# Application of Traditional Sundanese Architectural Concepts in an Edu-Cultural Tourism Site in Bandung, Indonesia

### Ilham Muhamad Faizal<sup>1</sup>, June Ekawati<sup>1</sup>

1,2Architecture Study Program, Civil Engineering and Planning Faculty Universitas Kebangsaan Republik Indonesia, Bandung - Indonesia

Corresponding Email.		juneekawau@gmaii.coi		
Received	Reviewed	Revised	Published	
19.08.2023	20.08.2023	13.09.2023	30.09.2023	

https://doi.org/10.61275/ISVSej-2023-10-09-06

#### **Abstract**

One of the cultural identity and heritage in Indonesia that must be preserved is traditional houses. The Teras Sunda Cibiru is an educational and cultural tourist attraction in the city of Bandung that displays the architecture of traditional Sundanese houses in its buildings but unfortunately has not implemented all the traditional Sundanese architectural concepts that should exist. This study analyzes the suitability of the concept of traditional Sundanese architecture and its application in the design of existing buildings on the Teras Sunda Cibiru.

It uses a qualitative descriptive method. It gathers primary data at the site by conducting a physical survey, as well as in-depth interviews and more detailed observation. It collects secondary data from various sources. The findings show that the buildings on the Teras Sunda Cibiru are vernacular architecture and have implemented several Sundanese architectural concepts. The most widely applied concept is the use of natural building materials followed in the application of the shapes of the roofs. Information about intangible concepts such as the values and philosophies of existing buildings has not been presented, even though this is needed to strengthen its function as an edu-cultural tourist site.

**Keywords:** Traditional Sundanese house, Vernacular architecture, Educultural tourism.

#### Introduction

Tourism has an impact on the economic, sociocultural, and environmental aspects of society, and has even become an important component of the global economy (Dorin, 2015). Cultural tourism, according to UNWTO, is a major element of international tourism with more than 39% of tourist arrivals in Indonesia (Richards, 2018). Therefore, Indonesia, a country with ethnic and cultural diversity, has a strong potential to develop as a cultural tourism destination.

The culture that belongs to every tribe in every region in Indonesia is a national identity and heritage. One of the cultural icons of various tribes and cultures in Indonesia are traditional houses which have the potential to be developed as cultural tourism objects, through good tourism development. According to Wilopo and Hakim (2017), this unique and interesting tourism potential should be utilized. Meanwhile, globalization has made people more interested in modern architecture for their residential buildings against houses with traditional architecture because they are considered simpler and trendy.

The Teras Sunda Cibiru, located in Bandung, Indonesia, is a tourist attraction that seeks to apply traditional Sundanese architectural concepts in the form of values and aesthetics to its buildings. The Sunda Cibiru Terrace is also the only public place and art and cultural tourism site in the city of Bandung in the form of a building complex that seeks to display traditional Sundanese architecture and accommodate local cultural activities. However, the concept of traditional Sundanese architecture is not entirely appropriate and has not been implemented as a whole.

This is the background for the need for a study of this educational and cultural tourism. It is based on the premise that the application of the architectural concept can be even better, can still exist, and can provide education and become a reference for the traditional Sundanese architecture in West Java. Representing traditional houses in the middle of dense urban areas such as the city of Bandung is important because local culture is an important capital for creating social identity and harmonization in building a better quality of life (Suprapti *et al.*, 2019).

Sundanese traditional house architecture is an identity and cultural heritage that needs to be preserved. Because of this, this educational and cultural tourism site that accommodates activities and seeks to display the uniqueness of Sundanese values, concepts, and culture at the Teras Sunda Cibiru needs to be appreciated. It needs to be also further developed so that people; especially the younger generation, and the visiting tourists can better understand the architecture of traditional Sundanese houses and their existing concepts and values and would be willing to participate in socio-cultural activities held at this location.

The problem however is that traditional Sundanese house architecture concepts and values have not been implemented in buildings displayed in the areas that are references and educational and cultural tourism sites that can contribute to the understanding of the authenticity of existing values. Therefore, a study of the physical forms of the existing buildings is important. They can be evaluated and some improvements that are more in line with the concepts and values that have existed since ancient times can thus be made.

This study aims to examine the suitability of the application of traditional Sundanese architectural concepts presented in existing buildings at the Teras Sunda Cibiru tourist site. It's objectives are to identify, analyze and describe the concepts and values of the Sundanese culture in existing traditional house architecture. When done, they can be better understood by the visitors and the local community in the vicinity. They can also attract more tourists to visit in studying Sundanese architecture and cultural values in West Java, Indonesia.

#### **Theoretical Framework**

#### **Development of Cultural Tourist Destinations**

Culture and tourism are always closely related, and the growth of cultural tourism is fragmented into heritage tourism, art tourism (Richards, 2018). Cultural tourism is closely related to attractiveness of places. The main components in the development of tourist destinations according to Cooper et al, (2005) and Hermantoro (no date) are:

a) attraction; b) accessibility; c) amenities; d) ancillary services; e) institutions.

The places that become cultural tourism attractions, must have uniqueness and attractions based on Nature, and culture.

The use of vernacular architecture for entertainment, recreation, and tourism objects is not something new. Vernacular house architecture can be an important cultural resource in tourism development because it helps to communicate local cultural identity to visitors, reduces the negative impact of modernization, and provides tourists with an experience of authentic culture (Ivkovska, 2014). Thus, the Teras Sunda Cibiru needs to be continuously developed so that the existing buildings are able to communicate the richness of architecture in West Java.

# The Backgrouond

#### Traditional and Vernacular Architecture

According to Tovivich (2015), the term vernacular architecture, like in Thailand, is often confused with traditional architecture and folk architecture. Traditional architecture is a reflection of form and adaptation to the environment, climate, culture, and social conditions of the society (Prasetyo and Astuti, 2017), built on beliefs, philosophies, and traditional rules trusted by the local community. It is also inherited and enforced from generation to generation, and cannot be contested by anyone. Meanwhile, modern architecture that transforms the form or concept of traditional architecture, such as buildings that only take the image or form of traditional architecture, cannot be called traditional architecture. Indeed, vernacular architecture is an elastic architecture that takes a process from the condition and creativity of the people of an area and combines the old and the new (Suharjanto, 2014; Ekawati, 2019).

According to Prajudi (Herwindo, 2016), there are several important aspects of traditional house building, including the following: 1) Ornamental forms: These are usually in the form of carvings, statues, sculptures, and others that have decorative patterns, such as geometric shapes, flora, fauna, or curves on doors and windows; 2) The form of division of three: This is the division of ae building into three parts consisting of the legs, body, and the roof of the building; 3) Shape of the roof: the traditional architecture of Indonesia itself has many distinctive roof forms that are different in each region, which is one of the identities that has its meaning and philosophy; 4) Architectural aesthetic character: a character of architectural aesthetics as an arrangement of geometric shapes that have clear basic shapes such as rectangles, circles and square shapes, and others.

The concept of traditional Sundanese architecture is architecture that blends with Nature. We can use Nature appropriately in everyday life. Even in Sundanese, the word "earth" means a place to live or a house (Suharjanto, 2014).

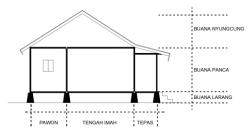
#### **Traditional Sundanese Architectural Ornaments**

Sundanese architectural ornaments or decorations in West Java are often found in the Cirebon area, especially in the noble's houses or palaces, while in other areas, it is rare. The scarcity of ornaments in Sundanese architecture is caused by several things, such as the previous Sundanese people did not have the habit of making carvings on parts of the house, some ornaments made on bamboo were not durable so they were easily lost, and there was religious influence. This architectural ornament motif is usually in the form of flora, fauna, nature, and calligraphy.

#### The Form Division of Three

In the traditional Sundanese house, there are three types of division which are the sacred cosmology that the community has about the universe (Nuryanto, 2021) including:

- 1) Buana nyungcung (also called ambu luhur) means being the abode of ancestors such as sanghyang, the gods, and batara who are very purified.
- 2) Buana Panca Tengah or Ambu Tengah, is a place of residence or human activity in the middle world
- 3) Buana larang or ambu handap, is the underworld where humans return to the ground or die.



**Fig. 1:** Form of the division of three in the traditional Sundanese house Source: Author, 2022

#### **Spatial Arrangements**

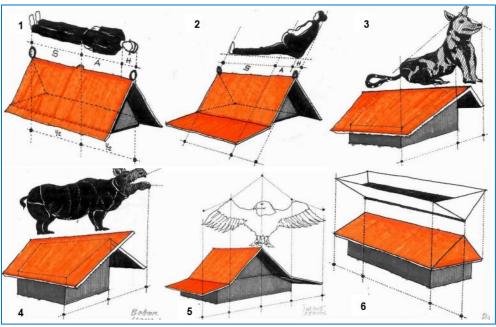
The arrangement of rooms in a traditional Sundanese house based on their functions is as follows: women are placed at the back and inside of the house, men are placed at the front and sides of the house, while the space between the two in the middle of the house is used for gathering. According to Nuryanto and Ahdiat (2014), based on the layout, the arrangement of space is divided into 3 parts as follows.

- 1. *Tepas imah* is the front part of the house such as the yard and the terrace, which is an area for the men because men have activities outside the house. Usually, there is a divan or a temporary seat, and a cot or a bench.
- 2. *Tengah imah* is the center of the house for gathering with the family, or receiving guests. It is gender neutral (for men as well as women). Usually it consists of a living room, family room, and the bedrooms for the children.
- 3. *Pawon* is the back of the house which functions as a kitchen and is a special area for women in activities such as cooking, washing, and so on. *Pawon* usually consists of a *goah* or warehouse, *padaringan* or a place to store rice, and a *hawu* or firebox for cooking.

#### The Shape of the Roof in Traditional Sundanese Architecture

Sundanese traditional architecture also has a variety of distinctive roof shapes. According to Nuryanto (2021), some of the types of traditional Sundanese roof forms include:

- 1. *Suhunan Jolopong*, the basic form of the roof of a traditional Sundanese house, is an elongated roof shaped like a gable roof,
- 2. *Suhunan Sulah nyanda*, taken from the position of a pregnant woman who is sitting leaning back (*nyanda*)
- 3. Suhunan or roof of Tagog anjing, has a roof that resembles a sitting dog;
- 4. Suhunan or roof of the *badak heuay*. The shape of this roof resembles the shape of a rhinoceros' gaping mouth;
- 5. *Julang Ngapak*, whose roof looks like an eagle spreading its wings, is a roof that has a wide shape on both sides of the roof plane;
- 6. Suhunan Perahu Kumerep, whose roof is shaped like a shield roof; 6 (Fig. 2).



**Fig. 2:** Form of the division of three in the traditional Sundanese house Source: (Nuryanto, 2021)

#### **Research Methods**

This research is carried out at the Teras Sunda Cibiru tourist attraction which is located on Jalan AH. Nasution, Cipadung Village, Cibiru District, Bandung City, West Java Province, Indonesia (Fig. 3). The study uses a qualitative descriptive method and obtains primary data at the study site observing real things in the field as well as descriptions of the situation at the study site. It collects secondary data from various sources that have proximity to the theme The data is then analyzed and described or identified based on the existing aspects (Anisa, Satwikasari and Saputra, 2019).



Fig. 3: Location of the Research in Bandung city, West Java Province, Indonesia Source: Processed from Sentrapeta.com, BPS (2023) and Google Earth, 2023

Data was collected in three ways.

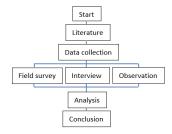
- a. field survey, by reviewing the study location in general and the buildings in it, making documentation and records.
- b. in-depth interviews with the staff managing the object of study and the architectural planners involved; and
- c. more detailed observation in this area, including landscape, building facilities and equipment, figure, facade, construction, interior space, building materials, space use, and related matters.

The data collected is then analyzed in terms of the suitability and application of the aspects and values of traditional Sundanese architecture. Analysis of each building is based on 5 criteria. These, according to Prayudi (Herwindo, 2016) are important aspects of building traditional houses, They are:

- 1. The shape of the roof:
- 2. Ornamental forms application;
- 3. The form of division of three;
- 4. Space arrangement; and
- 5. Application of building materials.

However, the criteria employed in this study are somewhat different from Prayudi who said the fourth aspect is the character of architectural aesthetics. The fourth criterion is divided into the last two criteria, namely space arrangement and building materials. These two criteria were chosen separately so that it would be easier to observe physical objects in the study site.

The stages of the research conducted are described in the Fig. 4 below



**Fig. 4:** Research Process Source: Author Analysis, 2022

# Findings and the Discussion Building Architecture Typology

If viewed from the difference in definition between vernacular architecture and traditional architecture (Suharjanto, 2014; Prasetyo and Astuti, 2017; Ekawati, 2019), the buildings in this study location are closer to the definition of vernacular architecture. The reason is that the existing buildings only take the image of a traditional Sundanese house, with an elastic function, but does not take the philosophy, rules, and traditions adopted by the people from generation to generation. This can be seen in the existing buildings such as:

- In Bale Karya, there is no application of the concept of division of three forms;
- *Bale Motekar*, only adopts the shape of the *sulah nyanda* roof, which has one side longer, but does not apply the principle of the division of three and does not have a *pawon* area at the back of the building;
- The *musholla* (Islamic prayer room) building adopts the *leuit* form, which functions as a rice barn in traditional Sundanese architecture.

# Application of Sundanese Traditional Architecture in Buildings 1. Bale Utama/ Hall

This building is a multi-purpose room that can be used for activities such as art performances and a training ground for arts and cultural activities (Fig. 5). On the inside is a grandstand and the stage area, while the lower part of the building is used as a parking space or the basement. The *Bale Utama* building has a basement or *kolong*, the middle part as a place for human activity, and the top/roof. However, the function of the lower part or *buana larang* is adapted to the current function of the building. Thus, it does not apply the concept of a three-division form because it does not have a *buana larang* part. In the *Bale Utama* building, no Sundanese architectural ornaments were found, either on the interior or exterior of the building. It has a pentagonal roof shape. Theoretically, this roof shape does not exist among the traditional Sundanese architectural roof forms.



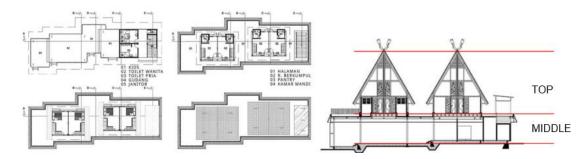
**Fig. 5:** *Bale Utama* Building Source: Nawabha Studio, 2022; author documentation, 2022

Bale Utama is a building with a function for performances. Thus, an open space area is needed (Fig 5). Therefore, the spatial arrangement of the building does not use traditional Sundanese architectural concepts because it is adapted to the function of the spaces. bamboo is used for the roof truss structure, roof supports and the toilet doors. Other parts use modern materials such as masonry walls, concrete floors and light roof coverings.

#### 2. Bale Karya / House of Artists

Bale Karya is a building with 3 floors. First floor is part of an open space: a public area that functions as an art kiosk to store paintings. On floors 2 and 3, there are 4 rooms which are private areas for the management staff, while on the 2nd floor, there is a kitchen and a bathroom. The 3rd floor is used as bedrooms. Due to different spatial functions, the spatial arrangement of *Bale Karya* also does not adopt the traditional Sundanese architecture. There are no terraces at the front and back of the building. *Bale Karya* has the form of a gable or *jolopong* roof, but

the roof of this building is different from the elongated *jolopong* roof. At *Bale Karya*, the roof is made high with a slope angle of more than 30° (Fig. 6).



**Fig. 6:** *Bale Karya* Building Plan and Section Source: Nawabha Studio, 2022

The *Bale Karya* building does not apply the form of three divisions like traditional Sundanese architecture. It does not have a lower area or a *buana larang*. The upper part or *buana nyungcung* is used as a place to live, which should be in the middle of the *buana panca*. Ornaments found in this building are traditional Sundanese ornaments in the form of ornamental flora that crosses on the roof (Fig 7).

A combination of bamboo and steel are used in the roof and the building structures. Bamboo is also used for the walls of the 1st floor, while the walls of the 2nd and 3rd floors use bamboo mixed with concrete. Other materials are modern materials such as masonry walls, concrete floors and light roof coverings.

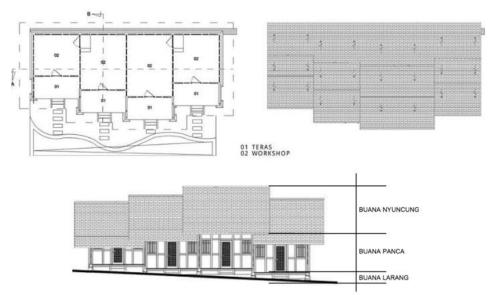


**Fig. 7:** Building ornaments and interior of *Bale Karya* building Source: Author documentation, 2022

#### 3. Bale Motekar / Artist Workshop

Bale Motekar is used for the offices of management staff and related agencies, in the form of one building mass consisting of four rows of rooms with interconnected interiors. When viewed from the front, it looks like four houses lined up. The facade is like a house on stilts because the floor elevation of the house is raised 30 cm from the ground. This building applies the concept of a three-division form. There is a lower part or buana larang, a middle area of the house buana panca, which is used to accommodate people's activities, and an upper part of the roof or buana nyungcung (Fig. 8).

At the front of this building, there is a *tepas* or terrace. Before entering the terrace, there are stairs or *golodogs*. Inside, there is only one open room interconnected with the building next to it. Thus the spatial arrangement of the traditional Sundanese architecture is not fully implemented because there is no *pawon* area at the back of the house. The shape of the roof of this building adopts the roof of the *suhunan sulah nyanda*. The *sulah nyanda* roof has a roof shape like an elongated saddle but the other side is longer like a *sorondoyan* on the front porch of the house. Sundanese traditional architectural ornaments are not used (Fig. 9).



**Fig. 8:** *Bale Motekar* Building Plan and Front View Source: Nawabha Studio, 2022



**Fig. 9:** Building exterior and roof of *Bale Motekar* Source: Author, 2022

As an application of traditional Sundanese architecture, the material used is bamboo for roof structures and the building structures, as well as for the walls combined with brick and cement walls. The windows use bamboo as well, while the doors use wood with bamboo booths. The terrace uses a *palupuh* floor. Concrete and river stones are used to support the pillars of the building, resembling *umpak lisung*. The other materials are modern materials such as concrete floors and light roof coverings.

#### 4. Tajug/Mushala

The shape of the *tajug* or the prayer room building is taken from the shape of the *leuit*/rice granary of the Sundanese people. The function of the *leuit* is to store rice. However, in the Sunda Cibiru Terrace, the *leuit* form is taken as the shape of the prayer room building (Fig. 10).



**Fig. 10:** The form of *leuit* in the Baduy tribe and the prayer room on the Teras Sunda Cibiru Source: https://etnis.id/featured/tradisi-suku-baduy-; author documentation, 2022; Nawabha studio

**Table 1**: Analysis of the suitability of the *Tajug* concept in the Sunda Cibiru Terrace and *Leuit* Source: Author analysis

Sundanese Traditional Architecture Concept in Leuit	Application of the concept on the Teras Sunda Cibiru	Conformity with traditional Sundanese architecture	
The shape is getting bigger and bigger, symbolizing the ever-increasing wealth of farmers	The shape of the wall extends upwards	In accordance with the leuit concep	
The plan is rectangular	It has a rectangular plan consisting of a terrace, main room, and mezzanine	Has compatibility with the concept of <i>leuit</i> , but the inside is adapted to the function of the prayer room.	
The shape of the roof is a shield or a long <i>suhunan</i>	It has an elongated roof shape	In accordance with the leuit concept	
The building is taller than a human so a ladder is needed to climb up	Tajug elevation is raised from ground level so that a ladder is needed to climb up	Its application is compatible with the leuit concept, but there are differences in the placement of the stairs. The stairs on the leuit are usually in front.	

#### 5. Bale Alit / Pendopo

Bale Alit is a small building courtyard that is open and has a square shape. This building is usually used for small-scale activities and does not have a buana larang. Thus, it does not apply the concept of the form of the division of three. It has a pyramid roof shape that does not exist in the traditional Sundanese roofs and uses bamboo for the roof structure and pillars for the roof. Other parts use modern materials such use concrete, roster, and glass boxes for the walls. In Bale Alit, there are no traditional Sundanese architectural ornaments (Fig. 11).



**Fig. 11:** *Bale Alit and Bale RW* Building Source: Author, 2022

#### 6. Bale RW

Bale RW is a building consisting of 2 floors. On the 1st floor, there are toilets. The 2nd floor is used for discussion rooms or internal meetings for visitors who are carrying out activities at Teras Sunda Cibiru. It has a saddle-shaped roof or *jolopong* roof like the traditional Sundanese architecture. It has no *buana larang* parts. traditional Sundanese architectural ornaments were not found (Fig 11). Bamboo is used in the roof structures, building structures, and the building walls. The doors use wood, while other parts use modern materials such as tiled floors and light roof coverings.

#### Sundanese Traditional Architectural Elements on the Teras Sunda Cibiru

The application of traditional architectural elements in the Teras Sunda Cibiru is also not entirely according to the concept of traditional Sundanese architecture. The elements of traditional Sundanese architecture applied to the Teras Sunda Cibiru are as follows.

- 1) Bale Utama, applies the use of bamboo materials on the roof structure and the pillars.
- 2) *Bale Karya*, applies the use of bamboo and wood materials in the roof structure, windows and doors, applying the shape of a *Jolopong Suhunan* roof, and having ornaments in the form of decorative flora which is one of the decorative varieties in traditional Sundanese houses.
- 3) *Bale Motekar*, applies the form of a traditional Sundanese roof, namely *suhunan sulah nyanda*, using bamboo and wood materials for structures, pillars, windows doors and floors, while using pedestal foundations at the bottom to support the building, which are often used in traditional Sundanese houses.
- 4) *Tajug*, applies the form of a traditional Sundanese roof, namely the *suhunan jolopong*, and have a building shape like a *Leuit*. It applies ornaments in the form of decorative flora which is one of the decorative varieties in traditional Sundanese houses, using wood for structures and floors.
- 5) Bale Alit, uses bamboo on the roof structure.
- 6) *Bale RW*, applies the form of a traditional Sundanese roof, namely, *suhunan jolopong*, uses bamboo for the roof structure, walls, doors and the windows.

 Table 2: Conformity of Buildings with Traditional Sundanese Architecture Concepts.

Source: Author, 2023									
Analysis	Roof	Spaces	Form of the	Ornament	Building				
Criteria	Shape	Arrangement	division of		Material				
Building	-	_	three						
Name									
Bale Utama	X	X	X	X	$\sqrt{}$				
Bale Karya	$\sqrt{}$	X	X	$\checkmark$	$\sqrt{}$				
Bale Motekar	$\sqrt{}$	X	$\sqrt{}$	X	$\sqrt{}$				
Tajug	$\checkmark$	X	X	$\checkmark$	$\sqrt{}$				
Bale Alit	X	X	X	X	V				
Bale RW	$\sqrt{}$	X	X	X	$\sqrt{}$				

 $\sqrt{\ }$  = exist or appropriate x = not exist or not appropriate

Table 2 is a summary of the description in the previous section regarding the suitability of applying traditional Sundanese architecture to buildings in the study site. From this table, it can be seen that building materials are the aspect most widely applied to all buildings in this area.

#### Application of Traditions in the Vernacular Buildings at the Edu-cultural Tourism Site

Traditional houses were built in the past by their ancestors with all the local wisdom, according to their needs and expectations. Traditional architecture (Suharjanto, 2011; Ekawati, 2019) is a reflection of form and adaptation to the environment, both climate, culture, and social conditions of the community. AmirHosein and Dalilah (2012) argue that Malay houses are built after there is an understanding of needs, daily life, and culture as well as beliefs and ways of life of the Malays. Likewise, traditional Sundanese house architecture, in the past, was also built with a good understanding of the things mentioned above.

Therefore, vernacular domestic architecture which is a transformation of traditional architecture needs to apply not only the physical or tangible aspects of the five analysis criteria above, but also intangible aspects such as philosophy, values, and cosmology that may be contained therein. Vernacular architecture which is an edu-cultural tourism object is not only about the shape of the roof, the spatial arrangement and the form of the three divisions of the building but also needs to be imbued with sacred cosmology practiced by the ancestors in the past (Nuryanto and Ahdiat, 2014). This is intended so that these philosophical values can still be understood and imbued by the next generation. As one of the efforts to preserve Sundanese culture, it certainly does not only inherit the physical aspects of its architecture but also the philosophical aspects and values contained therein.

Cultural tourism is defined as tourism in which cultural values can be found such as customs, religious traditions, and cultural heritage in an area (Kristiningrum, 2014). The construction of buildings with vernacular architecture as objects of tourist attraction which are the main components of tourist destinations displayed in the study area is certainly highly appreciated. This is important to do to be able to continue to maintain the existence of local cultural wealth in the form of the architecture of traditional Sundanese houses which have been passed down from generation to generation even though there are adaptations to the use of the space because it is adapted to today's needs. As a characteristic of local culture, displaying the existence of traditional Sundanese houses in educational and cultural tourism objects requires careful application, such as:

- 1. Continue to display the architectural figure of a traditional house physically, both in the shape of the roof, facade, ornaments, spatial arrangement, building materials, and the form of the three divisions which are important aspects of a traditional house (tangible aspects).
- 2. As an object of tourist attraction in edu-cultural tourist destinations, it is necessary to present the philosophy, cosmology and values that animate every existing physical formation or ornament (intangible aspect). This of course must be mastered by the tour guide in the form of stories or oral information or in the form of written information or displays that can be presented on the walls of each building. This is intended so that these values can continue to be preserved and understood by visitors and the future generations.
- 3. It is possible to adapt to the functions of the spaces, but visitors still need to be given adequate explanations about the arrangement and function of the spaces that actually exist in traditional architecture so that there are no misunderstandings.

#### Conclusion

Based on the theory of architectural typology and traditional Sundanese architectural concepts, the buildings in the study site can be classified as vernacular architecture. The most widely applied elements of Traditional Sundanese architectural concepts in the Teras Sunda Cibiru are the use of natural building materials such as bamboo and wood, which is then followed by the application of the shape of the building's roof. Other aspects, namely the spatial arrangement, the shape of the three divisions, and traditional building ornaments, are elements that are less applied in the study location. Information about intangible concepts such as the values, philosophies and cosmology of traditional Sundanese houses of existing buildings has not been presented, either in oral or written information, even though this is needed to strengthen its function as an edu-cultural tourist site.

Due to the important role of the Teras Sunda Cibiru for community education and cultural programs as well as the preservation of traditional Sundanese house architecture, as a tourist attraction, the physical development of the buildings inside needs to be continued. Likewise, intangible elements need to be presented as educational elements to the visitors who attend. Important support from the government, private and the community institutions is also very much needed for the success of the development of this edu-cultural tourism site.

Related to the function of the study site as an educational and cultural tourism site that aims to present and communicate local cultural identity to visitors (Ivkovska, 2014), the following recommendations are made based on the main components in the development tourist destinations (Hermantoro, no date) that can be applied to research sites and other sites that have the same function as educational and cultural tourism objects.

As a tourist attraction, the application of traditional Sundanese architectural concepts at the study site can be maximized, such as the application of typical Sundanese ornaments, both flora, fauna, and Nature, on the building façade. Likewise, the concept of spatial arrangement, the form of three divisions, and the shape of traditional Sundanese roofs which have characteristics and uniqueness should be applied to the buildings shown, by following the concepts, values, and cosmology that exist in traditional Sundanese traditional houses.

The use of more natural materials such as *ijuk* (palm fiber) material for the roof, *bilik* or bamboo booths for the walls, and *palupuh* for the floors, which are not too heavy to bear the load, as well as the use of stones for the *umpak* or foundation/pedestals, are highly appreciated by the public and visiting tourists, even though in practice, they still need to be adjusted or adapted to the current function of each building.

Accessibility to the location also needs to be facilitated by adding several signs, public transportation and improving the road to the location. Amenities at the study site still need to be improved and added, such as toilets, children's playgrounds, attractive lights, canteens that are more comfortable to introduce traditional Sundanese food or drinks and so on. Ancillary services also require attention, such as providing easy relations with travel and tourism agencies, information about cultural events that have been and will be held, displays of works by artists and so on. The role of institutions, especially local governments, area managers, educational institutions, travel agencies, cultural communities and surrounding communities, also needs to be increased, such as increasing promotions, expanding information through outdoor media and social media as well as cultural and educational events so that the number of visitors increases and this area is increasingly loved.

# Acknowledgement

The researcher would like to thank all the managing staff of Teras Sunda Cibiru and Nawabha Studio, Bandung, who were resource persons during the interview process and helped provide a lot of information by researchers in collecting data at the study site.

#### References

- AmirHosein, G. and Nur Dalilah, D. (2012) 'The Essence of Malay Vernacular Houses: Towards Understanding the Socio-cultural and Environmental Values', *Journal of the International Society for the Study of Vernacular Settlements*, 2(2), pp. 53–73.
- Anisa, A., Satwikasari, A. F. and Saputra, M. S. A. (2019) 'Penerapan Konsep Arsitektur Tradisional Sunda Pada Desain Tapak Lanskap Dan Bangunan Fasilitas Resort', in *Prosiding Semnastek*. Jakarta: Fakultas Teknik Universitas Muhammadiyah Jakarta, pp. 1–10. Available at: https://jurnal.umj.ac.id/index.php/semnastek/article/view/5227.
- Ekawati, J. (2019) 'Analisis Tipologi Rumah Tinggal Masyarakat di Kabupaten Sukamara, Kalimantan Barat', *YSCEJ: Yos Soedarso Civil Engineering Journal*, 1(1), pp. 1–8.
- Hermantoro, H. (no date) 'Konsep Dasar Pembangunan Pariwisata', in *Kebijakan Pembangunan Pariwisata*. Jakarta: Universitas Terbuka, Indonesia, pp. 1–58. Available at: https://pustaka.ut.ac.id/lib/wp-content/uploads/pdfmk/SPAR4208-M1S.pdf.
- Herwindo, R. P. (2016) 'Dialog pengembangan potensi bentuk dan ruang pada arsitektur tradisional Indonesia dengan konteks masa kini dan mendatang', in *Prosiding Seminar Nasional Jelajah Arsitektur Nusantara*. Bandung, Indonesia, pp. 8–8.
- Ivkovska, V. (2014) 'Re-inventing Vernacular Settlements for Tourists: Can the New Macedonian Village Represent True Vernacular Traditions?', *ISVS e-journal*, 3(2), pp. 17–34.
- Kristiningrum, N. D. (2014) 'Heritage Tourism dan Creative Tourism: Eksistensi Pasar Seni (Central Market) di Malaysia Sebagai Salah Satu Pasar Bersejarah', *Jurnal Hubungan Internasional*, 7(1), pp. 1–12.
- Nuryanto and Ahdiat, D. (2014) 'Kajian Hubungan Makna Kosmologi Rumah Tinggal Antara Arsitektur Tradisional Masyarakat Sunda Dengan Arsitektur Tradisional Bali', in *Research Gate*. Denpasar, Indonesia: Universitas Warmadewa, Denpasar. Available at: https://www.researchgate.net/publication/317633726%0D.
- Nuryanto, N. (2021) 'FUNGSI, BENTUK, DAN MAKNA ATAP IMAH PANGGUNG SUNDA (Studi Perbandingan Atap Rumah di Kasepuhan Ciptagelar, Naga, dan Pulo)', *Jurnal Arsitektur ZONASI*, 4(1), pp. 92–104. doi: 10.17509/jaz.v4i1.27718.
- Paul Dorin, B. (2015) 'The impacts of tourism on the physical environment', Annals of

- *Tourism Research*, (April/June), pp. 215–237. Available at: http://anale.steconomiceuoradea.ro/volume/2012/n1/072.pdf.
- Prasetyo, Y. H. and Astuti, S. (2017) 'Ekspresi Bentuk Klimatik Tropis Arsitektur Tradisional Nusantara dalam Regionalisme', *Jurnal Permukiman*, 12(2), p. 80. doi: 10.31815/jp.2017.12.80-94.
- Richards, G. (2018) 'Cultural tourism: A review of recent research and trends', *Journal of Hospitality and Tourism Management*, 36(September), pp. 12–21. doi: 10.1016/j.jhtm.2018.03.005.
- Suharjanto, G. (2011) 'Membandingkan Istilah Arsitektur Tradisional Versus Arsitektur Vernakular: Studi Kasus Bangunan Minangkabau Dan Bangunan Bali', *ComTech Desember*, 2(2), pp. 592–602.
- Suharjanto, G. (2014) 'Konsep Arsitektur Tradisional Sunda Masa Lalu dan Masa Kini', *ComTech: Computer, Mathematics and Engineering Applications*, 5(1), p. 505. doi: 10.21512/comtech.v5i1.2644.
- Suprapti, A. *et al.* (2019) 'The spatial concepts of cultural heritage village toward a tourism development; a case study of Kadilangu Demak Indonesia', *Journal of Architecture and Urbanism*, 43(1), pp. 36–46. doi: 10.3846/jau.2019.6057.
- Tovivich, S. (2015) 'Conserving vernacular architecture through action planning: Lessons from Klong Bangluang development, Thailand', *ISVS e-journal*, 4(1), pp. 60–73.
- Wilopo, K. K. and Hakim, L. (2017) 'STRATEGI PENGEMBANGAN DESTINASI PARIWISATA BUDAYA (Studi Kasus pada Kawasan Situs Trowulan sebagai Pariwisata Budaya Unggulan di Kabupaten Mojokerto)', *Jurnal Administrasi Bisnis* (*JAB*), 41(1), pp. 56–65.