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FILE	STUDY_ON_BALE_BALE.PDF (3.71M)	WORD COUNT	5329
TIME SUBMITTED	14-NOV-2019 05:08AM (UTC+0700)	CHARACTER COUNT	25124
SUBMISSION ID	1213223701		

STUDY ON *BALE BALE* IN LAE LAE ISLE, MAKASSAR, INDONESIA

インドネシア・マカッサルのラエラエ島における「バレバレ」に関する研究

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This study aims to examine the types and characteristics of *Bale bale*, and to identify *Bale bale* as a common space in a high-density environment on Lae Lae isle, Makassar-Indonesia. With the aid of 62 questionnaires, a field survey of 225 *Bale bale* was undertaken in November 2009 and September 2010. The following are the main findings of this study: (1) The owner can put their *Bale bales* anywhere on Lae Lae isle and they can move the <sup>1</sup> *Bale bales* from one place to another, including neighbors without permission. (2) *Bale bale* is classified into five types, namely, *siring*, *terrace*, *yard*, *roadside*, and *seashore*. (3) The *Bale bale* takes either of two forms: *prototype* and *hut shaped*. (4) The direction of the *Bale bale* prototype is either one way, facing the street, inside, and on the house's sides. The direction of the hut-shaped *Bale bale* is toward the street, and toward the sea. (5) The roadside *Bale bale* is used more often than the other types. Sitting and chatting are the most frequent activities performed by islanders on the *Bale bale*. Sleeping, eating, and repairing boat machines are mostly done by Lae Lae islanders on roadside and seashore *Bale bales*.

**Keywords:** Indonesia, Makassar, Lae Lae isle, Bale bale, Street Furniture

インドネシア, マカッサル, ラエラエ島, バレバレ, ストリートファニチャー

## 1. Introduction

*Bale bale*<sup>(i)</sup> is a gathering space found in Lae Lae isle, either at home or in public space, in breakwater, under trees, and along the ring road of the isle (fig. 1). According to an Indonesian dictionary (2008), "*Bale bale* or *balai balai* is a seat or a bed, made of bamboo or wood." *Bale bale* is simply constructed and moveable; it can be moved by its owner, or by neighbors wherever they want. It has a variety of forms and sizes, in addition to the simple and small bench-like ones. We also found many large *Bale bale* with tents along ring roads. Islanders own not just one *Bale bale* but two or three *Bale bales*, which are placed around their house.

All generations, including babies, children, young men, elderly people, males, and females often use *Bale bales* for



Fig. 1 *Bale bale* in a public space  
various activities trough out the day. These activities include

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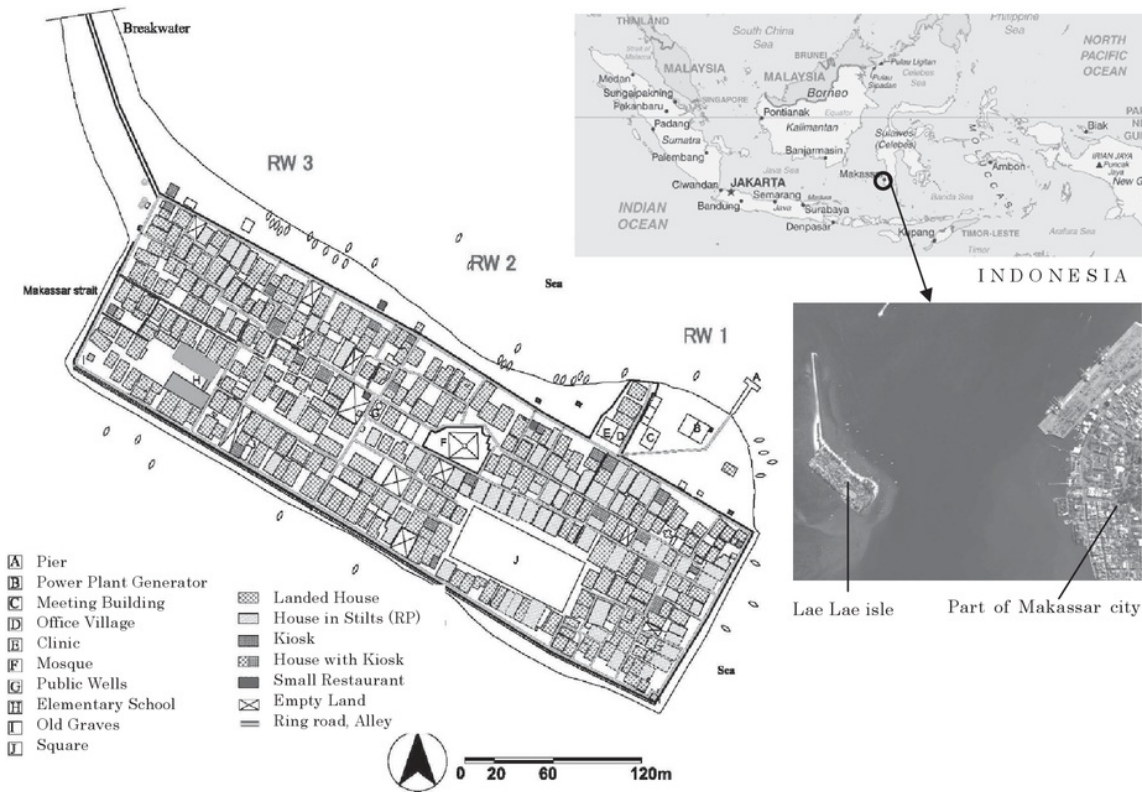


Fig. 2 Location of field survey

gathering, sitting, sleeping, lying down, eating, drinking, and chatting. People use not only their own *Bale bale*, but also those of neighbors and visitors from outside the island. By custom, it is not necessary to ask for permission to use another's *Bale bale*.

*Bale bales* are designed not only for use by many people, but also for a single person to sit on and to participate in other activities. *Bale bale* becomes a social gathering place when other people arrive; they greet one another, some sit, and some stand around while they all eat (Gehl, 1987). A similar scene at Sinlong Park in Taipei is described by Suzuki (1997), where all generations perform a variety of social activities..

Many studies have been conducted on public spaces as gathering spaces. Noguchi and Tsukidate (2002) reveal that Gangi, a kind of linked corridor which connects many buildings, in northern Japan, are not only used as a passage on the public apartment houses but all types are used in the same way: to "chat with neighbors" and "for children to play." Further, the Gangi are also used as places for residents to socialize and to meet, regardless of weather conditions, be it sunny, rainy, cold, or snowing. Another study conducted by Kanazawa and Jun (2002) indicates that outdoor spaces in both residential on traditional blocks and a new housing project in Beijing as essential places for the residents' daily and communal lives and a wide variety of

activities take place there. Outdoor spaces complement the floor spaces of housing and offer residents various opportunities to conduct their daily lives with their families and neighbors. Kamihogi, Ujihara, Kajihara, Misawa, and Masuda (2000) conducted a study on the role of common spaces in creating community in exclusive low-rise residential areas. They revealed that common spaces created initial opportunities for being friendly with neighbors, but the frequency of use of common spaces decreased as children in the residential area became older. This indicates that common space is more commonly used by children than by other generations. Cho and Sawaki (2007) reveal that all common spaces in housing environment amelioration programs encompassing the hillside high-density area in Busan, Korea, were located on and around roads. These common spaces are freely utilized as multi-usage space without any prohibition on their usage.

In the abovementioned study, all public spaces are described as large spaces that are a permanent part of the buildings to which they belong. The present study is regarding a small, moveable seating that could be placed anywhere in or around the owner's house and in public spaces, called *Bale bale*. The purpose of this study is to identify the types and characteristics of *Bale*

*bales* and the activity on *Bale bales* as a common seating space in Lae Lae isle in Indonesia.

## 2. Field Survey and Method

A field survey was conducted in Lae Lae isle, 12.5 km from Makassar-Indonesia (fig.2). Lae Lae isle is a high-density environment where a 0.22 km<sup>2</sup> area is occupied by 1.563 people, including 793 males and 770 females (Makassar in Figure, 2010). The population comprises both Makassarese and Buginese people and a majority of them are Moslem. Generally, their main livelihood is fishing, although some men ferry passengers by boat from Makassar to Lae Lae isle or other surrounding islands and others work in Makassar. Lae Lae isle is a ward of Lae Lae and it is part of the sub districts of Ujung Pandang: it is divided into three neighborhood-organizations, called *Rukun Warga* (RW). There are 331 residential houses, which include 256 landed houses and 75 houses on stilts (called *Rumah panggung*<sup>(ii)</sup> or *RP*). Many landed houses are in RW 2 and RW 3, and built of stone and wood materials. Meanwhile, many houses in RW 1 are constructed on stilts because the majority of Buginese people, who are experts in building houses on stilts, live in this zone (fig. 2). There are six public facilities, namely, the office ward of Lae Lae isle, clinic, mosques at the isle's center, an elementary school, public wells, and a power plant that operates from 18:00–24:00.

Data from field surveys were collected in November 2009 and September 2010. The method of field survey included the mapping of the *Bale bale*'s locations, observing users' behaviors, measuring of *Bale bales*, documenting of users' activities by camera, and interviewing the owners and users of *Bale bales*. Sixty-two questionnaires were distributed to owners and users of *Bale bales* before undertaking the field survey in October 2009. The questionnaires were designed to answer the following questions: the purpose of the *Bale bale*, the social function of *Bale bales*, the reasons for using *Bale bales*, and who usually uses the *Bale bale*.

Users' activities on the *Bale bale* were analyzed on the basis of the photos, which were taken on three days in September 2010 at three different times: 10:00–12:00, 13:00–15:00, and 15:00–17:00. Furthermore, photos that were taken at the same *Bale bales* were collected and analyzed with regard to their positions and activities.

## 3. Result

The field surveys revealed that there were 225 *Bale bales*, located in houses, along the ring road, in alleys, and in public spaces. Some *Bale bales* have been made by islanders and some have been bought by them from outside the isle. *Bale bales* can also be easily moved from one place to another due to their shape and lightness. Moreover, owners can put their *Bale bales*

anywhere there is a public space in Lae Lae isle. Some residents ask the permission of the head of the ward of Lae Lae to place large *Bale bales* in public spaces. Further, some islanders make *Bale bales* for local tourists who rent them for relaxation purposes: these *Bale bales* are placed at breakwaters. Others are close to old graves. Islanders also make *Bale bales* by self-help for other uses, for example, as a place for night watchmen on the isle, which serves as a security post to protect the environment: such *Bale bales* are located at the center of the isle.

### 3.1. Types of *Bale bale*

The field surveys revealed that *Bale bales* in Lae Lae isle can be divided into five types: *siring*<sup>(iii)</sup>, terrace, yard, roadside, and seashore (fig. 3). The roadside *Bale bale* type is in the majority and the *siring* type is in the minority in this isle (fig. 4). Many *Bale bales* are located along the ring road, around the coast, and in the alleys. Some *Bale bales* are placed in front of shops located on the ring road and in front of public wells. Fig. 5 presents the location of all *Bale bales* on the isle, with 55.1% of *Bale bales* being located in the coastal area and 44.9% located on the inner part of the isle.


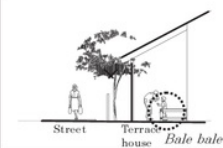

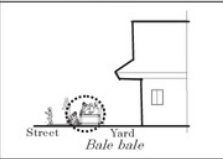
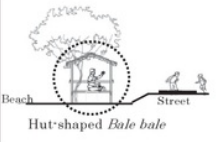
<p><b>Type-Sr (<i>Siring</i>)</b> This type of <i>Bale bale</i> is located at the 1<sup>st</sup> and 2<sup>nd</sup> column arrangements underneath the <i>Rumah Panggung</i>. (21/225)</p>	
<p><b>Type-T (Terrace)</b> This <i>Bale bale</i> is located on the terrace of its owner's house. (59/225)</p>	
<p><b>Type-Y (Yard)</b> The "Y" type of <i>Bale bale</i> is located around or inside the fence of the owner's house. (33/225)</p>	
<p><b>Type-R (Roadside)</b> This type of <i>Bale bale</i> is located along the ring road and alley. (76/225)</p>	
<p><b>Type-Ss (Seashore)</b> The "Ss <i>Bale bale</i> "Ss" is located in the coastal area of Lae Lae isle. (36/225)</p>	

Fig. 3 Type of *Bale bale*

### 3.1.1. Siring Type

This type of *Bale bale* is located at the 1<sup>st</sup> and 2<sup>nd</sup> column arrangements underneath the *RP*. There are 21 *Bale bales* of the "Sr" type (9%), of which 15 *Bale bales* are placed in RW 1, 3 *Bale bales* are placed in RW 2, and three *Bale bales* are placed in RW 3. A majority of the *Bale bales* are placed in RW 1 because there are many *RP* in this area.

In general, the form of the *siring Bale bales* is the prototype of the *Bale bales* and does not require a tent because the *siring* area is protected from the sun. Some islanders use the space underneath the *Bale bale* as a cage for keeping their chickens. The *Bale bale* is made of bamboo or wood, and some *Bale bales* use a combination of the two materials.

### 3.1.2. Terrace Type

There are 59 *Bale bales* of the "T" type (11%), 34 of which (58%) are located on the inner part of the isle and 25 (42%) in the coastal area. Of these 59 *Bale bales*, five are placed in front of owners' kiosks; the owner can watch people who want to buy something while sitting on his or her *Bale bale*.

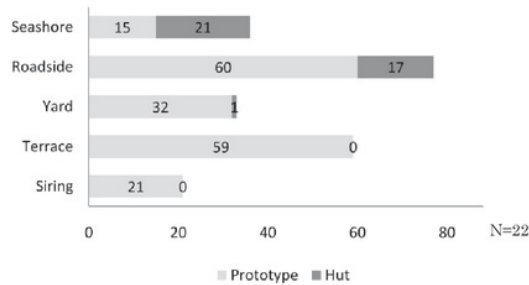


Fig. 4 Number of each types of *Bale bale*



Fig. 5 Location of all *Bale bales*

Similar to the *siring* type of *Bale bale*, the "T" type of *Bale bale*, which is the prototype of *Bale bale*, is made of either bamboo or wood or only of wood for its main structure and bamboo for its seat.

### 3.1.3. Yard Type

The "Y" *Bale bale* is located around or inside the the owner's house fence. There are 33 *Bale bales* of the "Y" type (14.7%), 19 of which are placed on the inner part of the isle (57.6%) and 14 are placed along the ring road (42.4%). In terms of the RW zoning, we found that 15 *Bale bales* are placed in RW 2, and 9 are placed in RW 1 and RW 3. Most of the *Bale bales* are in RW 2 because this zone is a densely populated area, with many houses. There are fewer *Bale bales* in RW 1 because many *Bale bales* are located within the *siring* of *RP*.

The "Y" *Bale bale* has two forms: a prototype, and hut-shaped. These are made of bamboo or wood, or a combination of the two materials and the tent is made of zinc and the leaf of the sago palm. Two *Bale bales* are located inside the hut and another one uses a temporary plastic tent for protecting users from the elements of nature.

### 3.1.4. Roadside

There are 77 *Bale bales* of the "R" type (34.2%), of which 43 are placed along the ring road (55.8%) and 34 are placed on the inner part of the isle (45.2%). The layout of this type of *Bale bale* implies that it is placed almost in front of the owner's house. The roadside type includes two forms, namely, the prototype of the *Bale bale* (77.9%) and the hut-shaped *Bale bale* (22.1%).

### 3.1.5. Seashore Types

The "Ss" type of *Bale bale* is located in the coastal area of Lae

Lae isle. There are 35 seashore type of *Bale bales* (15.6%), and most of them are placed in the northern part of the isle (91.4%). Some of the *Bale bales* are built for renting and are placed at the breakwater.

Similar to the roadside type, the "Ss" type of *Bale bale* comes in the form of both a prototype and hut shape; it is made of both bamboo and wood or of wood only for its main structure and bamboo for its seat. The hut-shaped *Bale bale* incorporates a wall, backrest, and ladder for the convenience of its user.

### 3.2. Form and Size of *Bale bale*

*Bale bale* is a simple bench-like object, made of bamboo, wood, or a combination of the two materials where wood is used for the main structure and bamboo is used for the seating.

The form of *Bale bale* is divided into two types, namely, the prototype form (81.8%) and the hut-shaped form (18.2%), as depicted in fig. 6. Several forms have been developed such as the hut-shaped *Bale bale* with wall, backrest, and ladder for the convenience of the user sitting on the *Bale bale* (fig. 7). Most prototypes of the *Bale bale* are of the *Siring*, Terrace, Yard, and Roadside types. The hut-shaped form is mostly of the seashore type.

Further, *Bale bales* are of many sizes, ranging from small to large. The average size of the *siring Bale bale* is 188 x 124 x 55 cm; the terrace type is 179 x 118 x 53 cm; the yard type is 183 x 132 x 57 cm. The prototype of the roadside *Bale bale* is 182 x 141 x 53 cm; on the other hand, the hut-shaped *Bale bale* is large with an average size of 217 x 173 x 61 cm. The average size of the prototype *Bale bale* of the seashore type is 199 x 162 x 61 cm; on the other hand, the size of the hut-shaped *Bale bale* is an average of 230 x 191 x 61 cm. The roadside and seashore *Bale*

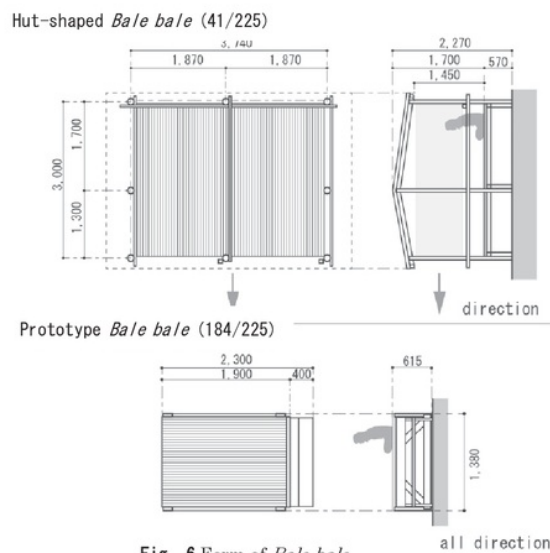


Fig. 6 Form of *Bale bale*

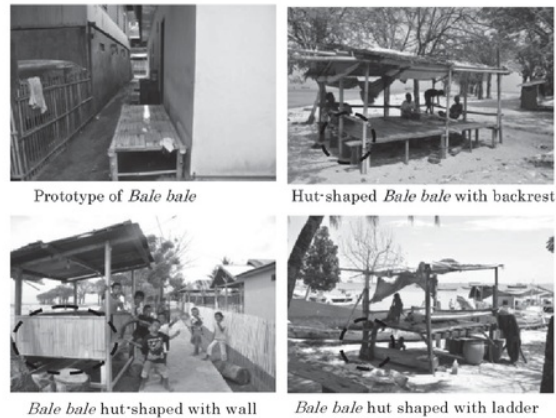


Fig. 7 Prototype and forms of hut-shaped of *Bale bale*

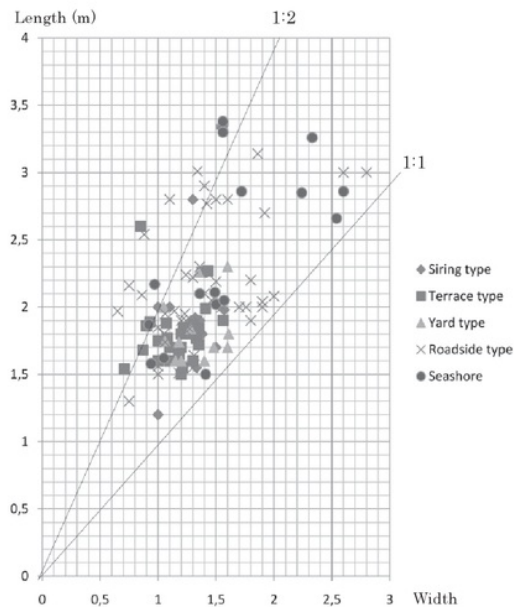


Fig. 8 Proportion of size of *Bale bale*

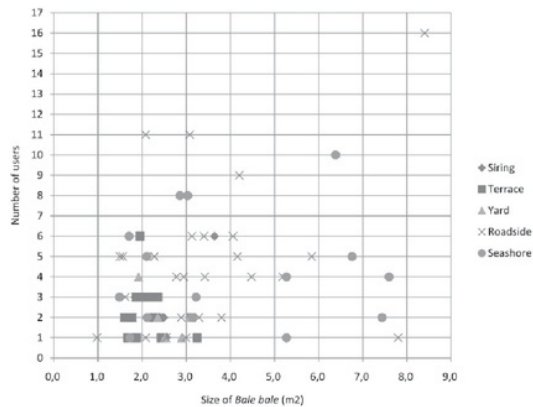


Fig. 9 Number of users on *Bale bale*

*bales* are large, whereas almost all *siring*, terrace, and yard *Bale bales* are small (fig. 8).

The *Bale bale* tends to be square in form and bigger than other benches. For example, the “*Endai*,” a bench, is located in front of the Japanese house. It is slim because it is used by Japanese people only for sitting. This differs from the *Bale bale*, which is used by the Lae lae islanders as a place to conduct various activities, either alone or with other people. The proportion of size of *bale bale* is between 1:1 to 1:2.

The number of users on *Bale bale* is not influenced by size of *bale bale* (fig. 9). *Siring*, terrace, and yard have a small size, and few of islander used it, but we find that roadside type with small size but many islanders used it. Only roadside of *bale bale* has variety of size and group of number of users, not only in family, but also others islanders.

### 3.3. Layout of *Bale bale*

The layout of a *Bale bale* is influenced by the direction of the *Bale bale* and the direction of the user's view (fig. 10)

#### 3.3.1. *Siring* type

These types of *Bale bale* have four layouts: (1) one is placed in the *RP*'s second row, (2) another is adjacent to the house wall in the *RP*'s first row, (3) the third is in the *RP*'s second row, and (4) the fourth is adjacent to the terrace wall in the *RP*'s first row. The *Bale bale* has two locations, namely, at the center of the *siring* and adjacent to the wall of a house. This allows users to view all directions: looking outside to the street, looking inside the house, and to the sides.

#### 3.3.2. Terrace type

The “*T*” type of *Bale bale* has only one direction because one side of it is adjacent to the house or terrace wall and the fence; however, those sitting can see in many directions. The layout of this type is (1) adjacent to the terrace wall, (2) adjacent to the fence, (3) adjacent to the house's wall, (4) adjacent to the side of the house's wall, and (5) two *Bale bales* adjacent to the house wall. Users can look directly into the house and toward the side of the house, if one side of the *Bale bale* is adjacent to the terrace wall and fence. Conversely, users can look outside the house (toward the street) and toward the side of the house if one side of the *Bale bale* is adjacent to the house's wall. With the *Bale bale* that is located on the left or right side of the terrace and adjacent to the wall, users can look directly toward the house's side and outside (to the street).

#### 3.3.3. Yard type

This type of *Bale bale* has only one direction because one side of it is adjacent to the house wall, terrace wall, or fence. It has six layouts: (1) adjacent to the terrace wall, (2) under a tree, (3)

inside the hut, (4) adjacent to the house wall, (5) between two houses, and (6) at the right or left side of the house. All *Bale bales* have only one direction because one side of the *Bale bale* is adjacent to the wall or fence. Users can see in all directions from the first, second, and fifth layouts; they can look forward, sideways, and backward. In the third layout, the user can see in only one direction because the view is obstructed by the hut wall. Meanwhile, in the fourth and sixth layout, users can see in three directions: looking outside or inside from the house and toward the sides.

#### 3.3.4. Roadside type

The roadside type comprises two forms, namely, the prototype of *Bale bale* (77.9%) and the hut-shaped *Bale bale* (22.1%). The direction of the “*R*” *Bale bale* is determined by its form: the prototype of the *Bale bale* has two directions: two ways (toward the sea and toward the street) and one way (toward the street). The hut-shaped *Bale bale* has three directions: toward the settlement (house), toward the street, and toward the sea. *Bale bales* in public spaces have four layouts: (1) across the street, (2) adjacent to the fence, (3) in the alley, and (4), in the case of the hut-shaped *Bale bale*, facing toward the settlement. The user of the prototype *Bale bale* can see in all directions because no wall or tree prevents his or her view. Whereas, users of the hut-shaped *Bale bale* can look in front and toward the side, but they cannot look back to the sea because the wall of the hut-shaped *Bale bale* obstructed their view.

#### 3.3.5. Seashore type

The direction of *Bale bale* “*Ss*” type has two directions: toward the sea (sunset and Makassar city view), toward the settlement (house). The prototype form of the “*Ss*” *bale bale* has the both directions. The “*Ss*” *Bale bale* type comprises five layouts: (1) On the coast and facing the beach, (2) under the tree, (3) facing toward the settlement, (4) at the breakwater, and (5) facing the direction of the street. Almost all of these types of *Bale bales* allow users to see in three directions, because the hut shape with a back wall obstructs users' view; whereas with the prototype *Bale bale* users can see in all directions because nothing prevents their view.

### 3.4. Users of *Bale bale*

Observations made at three different times show that men, women, children (male), children (female), and babies use the *Bale bale* for their activities (fig. 11). Women and men most often gather in the afternoon (15:00–17:00); on the other hand, children, both male and female often gather in the morning (10:00–12:00). Men usually rest after catching fish and women rest after they finish preparing lunch and dinner for their

Type	Form	Layout
<b>1. Siring</b> N=21	Prototype of <i>bale bale</i>  N=18 Backrest bamboo N=1 Wooden for main structure Cage under <i>bale bale</i>	<b>Layout</b> 2 <sup>nd</sup> Floor Looking inside the house Looking outside to the street Column N=5 1. <i>Bale bale</i> at the 2 <sup>nd</sup> row of RP N=8 2. <i>Bale bale</i> at the 1 <sup>st</sup> row of RP House wall as backrest Interior Looking outside N=4 3. <i>Bale bale</i> on the 2 <sup>nd</sup> row of RP Two <i>bale bales</i> at the siring N=4 4. <i>Bale bale</i> at the 1 <sup>st</sup> row of RP Interior Looking inside is prevented by wall User view outside because nothing prevent them
<b>2. Terrace</b> N=59	Prototype of <i>bale bale</i>  N=49 Backrest bamboo wooden N=10	Looking inside Looking outside (toward the street) Interior N=5 1. Adjacent to terrace wall Looking inside prevents by wall Interior N=5 2. Adjacent to fence Wall as backrest Interior Looking outside (toward the street) N=26 3. Adjacent to house wall looking outside (toward the street) N=4 4. Adjacent to side wall of house N=4 5. Two <i>bale bale</i> adjacent to house wall
<b>3. Yard</b> N=33	Prototype of <i>bale bale</i> bamboo  N=32 <i>Bale bale</i> hut shape  N=1	View direction of user is all directions Terrace wall House Yard N=6 1. Adjacent to terrace wall Temporary plastic tent for protect sun shine View direction of user is looking outside house yard fence N=7 4. Adjacent to terrace wall View direction of user is forward and side way House N=2 5. between two houses View direction of user is all directions House yard fence N=7 2. Adjacent to fence View direction of user is looking outside House N=4 3. <i>Bale bale</i> inside the hut Alley Fence House N=7 6. <i>Bale bale</i> at the side house
<b>4. Roadside</b> N=76	Prototype of <i>bale bale</i> bamboo  N=60 <i>Bale bale</i> hut shape  N=17	View direction of user in all directions Owner house Square Ring road N=19 1. Across the street View user can see in all directions Owner house Square Ring road fence Yard N=14 2. Adjacent to the fence The user's view in all directions Neighbor's house Alley Owner house N=28 3. <i>Bale bale</i> at the inner of isle Direction view of user is three ways Embankment Ring road Owner house N=15 4. <i>Bale bale</i> hut shaped across the owner house The prototype of <i>bale bale</i> directions toward the street The hut-shaped <i>bale bale</i> directions toward to the settlement (house)
<b>5. Seashore</b> N=36	Prototype of <i>bale bale</i> bamboo  N=15 <i>Bale bale</i> hut shape  N=21	<i>Bale bale</i> direction is one way Sea House N=1 1. <i>Bale bale</i> hut shaped on the beach Direction view of user to all directions Sea N=14 2. Prototype of <i>bale bale</i> on the beach Settlement view and sideways Ring road House N=8 3. <i>Bale bale</i> on the beach Direction view of user in all directions Makassar city view Sea N=12 4. <i>Bale bale</i> hut shaped at the breakwater Direction of <i>bale bale</i> is facing the direction of the street Direction view of user to the beach and settlement Ring road Owner house N=1 5. <i>Bale bale</i> hut shaped at seashore

Fig. 10 Layout of *Bale bale*

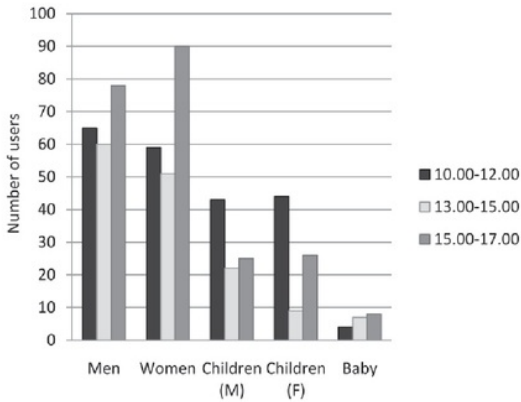


Fig. 11 Diagram of user activity by generation

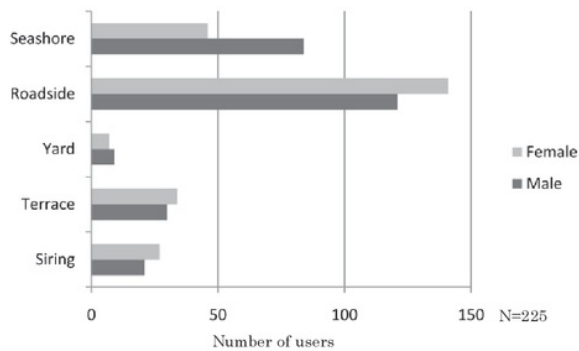


Fig. 12 User by gender on each type of Bale bale

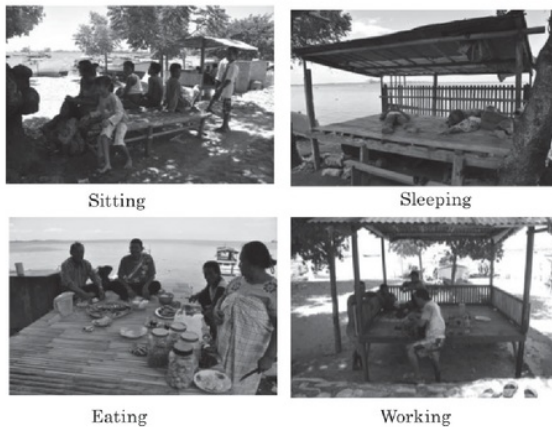


Fig. 13 Activities on Bale bales

families. For children, the time for gathering or playing is almost the same among males and females.

The seashore *Bale bale* is more frequently used by males than females, whereas roadside *Bale bale* is more frequently used by

females than males. Further, the *siring*, terrace, and yard *bale bale* are frequently used by females and males (fig 12).

### 3.5. Activities on *Bale bale*

The field surveys reveal that there are many activities conducted by the islanders on the *Bale bale*, such as chatting, sleeping, eating, working, etc. (fig. 13). The roadside *Bale bale* is used for a variety of activities such as sitting, chatting, sleeping, eating, lying down, working, etc. (fig. 14). This is because many "R" *Bale bales* are scattered on this isle and are easily accessible by everyone. In addition, the users sitting on the *Bale bale* feel comfortable because of the fresh air and many trees that protect them from the sun. Similar to the roadside *Bale bale*, the seashore *Bale bale* is used to perform many activities because it is placed in public spaces and is easily accessible by people. The terrace *Bale bale* is more common than the seashore one, but is used less often and for fewer activities than the seashore *Bale bale*. This is because the seashore type is more easily accessible by people as compared to the terrace type, which is placed on the house owner's terrace

The *siring Bale bale*, although small in size, is used for a variety activities and more frequently than the yard *bale bale*. This is because *siring Bale bales* are shielded from sunlight so that users feel comfortable using them.

In general, sitting and chatting are the most frequent activities performed by islanders on *Bale bales*. Sleeping, eating, lying down to rest, and repairing boat engines are mostly done by Lae Lae islanders on roadside and seashore *Bale bales* because *Bale bales* are located in front of the owner's house and in the public spaces, so it is easily accessible for use by the owner and everyone else. protects users from the sun. On the other hand, activities such as making fishing gear (nets), sewing, and folding of laundry are mostly done on *siring* and terrace *Bale bales*.

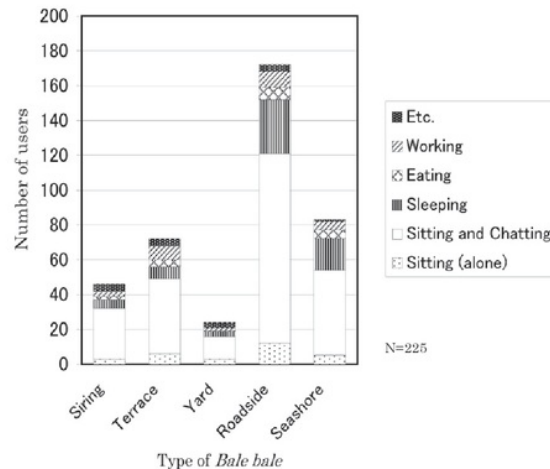


Fig. 14 Activities of the users

#### 4. Conclusions

The *Bale bale* is not merely a simple bench made of bamboo or wood or a combination of the two, but is a common space the islanders of Lae Lae use in their daily lives and activities. The main findings of this study are described in the following manner:

First, the islanders can put their *Bale bale* anywhere on Lae Lae isle because there are no rules governing the placement of *Bale bales* in public spaces, except for the hut-shaped ones, for which the owner must notify the head of the ward of Lae Lae. Owners can move their *Bale bale* from one place to another, including the neighbors without permission.

Second, the *Bale bale* is classified into five types, namely, siring terrace, yard, roadside, and seashore. The roadside and seashore type are commonly found scattered along the ring road and the majority are located in the coastal area, in front of owners' houses. Whereas *siring*, terrace, and roadside *Bale bales* are located around owners' houses or inside the fence.

Third, the *Bale bale* has a variety of sizes and two forms, namely, prototype *Bale bale* and the hut-shaped *Bale bale*. The hut-shaped type has walls, a backrest, and ladder. The prototype *Bale bale* is mostly of the *siring*, terrace, yard, and roadside types, whereas the hut-shaped *Bale bale* is mostly of the seashore type. The roadside and seashore *Bale bales* are large, whereas almost all *siring*, terrace, and yard *Bale bales* are small. The *Bale bale* tends to be square in form (1:1 to 1:2). The number of users on *Bale bale* is not influenced by size of bale bale

Fourth, each type of *Bale bale* has many layouts, which influences the direction of the *Bale bale* and its users' view. The direction of the prototype *Bale bale*, whether *siring*, terrace, or yard type, are two ways. The user can look outside toward the street, inside toward the house, and toward the house's side. The direction of the hut-shaped *Bale bale* is one way, toward the house, street, or sea. The user can look in front and toward the side.

Fifth, the roadside *Bale bale* is more frequently used than the others type. The females often gather on *Bale bales* in the afternoon and the males in the morning and in the early afternoon. Females often use *Bale bales* that are close to their houses, such as the *siring*, terrace, yard, and roadside *Bale bales*, whereas the seashore *Bale bale*, which is far from the house, is often used by males. *Bale bale* owners and islanders of Lae Lae perform many activities on the *Bale bale*, but the main activity is sitting and chatting. The roadside and seashore types are mostly used by islanders for sleeping, eating, lying down, and repairing their boat machines. However, making fishing gear (nets), sewing, and folding of laundry are mostly done on *siring* and terrace *Bale bales*.

#### Acknowledgment

The present study is supported by the Ministry of the Directorate General Higher Education Department of National Education Indonesia.

#### Notes

- (i) *Bale bales* can be found everywhere in Indonesia, such as in Bali (called *tabang* and *bale bengong*), in Jawa (called *risban* and *Bale bale*), and in Sumatera (called *palanta*, *moa*).
- (ii) *Rumah Panggung* (house on stilts) is a traditional form of Makassarese/Buginese architecture. It is divided into three parts: a top floor for storage, a middle floor for daily living, and a bottom floor (called *Siring*) for multipurpose activity, including the creation of a place for *Bale bale*.
- (iii) *Siring* is a space which is located at underneath of *rumah panggung*



(house on stilts). It is use for multiuse, such as for storage, cage, including for *Bale bale* place. Also, this place is develop for guest room, bedroom, kitchen, toilet, and living room.

#### References

- 1) Byun, K., Fukushima, S., Hirate, K.: A Study on the Planning and Use of Common Space in Private Rental Apartments in Okinawa, Japan. *Journal of Asian Architecture and Building Engineering*, Vol. 7 No. 1 pp 47-54, 2008.
- 2) Central Board Statistic of Makassar: Makassar in Figure. Pemerintah Kota Makassar, 2010.
- 3) Cho, P., Sawaki, M.: Study on the Neighborhood Characteristic of High-Density Hillside Areas through Common Space: A Case Study on an On-the spot Improvement Program District of the Housing Environment Amelioration Program in Busan, Korea. *Journal of Asian Architecture and Building Engineering*, Vol. 6 No. 1 pp 111-118, 2007.
- 4) Departemen Pendidikan Nasional: Indonesian Dictionary. Jakarta.Indonesia, 2008.
- 5) Gehl, J.: *Life between Buildings: Using Public Space*. New York. Van Nostrand Reinhold, 1987.
- 6) Kamihogi, A. et al.: Study on the Role of Common Space in Low-Rise Exclusive Residential Areas in Creating Community. *Journa Sci Rep Coll Agric Osaka Prefect Univ.*, 2000.
- 7) Kanazawa, S., Jun, C.: Comparative Study on residents' Perception and Activities in Their Outdoor Spaces, Cases of Traditional Blocks and a New Housing Project in Beijing. *Journal of Asian Architecture and Building Engineering*, Vol. 1 No. 1 pp 221-228, 2002.
- 8) Kubota, K., Kurono, H.: Publicness of Gangi Street Supported by Use and Spatial Composition. *Proceedings of Architectural Institute of Japan Hokuriku branch* (45) pp 299-302. In Japanese, 2002.
- 9) Noguchi, T., Tsukidate, E.: Form, Use and Clearing of Snow from the Gangi in Winter: Study on the Common Space Design of Public Apartment Houses in Heavy Snowfall Areas in Japan. *Journal of Asian Architecture and Building Engineering*, Vol. 1 No. 1 pp 245-251, 2002.
- 10) Suzuki, Takeshi: Mode of Being in Places: A Case Study in Urban Public Space, in *Handbook of Japan-United States Environment-Behavior Research: Toward a Transactional Approach*, edited by Seymour Wapner, Jack Demick, Takiji Yamamoto, and Takashi Takahashi. New York. Plenum Press, 1997.

## 和文要約

本稿はインドネシア、南スラウェシの州都マカッサル市の沖合にあるラエラエ島における縁台的なしつらえバレバレ (Bale Bale) に関する研究報告である。この種の屋外家具はアジア各国に存在しているが、面積わずか0.22 km<sup>2</sup>、住民約1550人の小島であるラエラエ島には、225のバレバレがあり島民の重要な生活の場となっている。フィールドワーク及びアンケート・インタビュー調査から以下のことが明らかになった。

1) バレバレは住民が自由に設置でき家族のみならず島民や訪問者の誰でも利用することができる(自分の住居敷地内もしくはその近傍に設置する場合が多い。屋根のあるタイプについては許可が必要)。

2) バレバレは設置場所によって、5つのタイプ、すなわち、伝統的住居の床下 Siring, テラス Terrace, ヤード yard, 道端 roadside, 浜辺 seashore に分けることができ、道端タイプが最

も数が多い。

3) その形態はベンチ的のプロトタイプから屋根や壁のあるものまで様々であり、平面寸法は概ね1.5m×2m程度だが、道端・海辺タイプには3m以上のものがある。平面のプロポーションは1:1と1:2の間で一般的な日本の縁台よりずんぐりしている。同時に利用する人数は1人～16人と幅広く、面積とは明解な相関はない。

4) 設置場所(たとえば塀に沿って)や形態(屋根や壁)によって方向性があるバレバレも多く、その向きとしては街路が最も重視され、海だけを向くバレバレはごく少数で例外的である。

5) バレバレは主に、休憩、会話、昼寝、食事、作業などに使用される。最もよく利用されるのは道端タイプと浜辺タイプである。利用時間やタイプについて男性・女性で若干の違いがあり、浜辺タイプは男性の利用がやや多い。

(2011年7月10日原稿受理、2012年1月25日採用決定)

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**2** Haroon NAZIRE, Michihiro KITA. "SPECIFYING CHARACTERISTICS OF INFORMAL SETTLEMENTS BY COMPARING FOUR AREAS FROM THE ASPECTS OF HOUSES, LAND TENURE AND SOCIAL FACTORS IN KABUL, AFGHANISTAN", Journal of Architecture and Planning (Transactions of AIJ), 2016

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**3** [server-labo4.arch.eng.osaka-u.ac.jp](http://server-labo4.arch.eng.osaka-u.ac.jp)

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Publication

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**5** Kanazawa, Shigemori, and Che Jun. "Comparative Study on Residents' Perception and Activities in Their Outdoor Spaces", Journal of Asian Architecture and Building Engineering, 2002. % **1**

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