

The Regularity Of The Twin Formation Of Bale Agung Across Balinese Architectural Civilizations

Made Suastika¹, Andrik Purwasito², Bani Sudardi³, Winny Astuti⁴

^{1,2,3,4}Universitas Sebelas Maret, Indonesia

Email: suastika@staff.uns.ac.id¹, andrikpurwasito@staff.uns.ac.id², banisudardi@staff.uns.ac.id³, winnyastuti@staff.uns.ac.id⁴

Abstract

This study aims to analyze the formation of Bale Agung from the Bali Mule era to the present. Bale Agung is the forerunner of Village Temple (Pura Desa) in Bali that initially had a profane social function. The methods applied were morphology in architecture and hermeneutic phenomenology for the interpretation of meanings. Morphological study technique was employed to examine formation related to the dimensions of time and space. The research locations representing the civilizations of Bali Mule, Bali Aga, Mpu Kuturan, Majapahit, Colonial, Independence to present were determined with purposive sampling. The results showed that Bale Agung with a twin spatial formation in Bali has existed since the Bali Mule civilization in the ancient villages of Sembiran, Julah, Trunyan, Tenganan, Bugbug. Bale Agung signified a profane community and functioned as a meeting room for the local community. The paradigm of the community at that time was worshiping nature (cosmocentric). The spatial formation of Bale Agung in the Bali Aga civilization also showed a regularity of the twin spatial formation. During the Mpu Kuturan civilization, the twin formation still existed, but Bale Agung's location was moved into the Madya Mandala (middle part) zone of a temple which functioned as the rest area (bale pesandekan) during the Ida Bethara Turun Kabeh ceremony that occurs during a melasti ritual before the holy day of Nyepi. In the Bali Aga civilization, development towards theocentric had appeared. In the Majapahit to independence civilizations, Bale Agung did not experience significant changes and, until now, shows the regularity of spatial formation that is twins in pairs in the Madya Mandala zone of Village Temples while showing a development towards anthropocentric due to the increasing number of Hindus.

Keywords: Regularity, Formation, Bale Agung, Across, Civilizations

I. INTRODUCTION

Bale Agung was the large (Agung) building (Bale) developed since the Bali Mule civilization with a profane social function, and now it is transformed to hold a sacred function. It has the concept of *Tri Angga Sarira* (Bhur Bwah Swah), *bhur loka* (floor), *bale-bale* (seating), *Bwah Loka* (Pillar) and *Swah Loka* (roof). The floor was developed from a simple form with a low dimension in the Bali Mule civilization but is transformed to a high dimension in recent civilization. The flat-pyramid shape of the roof has not changed from time to time (Suastika Made, 2021). The word "Regularity" in Balinese is "Keajegan" which is derived from the word "Ajeg" that means consistent or does not change over time.

The formation study was used to examine the composition and layout of Bale Agung, while the transformation study was to examine the changes that occur related to temporal and spatial dimensions. According to Moneo (1978), typology can be divided into 3 phases, namely: 1. Analyzing typology by investigating the history to discover the initial idea of a composition; or, in other words, discovering the origin or occurrence of an architectural object. 2. Analyzing typology by discovering the function of an object. 3. Analyzing typology by looking for the simple form of a building through the investigation of the basic structure and property.

Moudon & Ryan, (1994, p305), mentioned 4 (four) stages that must be passed in typological analysis, namely: determining the scale, formulating a classification, elaborating the results of identification based on the classification to produce type-concepts, and constructing a dialogue of interrelationship between types to formulate the type. Then, the resulting type can be discussed (interpreted) further based on the character to find a design solution. In the field of architecture, there are various definitions of typology that have been

put forward by experts, including as follows. “[Typology is an] approach that isolates the attributes of the architectural coherence, identifies them as characteristics, in order to then compare them with similarly abstracted attributes from other contexts and to define similarities or differences” (Pfeifer & Brauneck, 2007). “It is neither a spatial diagram nor the average of a serial list. It is fundamentally based on the possibility of grouping objects by certain inherent structural similarities” (Kelbaugh, 1996; Moneo, 1978) .

Phenomenology of Hermeneutics or, sometimes, Heidegger's phenomenology is often referred to as "existential analysis". The focus of the Heidegger's observation is more directed to the *in-der-welt-sein* idea of the human world or being in the world. It consists of: (1). concerned with, (2). preoccupation, (3). commitment, and (4). Familiarity. In addition, Heidegger proposed the three terminologies of interpretive activity that are *Vorhabe*, *Vorsicht*, and *Vorgriff*. In a literal manner, *Vorhabe* means 'plan' but is interpreted as 'to have beforehand'. It means that the interpreter has a general understanding of something in a priori. Then, *Vorsicht* means 'see first'. This term refers to the meaning projection for the future. Meanwhile, *Vorgriff* means 'catch first' with a concept of future direction.

Vernacular architecture is a subset of traditional architecture. This concept is derived from a nation's cultural traditions in a specific area. Vernacular Architecture is a culture that has existed for a long time that can be applied to a variety of buildings, including residential buildings, religious buildings, cultural buildings including *Bale Agung* (Glassie, 2000; Samalavičius & Traškinaitė, 2021). In general, Vernacular architectural researchers were still biased and ambiguous in distinguishing Balinese society particularly between Bali Mule and Bali Aga (Suastika et al., n.d.). Historical periodization, artifacts, rituals, and other aspects between Bali Mule and Bali Aga are different. According to the empirically-based statement in the field from a researcher, Bali Mule and Bali Aga are two different things at both architectural artifacts and periodization of their development. Bali Mule, in Balinese often referred to "*mule ade*" (Trunyan, Tenganan, and Sembiran), had already existed before Rsi Markandya came to Bali and invited people from Mount Raung (*Wong Aga*), East Java which previously went to the Dieng Plateau first in the second century before the Hindu-Mataram civilization in Central Java. Thus, the research questions were “how is the typo-morphology of transformation of *Bale Agung* in Bali?”, and “how are the changes in function and meaning from each period?”.

The importance of providing a clear classification framework and basic units of morphological description has been highlighted in previous studies. Syahidah (2018) discovered a unifying conceptual framework represented by morphological aspects of city blocks as spatial units. Using a conceptual comparative approach, the study discovered that the most relevant level of resolution to establish the interrelationship between elements of urban form is on the taxonomy of *sertum* (block) and *textus* (plot series); emphasizing the representation of urban block as spatial unit (Mohamed et al., 2018). Norzailawati analysed the potential of applications of geospatial technology in urban planning research in urban morphology which aims at identifying the evolution of urban morphology and the land use expansion using remote sensing images and Geographical Information System (GIS) technique the study concludes that relationship between urban planning and geospatial applications in creating sustainable and resilient city and future urban governance (Noor et al., 2014).

The objective of this study is to figure out how the physical form in the *Bale Agung* building typology transforms over time, combining universality and locality. To answer the problem and in accordance with the research objectives, several theories from previous studies can be explained, one of which is the concept of morphology. Morphology literally means "the science of form" (*morphos*), whereas architectural morphology emphasizes the discussion of forms. As a result, when determining the value of space associated with the room's purpose, geometric considerations must be taken into account (Agustapraja & Maulidina, 2019; Pane & Fachrudin, 2020). We can see a close correlation between spatial organization, spatial relations, spatial forms, and space values as a result of this relationship.



Figure 1: Distribution Map of *Bale Agung* in Bali Island

Based on the distribution map of *Bale Agung* in Bali, the result of purposive sampling was that Ancient villages such as Sembiran, Julah Buleleng, Trunyan, Bugbug, and Tenganan Karangasem represent the Bali Mule civilization and Taro Village in Tegalalang Gianyar, Panglipuran Bangli, and Jatiluwih Village in Tabanan represent the Bali Aga civilization. Meanwhile, the purposive sample for the Mpu Kuturan civilization was on all *Bale Agung* which are already located in the *Madya Mandala* (Middle Part) zone of village temples (*Pura Desa*) as a part of *Khayangan Tiga* temples.

II. METHOD

Architectural Formation of *Bale Agung* in Bali from the Mule Bali era to the Present was a study in the field of Architecture and Cultural Studies. It was also a multi-disciplinary study involving the fields of architecture, philosophy, and culture. The focus of this study was the transformation of *Bale Agung* across civilizations. The study is aimed to develop theories regarding: (1). The existence of *Bale Agung*/ historical narrative based on artifacts, (2). The typo-morphology to understand the transformation of *Bale Agung* (3). The interpretation of the meaning of *Bale Agung*. The theoretical framework in this research was based on multi-disciplinary Cultural Studies involving morphological theory in architecture, hermeneutics in the context of philosophy and culture to examine the research object from various fields of science.

The theories of morphology in architecture, Heidegger's phenomenological hermeneutic (Heidegger, 2005), traditional Balinese architecture were used as the scope and research method as the initial references for investigating the periodization of Balinese architectural civilizations. The theories above were not used as a means of derivative analysis, but to build and establish empirical and abstract phenomena into a new theory structure that can complement existing theories. The method used in this research was a combination of morphological methods in architecture to reveal the formation and transformation, while, to analyze the transformation/change of meaning, the phenomenological hermeneutic was used with triangulated interviews between sources. The existence of *Bale Agung* is spread throughout Bali, so the research location was all over Bali, but the researcher conducted purposive sampling in five districts (Buleleng, Bangli, Gianyar, Badung, and Tabanan), ancient villages (Bali Mule and Bali Aga) and villages influenced by Mpu Kuturan, Majapahit, modern, postmodern and recent post-truth civilizations.

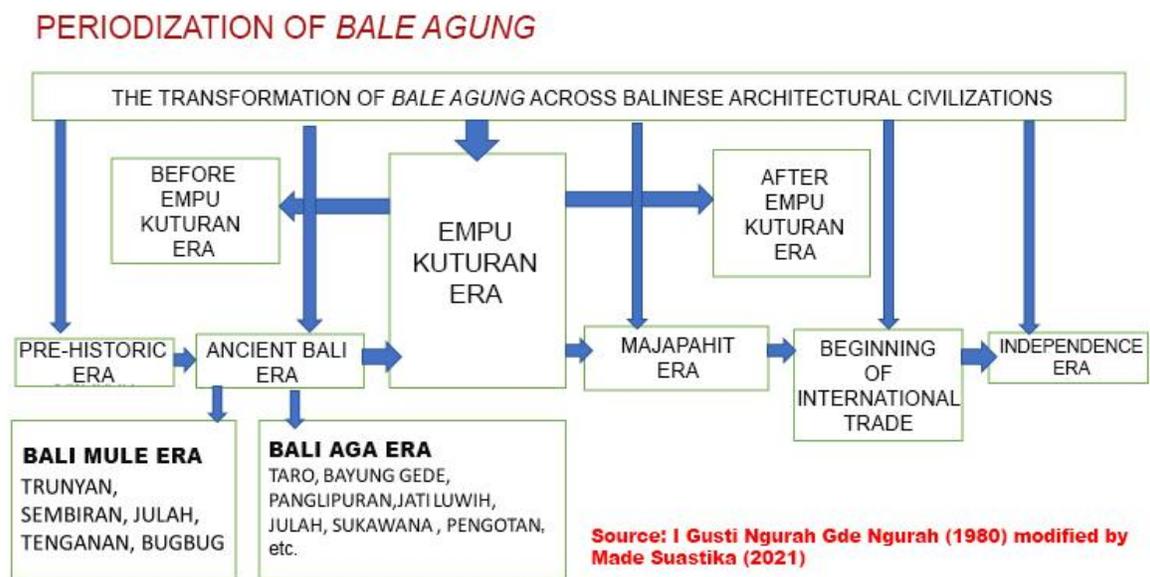


Figure 2. Periodization of *Bale Agung* (Source: I Gusti Ngurah Gde Ngurah ,1980), Modifikasi Made Suastika, 2021)

This study was an exploratory one using the purposive sampling technique. The data collection techniques were employed as follows. First, the interview technique was done by in-depth interview, which is the process of obtaining information for research purposes using question and answer while face to face between the interviewer and the informant with or without an interview guide. Second, the observation technique was conducted as a researcher's effort to present a realistic depiction of behavior or events, answer questions, understand human behavior, and evaluate. Bungin (2007: 115) suggested several forms of observation in qualitative research, namely participation observation, unstructured observation, and unstructured group observation. Participatory observation is a method of collecting research data through observation and sensing, while the researcher is involved in the daily life of the respondent (Bungin, 2007). Third, the document review was conducted to discover the facts and data stored in the form of documentation including letters, diaries, memento, reports, artifacts, photos, and others. The main nature of this data was not limited to space and time, so it allowed researchers to discover past events. Fourth, VIRTUAL Focus Group Discussion (FGD) through Zoom meeting was held as a data collection technique that is generally conducted in qualitative research to find the meaning of a theme according to the understanding of a group (Sweet, 2001). This technique was used to reveal the meaning of a group and avoid a wrong interpretation from the researcher on the focus of the research problem. Then, explorative purposive sampling was conducted. The first stage in the field was to investigate the existence of *Bale Agung* throughout Bali followed by the typology process for data reduction.

Observation (Survey and Interview) and documentation were done to record the existence (Huntington, 1998). The shape of the roof plan and other aspects were used as materials for the analysis of the typomorphology of *Bale Agung*. Audiovisual materials and recoding equipment for sound and image were important and had been used during observations (surveys and interviews) related to the place and time of *Bale Agung*.

Hermeneutics was applied as an analysis method of meaning interpretation. There are six definitions of hermeneutics as a study of interpretation (Gadamer et al., 2001) namely: (1) a theory of interpretation of scriptures or exegesis of scriptures; (2) a philological methodology; (3) the science of linguistic understanding;

(4) the basis or methodological foundation for geisteswissen-schaften that is all studies that focus on understanding art, action, and human writing; (5) a design phenomenon and existential understanding; and (6) a text interpretation system

The phenomenological study was analyzed from the beginning. The theme was constructed from empirical and abstract phenomena. Then, it was processed into empirical facts and meanings. The concept was transformed into a local theory. Then, the local theory was compared with the general theory in order to see the difference between the theories.

III. RESULTS AND DISCUSSION

The regularity of the formation of *Bale Agung*

(1). The regularity of the formation of *Bale Agung* has existed since the Mule Bali civilization in the ancient villages of Sembiran, Julah, Trunyan, Tenganan, and Bugbug. *Bale Agung* signified a profane society and functioned as a meeting place (*sangkep/paruman*) for the local community during the *manusa yadnya* ceremony. At that time, the orientation of the conservative community was still very dependent on the worship of nature (Cosmocentric)



Bale Agung in Trunyan, Kintamani, and *Bale Agung* in Bugbug Village, Karangasem from the Bali Mule civilization are still in regularity with the twin in pair formation until now.



Figure 2; The twin formation of *Bale Agung* in Trunyan and *Bale Agung* in Bugbug Village Karangasem

(2). The regularity of the twin formation of *Bale Agung* in the Bali Aga civilization was marked by the arrival of Rsi Markandya from the Dieng plateau, Raung Mount to Bali, with its remains in Taro Village, Tegalalang (Pura Agung Gunung Raung), Gianyar Bali. Bali Aga Vilages which have *Bale Agung* includes the villages of Panglipuran, Pengotan, Bayung Gede, Jatiluwih, Sukawana, and others. In this civilization, *Bale Agung* signified a profane society and functions as a meeting place for the local community. In this civilization, the development of Hinduism, which was taught by Rsi Markandya, began, so it became the starting point for a Theocentric civilization that was oriented towards religious teachings. At this period, *Bale Agung* has already experienced a floor (*bebaturan*) elevation.



Bale Agung in Panglipuran Village, Bangli, and *Bale Agung* in Taro Village, Tegalalang, Gianyar, from the Bali Aga era until now, still maintain the formation of twin



Figure 3: *Bale Agung* in Penglipuran Bangli, and *Bale Agung* in Taro that has twin formation since the Bali Aga civilization

(3). The regularity of the formation of *Bale Agung* during the Mpu Kuturan civilization was significant in the establishment of village temples for all Customary Villages because Mpu Kuturan was the one who taught the Balinese people to create the *Tiga Khayanagan* Temples (Puseh, Dalem Village). The Formation of *Bale Agung* has been in the *Madya Mandala* zone for all village temples in Bali. In the Mpu Kututran civilization, there was a significant change from a social function to a sacred function by becoming a rest area during the *Ida Bethara Turun Kabeh* ceremony in a *Melasti* event before the *Nyepi* holy day.



In the Mpu Kuturan Civilization, the twin formation of *Bale Agung* remained in a pair and did not change. It remains in regularity across civilizations



Figure 4: *Bale Agung* in Bedha Village, Gianyar and *Bale Agung* in Sukawati village

(4). *Bale Agung* during the Majapahit civilization in Bali was developed by starting to improve the carving ornaments that adorn the elements of *Bale Agung*'s legs, body, and head. (Bhur, Bwah and Swah Loka).

(5). *Bale Agung* during colonial civilization became more diverse, especially in improving its ornaments through the emergence of Dutch, Chinese, and Egyptian motives on the floor, pillar, and roof elements. Foreign elements were widely used because many people imitated the ornament from the king's castles.

(6). *Bale Agung* during the independence civilization still existed and became strongly related to the arrival of new materials, such as cement and iron, while still maintaining brick materials, thatched-roof wood, fibers, and bamboo. At the time of independence, the existence of *Bale Agung* was developed as the main building in the *Ida Bethara turun kabeh* ceremony during a *Melasti* ritual.

(7). *Bale Agung* during modern civilization until recent post-truth civilization still exists with the twin formation in the *Madya Mandala* zone of all village temples throughout Bali. In modern times, *Bale Agung* has not undergone many changes, except for building materials that started to be used, such as cement, concrete, and Iron,. However, in the principle, the Balinese have not made any significant changes that can be considered as evolutionary changes towards a better condition. Except for Trunyan and Tenganan, *Bale Agung* is still preserved as a communal space and located in a public space.

The Formation and Transformation of *Bale Agung*

VERTICAL DIMENSION TRANSFORMATION

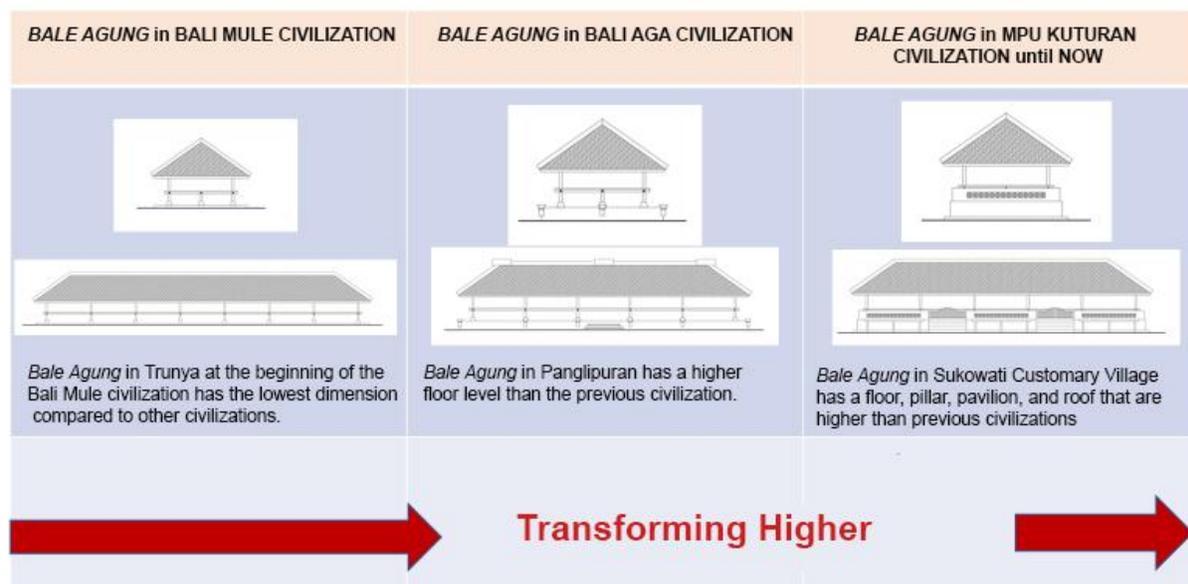


Figure 5. Vertical Dimension Transformation of *Bale Agung*

The collective paradigm of society from each civilization has gradually changed from a cosmocentric, theocentric into an anthropocentric civilization. In this study, typo-morphology was a process used as a step to explore and understand the transformation of the form of *Bale Agung*. The transformation of *Bale Agung*

both horizontally and vertically is quite varied, from the lowest floor elements (*Bhur Loka*), pavilion and pillar in the middle (*Bwah Loka*), and roof (*Swah Loka*). In the Bali Mule civilization (Ancient Bali before Mpu Kuturan), the floor element was not too high, so the pavilion formation was low because it functions as a communal space (*sangkep/paruman*). Meanwhile, the pillar and pavilion elements were not much ornamented and the roof was in the shape of a flat pyramid made from fibers, weeds, or bamboo as in Panglipuran. In the Mpu Kuturan civilization, there was a transformation of the height dimension which the floor and the pavilion became very high because of the change in the function from the communal space into a sacred space for the meeting area in *Ida Bethara turun kabeh* ceremony during the *Melasti* ritual before the holy day of Hindu new year, namely *Nyepi*.

HORIZONTAL DIMENSION TRANSFORMATION

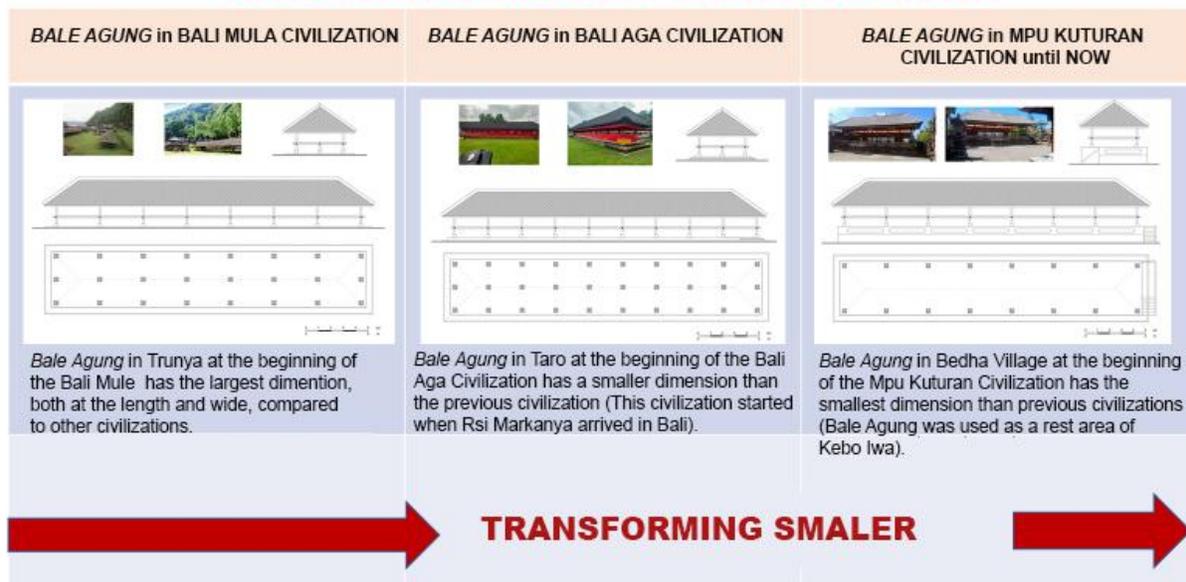


Figure 5. Horizontal Dimension Transformation of *Bale Agung*

The twin spatial formation of *Bale Agung* has not changed much in each civilization. From the Bali Mule era to the present, it dominantly has twin formations, but only the *Bale Agung* on the east/north side that has very high vertical dimensions functions in the *Melasti* ritual. In Tenganan, the spatial formation of its *Bale Agung* is very unique and different from other *Bale Agung* in Bali. Its spatial formation is not twin and it functions as a communal space until now.

IV. CONCLUSION

Bale Agung has existed since the post-pre-historic civilization of Bali Mule to this day. The twin spatial formation of *Bale Agung* has not changed much in each civilization. From the Bali Mule era to the present, it dominantly has twin formations, but only *Bale Agung* on the east/north side that has very high vertical dimensions functions in the *Melasti ritual*. In Tenganan, the spatial formation of its *Bale Agung* is very unique and different from other *Bale Agung* in Bali. Its spatial formation is not twin and it functions as a communal space until now.

The transformation of *Bale Agung* across civilizations indicates the horizontal transformation of form that is getting smaller but vertically getting higher in accordance with the inadequacy of land in Bali. The transformation of meaning in the *Bale Agung* across civilizations is from the profane function of public space, namely a meeting area, into sacred space for *Idha Bethara Turun kabeh* ceremony during the *melasti* ritual

before the Holy Day of Nyepi. The transformation occurs because the collective paradigm of society in each civilization gradually changes from a cosmocentric, theocentric to the anthropocentric civilization.

REFERENCES

1. Agustapraja, H. R., & Maulidina, Y. (2019). Morfologi Arsitektur Dan Transformasi Fisik Masjid Agung Lamongan. *Jurnal Teknik*, 11(2), 1104–1108.
2. Bungin, B. (2007). *Penelitian kualitatif: komunikasi, ekonomi, kebijakan publik, dan ilmu sosial lainnya* (Vol. 2). Kencana.
3. Gadamer, H.-G., Dutt, C., & Most, G. W. (2001). *Gadamer in conversation: Reflections and commentary*. Yale University Press.
4. Glassie, H. (2000). *Vernacular architecture* (Vol. 2). Indiana University Press.
5. Heidegger, M. (2005). *Introduction to phenomenological research*. Indiana university press.
6. Huntington, H. P. (1998). Observations on the utility of the semi-directive interview for documenting traditional ecological knowledge. *Arctic*, 237–242.
7. Kelbaugh, D. (1996). Typology—An architecture of limits. *Architectural Theory Review*, 1(2), 33–52.
8. Mohamed, S. A., Harun, N. Z., & Abdullah, A. (2018). Urban morphological analysis framework for conservation planning and management. *PLANNING MALAYSIA*, 16(5).
9. Moneo, R. (1978). On typology. *Oppositions* 13.
10. Moudon, A. v., & Ryan, M. (1994). Reading the residential landscape. *The Urban Experience: A People-Environment Perspective*, 183–313.
11. Noor, N. M., Nor, M. M., Abdullah, A., & Zahari, R. K. (2014). GEOSPATIAL TECHNOLOGY APPROACHES IN URBAN MORPHOLOGY FOR RESILIENT URBAN GOVERNANCE. *PLANNING MALAYSIA*, 12(3).
12. Palmer, R. E. (2001). *Gadamer in conversation*.
13. Pane, I. F., & Fachrudin, H. T. (2020). *The Morphology of Vernacular Architecture in Medan City and Its Surroundings: Case Study-Malay Architecture*.
14. Pfeifer, G., & Brauneck, P. (2007). *Courtyard houses*. Birkhäuser.
15. Samalavičius, A., & Traškinaitė, D. (2021). Traditional Vernacular Buildings, Architectural Heritage and Sustainability. *Journal of Architectural Design and Urbanism*, 3(2), 49–58.
16. Suastika, M., Purwasito, A., Sudardi, B., & Astuti, W. (n.d.). TYPO-MORPHOLOGY OF BALE AGUNG IN BALI. *NUSANTARA CULTURAL STUDIES*, 298.
17. Sweet, C. (2001). Designing and conducting virtual focus groups. *Qualitative Market Research: An International Journal*.