The Architectural Language of Inner and Outer Space as Observed among the Atoni Tribe in the Tamkesi Kampong on Timor Island

Purnama Salura, Reginaldo Ch. Lake

ABSTRACT

This research study aims to investigate the concept of inner and outer space found in the traditional architecture of the Atoni tribe living in the traditional kampong of Tamkesi on Timor Island. The method employed for this research project consists of the following steps: first of all, to record and re-sketch the entire physical state of this kampong in the greatest possible detail. The result of these sketches is subsequently subjected to an anatomical analysis to arrive a classification of the relationship between all of the elements encountered and scrutinized; secondly, to make an analysis by exposing the latter to the principles of identification and orientation. The analysis is based on an elaboration of the phenomenological approach by Norberg-Schulz and the structural approach involving function-form-meaning by Salura.

Based on the outcome of this analysis, the local concept serves as the basis for the architectural language of inner and outer space as observed in the Tamkesi kampong. The conclusion drawn reveals that the relationship between the immediate environment, the site, form, structure and the natural-cultural cycle in traditional architecture is clearly influenced by the concept of top-down (upper vs. lower) hierarchy as well as the binding element (datum) of the tribal order (hierarchy, the gender code/etiquette, ethnic bonds and traditional customs as well as cultural and spiritual symbols).

Key words: Architectural Language, Identification, Orientation.

INTRODUCTION

The globalization that has made such an indelible impact on Indonesia in the field of architecture has had an even stronger influence on big cities. The various buildings that have been emerging in this era have an almost uniform look in terms of shape and attributes. [1,2] The modernist concept triggered by industrialization is believed to have formed the basis of considering the creation of a specific language to express the univalence of architectural form, better known as the international language or lingua franca of architecture. [3,4,5] It turns out that the emergence of this type of architecture labeled international architecture cannot only be found in the big cities of Indonesia but also be observed as reaching those regions that fall under the category of backward hinterlands featuring constructions that seem left behind. This international style has also adorned the city of Kupang as the capital of the Eastern Lesser Sundas in the Southeast, referred to as NTT.

Several box-shaped government buildings covered with bare (unadorned) glass egg-shells glorify the landscape, standing tall and proud. It is a well-known fact that these particular glass structures are more suitable for a sub-tropical climate. In the city of Kupang, the temperature at noon may vary between 32-35 degrees Celsius, while the humidity rate hovers around 80%. [6,7,8]

The same phenomenon can be observed in the way inner and outer urban space has been arranged. It seems as if the town planners in charge have been showing utter indifference to both the existing culture and the climatic conditions. As a matter of fact, there happen to be at least ten different current types of traditional architecture to be identified in the Eastern Lesser Sundas (NTT) that are alive and well. [9,10,11]

This variety of traditional architecture contributes to the special quality of the potential for an architectural idiom in comparison with other kinds of traditional architecture encountered in other Indonesian provinces. One of the most prominent types out of the ten varieties mentioned above is the one found among the Atoni tribe in the Tamkesi kampong. This type of architecture comprises a specific kind whose condition has been put to the test in its national and cultural context for centuries [12,13,14]. Thus, the traditional architectural idiom needs to be subjected to an in-depth analysis and research study for it to become a source of reference for a language of architectural design that is truly contextual. Moreover, profound or far-reaching research into this specific field has rarely been conducted so far.
Taking the potential and scarcity of knowledge about the architecture found among the Atoni tribe as a starting-point, this research project aims to reveal the various concepts of local wisdom created from the architectural language or local idiom describing the inner and outer space involved.

The possible use and further advantages to be gained from this study are: first of all, a deeper understanding of the traditional architectural language of the Atoni tribe; secondly, a fresh understanding of the method to be employed for reading (interpreting) the arrangement or structure of inner and outer space among this tribe; thirdly, a better appreciation of the dominant aspects underlying the formation of the architectural language describing the inner and outer space as found among this tribe; fourthly, the importance of fathoming the architectural language of the Atoni tribe to be used as a frame of reference for the creation of a synthesis between local and modern architecture.

MATERIALS AND METHODS

Case Study

One of the oldest traditional kampongs in NTT is the one known as Tamkesi. It is estimated to have existed since 1865. The kampong is situated in the rural area called Tautpah, part of the third cluster of the South Usboko Biboki in the North Central Timor (TTU) Regency. Its geographical location is between 124 degrees 04' 02'' - 124 degrees 46' 00'' Eastern longitude. The boundaries of the traditional Tamkesi kampong run from the Northern parts of the Tautpah villages, the Eastern part of Oekopa and Oriabesi and Sapah, the Southern part of T’eba and Western part of Tokbesi. [15,16]

The Tamkesi kampong consists of a small community in a small part of the rural district where the Tokbesi village is situated. This small community resides in the mountain range or the hinterland that has been known from the past until the present as sonaf by the local tribe. This local kingdom used to be led by an Emperor called Kaisar.

The word Biboki has been derived from an ancestral name hailing from East Timor (Timor Leste). This ancestor named Usif Biboki along with his extended family were members of a nomadic tribe that used to keep moving around the Oepuah beach area until they settled in the mountain range mentioned above. They purportedly wandered all the way to the western part of the island that was to become NTT. [17, 18]

The physical condition of the traditional village of Takemsi has seen little change, and the villagers themselves still hold on firmly to their customs and traditions. These are the main points taken into consideration for selecting the Takemsi kampong as the basis of the case study used in this research project.

Analytical Steps

The initial analytical step to take is to determine the tools to be used for interpretation in accordance with the purpose of research and the specificity of the case study (traditional vernacular architecture). Previous research indicates that the structural and phenomenological approaches are considered to be in compliance with the characteristics of this type of research. The research conducted happens to join together and elaborate on the approaches propagated by Norberg-Schultz and Salura mentioned earlier. The next step is based on arranging mutually complementary approaches as a framework for further interpretation.

Having been influenced by the phenomenology of Heidegger, Norberg-Schultz basically puts forward two main sides interacting to complement one another. He elaborates on the way in which the moment of space and mass used is mutually attached to an inherent existential basis associated within human beings as its observers. Furthermore, he charts the two sides mentioned above as figure-form-space and memory-identification-orientation. [19, 20, 21] On the other hand, Salura’s approach takes the existential structure of function-form-meaning as its starting-point, being convinced that it is this very attraction between architectural form and function that is so meaningful to its practitioners and observers. Salura states that in man’s inner being, we are bound to encounter a sense of regularity in terms of balance and hierarchy grounded in the essence of man and nature. [22, 23, 24, 25, 26]

The elaboration of both of these approaches sketched above on this research study can be summed up as follows: on the non-physical side, two main points can be established, namely the aspects of identification and orientation to be explored in the physical make-up of the Atoni’s tribal kampong. In terms of physical aspects, an anatomical analysis is made of all of the mass and space of this kampong as its environmental scope, the site’s enclosure, the scope of mass and space on site the range of the framework of mass and space involved and its spatial and mass-related cyclic sphere. (See Fig. 01)

The steps taken in this study include: first of all, to make an extensive and detailed record of the existing physical arrangement, to be followed by the process of re-sketching the current situation and conditions by using both two- and three-dimensional techniques. Re-examining and sketching all of this is important because based on the result of these sketches, further observations can be made in more theoretical ways. Secondly, to classify the result of the physical records based on the anatomical analysis above. Thirdly, to confront the outcome of the anatomical classification with the principles of identification and orientation. As regards the principle of...
Identification, what must be investigated is based on creating a classification of each aspect, whether the principle of axis, symmetry, datum or rhythm is concerned. As for the principle of orientation, the following aspects must be explored: the principle of top-down (upper vs. lower), distant-near, left-right, and front-back hierarchy. Fourth, the dominance of the principle found in the third section must be confronted with the various local concepts in existence. In this study, conclusions may be drawn about which particular principles are closely related to the concept of space and mass formation that is typical of the Atoni community.

Figure. 01: Interpretative Framework

RESULTS AND DISCUSSION

1. Scope of Architectural Immediate Environment

Orientation Principle (Hierarchy)

The traditional Tamkesi kampong constitutes a central part of the hierarchy signifying outer and inner space on the environmental scale. The correlation or orientation of the immediate environmental scope (naukel, nasi, kuan feu, and lele) is invariably related to the proximity (distant-near) to the traditional Tamkesi kampong as the center of all activities. The orientation principle denoting front-back elements tends to influence the actual condition of the new kampong that has adopted the concept of urban buildings. The central part of this site serves as the center of Sonaf (the Imperial Palace), which is held in higher esteem than its immediate environment attached to the existence of outer space made up of various environmental elements (naukel, nasi, kuan feu, and lele).

Identification Principle (Part and Whole)

Since it enjoys a regular order (binding element or datum), the outer space thus created tends to be formal, in keeping with the rules and regulations prescribed by tradition and local culture, but it has also been affected by the conditions of the surrounding natural elements. The presence of a traditional settlement in the
shape of sacred space that enables the shaping elements of the outer space on the settlement scale has a very clear orientation, namely one aimed at a particular axis, in this case the Tamkesi Imperial Palace (Sonaf). Even though the quantity of the binding factors outnumbers other factors, the element that comes to the fore in the new settlement (or cluster of villages) consists of the repeated element (rhythm) of constructions in the shape of a quadrangle. The dominant element in the creation of outer space in the Tamkesi dwellings on the scale of the immediate environmental scope consists of the binding element (datum) in terms of tradition, culture, and nature.

2. Scope of Architectural Site
Orientation Principle (Hierarchy)

The Tamkesi tribe’s concept of establishing a settlement has been affected by culture and tradition. This multi-faceted concept has been brought out into view in the visual appearance of the arranged pattern within the site’s scope. The dominance of the upper-lower hierarchy can obviously be found in the the ordering principle of the traditional Tamkesi kampong. The upper section is believed to denote private space, considered the most sacred (fafon) of all, whereas the lower section represents public space (profane space referred to as munin). The positive role that the upper-lower hierarchy of outer space within this site’s scope plays is that it clearly leads to visual interaction between zones (eno), occurring most conspicuously in the contrast between contours (upper-lower levels of zones). The front-back hierarchy is also a concept based on the ordering principle of the traditional Tamkesi settlement. The concept behind this settlement featuring the palace pays attention to this front-back orientation as a concept of self-defence on the settlement’s scale.

Identification Principle (Part and Whole)

The site’s scope serves as outer space and binding element (datum) of the zone. The level of positivity affecting this outer space has been created in accordance with the sense of ownership or the inhabitants’ territorial sense of belonging (lian meospoan, lian aat, lian atupas, and nuat) vis-a-vis the outer space at the Tamkesi building complex. The more positive the characteristics of space (visually evident in the marked difference between zones or contours and territorial borders in the shape of stone walls), the stronger the sense of ownership of what has been created for one’s own benefit. The kind of ownership conveyed in this context does not refer to legal ownership but rather to the psychological ownership inspired by traditions and customs, also brought about by the various shaping elements of this outer space within the site’s scope (contours, status of position/rank in terms of culture and tradition, and the stone fence or nopon ni nopon). The physical interaction between zones within the site’s scope takes place by way of entrances to each zone marked by stone structures that form the boundaries (nopon ni nopon). This area functions as a boundary or binding element, simultaneously forming a physical transfer between the outer space that is public (front zone or eno naik ah) and the outer space that is relatively private in nature (inner zone or natna eno oebnah).

3. Scope of Architectural Form
Orientation Principle (Hierarchy)

Regarding the actual composition of the shape of the building mass found in Tamkesi architecture, the front section consists of an entrance door or gate (neus mat fa) that is higher in value than other parts of the building in correlation with orientational order. In the middle part of the buildings, the most upper part (teot koet na/roof composition and nete bifo/ume in subn’na) constitutes the part characteristic of the building markers used in Tamkesi architecture on the environmental scale, whereas the closed upper section reveals the dominance of the roof as the building marker on a rather approximate scale, marked by the presence of am ume ornaments.

Identification Principle (Part and Whole)

Having an arch-shaped structure, the Tamkesi architecture of the buildings makes a dynamic and light impression. The composition of the binding element (datum) is more dominant, especially the elements of the roof that fill the composition of the building shape in this particular architectural style, so the buildings seem to merge into one shape, which gives the building mass a monumental impression when viewed from a distance. The presence of an axis centred at one point at the top (zenith) serves as a marker of the specific locality and identity of these Tamkesi buildings. The iconic, identifying concept of this Tamkesi style is very clear, based on the building mass, while at the same time marking the status of its ownership.

4. Scope of Architectural Structure
Orientation Principle (Hierarchy)

The structural scope and arrangement of the building mass obviously has a certain ordering principle indicating an upper and lower hierarchy. The upper part of this structural scope is prioritized in shaping the building mass in Tamkesi. The narrow upper section (malelbon) is a building marker on the formal scale marked by the presence of ornaments (am ume), whereas the widening lower section (mainuabon) joins together (as if becoming one) from top to bottom. This is clearly visible in the roof shape (toet koet na) dangling down to the surface of the ground.

Identification principle (Part and Whole)
Having a symmetrical order within this structural scope, the building mass tends to be balanced in nature, even though the shape of the mass employed here consists of dynamic shapes, namely round and ellipsoid ones. The roof elements are of high quality and dominate the building mass when observed from a distance. Even though the roof elements dominate all elements in the building mass structure, the binding element (datum) of each scope is different, namely \textit{nopon ni nopon}, \textit{nabit} versus \textit{sonaf in sun’na}. On the other hand, the structural scope has obviously been held together by the lofty poles as the most salient spatial element in the building mass.

5. Scope of Architectural Cycle
Orientation Principle (Hierarchy)

The analysis involving suitability and specific culture yields the obvious result that the hierarchic concept of distinguishing between upper and lower elements has produced a dominant composition, both in the perception of climate, nature, culture, religion and of social environment. The loftiest element comprises the marker of something sacred (falon) that must be honored and respected as a consequence, following the customs and traditions of the Tamkesi tribe. Tribal order plays an important role in the culture of the Tamkesi settlement. The hierarchy of this tribe provides orientation concerning higher and lower elements. The Usboko tribe plays a central role and is valued more highly than others. The relationship between tribal order and spatial order is maintained when the orientation principle centres on the prevalent cultural markers, namely traditional ceremonies held in the middle of the Tamkesi kampong. The orientation of upper and lower elements has been very heavily influenced by the climate. The upper section (in the shape of hills) is bound to feel safe in comparison with the lower section (in the shape of valleys) during the rainy season.

Identification (Part and Whole)

Since the traditional Tamkesi settlement is formed by nature, all elements giving shape to space, materials and activities of the traditional Tamkesi community are nature-bound. On the other hand, cultural symbols are inextricably linked to religious or faith-related concepts. As a result, the binding element (datum) forms the dominant element, taking the upper hand in the cyclical scope that has been cultivated from the era when the Biboki ancestors established their traditional ceremonies and rites.

\textbf{Fig. 02} Isometry of the Tamkesi Settlement

\textbf{Fig. 03} Section View of the Tamkesi Settlement’s Site
CONCLUSION

Based on the outcome of this analysis, the following conclusions may be drawn:

First of all, the traditional architectural language or specific idiom of the Atoni tribe is inextricably attached to the concept of creating outer space and its correlation with inner space. The formation of the Tamkesi kampong was initiated by ordering this outer and inner space, and setting up the boundaries between traditional functions. The types and orientations of the residential dwellings as well as miscellaneous supporting means are all based on the very concept of inner and outer space involved.

Secondly, this study confronts a relatively new method that breaks down the interpretation or reading of the Tamkesi kampong based on anatomical classification (building mass, inner and outer space).

Thirdly, a salient aspect of the orientation principle prevalent in traditional Tamkesi architecture is the upper-lower hierarchy, referring to the upper sphere as spatial elements to be sanctified and held in high esteem, while the lower spatial elements are considered profane in nature. The concept behind this top-down hierarchy is based on the ethnic or tribal sense of fraternity and the tribe’s relationship with the surrounding nature. On the other hand, an important aspect of the identifying order is the binding principle or datum, that is to say one based on the concept of loyalty to tradition, and respect for reli-spiritual and cultural symbols in the shape of traditional ceremonies.

Fourthly, a deeper understanding of the architectural language concerning inner and outer space as observed among the Atoni tribe in Tamkesi can be used as a frame of reference for designing architecture in urban area, new settlements and other new buildings. Hopefully, the process of synthesis between perfectly sensible local concepts and modern technology may be attained. Thus, a new kind of architecture may be created in turn, riding the current wave of progress as long as it remains suitable for the cultural context and the local natural environment.

REFERENCES