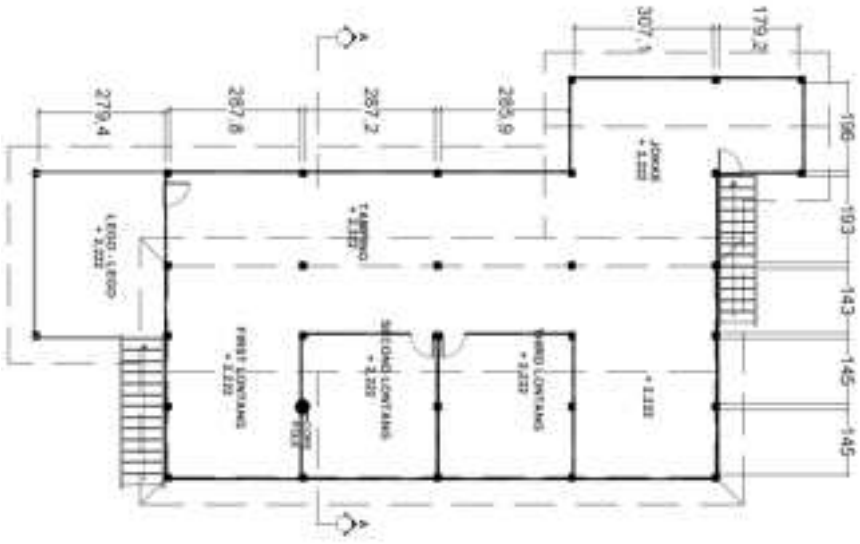

Figure 5.285: Z2-PA-24 Floorplan. Source : Field survey 2015

This house has undergone some modification at the roof of the *lego-lego*, where it is widened out to the side so that it covers the staircase. The social symbol is still applied at the windows, where three bars are used. The rooms in both the main house and in the *tamping* have not changed.

This house applies a *timplaja*, as an additional element on the gable wall, to show the social status of the owner.

11. Z2-PA-25

Figure 5.286: Z2-PA-25 : Facade. Source : Field survey 2015

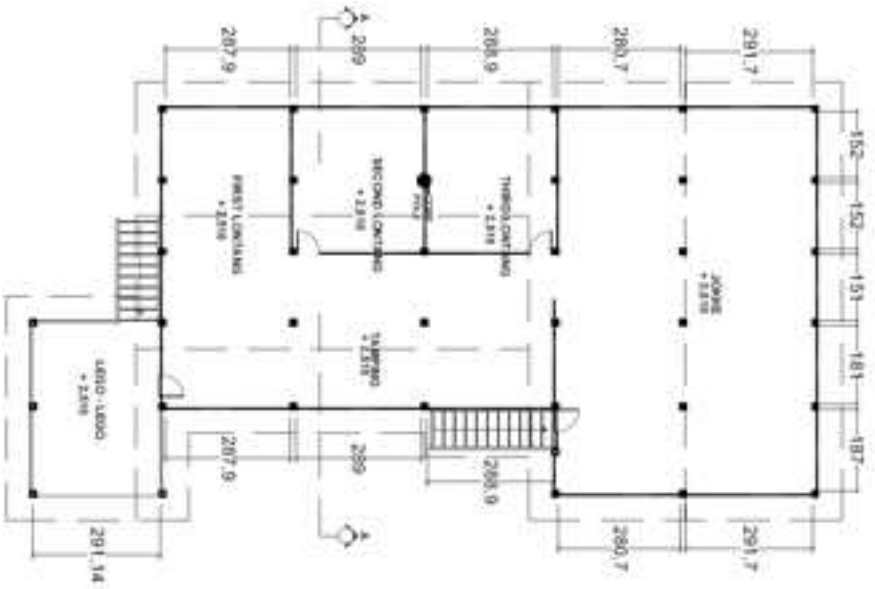

Figure 5.287: Z2-PA-25 : Floorplan. Source : Field survey 2015

This house has not changed, except for its *lego-lego* that has been widened out to the side to add more space. The staircase of this house is still aligned with the first pillar of the main house. This pole is called the *sanreseng addeneng* pole. The staircase of the house belongs to the old style are also arranged parallel to the first pole of the *watangpola*.

There are a certain elements of this house that display the social level of the house owner. They are the additional *timplaja* on the roof and five bars on the windows which is the highest number that commoners are allowed to use. In addition, the steps of the staircase also show the social level of the owner.

12. Z2-PA-26

Figure 5.288: Z2-PA-26 : Facade. Source : Field survey 2015

Figure 5.289: Z2-PA-26 : Additional function in *wasaubola.* Source : Field survey 2015

Figure 5.290: Z2-PA-26 : The hole as ex hole old *tamping* construction. Source : Field survey 2015

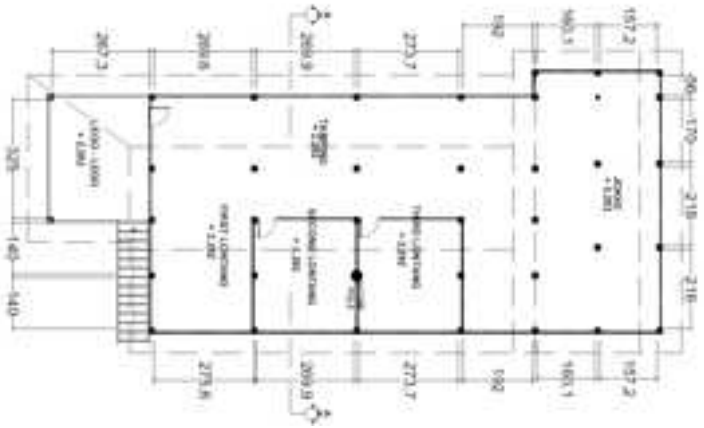

Figure 5.291: Z2-PA-26 : Floorplan. Source : Field survey 2015

The façade of this house still shows the identity of the traditional Bugis house, because it still applies the symbols of social level on the roof, the windows and the staircase.

This house uses one *timplaja* . This house has windows with five bars installed and a staircase with eleven steps. The *tamping* of this house has changed. Its old *tamping*

has been raised and turned into the new *tamping*. As a result of this change, the pillars of the *tamping* have holes into which beams were once inserted.

13. Z2-PA-27

Figure 5.292: Z2-PA-27 : Facade. Source : Field survey 2015

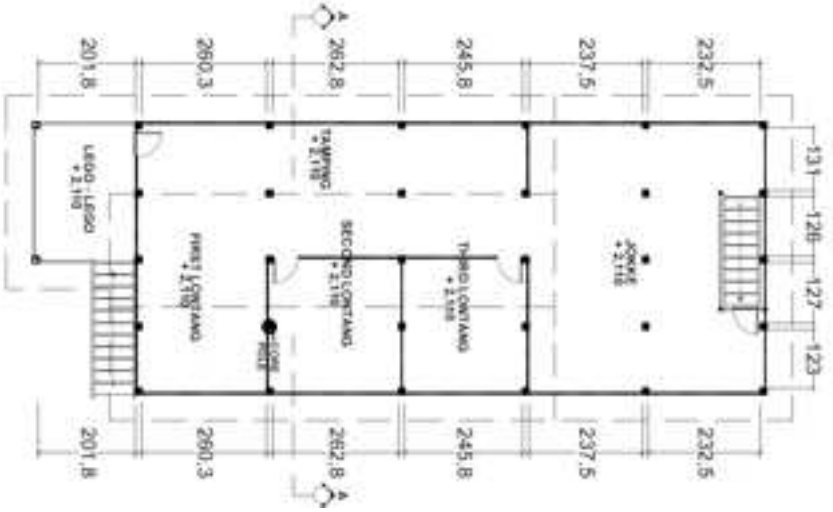

Figure 5.293: Z2-PA-27 : Floorplan. Source : Field survey 2015

The house Z2-PA-27 has not changed. The house uses a high roof without any additional elements. The plain yet high roof also shows the social level of the house owner. The body of this house has a modern-designed window made of modern materials in every *latte*.

14. Z2-PA-30

Figure 5.294: Z2-PA-30 : Facade. Source : Field survey 2015

Figure 5.295: Z2-PA-30 : Windows with modern bars and shutters. . Source : Field survey 2015

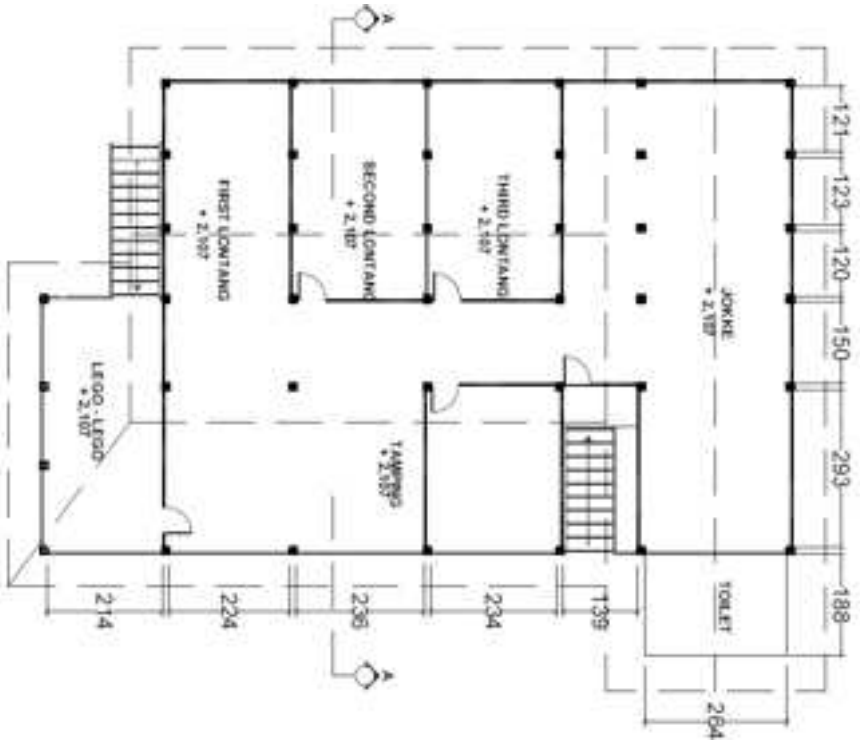

Figure 5.296: Z2-PA-30 : Floorplan. Source : Field survey 2015

The façade of this house has not changed. This house still shows the character of a Bugis house. The high roof of this house shows the social level of the house owner. As explained earlier, the roofs of the commoners' houses are classified into three types. They are a roof with one *timplaja*, plain yet high roof and plain yet low roof.

A window with two shutters is installed at every *latte*. A rectangular iron bars cast with the letter "S" shape that serves as the frame of the window is installed. A modification has been made to the circulation area. Now, there is a bedroom on the *tamping* so that the circulation area has moved to the *watangpola*.

15. Z2-PA-31

Figure 5.297: Z2-PA-31 : Facade. Source : Field survey 2015

Figure 5.298: Z2-PA-31 : *lego-lego* floor. Source : Field survey 2015

Figure 5.299: Z2-PA-31. Source : Field survey 2015

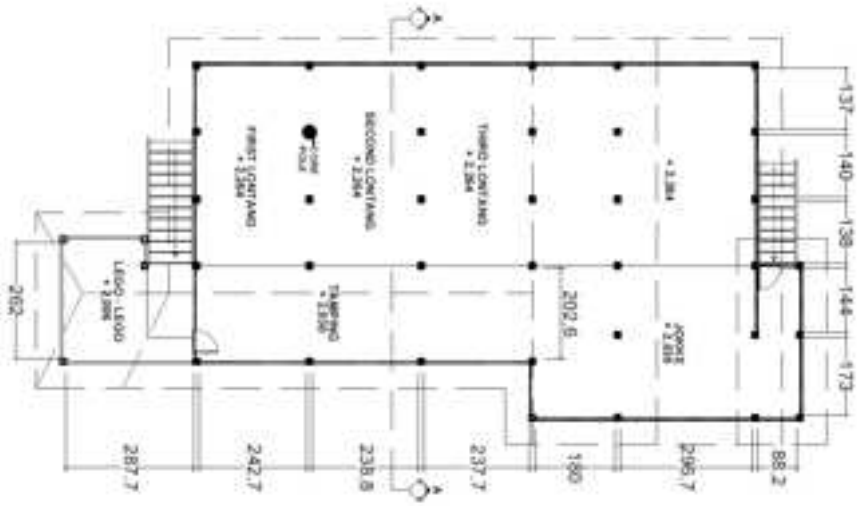

Figure 5.300: Z2-PA-31. Floorplan : Field survey 2015

This house still has the character of a Bugis house. Its high roof without *timplaja* shows the social level of the house owner. The roofs of both the *tamping* and the *lego-lego* uses

the paturungen style. A five-bar window with two shutters is installed at each *latte*. This house still retains its old *tamping* style, where the *tamping* floor is slightly lower than the *watangpola* floor.

16. Z2-TC-37

Figure 5.301: Z2-TC-37 : Facade. Source : Field survey 2015

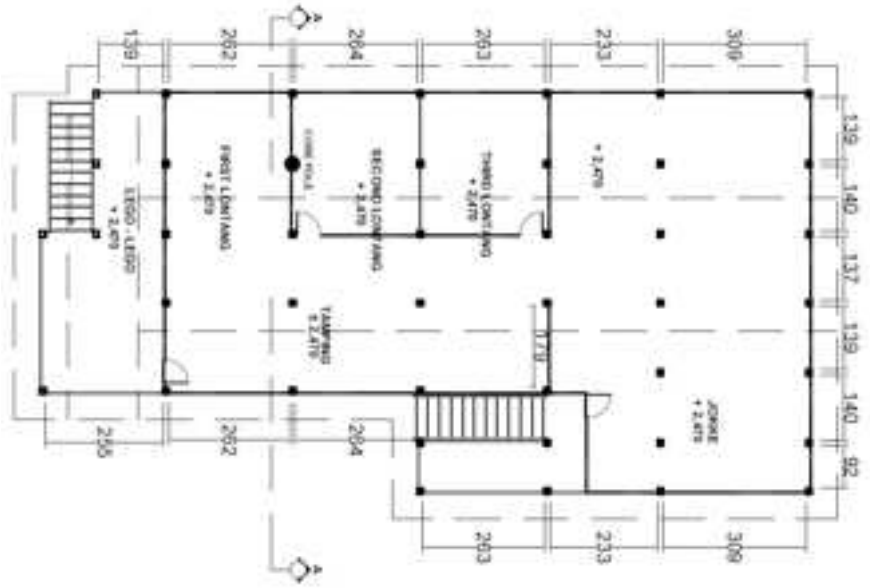

Figure 5.302: Z2-TC-37 : Floorplan. Source : Field survey 2015

The façade of this house looks disproportionate, because its roof is slightly low. The façade of this house also has changed due to the modification of its *lego-lego*. The width of *lego-lego* has been adjusted to the width of the house. This has affected the position of the staircase, which is situated at the front of the *lego-lego*.

Another change that has taken place is the alteration of the *tamping* into a circulation area. The last change that has occurred at this house is the installment of a partition between the *tamping* and the *jokke*. This installment has re-directed foot traffic through the *watangpola*.

B3. The type of *dualatte tellulontang*

The houses that have two *latte* and three *lontang* are in Z2-MD-10, Z2-MD-11 and Z2-PA-18.

1. Z2-MD-10

Figure 5.303: Z2-MD-10 : Facade. Source : Field survey 2015

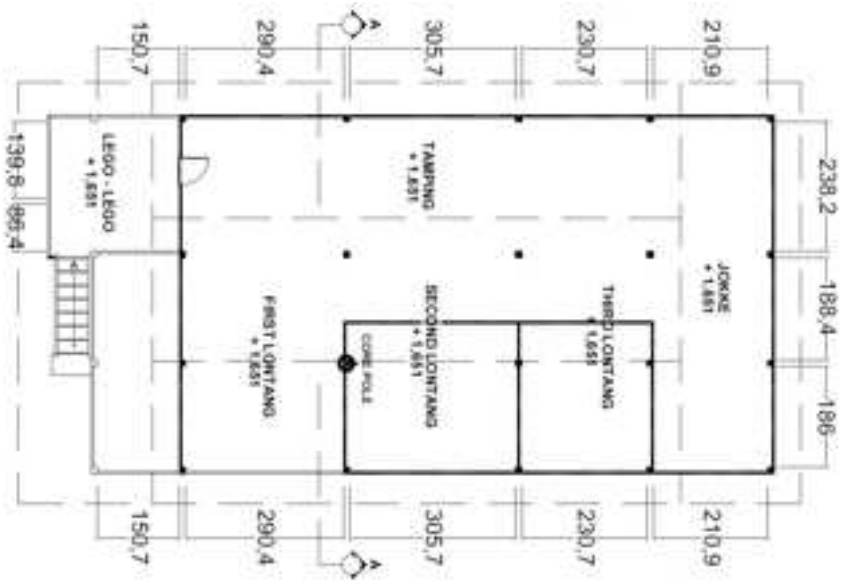

Figure 5.304: Z2-MD-10 : Floorplan. Source : Field survey 2015

This house has a roof whose the angle is less than 45-degree, so the house looks short and lopsided. Its *alebola* (body of house) has changed, because it has been extended at the front so that it is aligned with the *lego-lego*. The addition of space to the living room has made the living room more spacious.

2. Z2-MD-11

Figure 5.305: Z2-MD-11 : Facade. Source : Field survey 2015

Figure 5.306: Z2-MD-11 : Room. Source : Field survey 2015

Figure 5.307: Z2-MD-11 : Kitchen house. Source : Field survey 2015

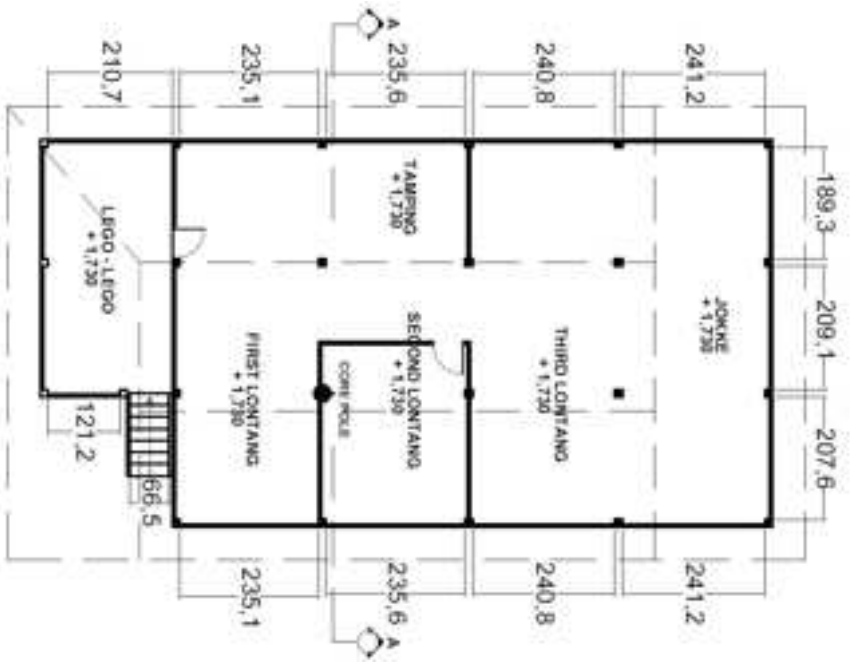

Figure 5.308: Z2-MD-11 : Floorplan. Source : Field survey 2015

This house belongs to the old style of Bugis house even though it was built in 2001, despite the majority of the Bugis in Soppeng who prefer to build modern houses since 1980. The owner of this house chose the old style, because it uses the *tamping* which implies that the owner of this house still believes in the purity and the sacredness of the *watangpola*. Nevertheless, the house owner installed a partition at the *tamping*, so anyone who passes the *tamping* can also walk through the *watangpola*.

3. Z2-PA-18

Figure 5.309: Z2-PA-18 : Facade. Source : Field survey 2015

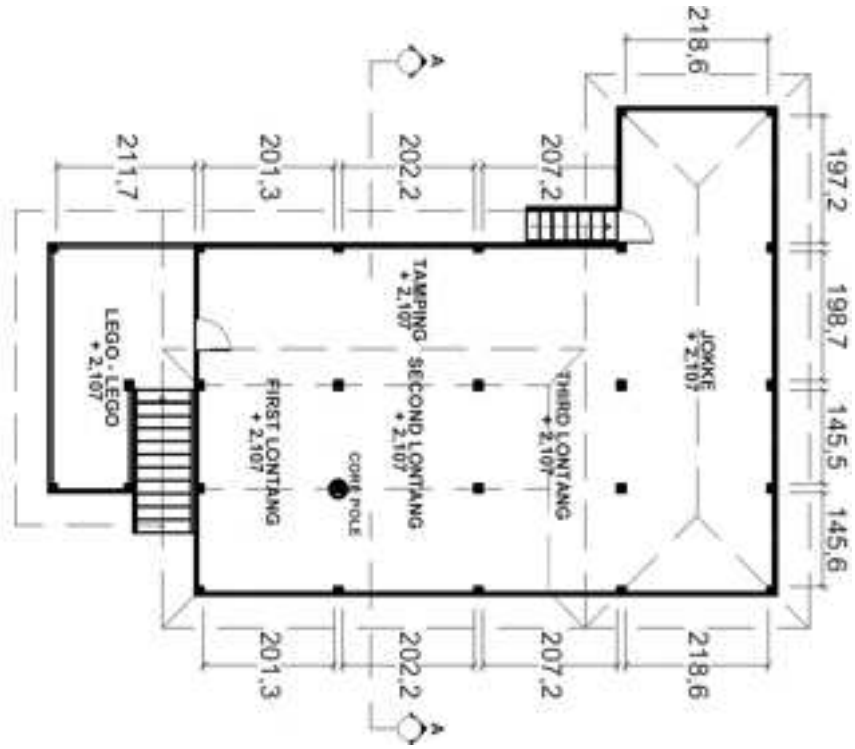

Figure 5.310: Z2-PA-18 : Floorplan. Source : Field survey 2015

The roof of this house is a gable with a 45-degree angle so that it looks higher. At the front of the roof, there is a ventilation hole for air circulation and to let in sunlight. The gable wall is designed in such a way so that it looks attractive and has an aesthetic value. The body of this house has two *latte*, each of which has a three-bar window. The door of this house is placed at the *tamping* applying one of the rules of Bugis house.

B4. The Two *latte*-Two *lontang* type

1. Z2-PN-04

Figure 5.311: Z2-PN-04 : Facade. Source : Field survey 2015

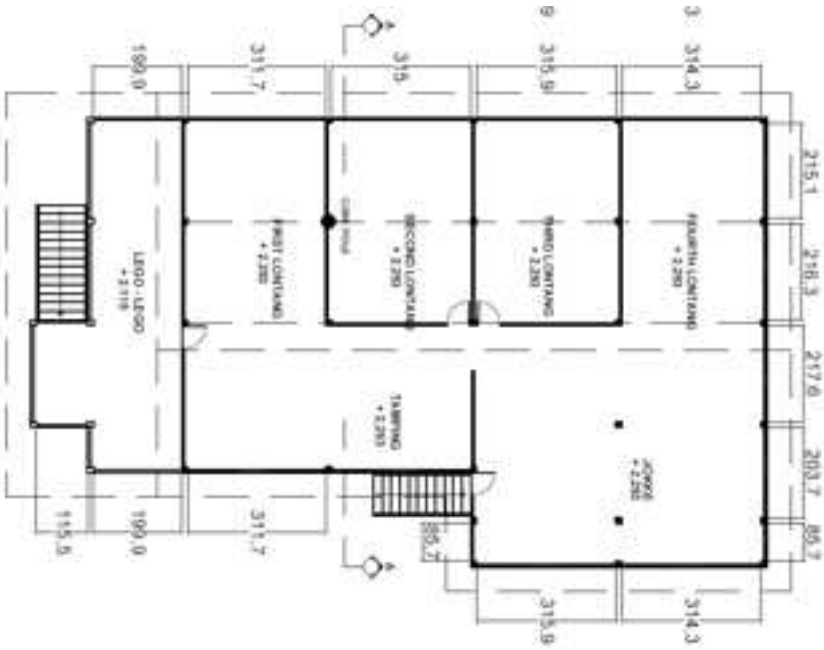

Figure 5.312: Z2-PN-04 : Floorplan. Source : Field survey 2015

The façade of this house has undergone some changes. The changes occur at its *lego-lego* and underneath the house. This house belongs to the old style with two *latte* and two *lontang*. The house has a straight gable roof whose angle is less than 45 degrees. There is a jalousie window installed into the gable wall which functions as an air circulation path, so the air can enter the attic called *rakkeang*.

There is a jalousie window installed on each *latte* of the *watangpola*. The door is placed at the *tamping*. An adjustment has been made on the house's *lego-lego*, where it has been extended to the same width as the house so it becomes more spacious. The staircase of this house is placed at the front of the *lego-lego* and is aligned with the road.

From the second *lontang* until the under part of the *jokke*, there is an additional permanent module using a red stone which is used as a kitchen, a dining room, a room for watching the television and a place to rest during the day.

C. The Houses of the New Model in 1980's

C1. The type of *eppalatte eppalontang*

1. Z2-MD-14

Figure 5.313: Z2-MD-14 : facade. Source : Field survey 2015

Figure 5.314: Z2-MD-14 : Back side. Source : Field survey 2015

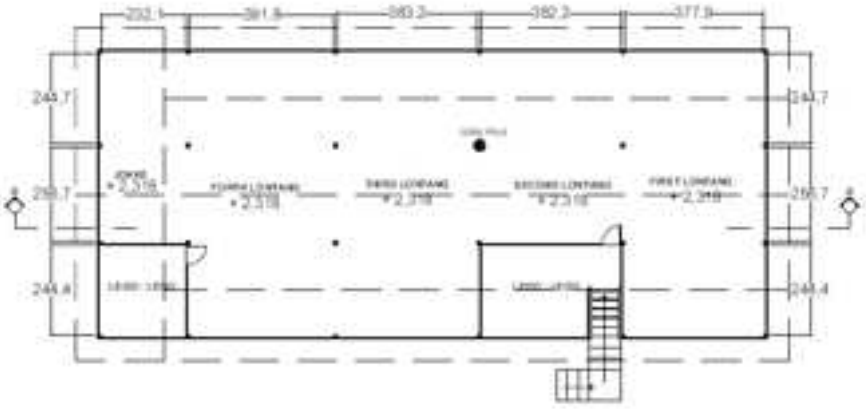

Figure 5.315: Z2-MD-14 : Floorplan. Source : Field survey 2015

This house belongs to the new style of Bugis house. It has undergone a very significant change because its *lego-lego* is now on the side of the house to be exact on the first *latte* and the second *lontang*. A part of the second *lontang* has been altered into the *lego-lego*.

An additional element on the roof, which is one *timplaja*, shows the social level of the owner of the house. The roof has a slightly curved gable. The *watangpola*, the *lego-lego* and the *jokke* are under the same roof.

2. Z2-PA-29

Figure 5.316: Z2-PA-29 : Facade. Source : Field survey 2015

Figure 5.317: Z2-PA-29 :Stairs partially of ceramic and partially of wood.. Source : Field survey 2015

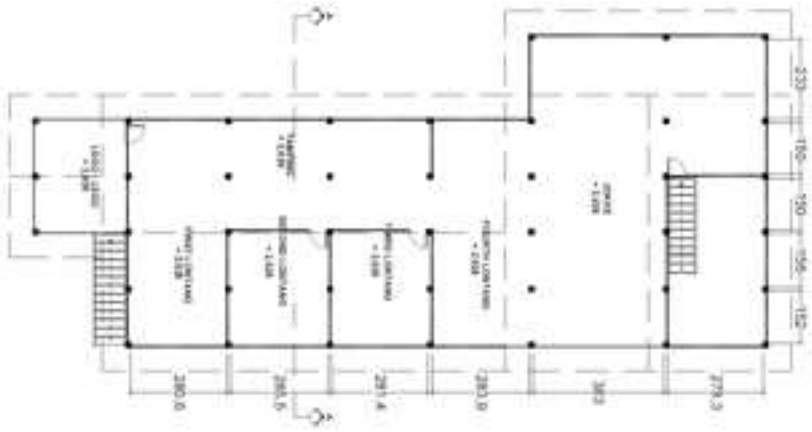

Figure 5.318: Z2-PA-29 : Floorplan. Source : Field survey 2015

This house belongs to the new style of Bugis house. It uses straight gable roofs on the *watangpola* and the *lego-lego*. An additional element is the one *timplaja*. There is a door at the first *latte* of this house. The second, third and fourth *latte* have a modern window each.

3. Z2-TC-34

Figure 5.319: Z2-TC-34 : Facade. Source : Field survey 2015

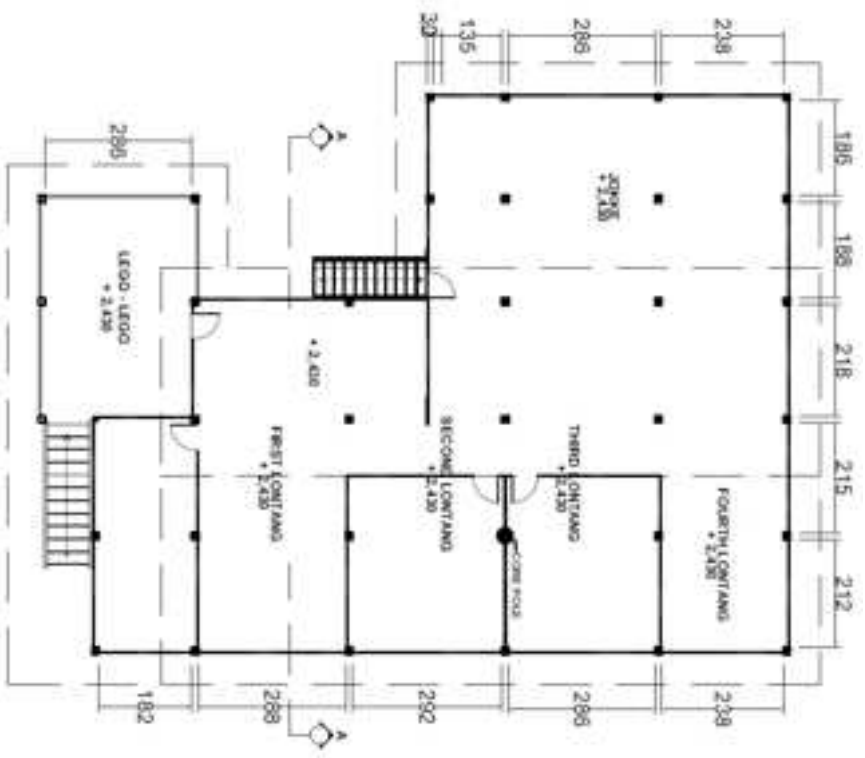

Figure 5.320: Z2-TC-34 : Facade. Source : Field survey 2015

The roof of this house is slightly shorter than usual and has a slightly curved gable. This house belongs to the new style of Bugis house. It does not only change the shape of its roof but also removes its *tamping*. Also an additional module at the front of its first *lontang* aligned with its *lego-lego* has been made. It has affected the facade of this house. There is also an additional bedroom in the front of the first *lontang*. The front door is located at the first *latte* of this house. There is a partition on the first *latte* to cover the kitchen space. The kitchen is aligned with the third and fourth *lontang*.

On the fourth *lontang*, there is also a bedroom, but it does not have a partition like the one on the second *lontang* and third *lontang*.

C3. The type of *tellulatte tellulontang*

1. Z1-MD-07

Figure 5.321: Z2-MD-07 : Facade. Source : Field survey 2015

Figure 5.322: Z2-MD-07 : Additional function on the ground under the house. Source : Field survey 2015

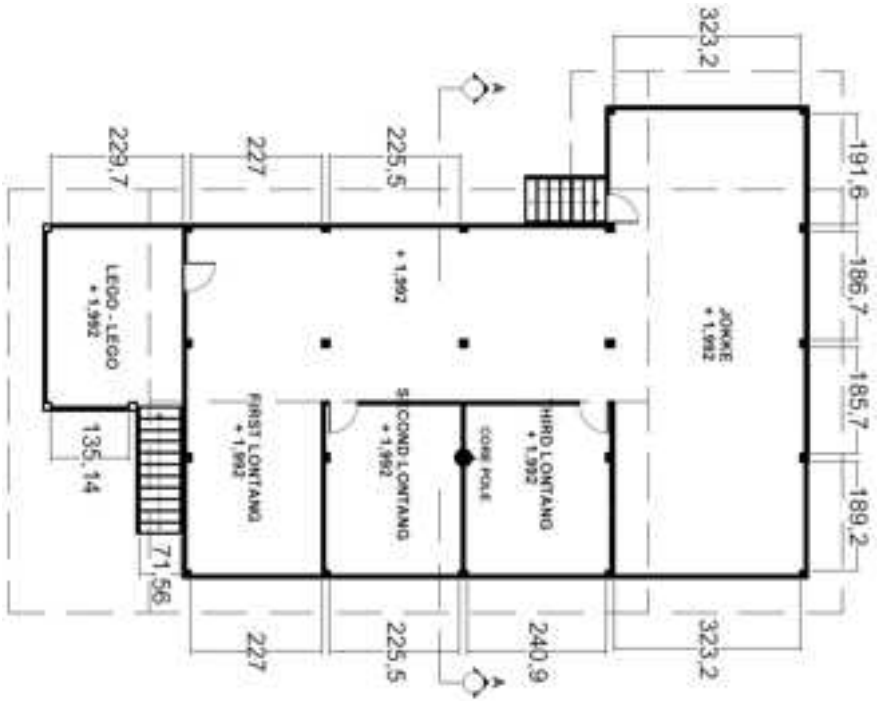

Figure 5.323: Z2-MD-07 : Floorplan. Source : Field survey 2015

This new style of a Bugis house uses a slightly curved gable. The *lego-lego* of this house belongs to the old style, where the width of the *lego-lego* is not the same as the width of this house. The door is located at the first *latte* of the main house. Jalousie glass windows are installed at the second and the third *latte*.

Conclusion zone 2 In zone two, there are aristocrats' and commoners' houses that were built before independence of Indonesia. The aristocratic houses are owned by aristocrats without Datu title. Their houses belong to the type of *tellulatte - eppalontang* plus *tala-tala*. They still retain not only the architectural authenticity of the Bugis house but also the elements and ornaments to the houses and to the *tala-tala*. In the past, the sitting positions were adjusted to the aristocrats' levels, so not all aristocrats could sit at the *tala-tala* during a banquet. Looking at the architecture of both the house and its *tala-tala* in this zone, it can be concluded that the owner was an aristocrat who was brave and did not submit to the rules of the Dutch colonial administration at that time. Also, in this zone, one of the commoners' houses that was built in the era before the independence of Indonesia belongs to the type of *tellulatte - eppalontang*, while the other house belongs to the type of *tellulatte - tellulontang*. Both houses still apply the old *tamping* style. The original architecture of their *tamping* floors are still maintained, because they are a little lower than the *watangpola* floors. The differences in these two houses indicate that the existence of differences in traditional social levels. The house with the *tellulatte- eppalontang* type uses an additional one *timplaja* on its roof, while the house with the *tellulatte - tellulontang* type does not use *timplaja*. In addition, the house with the *tellulatte-tellulontang* type still retains the ornaments on its exterior, which are also found in several houses in zone one and the aristocratic houses which were built in the era before the independence of Indonesia in zone two. These show that the Bugis houses traditionally have ornaments

at the end of their roofs under the eaves to beautify their exteriors. The ornament varies in shapes according to the wishes of the house owners. In addition, the carved ornament is also found on the staircase. This shows that in the past, the Bugis houses applied carved ornaments on the staircase, where the form of a carved ornament has a specific purpose either as a prayer or as a hope that is symbolized by a form of either flower or a rectangular *lawasuji*. In both houses, they also used kappang-kappang, which is rarely used nowadays. In addition, the kitchens of the houses of the *tellu* atte - *eppalontang* type have antanri-tanriangs. In zone one, these sections are also found in several houses far from the capital of sub-district and of regency. The function of every *lontang* of a Bugis house, which was built in the era before the independence of Indonesia, has not changed at all. Every *lontang* still follows the old beliefs of the Bugis tribe's house construction. Both the aristocrats' and commoners' houses that were built in the era after the independence of Indonesia, particularly the aristocratic houses that were built in 1970s, belong to the *tellulatte* - *eppalontang* type without additional ornaments on their exteriors. These houses have undergone architectural changes due to the 1970s government's regulation that states that all houses must be oriented to the road. Because of this regulation, people have manipulated the shape of their houses by adding a *lari-lariang* to the side.

Unlike the aristocratic houses, the commoners' houses in this zone were generally built in the era after the independence of Indonesia has a simpler architecture where ornaments are no longer used at the end of the roof, under the eaves, and at the end of the carved *pattolo* and *arateng*. There is only one house that was built in the early period of the era after the independence of Indonesia that possesses an ornament that time has weather away so that it is difficult to identify.

In addition, there is another house that has french doors along its sides. This is because the house owners still believe that the front door is the only route passed through by the living while the dead must not pass through. It can be concluded that changes in both the architecture of the houses and their elements are influenced by the beliefs of the local community members. In addition, the changes in the architecture of a house may be caused by the regulations of a local government, the customary rules, and the traditions of a local community. Moreover, there are many elements and ornaments that are not implemented in the houses in zone one so that they are not recognized by the current generation. This is due to two factors. One is that the community is more focused on the function of the house and the economical reasons rather than the house ornamentation. The other is that there isn't anyone who has the knowledge and skills to make such house ornaments. The modern Bugis houses in this zone share similarities, such as no *tamping* on one side of the house, free architecture innovation, and ignorance of the prevailing customary rules. Also, there is no standard rule between the aristocrats' houses and the commoners' houses, except for the application of *timplaja*. In zone two, there is one aristocratic house that still applies the pattukku on the staircase of the house. The architecture of the modern Bugis house in this zone is generally simpler and larger in scale.

5.3 Zone Three

This zone is composed of remote several villages that are far from the district capital. They are Tajuncu and Labokongand. However, they are the closer to the district capital compared to Bulue village. The distance from Tajuncu to the district capital to is 17.7 kilometers, from Labokong to the district capital is 14.5 kilometers, and from Bulue to the district capital 35.8 kilometers. Generally, these villages were built after the independence of Indonesia. The majority of the people who live in zone three were refugees who used to live in the mountains. The chaos in the region of Soppeng led them to be refugees and to live in the mountains. After the chaos was over, they left the mountains and created new settlements. In this zone, there are four houses built for nobility during the reign of the Dutch colonial government. The poles used in the houses were round. In zone two, there are two ordinary houses that use *tala-tala* like the noble houses do. The houses were generally constructed in the original architecture of the Bugis house even though they were built during Dutch colonization.

5.3.1 Houses of Nobility

The noble houses in zone three use three *timplaja*. In this zone, there is no noble house that belongs to high-ranking nobles or Datu. However, in this zone, there are noble houses built during the Dutch colonial government, and even one of the houses is where the last Soppeng Datu was born. The last Datu Soppeng also held the title Datu Marioriawa. Later, he became Datu Soppeng XXXVII in 1940. It is estimated that the last Datu Soppeng was born in 1862 and died in 1982. The rules set by Dutch colonial government that regulated houses belonging to Bugis noblemen at that time did not change the architecture of their houses in zone three and have not undergone any changes. The Bugis houses belong to the noblemen were still constructed in accordance with the original architecture of Bugis noblemen's houses. They also still adopt both the original elements and the original ornaments that characterize the Bugis noblemen's houses. Moreover, the these houses still have the old style of *tamping* that have been maintained till today, although some materials of the house have been changed.

A. Noble Houses at the Era before the Independence of Indonesia

A1. The type of *tellu latte* - *empa lontang* with *tala-tala*

1. Z3-BT-26

Figure 5.324: Z3-BT-26 : Facade. Source : Field survey 2015

Figure 5.325: Z3-BT-26 : Z3-BT-26. *tala-tala* and its ornament. Source : Field survey 2015

Figure 5.326: Z3-BT-26 : Thirteen-step staircase. Source : Field survey 2015

Figure 5.327: Z3-BT-26 : *tamping* without roof. Source : Field survey 2015

Figure 5.328: Z3-BT-26 : Circular pole and rectangular beams. Source : Field survey 2015

Figure 5.329: Z3-BT-26 : Shuttered windows with seven bars. Source : Field survey 2015

Figure 5.330: Z3-BT-26 : Four bars at the window with three ornaments circled in red hanging under the eaves. Source : Field survey 2015

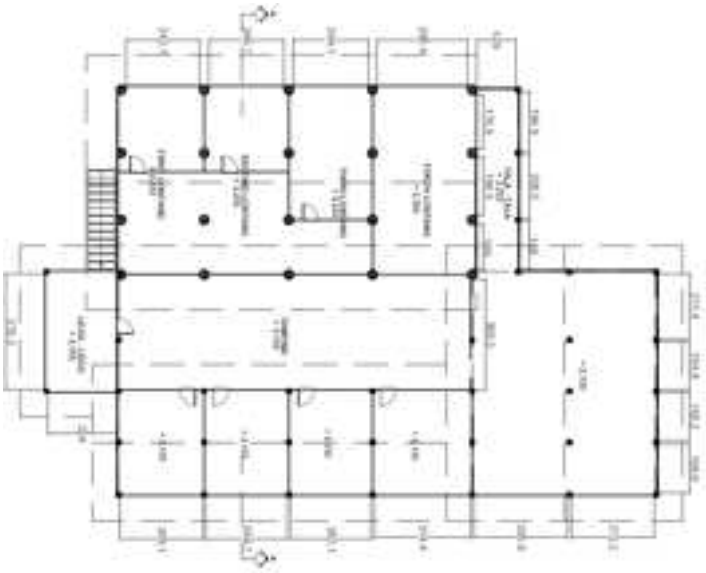

Figure 5.331: Z3-BT-26 : Floorplan. Source : Field survey 2015

The last Datu (king) Soppeng was born this house around 1862 so this house estimated to have been built around the 1850s. The form of house, structure, elements and ornaments as symbols of nobility have never changed. The owner still preserves traditions and customs of old Bugis beliefs although at the time colonial authorities had issued regulations restricting decorative elements.

The façade of this house clearly depicts aristocratic house because the house is quite large and uses a straight gable with a fairly high roof. The roof on this house's *lego-lego* and *tamping* is a *paturungeng* type.

The main house's *latte* of this house has a window with seven bars and two shutters. This indicates that the house is owned by an aristocrat. The *tamping* of this house has front door. The width of this *tamping* module is two *latte*, whereas most houses use one *latte* for the *tamping*.

At the front of the *tamping* module of this house, there is the *lego-lego*.

The *watangpola* and the *jokke* use round poles with quite large circumferences while that of the *lego-lego* is a regular rectangular pole.

The house in Z3-BT-26 has an additional space behind its main house called *tala-tala*. The floor of *tala-tala* is slightly higher than the floor of the *watangpola*. The function of *tala-tala* is a dining area for those who have the highest level aristocracy. Those with lower aristocracy levels and those with the lowest aristocracy will take seats at the *watangpola* and at the *tamping* respectively.

The *tamping* of this house belongs to the old style, because its floor is slightly lower than the floor of *watangpola*. The *jokke* of this house is behind the *tamping* The *tamping* does not use a roof so that the air, sun and rain enter it. About five years ago, an additional module was built on the side of the *tamping*. This additional module serves as a kitchen, a dining room, a section for watching television, and a section for the family members to gather together.

Certain elements of this house that indicate the social level of its owner are its roofs, windows and staircase. This house uses three *timplaja*, windows with seven-bars, a

thirteen-step staircase and a bannister.

The ornaments of this house are attached on a board, consisting of a combination of square *lawasuji* and budding flowers. At the top of this house's roof is a dragon-shaped *anjong* that creeps upward. Another ornament is on a small block that binds the padongko beam with the ware beam. This ornament is bud-shaped flower. The other ornament, residing at the end of the *tala-tala*'s floor, there is a pillar that does not reach the ground (the pillar that hangs) whose end has a carving of a bamboo shoot.

2. Z3-BT-27

Figure 5.332: Z3-BT-27 : Back side (*tala-tala* and its ornament) facade Source : Field survey 2015

Figure 5.333: Z3-BT-27 : Window. Source : Field survey 2015

Figure 5.334: Z3-BT-27 : Circlular pole. Source : Field survey 2015

Figure 5.335: Z3-BT-27. Ornament. Source : Field survey 2015

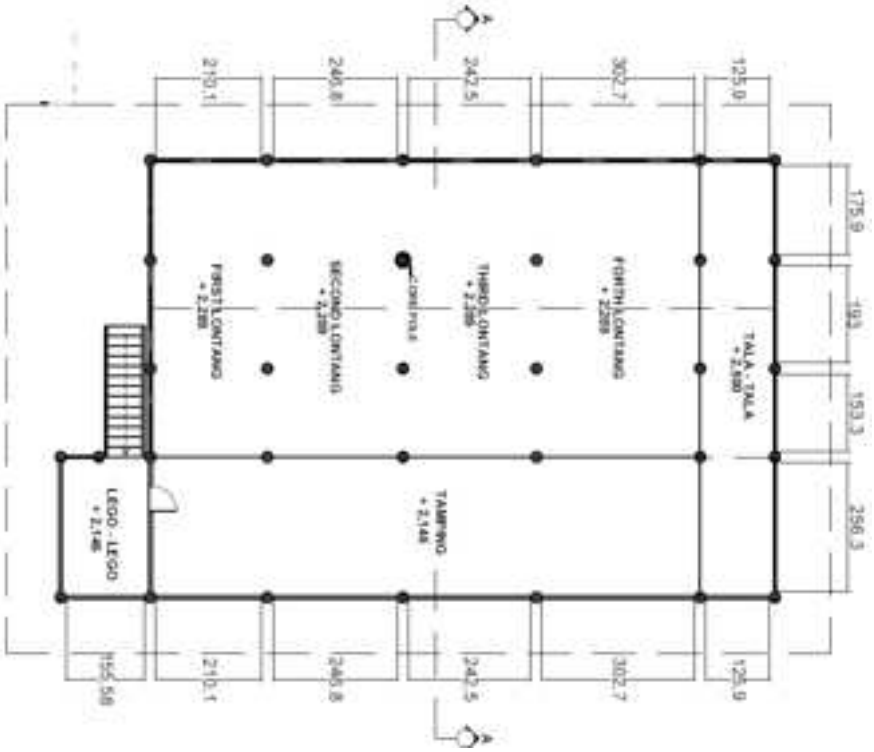

Figure 5.336: Z3-BT-27 : Floorplan Source : Field survey 2015

A house that was built around 100 years ago was identified when the survey was conducted. This house has been damaged due to weathering. What survives is only the building structure. The grandson of the owner of this house was doing the renovations to the house at that time. The result of interviews with the grandchildren of this house owner identified that the shape of this house is an original Bugis house. It can be proven by the presence of *tamping* on the side of the *watangpola* and the *tamping*'s floor is slightly lower than the floor of the *watangpola*. The interview's result also shows that the window at the third *latte* is still original, because the window's sill was the same level as the floor of the house, and the window's hinges operate like the hinges of a house's door. In addition, it was discovered that the house's windows were used to carry the dead out of the house to be taken to the graveyard. People in the past believed that the exit from inside the house for the people who were still alive and for those who were dead was different.

The house in Z3-BT-27 still uses the round-shaped pillars. The padongko beams of this house are made of the coconut wood. Some parts of this house's construction, particularly its roof construction, has been changed by the owner of this house.

This house has the original architecture of the Bugis house, because its rear has *tala-tala* whose floor is higher than the *watangpola*'s floor. Next to the *watangpola*, there is *tamping* whose floor is slightly lower.

The ornaments that still exist in this house and not damaged are the ones that are at the bottom of its *tamping* floor and at the binder between the ware beam and the padongko beam. The shapes of the ornament are like the bud of bamboo shoots.

Some of the ornaments that have been lost are being replaced with new ones that match the original shape.

A2. The type of *tellu latte - empa lontang*

1. Z3-TJ-09

Figure 5.337: Z3-TJ-09 Facade. Source Field survey 2015

Figure 5.338: Z3-TJ-09 : *kappa-kappang* at the base of the main entrance. Source Field survey 2015

Figure 5.339: *kappa-kappang* under door between main house and kitchen house. Source Field survey 2015

Figure 5.340: Z3-TJ-09 : Main house and *tamping* floor. Source Field survey 2015

Figure 5.341: Z3-TJ-09: First *lontang* of *watangpola*. Source Field survey 2015

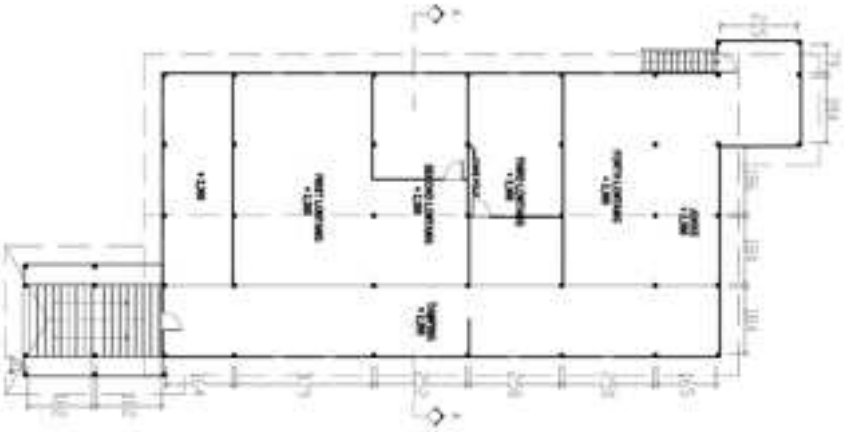

Figure 5.342: Z3-TJ-09 : Floorplan. Source Field survey 2015

This house was previously located in the village of Sering but then after Indonesia gained its independence, this house was moved to Tajuncu village. This village is located in the mountains far from both the capital of the regency and the provincial road. The owner of this house is the highest noble in this village. At the same time, people living in the mountain flocked to this village and then made new settlements in this area.

This house has a high roof with additional elements that becomes the symbols for the social rank. This house has the original architecture of Bugis house, even though if has undergone some changes. One of the proof is that there is an additional section at the front of the *watangpola*. Looking at the length of the room on the first front *lontang*, it is estimated that the current space was once the *lego-lego* of this house.

Based on the result of the interview, the original architecture of this house is unknown when this house was still situated in the Kampong Sering. Nonetheless, some signs indicating that this house used to have a *lego-lego* and a staircase made of modern material were identified. Then the *lego-lego* section was changed and the staircase was moved to the front of the house like the position of most staircases of the aristocratic houses in the past. The *jokke* is located at the back of the main house and extends to the side, so that the floorplan is in the form of an L. The *jokke* has been dismantled, and

the family members of this house owner did not remember exactly when the *jokke* was demolished. They estimated it was demolished over ten years ago. They further explained that the *jokke* floor and walls were made of bamboo. After the *jokke* was demolished, the kitchen was moved to the back of the main house, exactly behind the fourth *lontang*.

The *tamping* from this house still exists in its original form and height. On the *tamping* floor, the installation of a board with a large gap between the boards makes it easier for someone to dispose of garbage or dirty water from the *watangpola*.

This house still has a *kappa-kappang* between the *lego-lego* and the *watangpola* and also between the *watangpola* and the kitchen. The result of the interview shows that this house has been using *kappa-kappang* since it was built.

The additional elements on the roof of the main house that belongs to this house are three *timplaja* under which there is a patukku. The *lego-lego* of this house uses a gable roof with additional *timplaja* and patukku. This house does not apply the elements which represent the social rank.

A3. The type of *tellu latte-lima lontang*

A. Z3-BT-28

Figure 5.343: Z3-BT-28 : Facade. Source Field survey 2015

Figure 5.344: Z3-BT-28 : Left side. Source Field survey 2015

Figure 5.345: *Stairs by tuka (landing) and parinawang (middle bar/separater)*

Figure 5.346: Z3-BT-28. *watangpola* and tampin

Figure 5.347: Z3-BT-28 : Kitchen house. Source Field survey 2015

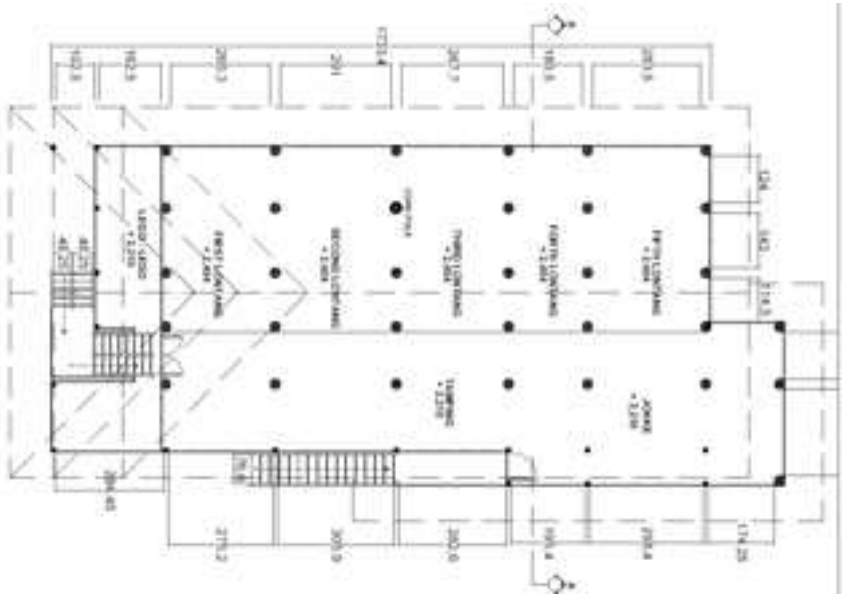

Figure 5.348: Z3-BT-28 : Roomplan. Source Field survey 2015

The house in the Z3-BT-28 was built by the grandmother of the current house owner. This house has undergone a change in its architecture where its roof that formerly was of the old style of Bugis house has changed into the one that belongs to the new style that emerged around 1980s. The other change occurs in the *lego-lego* where the width of *lego-lego* is the same width as that of the *watangpola*.

The roof of this house is a slightly curved gable and has four layers. The roof of the main house and *tamping* of this house merges. Also the roof of the *lego-lego* and the roof of the staircase of this house connect to each other, forming a three-layer roof. In addition, the *lego-lego* has been widened and serves as a place to receive guests. There are two sets of chairs at this *lego-lego*. One set of chairs is situated on the right side of the staircase and the other set of chairs is situated on the left side of the staircase. The *watangpola* has the round core pole, and the *tamping* of this house has a round pillar. However, the additional pillar of the *tamping* situated at the second *latte* uses a rectangular pillar. The pillars of the *lego-lego* of this house have undergone a change, because they are

Figure 5.349: Z3-TJ-13 : Facade. Source Field survey 2015

rectangular due to the renovation and replacement of decayed pillars of the old *lego-lego*.

The length of this house is five *lontang*. As previously explained, the number of *lontang* for aristocratic houses can be more than four or more as it is not restricted. The function of each *lontang*, except for the fourth *lontang*, is for bedroom by using a partition. For the first *lontang*, there is no room to receive guests. The reception room is at the *lego-lego* and the *tamping* of this house. In the *tamping*, there is a set of chairs to receive guests. According to the owner, generally guests are received at the *lego-lego*, except for a certain guests who are invited to enter this house.

The house in Z3-BT-28 still retains its original *tamping*. Although this house has been renovated, but its original architecture is still retained. The circulation area is still placed on the *tamping* section, and between the second and third *lontang*, a partition that separates the outside part of a room from the inside part of a room. The house owner maintains the third, fourth and fifth *lontang* as the rooms for girls.

The special elements of this house that represent the social level of the owner are the roof and the staircase. Also, there are two additional groups of elements that represent the social level of the owner of this house. The first group are the elements are the *timplaja* with three layers and one pattukku, which are installed on the gable wall. The second group of elements are the thirteen steps, *tuka*, parinawang and bannister of the staircase.

The ornaments applied to this house are only on the top of the roof, which is called *anjong*. The shape of the *anjong* is a buffalo horn made from wood.

B. Noble houses at the era after the Independence of Indonesia

B1. The type of *tellu latte - eppa lontang*

1. Z3-TJ-13

The house in Z3-TJ-13 has its main house whose roof is a straight gable. In contrast, the roofs of this house's *tamping* and this house's *lego-lego* belong to the patu-

Figure 5.350: Z3-TJ-13 : Three *timplaja*. Source Field survey 2015

Figure 5.351: Z3-TJ-13 : Stairs with bannister and balustrade

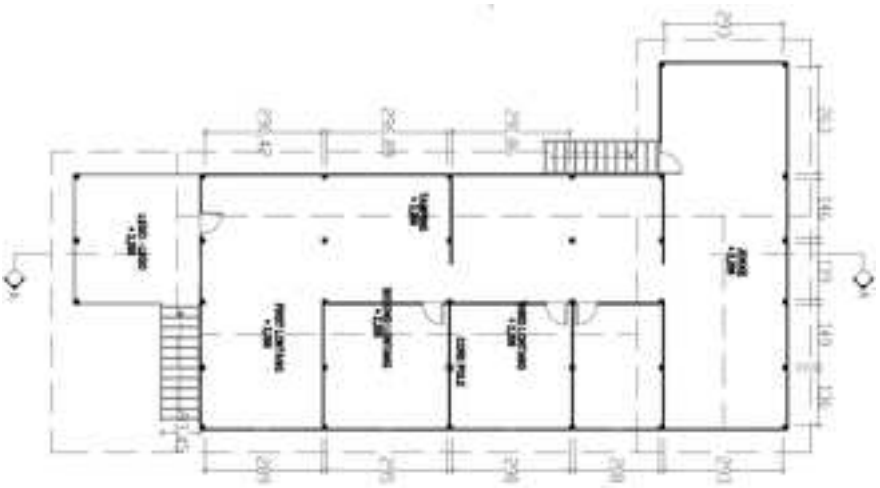

Figure 5.352: Z3-TJ-13 : Floorplan. Source Field survey 2015

rungen. The width of this house's *watangpola* is three *latte* and this house's *tamping* is one *latte*. Every *latte* has a glass window with two shutters.

The thing that has changed in this house is the circulation area in this house where a partition has been placed in the *tamping* module and the access to the other sections of this house has been installed at the *watangpola*. This has caused the circulation area through the *watangpola* section even though the door has been installed in the *tamping*.

Certain elements of this house that symbolize the social level of its owner are its roof and its staircase. On the gable wall, three *timplaja* and one patukku have been installed. This staircase has eleven steps and a bannister. This number of staircase's steps does not share with the number of staircase's steps that is commonly applied in the aristocratic houses, that is thirteen

2. Z3-TJ-16

Figure 5.353: Z3-TJ-16 : Facade. Source : Field survey 2015

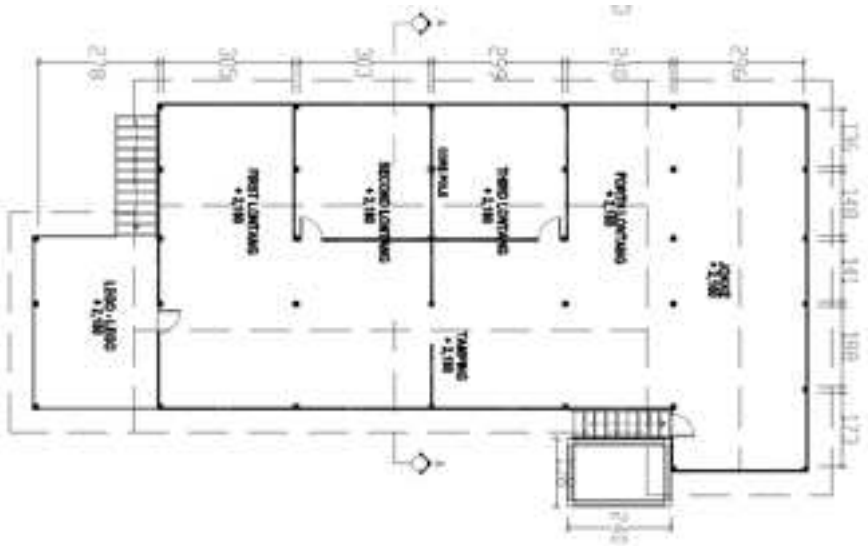

Figure 5.354: Z3-TJ-16 : Floorplan. Field survey 2015

The *watangpola* of Z3-TJ-16 has a saddle-shaped roof. Both of its *tamping* module and *lego-lego* module has the paturungen roof. The width of this house is equal to the combi-

nation of the width of the main house (three *latte*) and the width of the *tamping* module (one *latte*). Every *latte* has one window, and there is a door at the *tamping*.

The windows of this house not only apply the modern design but also use modern materials. On the roof of this house, there is an additional element that functions as symbol of rank, which is the three *timplaja* with the original pattukku. The staircase of this house uses eleven steps without a bannister.

C. Modern Bugis Noble Houses appearing around 1980s

C1. The type of *tellulatte-tellulontang*

1. Z3-TJ-17

Figure 5.355: Z3-TJ-17 : Facade. Field survey 2015

Figure 5.356: Z3-TJ-17 : Stairs with tuka and a decorative wooden bannister. Field survey 2015

Figure 5.357: Z3-TJ-17: Parquet ceiling. Field survey 2015

Figure 5.358: Z3-TJ-17 : Lawasuji Ornamentation

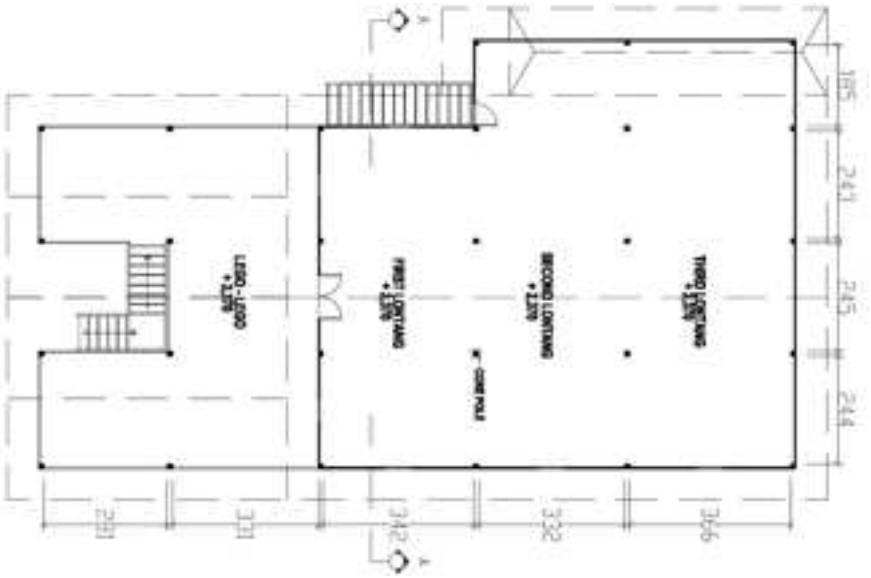

Figure 5.359: Z3-TJ-17 : Floorplan. Field survey 2015

The roof of Z3-TJ-17 is saddle shaped and slightly curved. The façade shows that the house consists of three roofs. One roof belongs to the *watangpola* and the other two roofs cover the *lego-lego* which has a "U" shape so that it is a fairly large.

The main house has three *latte* without a *tamping*. There is a window in the first and the third *latte*, while the second *latte* has a door. The bedroom of this house is on the right side of the door.

This aristocratic house applies social level symbols on its roof, because the roof of both its main house and its *lego-lego* have three *timplaja*. The staircase of this house has *tuka*, a bannister and thirteen steps.

The ornament that is attached to the top of the roof of this house is an *anjong* that has a shape of buffalo horns. The tip of each *timplaja* of this house is decorated with a bud of flower. Both the top of the *lego-lego* roof and the top of the staircase of this house has the rectangular *lawasuji*.

5.3.2 Houses of Commoners

The commoners' houses in this zone were all built at the era after the independence of Indonesia. The houses consist of both the old and the new style of Bugis houses. The houses with the old architectural style are almost the same as the houses with the new architectural style. The houses belong to the new style have various facades.

B. The Commoner house at the era after the Independence of Indonesia

B1. The type of *tellu latte - eppa lontang*

1. Z3-TJ-01

Figure 5.360: Z3-TJ-01 : Facade. Field survey 2015

Figure 5.361: Z3-TJ-01 : Malay style windows with shutters and five spindles.

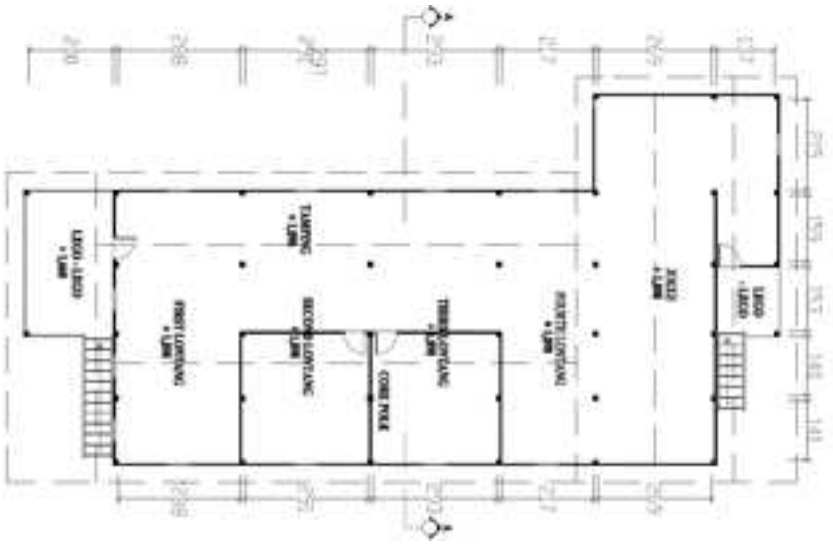

Figure 5.362: Z3-TJ-01 : Floorplan. Field survey 2015

This house has a gable roof and *paturungen* roof. Its main house has a saddle roof. Its *lego-lego* and its *tamping* use the paturungen roof. The *lego-lego* roof has been widened so that it covers the staircase of this house. The width of this house is the combination of the width of its main house (three *latte*) and the width of its *tamping* (one *latte*). Each *latte*/*karateng* has a Malay window style, which has five bars and two shutters. The shutters belong to the oblique jalousie type so that when they are closed the air can still enter through the gaps between the panes of jalousie. The houses that uses traditional windows are cooler than those that use modern materials such as glass. The door of this house is installed at its *tamping* where visitors who enter this house will go through the *tamping* before entering the *watangpola*.

The *lego-lego* module is situated at the front of the *tamping* module. The *lego-lego* has been widened so that it has the same width as the width of the first *latte*. The staircase of this house leans against the second pillar of the main house. The position of this staircase is different from the position of the staircase of the old style of Bugis house, which leans against the first pole of the *watangpola*.

The length of this house is four *lontang*. Each *lontang* has a bedroom except for the first *lontang*. There is a partition in the second and the third *lontang*, but not in the fourth *lontang*. These partitions function to create bedrooms. These bedrooms are equipped with a mat or mattress only.

This house has a kitchen module that is situated at the back of the main house of this house. The kitchen module extends as many as one *latte* sideward. This kitchen module has a *lego-lego* and a staircase.

No change has occurred at the space under this house, because it still serves as a space to interact with neighbors and also as a place to store goods that are not used.

There is no additional elements for the roof of this house. However, this house has the roof with a slope of less than 45 degrees and has a staircase with eleven steps.

2. Z3-TJ-03

Figure 5.363: Z3-TJ-03 : Facade. Field survey 2015

Figure 5.364: Z3-TJ-03 Floor construction. Field survey 2015

Figure 5.365: Z3-TJ-03 : Window. Field survey 2015

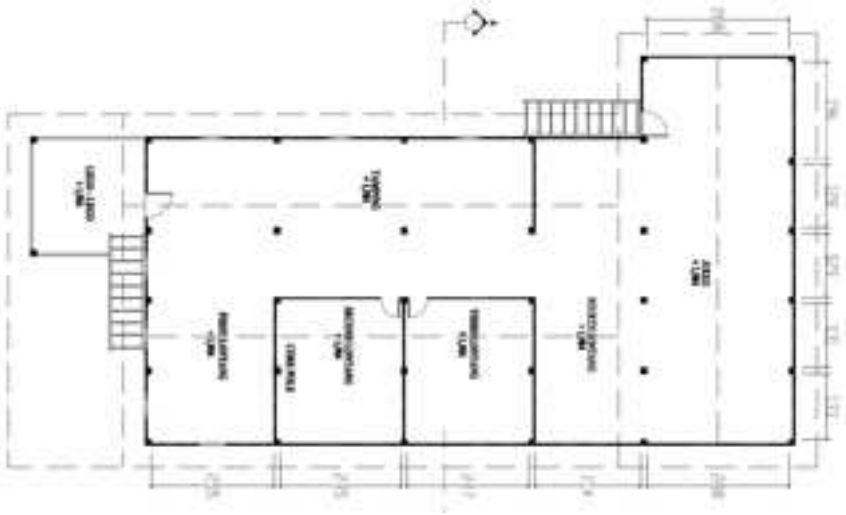

Figure 5.366: Z3-TJ-03 : Floorplan. Field survey 2015

This house has the main house with the gable roof, while for both its *tamping* and its *lego-lego* have the *paturungeng* roof. The *lego-lego* roof has been widened so that it covers the staircase of this house. In other words, the change that happens to this house only the addition of a roof at the top of the staircase.

The width of this house is the combination of the width of its main house (three *latte*) and the width of its *tamping* (one *latte*). Each *latte* in the main house has a plain glass jalousie window. The door of this house has been installed at the *tamping* module so that visitors will pass the *tamping* module before going to the first *lontang*. Furthermore, a partition has been installed at the *tamping* module in order to divert the circulation to the main house (see the figure of the floorplan).

This house has a length four *lontang* and has an additional kitchen module at the back of its main house. The main house has two bedrooms, each of which uses a partition and is situated at the second and third *lontang*. As for the fourth *lontang*, there is no partition. Nevertheless, this *lontang* is used for sleeping, too.

The *lego-lego* is situated at the front of the *tamping* and the staircase of this house

rests on the first pillar of the main house. The position and placement of the staircase still follows the old rules of the Bugis house, because the core pole, known as the *sandreseng addeneng* pole, of this house is parallel to the pole where the staircase leans.

This staircase has nine wooden steps and two stone material steps. Like the staircases of the aristocratic houses do, this staircase uses a bannister that does not symbolizes the social level of the owner of this house, but it is installed to help the elderly who use this staircase.

3. Z3-TJ-07

Figure 5.367: Z3-TJ-07 : Facade. Field survey 2015

Figure 5.368: Z3-TJ-07 : *lego-lego* floor

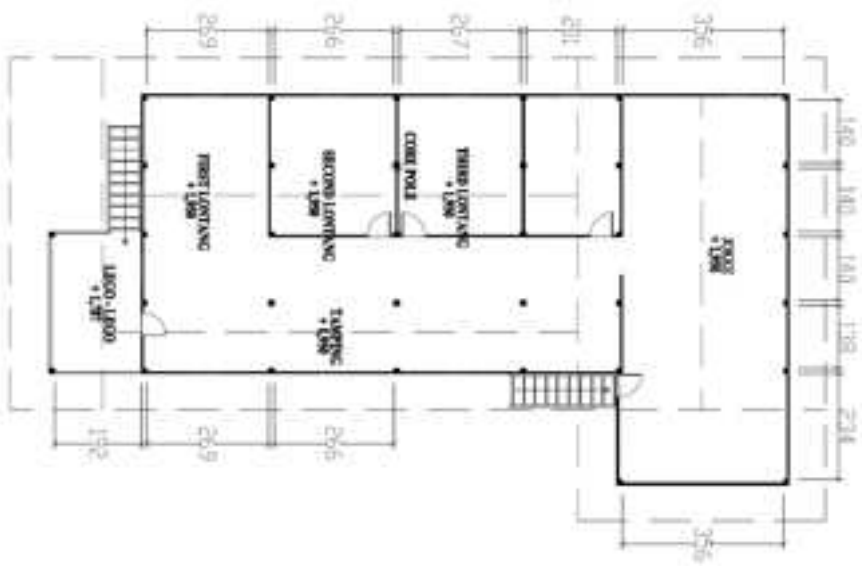

Figure 5.369: Z3-TJ-07 : Floorplan. Field survey 2015

This house has the main house with the fairly high straight gable roof and the *tamping* module with the paturungen roof. The roof in the *lego-lego* section has been changed, because it has been extended to cover the staircase of this house.

The width of this house is the combination of the width of its main house, which is as many as three *latte* and the width of its *tamping*, that is, one *latte*. Each *latte* in the main house has a plain glass jalousie window. The door of this house is installed at the *tamping* module.

The length of the house is four *lontang* and there is a kitchen module at the back of the main house. Except for the first *lontang*, each of the other *lontang* of this house has a partition to create bedrooms. The change that occurs in this house is in the circulation area where its main house has turned into a circulation area. This is because between the end of the *tamping* and the kitchen module, a partition is installed.

4. Z3-TJ-10

Figure 5.370: Z3-TJ-10 : Facade. Field survey 2015

Figure 5.371: Z3-TJ-10 : Left side. Field survey 2015

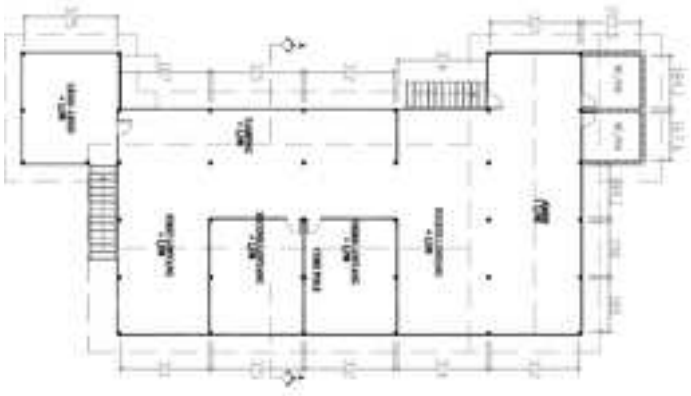

Figure 5.372: Z3-TJ-10. Floorplan. Field survey 2015

This house has the main house with the slightly short gable, while both its *tamping* and its *lego-lego* have a *paturungeng* roof. The roof of *lego-lego* has not changed. In other words, the staircase of this house is not covered by the *lego-lego* roof.

The width of this house is the combination of the width of its main house that has three *latte* and its *tamping* that has one *latte*. Each *latte* has a modern window made of modern materials. In the *tamping* module, a door is installed as an access for anyone who intends to go into the house.

The length of the house is four *lontang*, and there is an additional kitchen module at the back of *watangpola*. There is a temporary partition in the second *lontang* and in the third *lontang*. This partition serves to create bedrooms. The fourth *lontang* has no partition. However, it is used for the bedroom.

The *tamping* module of this house no longer functions as a circulation area because circulation has been diverted to the main house. The main house should not function as a circulation area.

The *lego-lego* is located at the front of the *tamping* module, and the *lego-lego* is widened by adding a module so that the pillars located on the edge of the *lego-lego* are not parallel to the pillars of the *tamping* (see the picture). The staircase of this house leans on the first pole of the main house.

The part under the house has a *panrung* that serves as a space to sit and rest during the day. In addition, the *panrung* also functions as a space to gather with family

members or neighbors.

5. Z3-TJ-15

Figure 5.373: Z3-TJ-15. Facade. Field survey 2015

Figure 5.374: Z3-TJ-15. Window. Field survey 2015

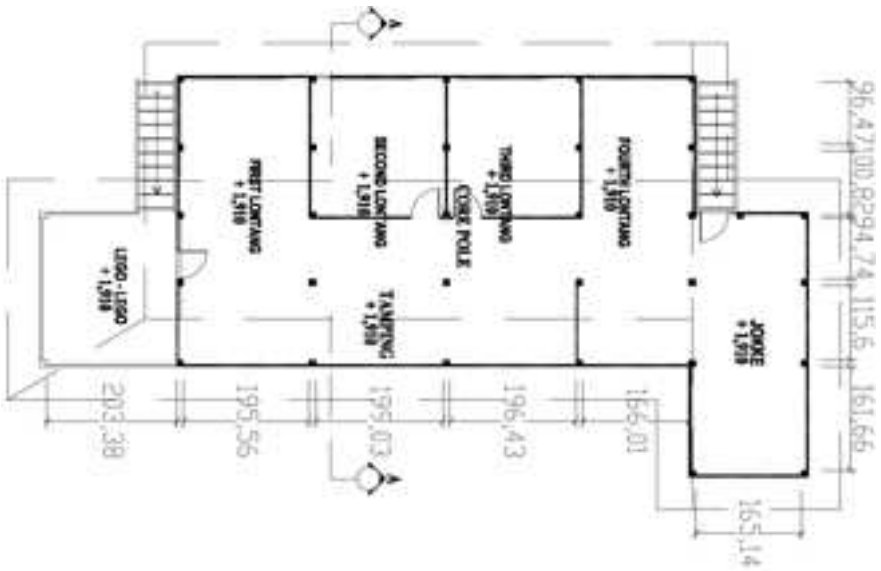

Figure 5.375: Z3-TJ-15 : Floorplan. Source : Field survey 2015

The façade of this house has not changed, because this house has a gable roof that is slightly higher than the roofs of other houses. Both the roof of the *tamping* and the roof of the *lego-lego* of this house are the paturungen. The roof of the *lego-lego* is not widened so that the staircase is not covered by the *lego-lego* roof.

The width of this house is the combination of the width of its main house, which is three *latte* and the width of its *tamping*, which is one *latte*. In each *latte*, a Malay's five-trellis window is installed. This number of window's trellises indicates the social level of the owner of this house. This type of window has two shutters consisting jalousies where half of them tilt. Underneath the jalousie, there is a rhombus *lawasuji*, which is believed to be the perfect shape by the Bugis.

The length of the house covers the four *lontang* and the kitchen module. In the second and third *lontang*, there is a bedroom separated by a partition to create a private impression. There is a partition in the first and the fourth *lontang* even though the first *lontang* sometimes functions as a sleeping space for men. The *tamping* is connected to the kitchen even though there is a partition at the *tamping* that separates the inside of the house from the outside of the house.

In the *tamping* module, the door of the house is installed. It adheres to the old rules of Bugis house. Installing the door at the *tamping* allows it to functions as an access to the house. The *tamping* connects the main house and the additional modules in the house such as the *lego-lego* at the front of the house and the kitchen module at the back of the house.

The *lego-lego* position is at the front of the *tamping* and widened to the front of the first *lontang*. The staircase of the house is parallel to the second pole of the main house and rests on the first aretang beam. The homeowner has changed the position of the ladder where this ladder is no longer parallel to the first pole.

6. Z3-LR-29

Figure 5.376: Z3-LR-29 : Facade. Source : Field survey 2015

Figure 5.377: Z3-LR-29 : Right side. Source : Field survey 2015

Figure 5.378: Z3-LR-29 : *Wasaubola*. Source : Field survey 2015

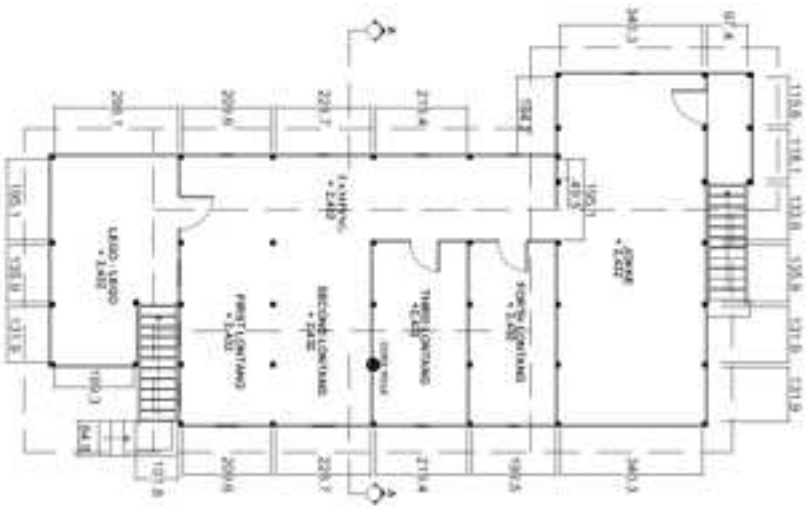

Figure 5.379: Z3-LR-29 : Floorplan.

This house is located in a village (kampong) that is close to the capital of Sidrap Regency. This house no longer share the same facade of the original Bugis house. Its main house shares the same roof of the old Bugis house, i.e. the straight gable. Both its *tamping* and its *lego-lego* use the *paturungeng* roof. However, the roof of the *lego-lego* has undergone a change because the *lego-lego* itself has been modified.

Its main house has a width of three *latte*, and its *tamping* has a width of one *latte*. Each *latte* of the main house has a modern window made of modern materials. The *tamping* module has a door that connects the outside and inside of the house.

The length of this house is the combination between its four *lontang* and its kitchen module at the back of the main house. This house has a bedroom at its second and its fourth *lontang*. Each of these two *lontang* is partitioned. This house has a living room and a male bedroom at its first and its second *latte*. There has been a change in the function of its *lontang*, particularly its second and third *lontang*. Its second *lontang* no longer functions as bedroom for the head of the household and his wife but for a male living room and a male bedroom. As for its third *lontang*, it is allocated for the bedroom of the head of the household and his wife.

One of the results of the interview shows that the owner of this house is able to innovate in allocating the available spaces in the house, particularly when his male relatives come to visit him and stay at the house for some period of time. Another result of the interview shows that the changes that occur in this house are not too significant, because the bedrooms are still situated at the *watangpola* and the bedrooms for male are still situated at the front part of this house.

The circulation area of this house has not changed, because the circulation of its dwellers still takes place at the *tamping* module. Its main house also still functions as a sacred space since its dwellers do not often pass through it.

Its *lego-lego* module is quite large, because its position is not only at the front of the *tamping* module but also is widened to the second *latte*. Its staircase is parallel to the second *pattolo* and padongko beam and rests on the second aretang beam. The staircase is L-shaped and made of wooden and red stone material.

There are a number of houses that has staircases with *tuka* made of modern

materials and with a bannister as symbols of nobility. There are also some houses whose staircases only apply *tuka* as a symbol of nobility. In addition, there are some houses that have wooden staircases with eleven steps. Furthermore, there are some houses that have staircases that are made of modern materials and consist of five steps.

According to the owner of this house, the style of the staircase and its *tuka* that this house has are not intended as the nobility symbols but are intended to adjust the staircase to certain conditions. For example, the application of the handrail at the staircase is intended to ensure the safety and comfort of the users, particularly the seniors.

7. Z3-LR-33

Figure 5.380: Z3-BL-33. Facade. Source : Field survey 2015

Figure 5.381: Z3-LR-33 : Window. Source : Field survey 2015

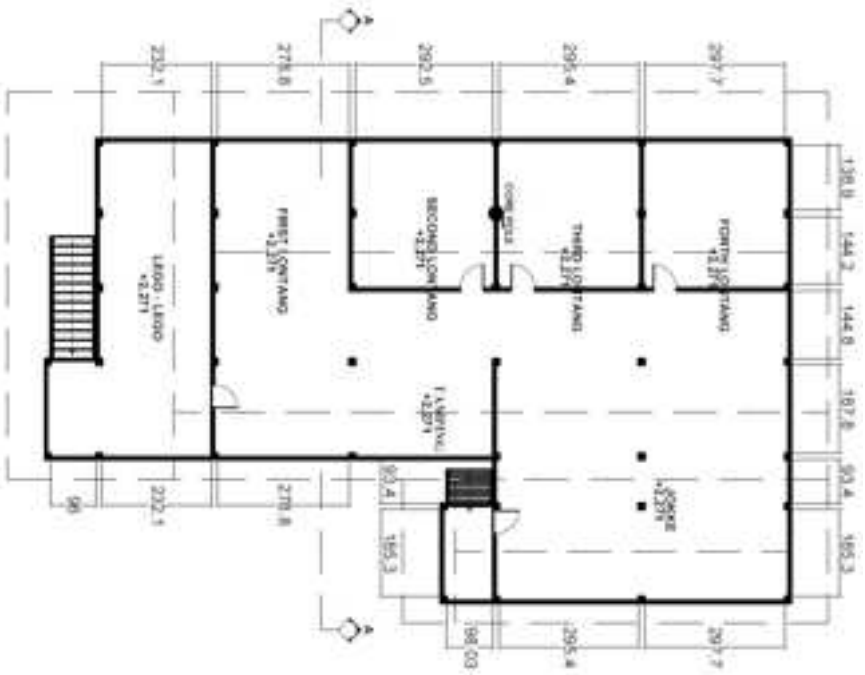

Figure 5.382: Z3-LR-33. Floorplan. Source : Field survey 2015

The facade of this house is different from the original facade of the Bugis house. One of the differences occurs at its *lego-lego*. The *lego-lego* has been widened to the size of the body of this house so that the staircase is placed at the *lego-lego* module. Even so the staircase is still parallel to the first *pattolo* beam of the main house and rests on the sandreseng *addeneng* beam.

This house has windows with five bars and two shutters each. At the top of the window, there are a star- shaped ornament and a crescent-shaped ornament. Across the top of the bars, there is a drawing of panrenreng flower that propagates, and at the base of the bars, there is a drawing of rays of light.

B2. Type *tellu latte - tellu lontang*

1. Z3-TJ-02

Figure 5.383: Z3-TJ-02 : Facade. Source : Field survey 2015

Figure 5.384: Z3-TJ-02 : Window. Source : Field survey 2015

Figure 5.385: Z3-TJ-02 : Floorplan. Source : Field survey 2015

The change of the façade of this house is on its roof, because the roof of its *lego-lego* has been widened so that the staircase is covered by the roof. Both the *lego-lego* and the *tamping* use the *paturungeng* roof, while the main house uses the straight gable roof.

The width of this house is the total size of three *latte* of the main house, an additional one meter on the side of the main house and one *latte* on the *tamping*. This additional one meter to the main house is one of the changes that has taken place at this house. Such extension is not commonly applied in a commoners' houses but in the aristocratic houses. Another change that has occurred at this house is that every *karateng/latte* of this house has a five-trellis window with two shutters. The last change that has happened to this house is that a partition has been installed between its *tamping* module and its kitchen module that results in the diversion of the circulation area to the main house. Regardless of the changes that have happened to this house, the door of this house is still installed at its *tamping*, which adheres to the old architecture of Bugis house. The placement of the door's house at the *tamping* is to allow the *tamping* as an area for the

circulation of people in the house. Apart from its function as the area for the circulation of people, the *tamping* also functions as a connector between the additional module at the front part of the house and the additional module at the back part of the house and as a passage for air circulation coming from outside the house.

The length of this house is the combination between three *lontang* and the length of the kitchen module, which is situated behind the main house. There is no partition at the first *lontang*. However, there is a partition in the second and third *lontang*. These two *lontang* are used for sleeping.

The *lego-lego*, which is an additional module at the front part of the house, is situated at the *tamping* module and is widened towards the first *latte* of the main house so that the position of the staircase of this house no longer rests on the first pole (1) but on the second pole (2), called andeneng sandreseng pole (pole that parallel with back of the stairs). The staircase uses a bannister which symbolize the social level of the Bugis community. However, for this house, the application of bannister is not intended to symbolize the social level but only to make it easier for house owner or visitors to use the staircase.

The element that symbolizes the social level occurs at the roof of this house where there is one *timplaja*. This *timplaja* shows that the owner of this house has the highest social level among ordinary people.

2. Z3-TJ-04

Figure 5.386: Z3-TJ-04: Facade. Source : Field survey 2015

Figure 5.387: Z3-TJ-04 : Window. Source : Field survey 2015

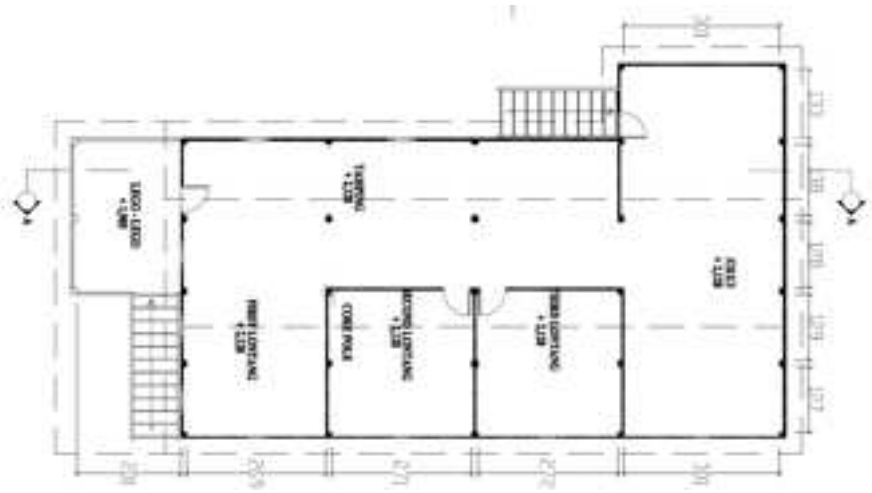

Figure 5.388: Z3-TJ-04 : Floorplan. Source : Field survey 2015

The façade of this house no longer has the original facade of the old Bugis house. This change occurs on the *lego-lego* roof where the roof has been widened so that the staircase is covered by the roof. The type of the *lego-lego* roof is the paturungen, while the type of the main house's roof is the straight gable like the original roof of the Bugis house.

The width of the house uses three *latte* where each *latte* has a modern window made of modern materials. The interesting thing of this house's windows is that each window has the air circulation in the form of a square *lawasuji*.

On the bannister of the house's staircase a bannister that has four square *lawasuji* is installed. As previously explained, the square *lawasuji* is a perfect shape according to the Bugis tribe's belief.

3. Z3-TJ-05

Figure 5.389: Z3-TJ-05 : Facade. Source : Field survey 2015

Figure 5.390: Z3-TJ-05 : Pole, *arateng* and *pattolo*

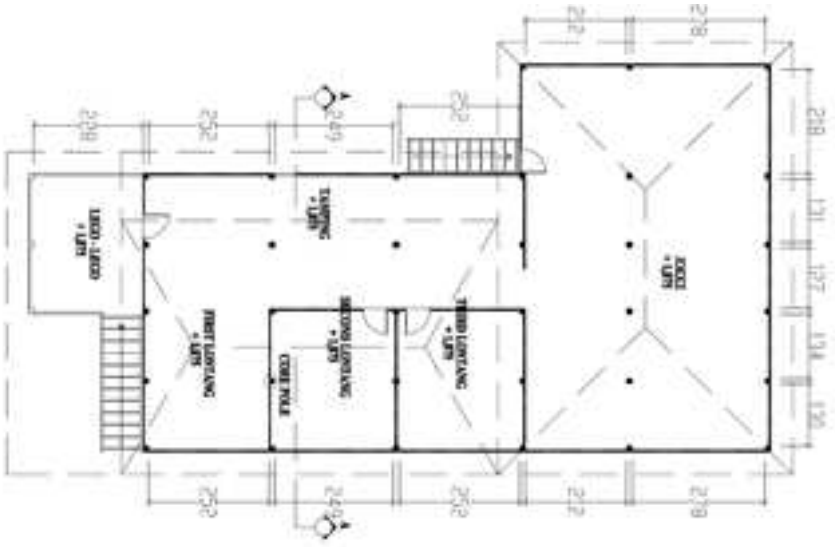

Figure 5.391: Z3-TJ-05 : Floorplan. Source : Field survey 2015

The façade of this house has changed, because the roof of its *lego-lego* has been widened so that it covers the staircase of this house. Every *latte* of this house has two jalousie windows. At the top of each jalousie window, there is an air circulation.

4. Z3-TJ-06

Figure 5.392: Z3-TJ-06 : Facade. Source : Field survey 2015

Figure 5.393: Z3-TJ-06 : *Wasaubola*. Source : Field survey 2015

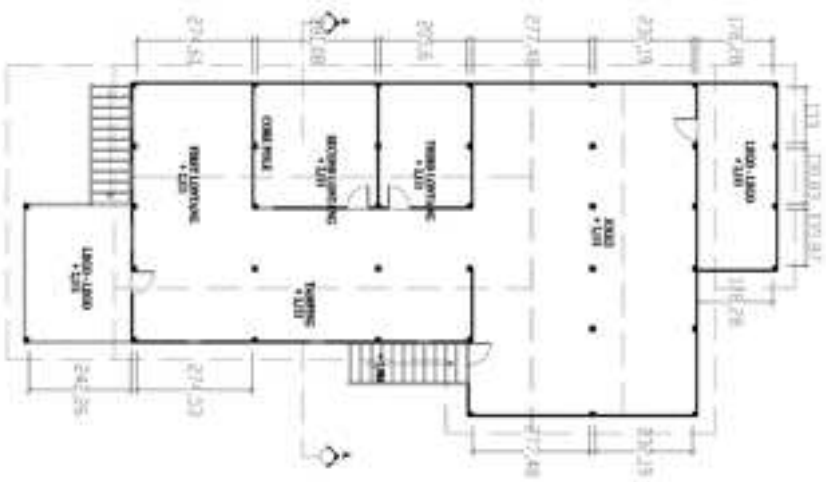

Figure 5.394: Z3-TJ-06 : Floorplan

The façade of this house has also undergone a change, because the roof of its *lego-lego* has been widened so that it covers the staircase of this house. The type of the *lego-lego* roof is the paturungen.

Each *latte* of this house has a window made of modern materials such as jalousie glass and plain glass. There is air circulation at the top of the window and a plain glass at the bottom of the window.

The position of the staircase of this house has also undergone a change, because its sandreng pole, where it rests, is no longer on the main house's first pole but on the second pole.

5. Z3-TJ-08

Figure 5.395: Z3-TJ-08 : Facade. Source : Field survey 2015

Figure 5.396: Z3-TJ-08 : Hole as ex old *tamping* construcion. Source : Field survey 2015

Figure 5.397: Z3-TJ-08 : Window. Source : Field survey 2015

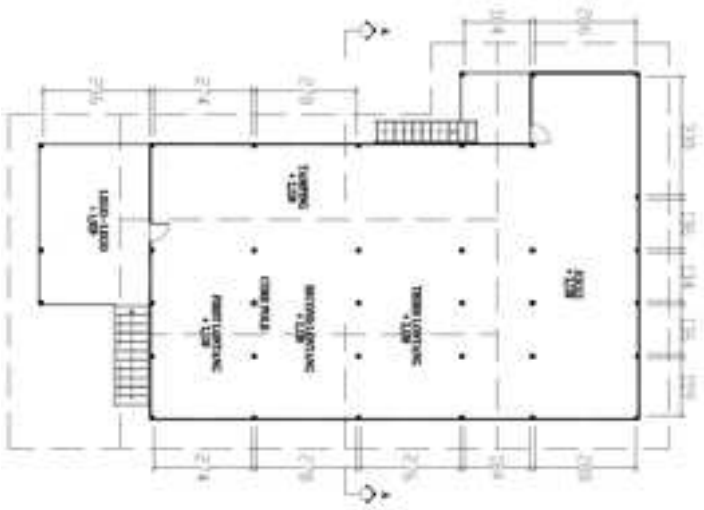

Figure 5.398: Z3-TJ-08 : Floorplan. Source : Field survey 2015

The front roof of this house has undergone a change, because the roof has covered the staircase. In addition, a window is installed at every *latte* of this house. The window has five trellis and two shutters, made of glass and board material.

6. Z3-TJ-11

Figure 5.399: Z3-TJ-11 : Facade. Source : Field survey 2015

Figure 5.400: Z3-TJ-11. *lego-lego* floor. Source : Field survey 2015

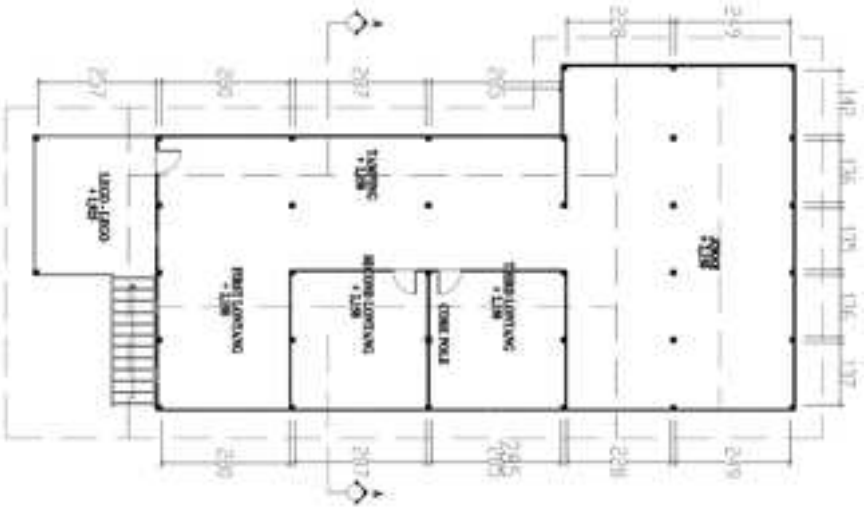

Figure 5.401: Z3.TJ-11 : Floorplan. Source : Field survey 2015

The façade of house has undergone some changes. The first change occurs at its *lego-lego* roof where it is extended to as far as the *tamping* and the first *latte*. This change has resulted in the change of this house's staircase where it no longer rests on the second pole of the main house.

The window of this house uses three bars and has no shutters. The walls of the house still use woven bamboo, called tabba.

7. Z3-TJ-12

Figure 5.402: Z3-TJ-12 : Facade. Source : Field survey 2015

Figure 5.403: Z3-TJ-12. Window. Source : Field survey 2015

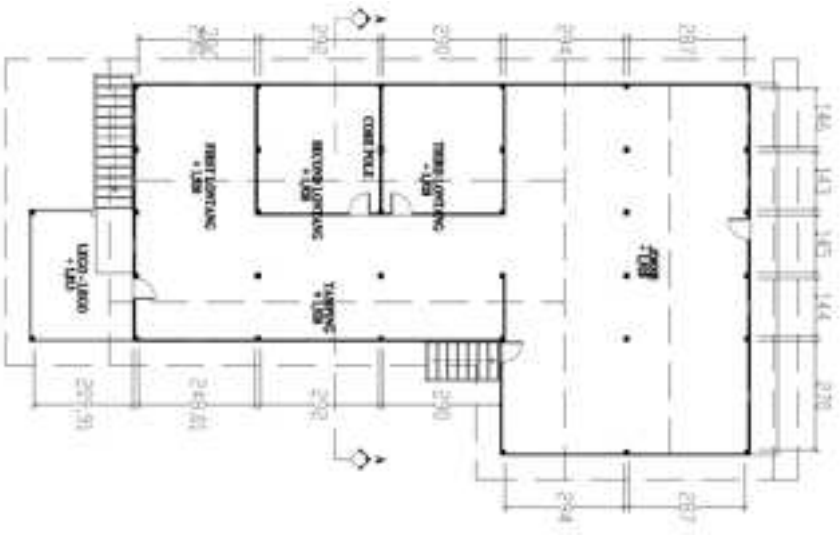

Figure 5.404: Z3-TJ-12 : Floorplan. Source : Field survey 2015

One of the changes that has taken place at this house is at its *lego-lego* roof because it has been expanded. Another change that has taken place is the *lego-lego* floors, because the floor where the staircase rests is a little lower than the floor at the front of the *tamping*. The inside floor of the house is slightly higher than that at the front of the *tamping*.

8. Z3-TJ-14

Figure 5.405: Z3-TJ-14 : Facade. Source : Field survey 2015

Figure 5.406: Z3-TJ-14 : Window. Source : Field survey 2015

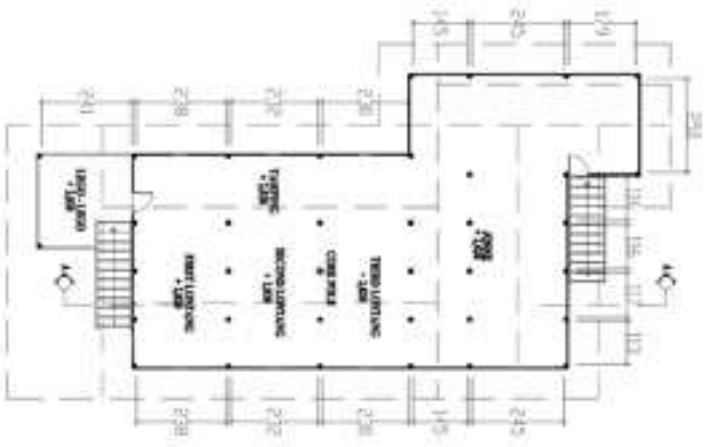

Figure 5.407: Z3-TJ-14 : Floorplan

The façade of this house has changed because there has been an additional roof at the top of the staircase. The roof style used for its *lego-lego*, staircase and *tamping* is the paturungen, while for its main house, the style of roof that is used is the gable.

Every *latte* of its main house has a wooden window. The window is made of a combination of the jalousie window and the panel window. This window applies the concept of balance where on its edge part is a wood panel window and its middle part is an oblique jalousie window. This oblique jalousie window serves to circulate air. In addition, at the top of the window, there is jalousie window which functions to circulate air, too.

The position of the staircase of this house has not changed, because the stair-case remain leaning against the first pole of the main house. The house owner aims to use the bannister at this staircase is to make the users, especially elderly, easier to use it.

9. Z3-TJ-20

Figure 5.408: Z3-TJ-20 : Facade. Source : Field survey 2015

Figure 5.409: Z3-TJ-20 : Overstake. Source : Field survey 2015

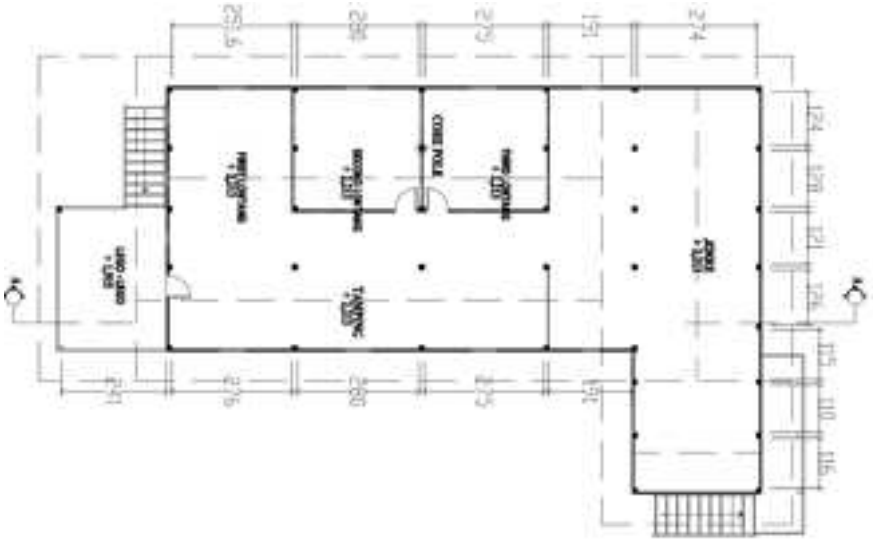

Figure 5.410: Z3-TJ-20 : Floorplan. Source : Field survey 2015

The *lego-lego* roof of this house has changed, because the roof has been extended up to the staircase. Every *latte* of this house has a window. The window style at the second and third *latte* is the jalousie window, while the window style at the first *latte* is the oblique jalousie and jalousie.

In the *tamping* module, not only is the door of the house installed, but also there is a hanging pole. The end of the pole is rectangular, so that it does not look stiff The pole on the *tamping* does not reach the roof but the floor, while the hanging pole starts from the floor to the roof.

10. Z3-BL-21

Figure 5.411: Z3-BL-21 : Facade Source : Field survey 2015

Figure 5.412: Z3-BL-21 : *lego-lego* floor Source : Field survey 2015

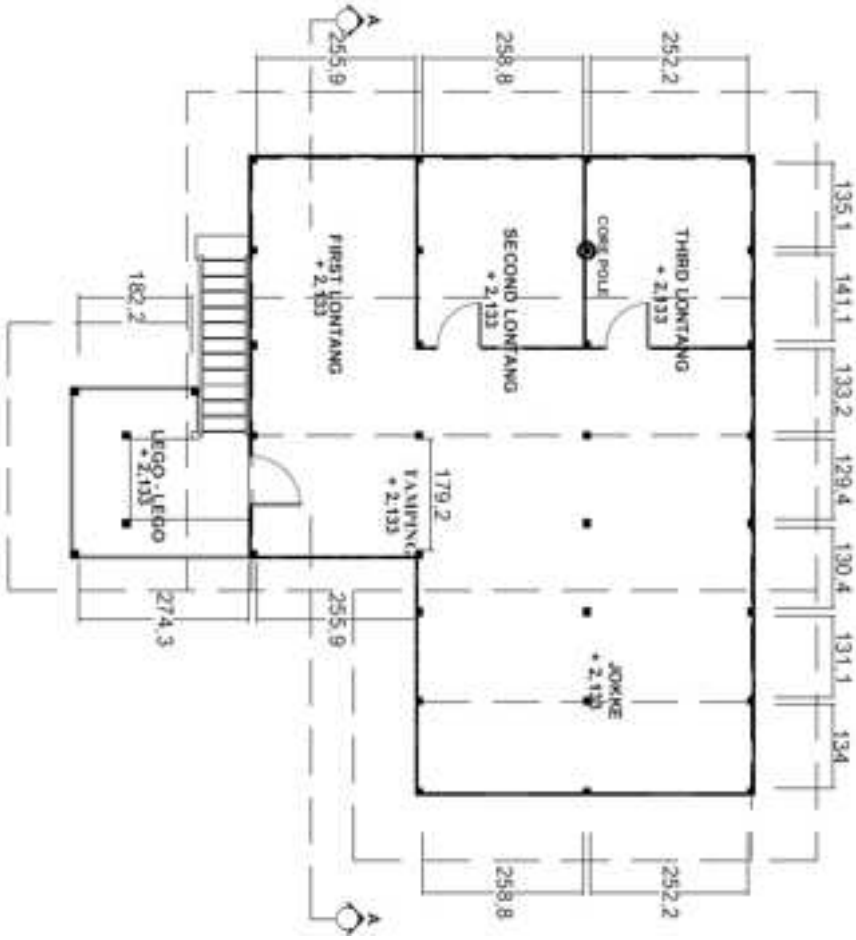

Figure 5.413: Z3-BL-21 : Floorplan : Field survey 2015

The facade of this house still follows the facade of the original Bugis house which belongs to the ordinary people, because the staircase of this house is not covered by the roof of *lego-lego*. Also, the staircase rests on the first pole of the main house.

The position of the kitchen of this house is not at the back of the main house but is located on the side of the main house or parallel to its second and third *lontang*.

There is an additional element on the roof of this house, which is one layer of *timplaja*. A house that has one *timplaja* indicates that house owner has the highest social level among the ordinary people.

11. Z3-BL-22

Figure 5.414: Z3-BL-22 : Facade Source : Field survey 2015

Figure 5.415: Z3-BL-22 : Window: Field survey 2015

Figure 5.416: Z3-BL-22 : Floorplan : Field survey 2015

The architecture of this house adheres to the architecture of the original Buginese house, because the roof of its lego is not widened and the roof of its main house is the high straight gable. The roof of lego- lego and *tamping* uses the paturungen model. Every *latte* of this house hasa jalousie window with plain glass on its left, its right and its bottom.

The position of the kitchen module of this house is on the side of the main house or is parallel to the second and third *lontang* of the main house. The bannister at the staircase does not serve as the symbol of nobility but serves to help the users of the staircase.

The element installed on the roof of the main house is one *timplaja*, indicating the owner of this house has the highest social level among the ordinary people.

12. Z3-BL-25

Figure 5.417: Z3-BL-25 : Facade Source : Field survey 2015

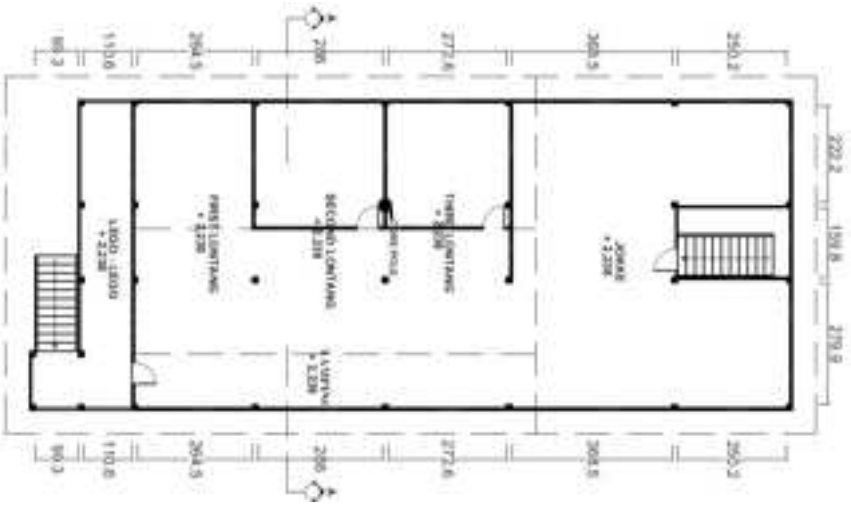

Figure 5.418: Z3-BL-25 : Floorplan : Field survey 2015

The *lego-lego* of this house has undergone some changes. One of them is that it has been extended as wide as this house. Another change is that its roof has been extended as wide as the house as well. The last change is that the position of this house's staircase has now been placed at the front of the *lego-lego*, although the staircase rests on the first pole of the main house.

The window in each *latte* of this house consists of the window panel and the glass window. Each window does not have any shutters, so it creates good air circulation inside the house.

The additional element can be found on the roof in the form of one *timplaja* layer, whereas the additional ornament can be found on the *lego-lego* wall in the form of a square-shaped *lawasuji*. This ornament represents the prayer and the hope of the house owner to have a perfect life.

13. Z3-LR-31

Figure 5.419: Z3-LR-31 : Facade Source : Field survey 2015

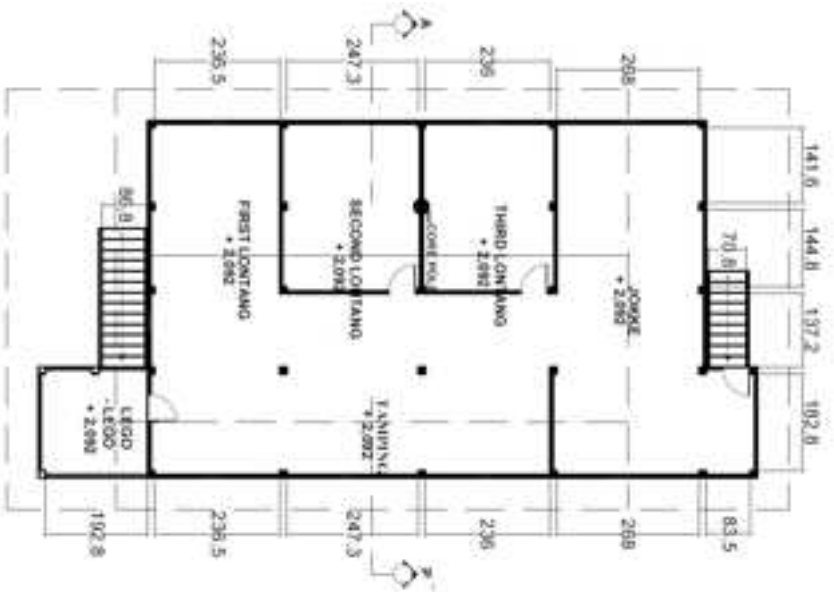

Figure 5.420: Z3-LR-31 : Floorplan Source : Field survey 2015

The façade of this house has undergone changes, because its *lego-lego* roof has been widened so that it covers the staircase of this house. The roof style used for the *lego-lego* and for the *tamping* is the *paturungeng*, while the roof style used for the main house is the low straight gable whose slope is less than 45 degrees.

In each *latte* of the main house, a window, containing both the jalousie glass and the plain glass, is installed. The jalousie glass is placed between the plain glasses. The door of this house is placed in the *tamping* module. This placement adheres to the old beliefs of the Bugis tribe. Although the placement of the door is in the *tamping* module, the circulation area of the people living in this house takes place at the main house area. This is due to the partition that is installed between the *tamping* and the kitchen (see picture).

The staircase of this house rests on the sandreseng *addeneng* which is parallel to

the first pole of the main house. A bannister is installed at the staircase to facilitate the users of the staircase.

14. Z3-LR-32

Figure 5.421: Z3-LR-32 : Facade Source : Field survey 2015

Figure 5.422: Z3-LR-32 : Stairs in kitchen room Source : Field survey 2015

Figure 5.423: Z3-LR-32 : Additional room in wasubola Source : Field survey 2015

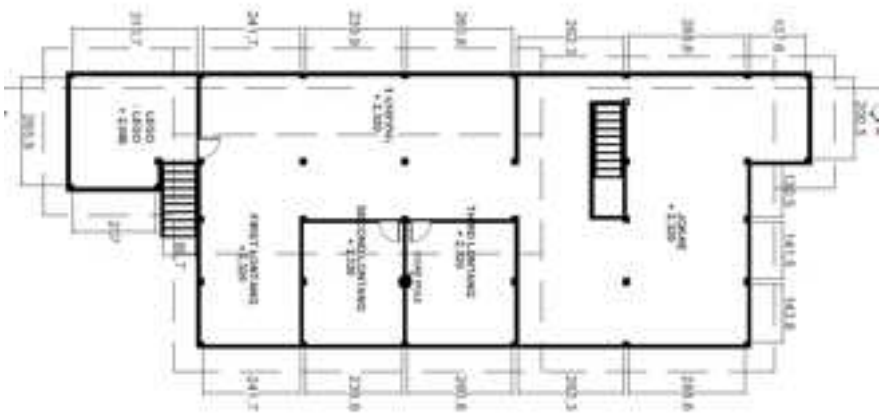

Figure 5.424: Z3-LR-32 : Floorplan Source : Field survey 2015

This house still maintains the original architecture of the Bugis house, because its staircase is not covered by the roof of this house's *lego-lego*. The staircase rests on the *sandreseng addeneng* that is parallel to the first pole of the main house. There is a bannister at the staircase, and its functions is not to show the nobility status of the house owner but to help the users of the staircase.

The position of this house's *lego-lego* is at the front of the *tamping*, which adheres to the original architecture of Bugis house. As previously explained, *lego-lego* is a temporary stopover for those who visit the house owner before they are invited to go into the house by the house owner. .

15. Z3-LB-35

Figure 5.425: Z3-LB-35 : Facade Source : Field survey 2015

Figure 5.426: Z3-LB-35 : Stairs Source : Field survey 2015

Figure 5.427: Z3-LB-35 : Using air conditioner in parent's room Source : Field survey 2015

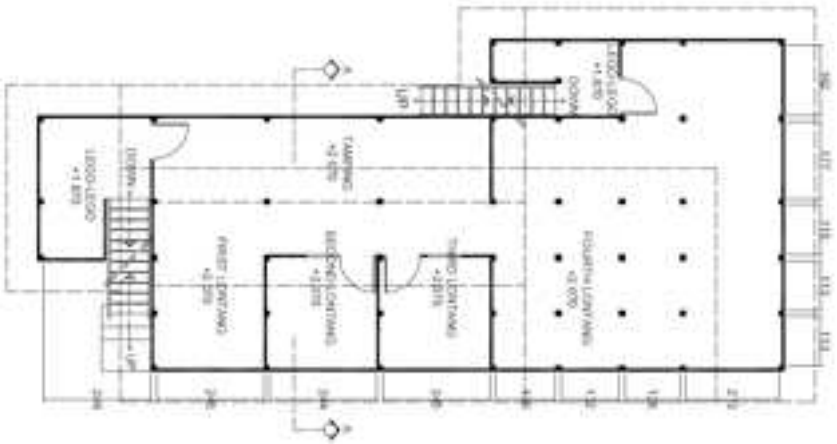

Figure 5.428: Z3-LB-35 : Floorplan Source : Field survey 2015

The *lego-lego* of this house has been widened up to the front part of the first *latte*, so it looke a bit large. The extension of this *lego-lego* does not change the parallel position between the first pole of main house and the *sandreseng addeneng* pole where the staircase of this house rests.

16. Z3-LB-36

Figure 5.429: Z3-LB-36 : Facade Source : Field survey 2015

Figure 5.430: Z3-LB-36 : Window Source : Field survey 2015

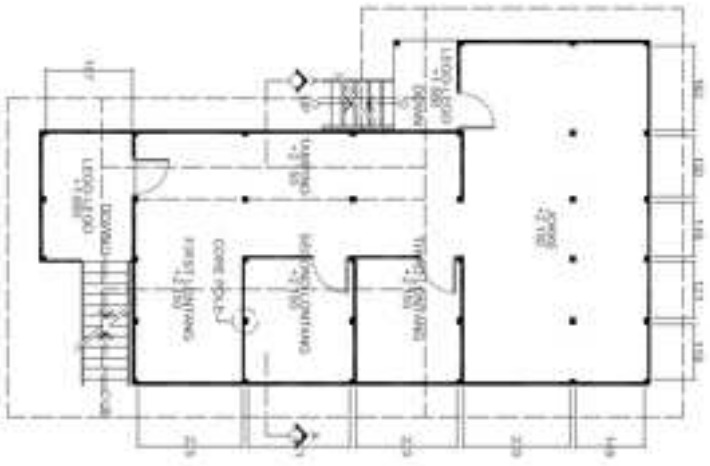

Figure 5.431: Z3-LB-36 : Floorplan Source : Field survey 2015

The façade of this house has changed, because its *lego-lego* roof has been widened so that it covers the staircase of this house. The end of the bonding beam for the ware and the padongko which is at the front end of the main house (underneath the ceiling) is made into the octagonal shape so that the bonding beam has a more artistic value.

The *tamping* module of this house has been modified, because the *tamping* poles have holes that indicate the aretang beams were once inserted into them.

17. Z3-LB-37

Figure 5.432: Z3-LB-37 : Facade Source : Field survey 2015

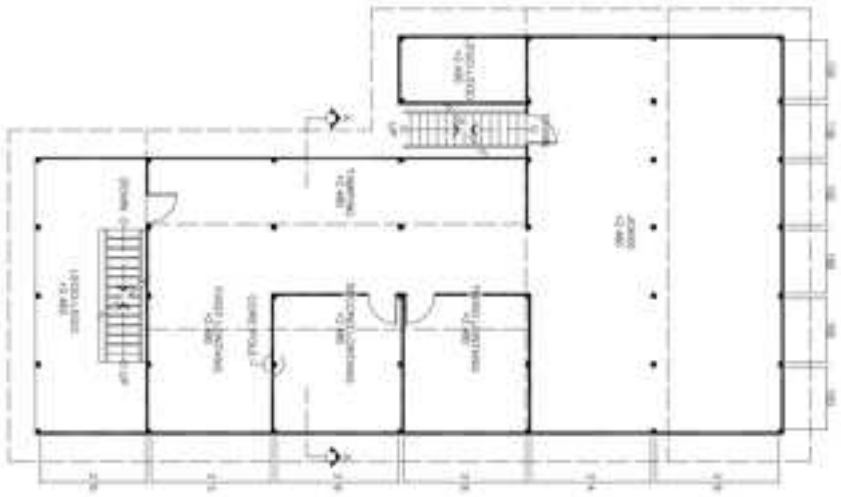

Figure 5.433: Z3-LB-37 : Floorplan Source : Field survey 2015

The *lego-lego* of this house has been widened so that its roof is widened to the same width of the *lego-lego*. This change does not change the placement of this house's staircase, because it remains rest on the sandengeng addeng pole which is parallel to the first pole of the main house..

18. Z3-LB-39

Figure 5.434: Z3-LB-39 : Facade Source : Field survey 2015

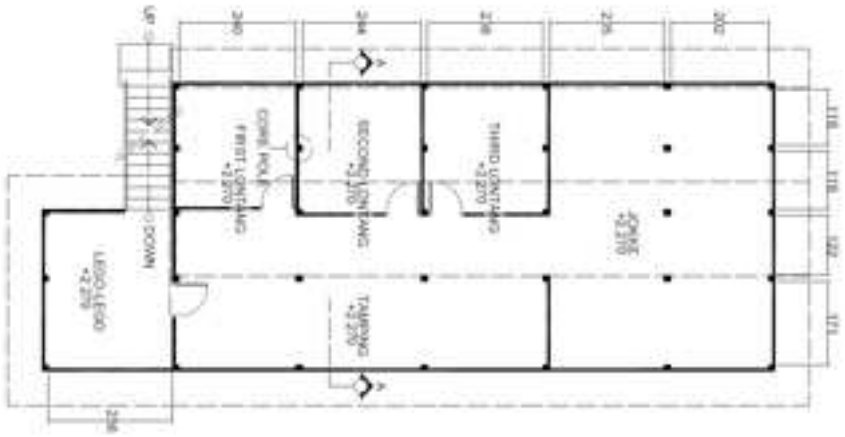

Figure 5.435: Z3-LB-39 : Floorplan Source : Field survey 2015

The *lego-lego* of this house has been widened up to the first *latte*. The staircase rests on the sandreseng *addeneng* pole that is parallel to the second pole, not the first pole of the main house. The *tamping* pole of this house leaves a hole where an *arateng* beam once was inserted to it.

19- Z3-LB-40

Figure 5.436: Z3-LB-40 : facade Source : Field survey 2015

Figure 5.437: Z3-LB-40 : Floorplan Source : Field survey 2015

Although the *lego-lego* of this house has been widened to the front part of the first *latte*, the facade of this house still adheres to the original facade of the Bugis house. This is because its *lego-lego* roof has not been widened. Thus, the staircase of this house is not covered by the *lego-lego* roof.

B3. Type of *dualatte - tellulontang*

1. Z3-TJ-18

Figure 5.438: Z3-TJ-18 : Facade Source : Field survey 2015

Figure 5.439: Z3-TJ-18 : Left side Source : Field survey 2015

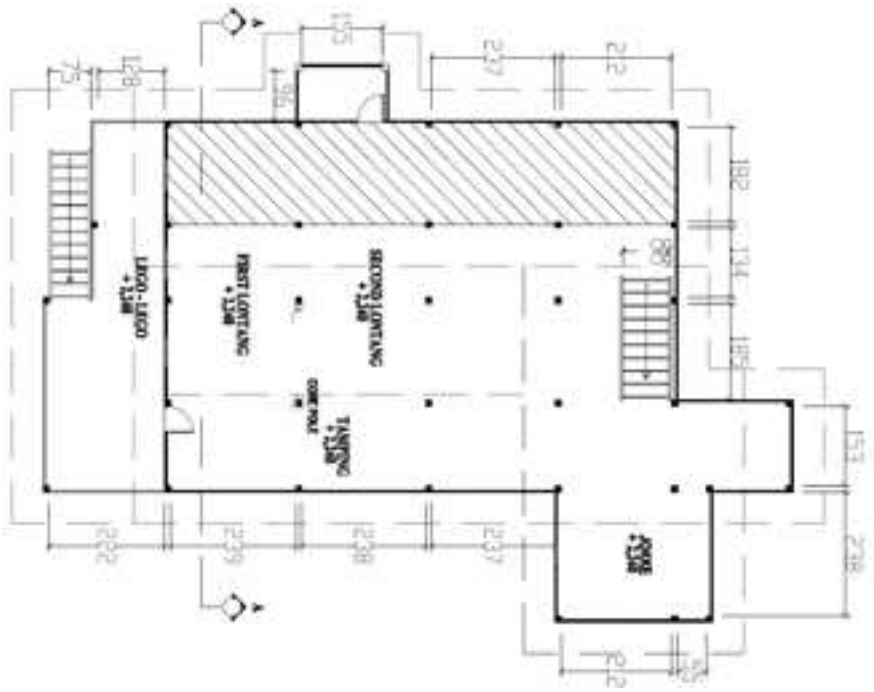

Figure 5.440: Z3-TJ-18 : Floorplan Source : Field survey 2015

This house has undergone changes. One of them is the addition of one *latte* on the left side of the main house. Another change is the toilet/bathroom is placed parallel to the second *lontang*. The main house of this house has been modified as well because it has been added one *latte*. However, the roof of this additional *latte* does not unite with the main roof, the first and second *latte* belongs to the main house and additional *latte* is not part of the main house. The roofs remain separate from the roof of the main house.

lego-lego in this house has also been widened so that the width of the *lego-lego* and the house are the same. The last change is the placement of the staircase of this house. As a result of the *lego-lego* extension, the position of the staircase of this house is moved to the front of the *lego-lego*. Thus, the staircase is parallel to the second pole, not to the first pole of the main house. In addition, a bannister has been installed at the staircase which serves to facilitate the users of the staircase, not serves as a symbol of nobility.

Another change in this house is that the staircase of its kitchen has been moved into the inside part of the main house so that it can be accessed from the under area of this house (wasaubola). The function of the space under this house has also been added. The additional functions include the function for eating, cooking and watching television.

C. The Modern of Commoners' Houses appearing around the 1980's

C1. Type *eppalatte* and *eppalontang*

1. Z3-LR-30

Figure 5.441: Z3-LR-30 : Facade Source : Field survey 2015

Figure 5.442: Z3-LR-30 : Stairs Source : Field survey 2015

Figure 5.443: Z3-LR-30 : Carving in the end of beam Source : Field survey 2015

Figure 5.444: Z3-LR-30 : Ornament Source : Field survey 2015

Figure 5.445: Z3-LR-30 : Quadilateral *lawasuji* Source : Field survey 2015

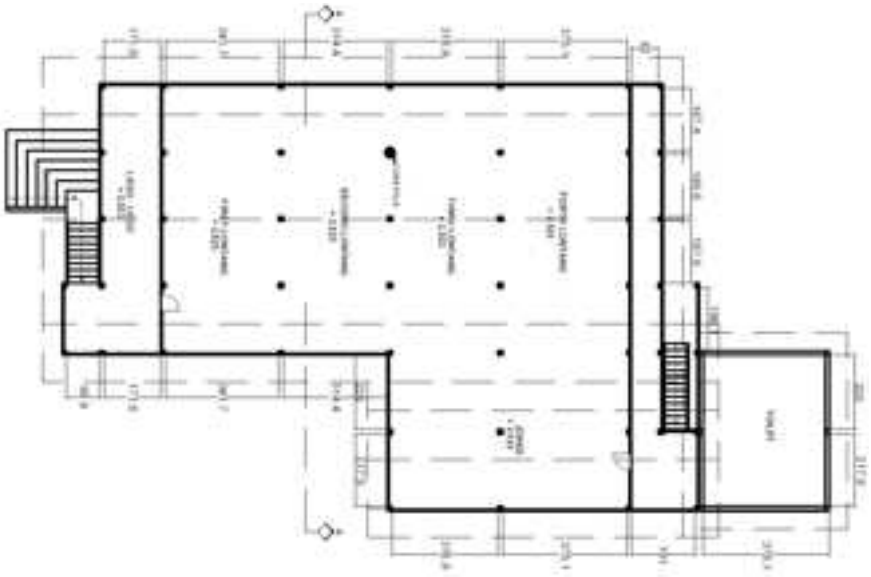

Figure 5.446: Z3-LR-30 : Roop plan Source : Field survey 2015

This house is the new style of the commoner's Bugis house. However, the function of its *tamping* module, as the people's circulation area, has been removed. This house is almost the same as those of the aristocratic houses, that is, using three *timplaja* and one patukku, because the number of *latte* of this house is more than three. As explained earlier, only aristocratic houses that have more than three *latte*. In addition, the staircase of this house has a *tuka* and a bannister.

One of the results of the interview shows that at present house owners can innovate to beautify their houses. For example, the *timplaja* at the front of this house's roof has been designed for the air circulation.

The owner of this house also applies the ornaments on the part of the end of beam and on *lego-lego* wall. On the *lego-lego* wall, the ornament is a quadrilateral *lawasuji* which is considered to be the perfect shape for the Bugis tribe. The end of the *arateng* and *pattolo* beam are carved by *parenreng* flowers. The end of the bonding beam is carven an octagonal shape so that it is not plain and has an esthetic value. The façade of this house looks very luxurious, artistic and unique, because of the addition of several elements and ornaments.

2. Z3-LR-34

Figure 5.447: Z3-LR-34 : Facade Source : Field survey 2015

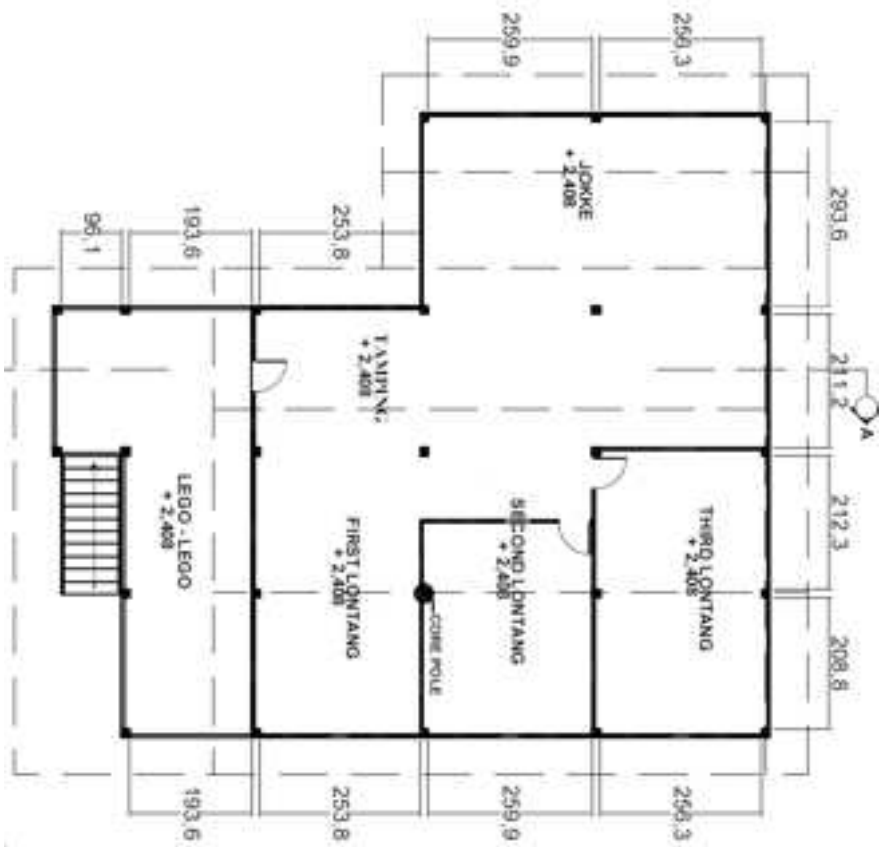

Figure 5.448: Z3-LR-34 : Facade Source : Field survey 2015

This house also belongs to the new style of Bugis house of a commoner even though it has an *anjong* ornament at its roof. The *anjong* has the shape of the buffalo horn which symbolizes that the owner of this house is a brave man and functions as an antidote to the black magic.

C2. The type of *tellulatte-tellu lontang*

1. Z3-BL-24

Figure 5.449: Z3-BL-24 : Facade Source : Field survey 2015

Figure 5.450: Z3-BL-24 : Interior Source : Field survey 2015

Figure 5.451: Z3-BL-24 : *timplaja* construction Source : Field survey 2015

Figure 5.452: Z3-BL-24 : Roof constructio Source : Field survey 2015

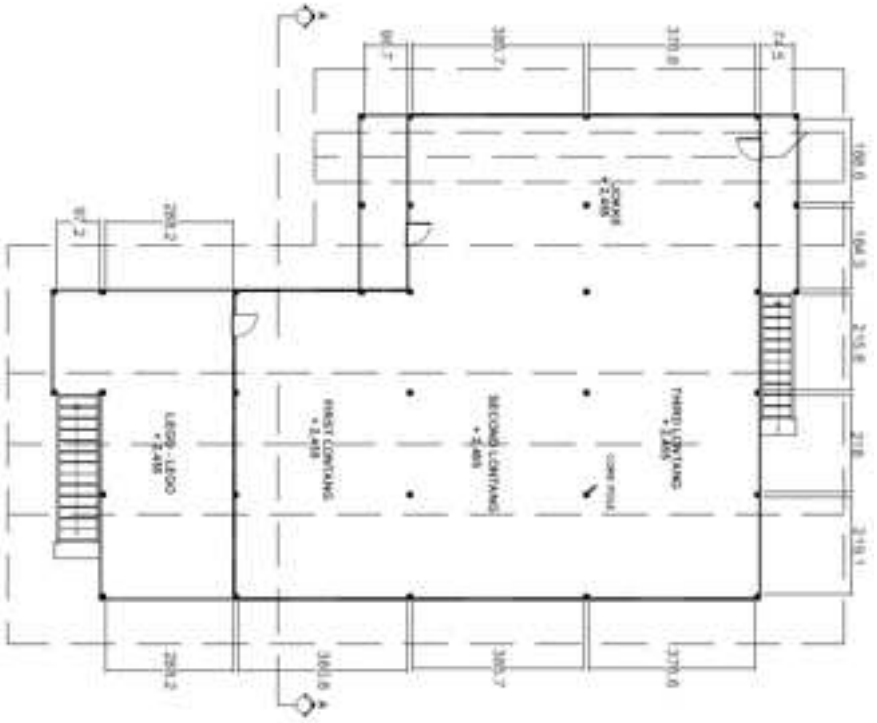

Figure 5.453: Z3-BL-24 :Floorplan Source : Field survey 2015

This house applies three *timplaja* and *anjong* as the aristocratic symbols. The shape of the *anjong* is the head horn. According to the owner of this house, the placement of *timplaja* at the attic of this house functions as air circulation. In Sopppeng Regency, *anjong* is regarded as the symbol of the social level of the house owner. However, the modern houses of the Bugis commoners has applied *anjong* at their houses.

3. Z3-LB-38

Figure 5.454: Z3-LB-38 : Facade Source : Field survey 2015

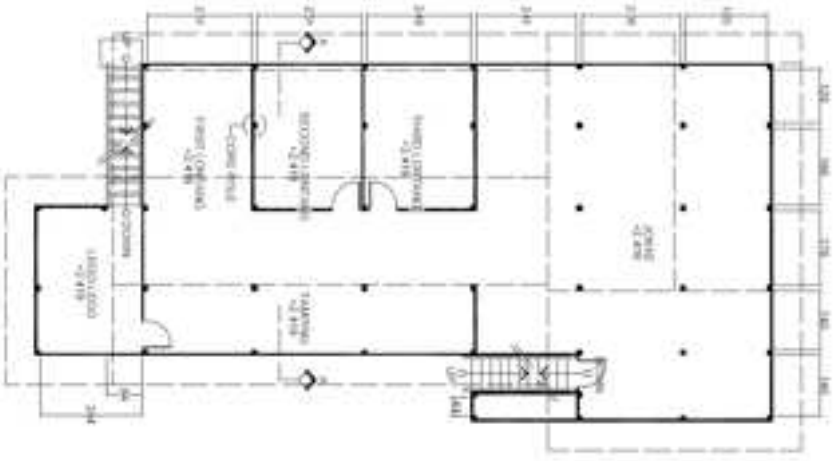

Figure 5.455: Z3-LB-38 : Floorplan Source : Field survey 2015

This house belongs to the new style of Bugis house, because its roof is a slightly curved gable. The position of its staircase is at the front of the main house, and its *lego-lego* is not as wide as the modern Bugis houses previously explained. The house looks simple, and the owner of this house has not innovated much in the architectural aspects of this house.

Conclusion zone three The conclusion each houses in all zone explained more detail according to each character.

The noblemen's houses in zone three seem to be built at the era of the Dutch colonial government. In zone one the noblemen's houses even do not have many aspects that belong to the original architecture of the Bugis house. Even though the houses in zone one belong to the high nobleman or Datu/queen of Pattojo, because it has five or seven *timplaja* and its house roof is not saddle.

Viewing from the architectural style, the noblemen's houses in zone one were built at the era before the independence of Indonesia. It implies that the noblemen in the era have chosen to follow the development of architecture that was influenced by the rules that were set by the Dutch colonial ruler. The reason is because in the era, applying any symbol of nobility to a house was not allowed. When some symbols of nobility are not applied to a nobleman's house, such as *timplaja* on the saddle roof and the ornaments at the end of the roof and roof tops, then the nobleman's house will be like a commoner's house. This had led the noblemen in the era made some modifications on the roof, the *lego-lego* shape and the *tamping* position of their houses.

In zone two and three, each of the noblemen's houses that was built at the time of the colonial government still retains the original architecture of the Bugis house where the roof is saddle-shaped and the elements and the ornaments that symbolize the nobility are applied. Even the noblemen's houses in zones two and three still use *tala-tala*. The houses in zone two and three belong to the high noblemen who do not hold the title of Datu or king. However, they are categorized as high noblemen in their own villages in their time.

This house has three *timplaja*. The number of *timplaja* at the house indicates that the house owner is a nobleman, although his nobility rank is lower than the ranks of the noblemen in zone one. Based on these facts, it can be concluded that (1) the Dutch colonial ruler focused more on the rules about the architecture of the high noblemen's houses, Datu/Raja (Datu/the King of a region). (2) The high noblemen who have the title of Datu/Raja are more receptive to the new house architectural styles introduced by the Dutch colonial ruler than the noblemen who do not hold the title of Datu. (3) The noblemen without the title of Datu, whose houses three *timplaja*, are more likely to apply the original architecture of Bugis house. For example, they apply both the elements and ornaments that symbolize the nobility or a high social level.

The old style of *tamping* has a floor that is slightly lower than the floor of the main house. These noblemen's houses adopt the old style of *tamping*, and it is still maintained until now, except for the nobleman's houses in zone two. The noblemen's houses in zone two have undergone some changes such as raising the floor of the *tamping* that is parallel to the floor of the *watangpola*. On the contrary, in zone one, the house that belong to Datu Pallawarukka still maintains the old style of *tamping*, where the floor of the *tamping* is lower than that of the main house. In fact, to reach the main house (*watangpola*) from the *tamping* floor, a person has to climb a staircase consisting of three steps. Nevertheless, Datu Pattojo applied the new style of *tamping*, where both the floor of the *tamping* and the floor of the *watangpola* are in the same height.

The house applied the characteristics of nobleman's Bugis house, such as stage-shaped house, a saddle-shaped house roof, *timplaja* application that symbolizes a high social status and the construction in which the ends of the roof beam meets the ceiling/attic[6].

In the Soppeng regency, there are some noblemen's houses still apply the *tala-tala* behind the *watangpola*, for example one house in zone two and two houses in zone three.

[6]6 Paul Oliver, 1997 Encyclopedia of vernacular architecture of the world Volume 2 Culture and Habitat Cambridge university press ISBN 0 521 56422 0

As for the other noblemen's houses in the regency do not apply any *tala-tala* anymore. The *tala-tala* in each of these houses no longer serves as a section for house residents to have a meal. The floor of *tala-tala* is slightly higher than that of the *watangpola*. The floor of *tala-tala* serves as section for a nobleman to have his meal, while both the floor of the main house and the floor of the *tamping* are for those with lower social status than the nobleman.

The houses of the noblemen in this second zone still apply full ornaments on the roof, although some of the ornament have lost because of age. The remains of the ornament can still be seen on the tops to the houses. The architecture of Bugis house described by Oliver (2010)[7] can still be found at the research location.

Thus, it can be concluded at the research location, some elements and the original architecture of the noblemen's Bugis houses built during the Dutch colonial rule, can still be found.

The regulations issued at the era of the Indonesian government required the houses to orient to the road. The regulation caused the gradual changes in the architecture of traditional Bugis settlements. There were some people who maintained their houses that orient to the qiblah or to Mecca by adding a cantilever on the side of the watangpola. This addition gave the impression that the house was oriented to the road.

Bugis should avoid facing their foot to the Mecca's orientation. If placing his head in the east, then the legs should be bended so as not to orient them to the Mecca8. This orientation indicates that both the Islamic teaching and the Indonesian government's laws have changed the original orientation of Bugis house, because the orientation of the old tradition of Bugis house was to the north, mountains and water. Furthermore explains that the Toraja believe their houses must always face north. This direction is called 'head of the sky' (ulu lallgi'), which is associated with the 'heads' or Sources of rivers. The south is called 'tail of the sky' (pollo ' lallgi), and the south end of the house is called pollo' banua. The north is the domain of the 'Old Lord' of the sky (Puang Matua), a primary deity who creates human beings. The south is the direction of the after life. East is the direction of life, the rising sun. The west is associated with death, mortuary rituals and deified ancestors.

The noble houses generally use four lontang, each of which has the same function as that belong to the old beliefs of Bugis house construction. The lontang of the noblemen's houses in zone one, two and three share the same functions. The second lontang is for the parents. The lontang at the back of the main house is for the girls, and the lontang at the front of the main house is for boys.

Some researchers explain that the shape of Bugis house is a stage-shaped house that extends backwards and whose floor is raised about 180-200 centimeters. The space of Bugis house consists of several plots or lontang. The Bugis houses in Malaysia have in common with Bugis houses in the regions of their origin[8]. The number of plots in the house is from two to eight lontang. It was further explained that the eight lontang is used in the house of a nobleman, whereas a commoner uses less than that in their house. The

[7] Paul Oliver, 1997 Encyclopedia of vernacular architecture of the world university press ISBN 0 521 56422 0

[8] Ismail, W. H. W. (2012). Cultural Determinants in the Design of Bugis Houses. Procedia - Social and Behavioral Sciences, 50(July), 771–780. https://doi.org/10.1016/j.sbspro.2012.08.079

minimum number of lontang is two and is used by a commoner. A Bugis house consists of three lontang: isaliweng, ritanga and imonri lontang[9]

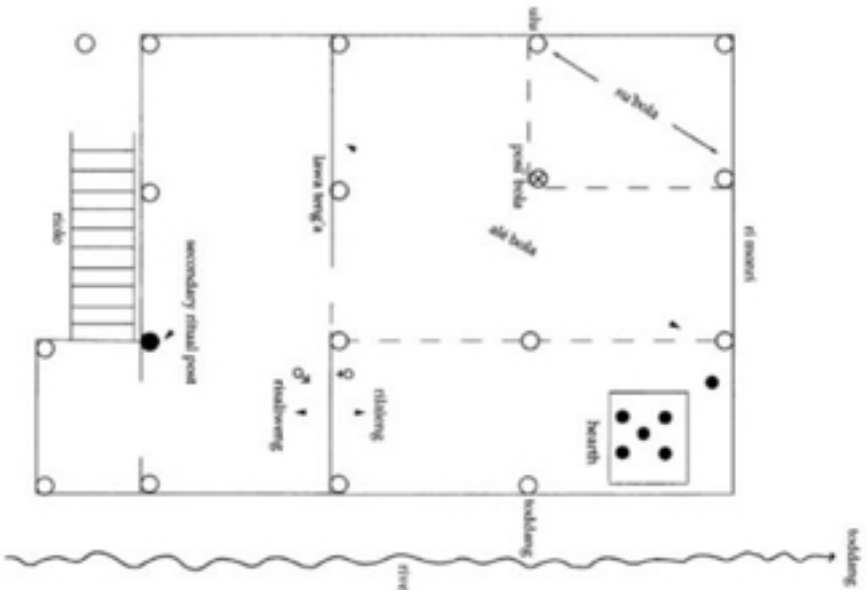

Figure 5.456: Bugis plan house according to Pelras, C. 2004

The house described by Pelras is the house of the commoner. Pelras only explains the shape of the Bugis house and does not explain the type of house. Bugis house consists of several types depending on the customary social levels of the house owners. In this research, the houses that belong to both Bugis noblemen and the commoners, including the types of Bugis houses, explained before.

Unlike a nobleman's house that have additional elements, every commoner's house has a simple shape and does not additional elements. However, a commoner applies ornaments not only to the staircase at his house but also at the ends of the beam under the ceiling. The ends of the beams are rectangular so that the ends of the beam are not rigid, but they have an artistic value.

The research on the houses of the commoners show that only in zone one the houses use two *latte* and two *lontang*, while in zone two the houses use two *latte* and three *lontang* even though the houses were built in the 2000s. For zones two and three, there are houses that use two *latte* and three *lontang*, and then the owner added one *latte* to increase the size of the house.

The houses of the commoners that have two *latte* and two *lontang* were rarely found. Generally, the commoners built their houses with a total of three *latte* with three *lontang* or four *lontang*. It was predicted that the houses that have two *latte* and three *lontang* would gradually disappear in the future, because the younger generation will no longer know this type of house.

The Bugis house is shaped like a rectangular in which it takes the philosophy of sulapa *eppa* (rectangular form) which is interpreted with the four eyes in wind direction

[9]Pelras, C. (2004). Bugis and Makassar Houses Variation and evolution. In R. Schefold, G. Domenig, & P. J.M.Nas (Eds.), Indonesian houses (pp. 251– 281). Singapore: SUP Singapore University Press.

that are north, south, east and west (Yunus 212 : 269)[10]. The shape of Bugis orignal house is a stilt rectangular extending backward with an additional spatial section to the side, fornt and behind of the main house.

Both the width and the length of every Buginese-makassarese house has four poles. The distance between poles representing the width of a house is called a *latte*, and the distance between the poles representing the length of the house is called *lontang*[11]. He further explains that only the highest noblemen are allowed to use the odd number of poles for the width of their houses. An extra space on the side of a house with a lower floor is called *tamping*.

The Bugis structures not only undergo a change in the shape of the house but also in the form of the poles of the house, before the rectangular shape, the houses' poles were made round[12] . Fathermore the *tamping* of the house was located at the side of the main house[13]. And then it was gradually lost[14].

Lawasuji rectangularform is considered a perfect shape and is usually found attached to the end of the roof, *timplaja*, stairs, or window. It symbolizes the four principles of life that must be held by the king which are wise, wealthy, courageous and just (Yunus 2012: 267-282)[15].

The elements and ornaments on a house can effect the age of the house. A factor that makes a house plainer is the lack of the carpenters 'skills, an expensive cost and the lack of awareness in preserving the culture[16]

The Dutch entered Southeast Asia since 14th century and introduced a new form urban, architectural, facade, city square and so on. A window that become the character of European buildings has been adapted into the social and culture local communities [17].

A new culture entering the local community (Malay) is an applying of colonial architecture that turns local architecture into modernization process. Local people accepted the process of changes and even using modem material like concrete and glass[18].

Two noble house (Z1-PR-18 and Z1-GL-24) built in the Dutch colonial era placed core pole at the centered point and symmetrical at home. According to Ching, Francis

[10]Yunus, P. P. (2012). Makna Simbol Bentuk Dan Seni Hias Pada Rumah Bugis Sulawesi Selatan (The meaning of Symbol and Ornament forms on Bugis House in South Sulawesi), 267–282. Retrieved from http://pangeranpaita.blogspot.co.at/2012/05/makna-simbolbentuk- dan-seni-hias-rumah.html

[11]Pelras, C. (2004). Bugis aand Makassar Houses Variation and evolution. In R. Schefold, G. Domenig, & P. J.M.Nas (Eds.), Indonesian houses (pp. 251– 281). Singapore: SUP Singapore University Press.

[12]Hartawan, Suhnedro, B., Pradipto, E., & Kusumawanto, A. (2015). Perubahan Sistem Strukture Bangunan Rumah Bugis Sulawesi Selatan (Transforamation system on Bugis traditional house in South Sulawesi). Forum Teknik, 36(No.1), 1–12.

[13]Paul oliver, 1997 Encyclopedia of vernacular architecture of the world Volume 2 Culture and Habitat Cambridge university press ISBN 0 521 56422 0

[14]Abidah, A. (2017b). SYMBOLS OF SOCIAL STRATA BORDER IN TRADITIONAL HOUSE Architecture (Vol. 149, pp. 227–229). Atlantis Press.

[15]Pangeran Paita Yunus 2012: 267-282. Bentuk dan seni Hias Pada Rumah Bugis Sulawesi Selatan (the Meaning of Form and Decoration in Bugis House, South Sulawesi). Journal Seni & Budaya Panggung Vol.22 No.3 July- September 2012. 225-350.

[16]Roslan Talib and Mzailan Sulaiman 2012 : 511-516. Surveying on the cultural approaches for Melaka Malay Houses. International Congress on Interdiciplinary Bisness and Social Science (ICIBSoS 2012) Procedia Social and Behavioral. Vol 65

[17]Widodo, J. (2012). Urban Environment and Human Behaviour: Learning from History and Local Wisdom. Procedia - Social and Behavioral Sciences, 42(July 2010), 6–11. https://doi.org/10.1016/j.sbspro.2012.04.161

[18]Ju, S. R., Kim, B. M., & Ariffin, S. I. (2015). Continuation And Transformation Of Traditional Elements In Colonial Vernacular Houses In Kampong Bharu, Malaysia. Journal of Asian Architecture and Building Engineering, 14(2), 339–346. https://doi.org/10.3130/jaabe.14.339

D.K (2007 : 348)[19], two fundamental types of symmetry. The first is Bilateral symmetry, it refers to the balanced axis so that only one plane can divide the whole into essentially identical halves. The second is radial symmetry, it refers to the balanced arrangement of similar, radiating elements that can divide the composition into similar halves by passing a plane at any angle around a center point or along a central axis.

Change and development not only occur in life but also occur in buildings through time and place[20].These changes happen a dynamically and quickly. The changes, representing the process of modernization, can be seen from the use of building materials and the building appearances. They indicate that the impacts of modernization on the old tradition are underway. Architectural change will continue to take place since architecture is a process, not a product[21].A transformation is phenomenon that happens to something due to either the additional to or the reduction of the thing. A transformation of something comes in the three different form. The first form is dimensional, where a change of something take place, but its original form and identity is still maintained. The second form is subtractive in which the change of something take place involving the reduction of its while its original form is maintained. The third form is additive where the change of particular thing takes place due to an additional element to that thing that change the original form of that thing[22].

In this zone, no commoner's house that was built in the era before the independence of Indonesia is found, except for the houses that belong to the aristocrats without Datu title. One of them is the place where the last Datu of Soppeng was born, as explained earlier. Also, in this zone, three types of aristocratic houses are found. They are (1) the *tellulatte - eppalontang + tala-tala* type, (2) the *tellulatte - eppalontang* type, and (3) the *tellulatte* - lima-*lontang* type. The houses still retain the rounded poles, the old style of *tamping*, the elements and ornament of aristocratic symbols, the style of the staircase, and the function of every *lontang*. All of these indicate that the house owners still maintain the culture of the Bugis community. In contrast, the architectures of both the roofs and the *lego-lego* of the houses in Z3-BT-28 have been changed into those of modern Bugis houses. Such architectural changes are currently in progress in Soppeng. Furthermore, in this zone, both the aristocrats' houses and the commoners' houses that were built in the era after the independence of Indonesia are generally simple. In other words, they no longer use the typical Bugis house's elements and ornament that are used in the houses of zone one and zone two.

Besides, the aristocrats' houses in this zone belong to the *tellulatte - eppalontang* type, while the commoners' houses belong to the *tellulatte - eppalontang*, *tellulatte - tellulontang*, and *dualatte - tellulontang* type. The typical Bugis house's elements and ornament are not found in the houses of both aristocrats' houses and the commoners'

[19]Francis D.K, C. (2007). Form, Space , & Order (Third). Hoboken, New Jersey: Jhon Wiley & Sons, Inc.

[20]Hanan, H. (2012). Modernization And Cultural Transformation: The Expansion of Traditional Batak Toba House in Huta Siallagan. Procedia - Social and Behavioral Sciences, 50(July), 800–811. https://doi.org/10.1016/j.sbspro.2012.08.082

[21]J.Widodo 2010 : 6-11 Urban environment and Human Behaviour : Learning From Histroy and Local Wisdom. Procedia-Social and Behavioral Science July Vol. 42.

[22]Francis D.K, C. (2007). Form, Space , & Order (Third). Hoboken, New Jersey: Jhon Wiley & Sons, Inc.

houses that were built in the era after the independence of Indonesia, except for an additional element on the roofs of the aristocratic houses, which is called *timplaja*. This is due to the fact that the community members did not have the knowledge and skills about both the elements and ornament. In addition, they no longer cared about the original character of the Bugis house. The most important thing for them at that time was that they no longer lived in the mountain and could build houses (not emergency houses) to settle with their families. However, both the architecture of the house and the function of each *lontang* have been maintained up till now. The modern Bugis houses in zone three generally share the same characteristics as those in the two previous zones. They include not only the change in the roof, *lego-lego*, position of the staircase but also the elimination of one house's module, which is the *tamping*. The aristocrats' houses that belong to the modern Bugis house have the *tellulatte* - *tellulontang* type, while the commoners' houses have either the *eppalatte* - *eppalontang* type or the *tellulatte* - *tellulontang* type. The adherence to customs and traditions has gradually disappeared, including the tradition concerning the application of certain house's elements and ornament. In this zone, without having the intention of being regarded as aristocrats, some of the commoners even apply the ornaments and aristocratic symbols in their houses. They are applied for usefulness purposes. For example, using a *timplaja* is not intended to install an aristocratic symbol, but to allow air circulation at the roof. Of the three zones, only zone one has one house belong to an aristocrat with Datu title and one king's house, while both zone two and zone three have no house that belong to a high-ranked aristocrat. Some high-ranked aristocrats did not reside in the stilt houses but in the houses of modern-colonial style that are made of red stone materials.

Based on the three existing zones, it can be concluded that the Dutch colonial administrators were more focused on restricting the use of symbols at the houses belong to both the high-ranked aristocrats with Datu title and the house of the King. It was expected that such prohibition would have a similar effect to the non-high-ranked aristocrats. Nevertheless, the aristocrats without Datu title still maintained not only the original architecture of their Bugis houses but also the usage of the aristocratic symbols and the ornaments on the exterior of their houses. Even the houses of the aristocrats that were discovered in the era before the independence of Indonesia still retained their additional space, called the *tala-tala*, which is located behind the *watangpola*. As for the commoners' houses that were built in the era before independence of Indonesia, they were found in zone two only. They still apply several Bugis house's elements and ornament such as *kappa-kappang*, the decoration on both the exterior of their houses and the staircases of their houses. In contrast, in the three zones, both the houses of the aristocrats and the commoners that were built in the era after the independence of Indonesia share some similarities. For example, the houses of the aristocrats have a simple architecture, do not have much aristocratic symbols, and do not have house decoration. As for the houses of the commoners, a number of houses in zone one have some additional elements to decorate the exterior of the houses. In the 1970s, the houses on the roadside that were not oriented to the provincial road underwent a change in their architecture where the *lari-lariang* was added to the side of the main house. This addition is to manipulate the orientation of the house. For more details, it can be seen in the figure Z2-MD-16. In the three zones, the

modern Bugis houses that were built in the 1980s generally share the same characteristics, such as the house owners had the freedom to innovate in constructing their houses, and they had removed the *tamping* parts from their houses. However, there are several interesting things concerning the modern Bugis house. One of them is that the people no longer follow the customary rules regarding the application of aristocratic symbols. For example, the commoners have applied the aristocratic symbols to their houses, especially in zone three. The other one is that the architecture of modern Bugis house no longer conforms to the Bugis tribe's house construction's customs and traditions. For example, there are commoners' houses that use four *lontang* in their houses and aristocratic houses that use three *lontang* in their houses. In conclusion, the Bugis houses have undergone some changes in their architectures due to the Dutch colonial administration's rules, local government's rules, and modernization. However, these changes do not happen to the functions of *lontang* in the *watangpola*. In other words, the community still has adherence to the old Bugis belief on house's spatial arrangement.

5.4 Comparisons of Houses of Nobility and Commoners among the Three Zones

The comparison between a Bugis nobleman's house and a commoner's house can be seen from three different periods: the period before independence of Indonesia, the period after the independence of Indonesia and the period of early 1980s. This comparison includes the differences between the Bugis nobleman's house and a commoner's house in each zone and in three different periods in detail. This comparison is focused on the façade and floor plan typologies as well as on the implementation of space positions based on Bugis' traditional rules/beliefs of house construction.

5.4.1 Shapes of Facades

The typology of the shapes of Bugis houses will refer to the shapes of the house roofs, the bodies of the house and the space of the under house (wasaubola). As it was explained earlier, Bugis house is a stilt house where the floor of the house is raised about 180-200 centimeters from the ground and has the same shape as a type of Malay house. The space of the under house is a place to do activities for men such as storing agricultural equipment, repairing agricultural equipment, gathering among men and storing livestock. Besides that, the space under the house also serves as a space for children to gather and play so that children remain under parental supervision. The *watangpola* (main house) is the core of the Bugis house. The additional section at the front of the house is *lego-lego*, and at the back of the house is the *jokke*. On the side of the main house, there is a *tamping* that connects the three sections of the house such as *watangpola*, *lego-lego* and *jokke*. Also, *tamping* serves as a section for circulating air from outside into the house.

Some previous researchers such as Oliver, Pelras, and Palemmui explained that the roof shape of Bugis house is a gable. Every nobleman's house uses a *timplaja*, and every commoner's house use one *timplaja* or without a *timplaja*.

The roof shapes of noblemen's houses that were built at three different periods (before the independence of Indonesia, after the independence of Indonesia and during the

emergence of the new style of Bugis houses in the 1980s).

The roof shapes of the nobleman's houses in zone one, which were built before the independence of Indonesia, did not follow the original roof shape of the Bugis house. These houses are different from one another even though each of the house owner held a high noble title (Datu). The shape of each house roof was transformed into a modern style in its time and *timplaja* as a symbol of nobility was also not used in each house. However, from the roof shape, each house can be categorized as a large house which gives an impression that each house belongs to a nobleman. Both houses did not apply the ornaments and decorations that were commonly applied to noblemen's houses. Each house looks modest but still gives an impression, particularly from its roof height and its large size, that it belongs to a high nobleman

In zone two and three, each of the noblemen's houses, which were built at the era before the independence of Indonesia, had three *timplaja*. Each house owner did not hold a Datu title unlike a nobleman's house in zone one. The nobleman's house in zone two and three, each had a gable-shaped roof and applied certain ornaments and elements that represent the owner's social rank.

Each roof shape of Bugis house in zone one, two and three, which was built in the era after the independence of Indonesia, is saddle-shaped. Each has *timplaja* symbolizing nobility and does not use the ornaments on the roof. The roof shape of each house is generally simpler since it has no carving both on the end of the roof and on the *anjong*. Each house is generally simpler since it only applies a *timplaja* symbolizing nobility. In general, carvings were no longer applied on the end of the roof due to the lack of people who were skilled at making them.

Some innovations or changes have been made to the Bugis noblemen's houses that belong to the new style. For example, each house's roof has been changed into saddle-shaped and is slightly curved, which is unlike the roof shape of the original Bugis house. The gradual re-application of symbols of nobility such as the *tuka* on the staircase, a bannister and balustrade on the staircase have been taking place. The examples of modern Bugis houses that have re-applied the symbols of nobility can be seen in zone two.

The roof shape of the nobleman's houses has changed from time to time. Previously, the roof applied decorations that gave aesthetic value and also showed the luxury of the house. Gradually, the roof of a nobleman's house has become simplier. For example, the gradual changes result in the use of *timplaja* as the only symbol for representing the social status of a nobleman as the owner of the house.

In zone one and zone three, no commoner's house was built during the era before the independence of Indonesia. By contrast, in zone two the commoners' houses were built at the era before the independence of Indonesia. Each of their house roofs is gable-shaped and it is situated at the bottom of the attic. The beams of the roof hang with their one inch tips were carved. These beams hang on the eaves of the house which function as exterior decoration that add to the aesthetic value of the house. At the end of the beam is a flower-shaped carving. The houses with their beams hang on the eaves the house can still be found in the Soppeng district.

The noblemen's houses that were built during the era before the independence of Indonesia used four *latte*, and their *tamping* were positioned on the front of the *watangpola*.

Two houses in zone one belong to the high noblemen. The houses in zone two and zone three have three *latte* for their *watangpola* and one *latte* for their *tamping*. The *tamping* of these houses belong to the old style. However, the *tamping* of the noblemen's houses in zone two has been changed into the modern style, because their floor have the same level as that of the *watangpola* of the houses. The houses belong to the old style, which were built at the era after the independence of Indonesia, have three modules and adopt the new style of *tamping*. In the three zones, the new style of the noblemen's houses have the same number of *latte* for their main houses and *tamping*. For example, they have the three and four *latte* in the main houses. The noblemen's houses with four *latte* can be found in in zone two.

The noblemen's houses in Soppeng district use glass windows with bars, french doors, jalousie windows and modern windows as well.

The old style of the commoners' houses apply the one-bar window, three-bar window and five-bar window. Different number of bars indicates different social rank of the house owner. In addition to the bars on the windows, the commoners' houses also apply jalousie windows, all of which consist of a combination between wood panel and glass. For the commoners' houses that belong to the modern style, both the jalousie windows and the glass windows with modern designs are used.

The changes in the shape of these windows along with the development of modern materials, people no longer use either trellis windows or wide open windows (the old-fashioned house windows). Even though these windows are very suitable for the houses in the tropics, including Indonesia, the community today are using glass window (a new style of window) that only has a few openings that make the air in the house overheated. Due to the overheating, the house owners add space under the house to rest during the day.

The staircase of Bugis houses, including its components such as steps, bannisters, *tuka* and parinawang, represents one of the symbols of nobility. The noblemen's houses that were built at the era before independence of Indonesia generally use thirteen steps. Except for the noblemen's houses in zone one which uses seven steps and a parinawang. In addition, in zone one, the noblemen's houses that belong to the old style house and were built in the era after the independence of Indonesia generally have a thirteen-step staircase with a bannister. Although the noblemen's houses that belong to the new style share the same number of steps for their staircases, in zone two there are houses with staircases of thirteen steps that are equipped with *tuka* and bannisters.

In contrast, the staircases of the commoners' houses have five, seven, nine and eleven steps without using a bannister, *tuka* or parinawang. The commoners' houses that were built at the era before the independence of Indonesia did not have staircases with *tuka* and parinawang. Also, the commoner's houses that belongs to the old style generally have straight staircases without a *tuka*. However, in zone three, there is one commoner's house whose staircase uses a *tuka* made of red stone. This house belongs to the old style and was built after the independence of Indonesia.

In zone three, there is a house that belongs to the new style whose staircase uses *tuka* made from stone material and cement. However, in other zones, there are new style of houses whose staircases have no either *tuka* or parinawang. Of the three zones, only

zone three that three commoners' houses that have applied nobility symbols, while other zones do not.

Nowadays, the staircases of the noblemen's houses generally imitate those of the commoners' houses such as no *tuka*, parinawang and bannister is used. Besides that, the staircase of the noblemen's houses only uses 13 steps to signify their social level. On the contrary, there are some commoners' houses whose staircases apply some nobility symbols such as *tuka* and a bannister.

The section under the floor of the Bugis house generally serves as a public space and a place to take an afternoon nap. Although some people have added either a permanent or a non-permanent section. The addition of sections under the floor of the house are generally situated under either the third or the fourth *lontang*. Even the room addition is placed under the *jokke* of the house. The addition of a section under the floor of the house is usually either for cooking or for sleeping in the afternoon. In the evening, the owner will use the watangbola to sleep. The section located under the house is only used during the day because of the cool air the space under the house. Generally a house that has a kitchen under the house also has a kitchen inside the house that is used both in the morning and at night.

5.4.2 Floorplan of Bugis House

Bugis houses in the Soppeng district have the same architecture as the Bugis houses explained by the previous researchers. However, there is one section of a nobleman's house that has not been explained by the previous researchers, that is the section where noblemen sit at meal times. This section is called *tala-tala* which is positioned at the back of *watangpola*. The *tala-tala* has a floor whose height is between 30 till 50 centimeters higher than that of the *watangpola*. The *tala-tala* can only be found in noblemen's houses that were built in the era before Indonesia's independence.

The sections at the high nobleman's house in the zone one still adhere to the old Bugis tradition of house construction, although the architecture of the house does not adhere to the original architecture of the Bugis house. In the high nobleman's house in zone one, no *tala-tala* was found unlike the noblemen's houses in zone two and three which were built during Dutch colonial administration. The *tala-tala* is still maintained today even though it does not function as a formal dining room.

The circulation area for the residents, called *tamping*, in nobleman's houses in zone one is no longer situated beside the *watangpola* but on the front of the *watangpola*. The original functions of the *tamping* are as the circulation area or hallway for the residents and as the connection between the main house and additional sections both at the back and at the front of the *watangpola* as well as a structure for air circulation. In this high nobleman's house, the *tamping* functions only as a temporary transit section for a visitor before being invited to the *watangpola*.

A nobleman's house consists of three parts: *lego-lego*, *watangpola* and *jokke*. The *lego-lego* is situated at the front of the *watangpola* or *tamping* or even at the front of both the *tamping* and the *watangpola*. The *watangpola* is a sacred place with a section for receiving invited guests at the front and for sleeping at the back. The old style of Bugis house has *tamping* is on the left side of the *watangpola*, while the new style of Bugis house

no longer has a *tamping*. The *tamping* may be positioned on the left or on either the north or the east side of the *watangpola*. The *tamping* is also called toddang (the lowest section of all house's sections). When sleeping, one has to orient his/her head to the south or to the west (called ulu) and orient his/her feet towards the *tamping* (toddang).

The commoners' houses generally imitate the architecture of noblemen's houses where their houses have been added to sections at both the front and the back. In the past, the commoners only had a *watangpola* and a *tamping*. As explained by Pelras (2004: 266), a Bugis house originally consists of two *latte* and three *lontang*. On the plan, it is explained that the *jokke* is at the *tamping* section that is parallel to the third *lontang*. In more details, the house is only divided into two parts, namely risali-weng and rilaleng, and between these two parts there is a partition called lawatengah. At the research site, it was found that no commoner's house has a *jokke* or *jokke* and *lego-lego*, even though the house has two *latte* and two or three *lontang*. Further, the sketches of Bugis house drawn by BF. Marthes in the 18th century by shows that Bugis house does not use *lego-lego* and bola dapo. In more detail, Oliver explains that Bugis house consists of three parts, such as the *watangpola*, and additional section at the front house called the *lego-lego* and an additional section at the back called the *jokke* which serves as a kitchen. Oliver also explain in the encyclopedia of volume 2 that a nobleman's house is typically characterized by its use of a *timplaja*.

Of the three research zones, Bugis share similarities as far as the spatial hierarchy is concerned. They still maintain spaces in the house in accordance with the old tradition of Bugis house construction. Likewise the houses that belong to the new style, the *lontang* functions are still retained in accordance with the old tradition of Bugis house construction.

Every position of bedroom is adjusted to the status of each family member. For example, the boys' rooms are at the front of the house and the girls' rooms are at the back of the house. The parents' bedroom is generally allotted to the second *lontang* unless their children are grown up or have moved out the house. The owner of the ordinary house extends his living room so that it occupies both the first and second *lontang*. When his children and grandchildren come they can use this living room for sleeping temporarily. The house owners (parents) will move to the third *lontang*, which is close to the kitchen, where they can do their daily activities.

The floorplan of Bugis house relates to the status of the family members at home. For example, the room for boys is allowed at the front part of the house, because boys have a responsibility to protect their families including their parents and sisters. The room for parents is allotted at the second *lontang*. This second *lontang* is situated between the boys' room (at the front of the house) and girls room (at the back of the house), because as the head of the household, parents have the responsibility to protect their children. The girls' room is situated at the back of the house, because women are considered weak and must be protected by their brothers and father

Chapter 6

Conclusion

The Bugis tribe is called the to-ugi. Bugis house for a commoner is called people commonly called bola and for a nobleman is called saoraja (sao: house, raja: big, saoraja = Big house). A Bugis nobleman's house is larger than a commoner's house. However, nowadays, both a nobleman's house and a commoner's house are called bola. The Bugis house has a rectangular shape and extends backward. Both the width and the length of the house do not follow the standardized measurements. The length of the house is based on the number of *lontang* and the width of the house is based on the number of *latte/karateng*. Traditionally, the number of both the *lontang* and the *karateng* of a Bugis house depends on the social level of its own owner. In the past, it is only a nobleman's house that has four or more *lontang* or more. Also, the floor of the house is raised between 180 and 200cm from the ground. Bugis house consists of constructions: *lego-lego*, which is situated at the front of the main house, main house and the kitchen located at the back of the main house. These three constructions are connected by *tamping*, which is situated at one side of the main house. In the past, the main house had a floor that was slightly higher than the *tamping* floor. Thus, if someone is in the *lego-lego* and intends to go to the kitchen or the main house, must pass through the *tamping* section. Also, if someone is in the main house and intends to go to the *lego-lego* or the *jokke* (kitchen), must go through the *tamping*, and vice versa. The *tamping* is a circulation area, where the people in the house move from one section to another section. In contrast, the main house is a sacred part (section) because it is not used as a circulation area.

Based on the number of *latte* and *lontang*, Bugis houses can be classified into several types. These different types apply for the old style of Bugis house. However, they are no longer applied to the new style of Bugis houses.

The types of houses founded in research location are

1. *eppa latte-eppa lontang + tamping* in the front main house (built colonial era),
2. *tellu latte-eppa lontang + tamping* (original Bugis house form) + *tala-tala,*
3. *tellu latte-eppa lontang + tamping* with floor low slightly than main house
4. *tellu latte-eppa lontang + tamping* with floor main house and *tamping* the same level
5. *tellu latte-tellu lontang + tamping* with floor low slightly than main house
6. *tellu latte-tellu lontang + tamping* with floor main house and *tamping* the same level

7. *dua latte-tellu lontang + tamping,*
8. *dua latte-dua lontang + tamping*
9. *lima latte-eppa lontang* without *tamping*
10. *eppa latte-eppa lontang* without *tamping*
11. *tellu latte-tellu lontang* without *tamping*
12. *tellu latte-eppa lontang* without *tamping*

For the noblemen, their houses generally have three *karateng* and four or more *lontang*. Although they can have any number of *lontang* in their houses, they cannot more than seven *latte/karateng* or eight poles in their houses.

In the old style of a Bugis nobleman's house, there was an additional section for having a meal called *tala-tala*. The floor of *tala-tala* is higher than that of the *watangpola* (main house). In other words, the highest floor in a Bugis nobleman's house is the *tala-tala*. This section is allotted as a place for the highest ranked nobleman to have a meal, while others will sit in the *watangpola* and *tamping* according to their traditional social level. Nowadays, a house that uses *tala-tala* is hardly found. Of 140 houses as the research objects, only three noblemen's houses use *tala-tala*, all of which were built during the before the independence of Indonesia.

The type of roof of Bugis house is distinguished between a Bugis nobleman's houses and a Bugis commoner's house. A Bugis nobleman's house may have seven, five and three *timplaja*. Seven *timplaja* is used by the highest-ranked nobleman who holds Datu title and holds king/queen title of a region. Five *timplaja* represents a high nobleman who holds Datu but not a king. Three *timplaja* represents a nobleman whose nobility has degenerated due to his marrying a commoner. Besides that, the three *timplaja* plus an additional patukku represents a nobleman whose social level has degraded but is not entitled to using both three *timplaja* and five *timplaja*. In contrast, a commoner's house has either one *timplaja* or without *timplaja* (tempa-tempa roof : local language).

The house that has one *timplaja* is owned by a person who is still a noble descent but has degraded his nobility many times due to marrying a commoner. Such a nobleman is called to-deceng. In contrast, a nobleman whose house does not have a *timplaja* is called to- biasa. The house that does not have a *timplaja* is further sub-divided into two types. The first type is characterized by its having a high roof. The second type is characterized by its having low roof. These two types represent two different social levels.

The number of steps of a staircase of a Bugis house varies depending on the social level of the house owner. The staircase of a nobleman's house has thirteen steps, *tuka* and parinawang. The staircase of the house belongs to a to-deceng-ranked nobleman has eleven steps. And the staircase of the house belongs to a to-biasa-ranked nobleman has either nine steps or seven steps, each of which has no parinawan and *tuka*. Labelling the staircase of the house belongs to a nobleman is different from labelling the staircase of the house belongs to a commoner. The name of the house's staircase belongs to a nobleman is sapana, while the name of the house's staircase belongs to a commoner is called paleteng. Nowadays, *addeneng* is commonly used for the local name of a staircase.

In general, the steps of the staircase of Bugis house is characterized by uneven numbers, not even numbers. Not only are uneven numbers applied to the staircase, uneven numbers are also applied to certain elements of house such as floor beam, *timplaja*, window and ornament. Bugis believe that uneven numbers will give them luck, while even numbers do not. They associate even numbers with death.

The ornaments adopted in Bugis houses are characterized by bas-relief of a *parenreng* flower, a *lawasuji* quadrilateral, a pineapple fruit, a bamboo shoot, a rooster, a pair of buffalo horns and a dragon. *parenreng* flower symbolizes the hope of the house owner to have many children that spread in all directions. *lawasuji* quadrilateral symbolizes a perfect shape, which is analogous to the four Bugis' life principles and four wind directions and four elements that become one. The four life principles of Bugis are, nobility, wealth, honesty and courage. The four wind directions are north, south east and west along with the four elements that becomes one are earth, water, fire and wind.

The meaning of pineapple fruit-like ornament symbolizes the hope of the house owner to enjoy the sweetness of pineapple fruit. Bamboo shoots represent the hope of the house owner to be a helpful person for others like bamboos do. Rooster is a symbol of courage and perseverance for the Bugis. It is because a rooster is diligent animal. It wakes up early and devotedly crows before flying for food. Buffalo horn or buffalo head symbolizes courage and wealth. They represent the hope of house owners to have children and grandchildren who are courageous in the truth and who have wealth that can be useful for themselves and others. Dragon symbolizes courage. The house owner hope that their children and grandchildren will become brave individuals. Both the rooster and buffalo horns are placed at the top of the roof which is commonly called *anjong*, while the dragon is usually installed along the roof ridge.

The most interesting things for Bugis in general and especially for Bugis in Soppeng district are that they still believe that the signs on wood and wood knots have an influence on the future of the house owner. The luck of the house owner is seen from what is in the house, such as choosing the house's materials, ritual of asking for permission to use the land from the spirit and the determination of the day and the wooden connection.

Bugis believe that the house is a manifestation of a human being who has a head, body and legs. The roof (*rakkeang*) is analogous to the head. *rakkeang* is a place to store heirlooms and also as a place where the god resides, or called the 'above world'. In the past, it was a place for women to do weaving and a place for unmarried girls. The house body is analogous to a human body. This section is a place for house owners to carry out their daily activities or commonly called the 'middle world'. Under house (wasaubola) is analogous to foot. This section is a place to store agricultural equipment and livestock. It is also a place to socialize with neighbours. This section is also called the 'underworld'. The most important pillar in the house is the core pole referred to as the posibola which is regarded as the holiest pole, because it is where the spirit of the house resides. During the process of building a house, it will always start with a stage of searching for the core pole as the first beam of the house. The next stage involves assembling the poles. And the last stage is erecting the poles.

The orientation of the old Bugis house generally faced east, hills and water Sources. Bugis believe that the house facing the east is analogous to the source of life

because the sun rises from the east. A house facing the hill will give a fortune to the residents of the house, or will raise the life quality of the residents of the house life like a hill. The houses facing the flowing water is believed to make the live of the house owner flow like water and is needed by many people. People living in the interior area of Soppeng regency still have this belief. The change of the orientation of the house occurred when Islam entered the South Sulawesi, especially the areas inhabited by Bugis. Finally the orientation of the house changed to qibla, which is the orientation to pray for Muslims. In the 1970s, the orientation of the house changed again, but the orientation of the house had to face the main road. The *latte*r orientation was driven by the local rules of the Soppeng district government.

The original style of Bugis nobleman's house in Soppeng district, especially in zone one, experienced some architectural changes during the Dutch colonial era. The most prominent changes are in the shape of the roof, where the roof is no longer in gable-shaped but the combination between the gable roof and Dutch gable roof. Also, the house does not use *timplaja* and ornament, which are the symbols of nobility and social level, respectively (see the private house of Datu Pattojo). Apart from the shape of the roof, the house of the Queen Pattojo XII also underwent some changes in its *tamping*. The first is the placement of *tamping*. The *tamping* was placed at the front of the main house. The second is the floor of *tamping*. The floor of *tamping* had the same level as that of the main house. The placement of front staircase also changed. One of the changes is the location of the staircase, which is situated at the front end of the house's floor. The other change is the addition of an arch construction that functions to guide the visitors to the staircase.

For other high-aristocratic houses that have undergone a change is the house in the village of Galung. The owner of the house is a nobleman who holds Datu title and is still a relative of Datu Pattojo. The house also has undergone some changes. One of the changes is that its roof's shape has become a three-layer roof and it is used as the crown of the house (*anjong*). Another change is the position of *tamping*, where its position has been shifted into the front of the main house and its floor has been lowered than the main house so that a three-step staircase is required to reach the main house.

The houses in zones two and three, which were built during Dutch rule, do not belong to the noblemen who hold Datu title, but the houses still retain the original architecture of houses that belong to Bugis noblemen. Even the ornaments that represent royalty and luxury are still attached. Besides that the houses also still use *tala-tala*, which is not known by many in the present generation. Also, they do not even know that a nobleman's house use *tala-tala*.

The laws issued by the Dutch colonial government concerning the Bugis noblemen's houses required that the noblemen's houses be simple, or not using both the elements and the ornaments symbolizing social levels and showing luxury. Further, the laws required the noblemen's houses be as simple as the commoners' houses. Because neither ornament nor element was applied in the commoners' house, the noblemen's houses should do the same as the commoners' houses do. The Dutch colonial government regarded both the Bugis noblemen and the Bugis commoners were in the same level, while the white or the European were regarded as having higher social level than the two groups of Bugis. Since the laws took effect, some noblemen have removed both the elements and the ornaments,

which show that they are higher socially than the commoners, from their houses. For example, they changed their house's gable-shaped roofs into bola-bodo roof.

The era after the independence of Indonesia (or the era when Indonesia has no longer been under the Dutch authority) Bugis noblemen again reapplied the elements symbolizing social levels, such as staircases, windows and roofs, although carved ornaments were no longer applied. The reason why carved ornaments were not applied, is because people did not have knowledge and skills in making carvings. Since the Dutch colonial laws on house construction were applied, there had been no knowledge transfer to the next generation. In addition to the missing ornaments, there were also elements of the house that were removed from the noblemen's houses that were built at the era after the independence of Indonesia. They are *tala-tala* that serves as a section for having a meal. Also the *tuka* and the parinawang of staircase were no longer used. Even not all noblemen's staircases had a bannister. In general, the element that was no longer applied in Bugis houses that belong to both the noblemen and the commoners was kappang-kappang. Kappang-kappang was a set of two planks permanently installed into the bottom of the door frames at the front and at the back of the *watangpola*.

The position of *tamping* had also shifted to the side of the main house. Its floor was lower than that of the main house. However, around 1970s, along with the emergence of the modern *tamping*, both *tamping*'s floor and the main house's floor shared the same level so that one no need to lift his/her legs when going to the main house from the *tamping*.

Around 1980s, the modern Bugis house emerged. In the modern Bugis house, *tamping* situated besides the main house was removed. The removal of *tamping* is to shift the circulation area to the main house. The modern Bugis house's roof also became a slightly curved saddle. In addition, the position and the area of *lego-lego*, the position of door and the position of the staircase also changed. In short, Bugis houses that belong to the new (modern) style are different from one another. Moreover, when compared with the houses that belong to the old style, they were obviously different.

Both a Bugis noblemen's houses and a Bugis commoners' houses that belong to the new style are not different from one another as far as the number of *latte* and *lontang* is concerned. They generally uses three *latte*/*karateng* and three or four *lontang*. Some commoners' houses even apply the elements and ornaments that are commonly used in the noblemen' houses. In the survey location, in zone three, some commoners' houses use the elements and ornaments that are usually used in noblemen's houses, such as *anjong*, patukku and bannister of the staircase. In fact, noblemen's houses no longer apply the aforementioned elements and ornaments except for both the number of staircase's steps and the *anjong*.

Changes in the architecture of Bugis houses do not affect the changes in the function of each *lontang*. A different *lontang* has a different function. For example, the first *lontang* functions as a living room, a room for men, a family meeting room and a place for keeping a corpse before being taken to a grave. The second is the bedroom for the parents. The bedroom of a boy below seven years old, usually in the room opposite the parents' room. In the past, the second *lontang* was also a section for giving birth. Third *lontang* and fourth *lontang* (if four *lontang* are used) are allotted for the bedrooms

for unmarried girls and grandparents, respectively.

lontang is the distance between poles from front side to back side. The size of each *lontang* uses a special measurement that is based on each individual's own beliefs as described in chapter IV. The number of *lontang* of a Bugis house that belongs to the old style depends on the traditional social level of its owner. Such a basis is no longer used in determining the number of *lontang* of a house that belong to the new style.

The changes that occur in Bugis house can be categorized into three groups. The first change was due to the laws issued by the Dutch colonial government. The second change relates to the orientation of the house, which was caused by the influence of a new religion into Bugis community. The third change was caused by a local government's regulations. These changes have slowly eliminated some elements and ornaments of Bugis house in such a way that make the younger generation does not know about them anymore.

In a new style of Bugis house, both the noblemen's houses and the commoners' houses have the same number of *latte* and *lontang*. Besides that, the commoners' houses apply the elements and the ornaments that used to be applied in the noblemen's houses. In the future, there might only be one type of architecture of Bugis house that is adopted both the Bugis noblemen and the Bugis commoners. Further, there is a great possibility that the architectural construction of Bugis house will disappear and the only surviving aspect of it is the structural shape of Bugis house.

For this reason, the involvement of both local government and Indonesian government is required to conserve traditional Bugis dwellings, particularly the Bugis houses that are located in kampong (village), where many Bugis houses with their original dimensions, materials and structures exist, particularly in Bunne village. And the original Bugis houses that belong to the category of one hundred years old must be maintained and preserved so that they can be used both as learning and research sources for future Indonesian generations including the researchers of Indonesia's traditional architecture

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Glossary of Local Terms

1. *alebola* : Body of house
2. *Addeneng* : Stairs
3. *anjong* : The decoration that is at the top of the end front and rear roof
4. *arateng* : Longitudinal beams and at the under of the floor of house that tie the pole.
5. *Aliritallattu* : A pole is only reaching the floor, does not direct from ground to the roof
6. *Bunga parenreng*: Creeping flowers
7. *Datu* : Title of highest Bugis noble in Soppeng
8. *Dua : Two*
9. *eppa* : four
10. *jokke/bola* dapo : Kitchen house
11. *lego-lego* : Additional building on the front of main house (*watangpola*) which function as pause room before the owner invite into main house
12. *lontang* : The distance of the pole to pole at the length of the main house
13. *latte/karateng*: The distance between the pole and the pole on the width of the house
14. *Panrung* : Space for sleeping and sitting placed in ground (*wasaubola*)
15. *Panrita bola* : Who undertands the process of building a house by costom, culture and tradition
16. *Parinawang* : Lajur beam in the middle of the stairs so that the stairs consist of two lanes
17. *Padongko :* Horizontal neas that is at the bottom of the attic
18. *Pottolo* : Horizontal beams that are at the bottom of the floor of the house
19. *Rakkeang* : Attic
20. *Segiempat lawasuji* : Quadrilateral
21. *tamping* : Additional room on side main house that making connection between main house, front and rare additional
22. *tellu* : three
23. *Tiang posibole* : Core pole / important pole on main house
24. *Tiang duppa mata* : The pole to be virtual line for guest. The visitor cannot pass the border.

25. *Tiang sandreseng addeneng* : Poles that are perforated to insert beams that accept ladder loads

26. *Tala-tala* : Located behind the *watangpola* which functions as a place to eating room for the upper class. The floor high slightly than *watangpola* floor.

27. *tuka* : Bordes / temporary stopover on the stairs

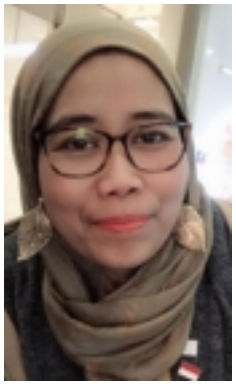
28. *timplaja*: Social layer on the front and rare of the roof which are symbol of social level.

29. *Ware :* Longitudinal beams located at the bottom of the attic

30. *Wasaubola*/kolongrumah : A room in below floor of house

31. *watangpola* : Main house

Curriculum Vitae



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Work Experience

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Journal publish

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July 2012	:	Bugis and Duri Traditional houses, Study case : Horizontal Building, Journal Forum Bangunan Faculty of Engineering Universitas Negeri Makassar.
Desember 2010	:	Concept development of settlement density area to sustainable development case study : District of kalukuang Makassar, Publisher Journal SULAPA vol 2 no 1, University 45, Makassar
April 2010	:	Revitalization of china town area in Makassar, Journal Al-Jibra vol XII, University of Moeslem Indonesia
January 2010	:	Change of Traditional of Architecture Bugis-Makassar houses. Journal Forum Bangunan Faculty of Engineering Universitas Negeri Makassar.
April 2009	:	Linkage of Tourism in old city in Makassar. Aljibra Journal Vol.X, Moeslim University of Indonesia
July 2006	:	Fort Rotterdam as city center of colonial in Makassar

Research Project

2013	:	Title : Analysis Open space concept at Engineering Faculty State University of Makasssar. The funding project is PNBP in Faculty of Engineering UNM
Year: 2007,	:	Analysis learning achievement of women's student in civil and planning education department, Funding project is PNBP in Faculty of Engineering UNM

Paper of International Converence

2017	:	Survival old model *tamping* on Bugis house in Kampung of Bunne Regency of Soppeng South Sulawesi Indonesia, Publisher : IOP Conference Series: Materials Science and Engineering
2017	:	Title : Symbols of Social Strata Border in Traditional House Architecture (Case Study : Saoradja Lapinceng and Banua) Conference: 2nd International Conference on Education, Science, and Technology (ICEST 2017) At: Makassar Volume: volume 149 DOI: 10.2991/icest-17.2017.74

2016 : Title : Applying Uneven Number (Te'gennebali) of Certain Elements in Bola Ugi District of Soppeng South Sulawesi, Indonesia", in Procedia Engineering vol. 161. p. 810-812

2015 : Adoption of Elements of Architecture Bugis Traditional House to Modern Bugis Houses: A Case Study of nobility houses in Soppeng South Sulawesi, Indonesia (without publication paper conference) Conference : EUROSEAS 11-14 August 2015 in Vienna Austria