Journal of Design and Built Environment
E-ISSN: 2232-1500 |Print ISSN: 1823-4208
https://ejournal.um.edu.my/index.php/jdbe
Vol. 23 Issue 02, 2023, 14-33

Evaluating the Works of Indonesian Star-chitects, Case Studies: Star-chitects building designs in Indonesia

Purnama Salura[1], Bachtiar Fauzy[1], Stephanie Clarissa[2], Reginaldo Christophori Lake[3,*]

[1] Universitas Katolik Parahyangan, 40141 Bandung, Indonesia
[2] Cetta Gantari Research Centre, 40141 Bandung, Indonesia
[3] Universitas Katolik Widya Mandira, 85361 Kupang, Indonesia

* Corresponding author: reginaldolake@unwira.ac.id
https://doi.org/10.22452/jdbe.vol23no2.2

Article Info
Submission date: 05 Nov 2022
Acceptance date: 31 Dec 2022

Keywords:
Architecture
Basic needs
Function
Purpose
Use
Star-chitect

Abstract

Towards the 20th century, in the world of architectural practice, there was an expression to refer to famous architect experts, "star-architect", or simply "star-chitect". The work of these star-chitects is widely published and used as a reference for designing new architectural works. However, it is very rare for academic research to focus on examining the architectural works of these star-chitects, even though these architectural works may not necessarily perform well and be able to positively benefit the surrounding environment. Therefore, this study aims to explore in depth the works of Indonesian star-chitects, particularly related to two main aspects of architecture, namely aspects of function and form. In line with this objective, the research not only examines the literature that is in line with the research issue but also integrates the interpretations of architects, users and observers. An analysis will be carried out on the work of Indonesian star-chitects that accommodate different functions, namely residential, hotel, library, and religious building. This research formulates a conceptual framework for analyzing architectural works based on the basic needs of architecture, which consist of architectural purpose-function-use. Its application to reading architecture in case studies shows that it shows that star-chitect architecture does not always perform well when evaluated based on theory and empirical conditions. In addition to contributing to the development of architectural knowledge, this research also brings practitioners to the awareness of the importance of a harmonious relationship between the function and form of architecture, as well as giving insights and providing alternative perspectives for laymen in appreciating architectural works.

1.0 INTRODUCTION

One of the terms attributed to humans is *'homo significans*', which means 'creatures who create meanings' (Danesi, 2007; Hurford, 2007; Lukianova & Fell, 2015). This unique ingenuity is also what then gives birth to various activities and ideas that are important for the survival and development of human beings. Natural and social-cultural science, technology, as well as architecture, all are the result of human ability to create meaning. Therefore, it is not surprising that the ability to create meaning is believed to be one of the aspects that distinguish humans from other living creatures.

The advantages possessed by humans do not always bring positive benefits, but can also have negative impacts. Activities or works born from this creation of meaning can bring people closer to reality while at the same time contributing positively by increasing their value. But on the other hand, meaning-creation that is carried out arbitrarily and directed to fulfill mere individual desires could distance humans from reality so that they tend to be delusional (Tversky & Kahneman, 1974; Nichols, 2017; Haack, 2007; Mclntyre, 2018)

Architecture is an object created by humans as a part of the meaning-creation process; it is related to other human beings and the surrounding environments. Therefore, architectural practice will always be related to human tendencies, whether they are close to reality or those that tend to be delusional (Salura, 2015; Bay, 2008; Tzonis & Lefaivre, 2018).

This tendency can be seen in the phenomenon of contemporary architectural practice. Nowadays, it is not uncommon for architects to meet the client by asking: "What style of architecture do you want for your building?" Another suggestion that is often put forward is: "This building was designed by a well-known architect, who wins competitions and has a large number of followers on social media. How about if we designed it to look similar to this 'star-chitect' building, with a few modifications?" In the end, the client may want the shape of a residence, office, shopping centre, warehouse or even a monument with a unique shape to design a religious building. On the other hand, a house owner may want the building to look like a modern office or the Palace of Versailles full of ornamentations in classical style. Empirically, it can be seen that in Indonesia itself, the expression of building forms is very diverse, even though these buildings accommodate the same kind of activities.

Looking back several decades ago, historical records show that the architect's desire to produce sensational works generally resulted in architectural works which not being able to perform well (Brolin, 1976; Bonta, 1979; Tzonis, 2014). For example, two iconic buildings of modern architecture were considered a failure: Farmsworth House and Villa Savoye. Farmsworth House designed by Mies van der Rohe can no longer be used as a residence because the users feel uncomfortable living inside it. After several months since the building was built, Mies himself got sued by the house owner. Another modern architectural icon, Le Corbusier's Villa Savoye, saw the same thing. Even before a year of use, the owner of the house complained about flooding problems and leaks in the building enclosure elements so that the building could not be used as a residence (Millais, 2017). Even the famous post-modern star-chitect works, such as Frank Gehry or Santiago Calatrava, have also received a lot of criticism because the buildings did not perform well, even endangering the safety of their users.

The essence of the architectural creation is to provide security, health, and convenience to its users. Criticism of the failure of these iconic architectural works should be a lesson for architects not to just follow trends, and return to the essence of architectural creation. Unfortunately, now the opposite is happening. The phenomenon of the rise of sensational architecture shows the tendency of architectural practitioners to simply follow any trend that is rife on social media, perhaps without knowing that the architectural works used as references have actually received a lot of criticism.

At the heart of the matter, lies the issue of the relationship between architectural form and function. Hence, this study aims to provide an in-depth understanding as well as a new theoretical conception of the relationship between aspects of function and architectural form in general. In particular, this research focuses on exploring the relationship between aspects of architectural function and form in selected architectural works designed by Indonesian star-chitects.

In line with this goal, this research can contribute to the development of architectural knowledge, particularly related to an in-depth understanding of aspects of function, form, and the relationship between the two. Thus, it is also expected to be able to bring all architectural practitioners into awareness of the importance of a harmonious relationship between aspects of function and form in a world that is constantly changing, and to inspire practitioners to design based on the essence of architectural creation, not just following trends. For decision-makers, an in-depth understanding of aspects of function and form could serve as the foundations for positioning architectural conditions in Indonesia in a global context, to formulating policy recommendations. As for the general public, the results of this study are expected to be a source of knowledge, so that they are not easily influenced by the media, but could provide objective views and critical solutions to architectural practices in Indonesia.

2.0 MATERIALS AND METHODS

2.1 Case studies

This research focuses on the relationship between functions and architectural forms. In line with these issues, the criteria for determining case studies are as follows: Firstly, concerning the aspects of building functions. In line with the understanding that there are fundamental differences between human activities, the selected buildings accommodate different functions, namely residences, hotels, libraries, and religious buildings. These four functions were chosen because all of them have different characters and activity patterns. Secondly, the designer and the building are famous, i.e. architects who are widely known as 'expert practitioners' by the public, often receive awards, are often covered by the architectural information media, and are already known as trendsetters. Thirdly, the building was designed using the architectural style that was popular when the building was built, and that style is still popular today.

Based on these criteria, four buildings were chosen as case studies: Eco House by SHAU; Hotel Concordia by Tan Tjiang Ay; Taman Bima Microlibrary by SHAU; and the Amir-Hamzah Mosque by Andra Matin. The following is a brief description of the designers, the architectural work that is the case study, as well as photos and architectural re-drawings of the buildings (**Figure 1**- **Figure 4**).

Case 1: Eco House (2019) – SHAU

SHAU (Suryawinata Heinzelmann Architecture and Urbanism) is a renowned architectural firm based in Bandung, West Java. From 2011 to 2020, SHAU has received at least 51 awards at the national and international levels, both in the fields of architecture, interior design, and product design. These awards include INDE Award 2018 for Influencer category, WAF X Award 2017 for Smart City category, Lafarge Holcim Asia Pacific Silver Award 2017, Architizer A+ Award 2017, and American Architecture Prize (now called Architecture Master Prize) Firm of the Year Award 2017 (SHAU, 2020b).

Based on the designer's concept, Eco House is designed in accordance to direct sunlight and wind orientations, in order to create shading and maximize cross ventilation (SHAU, 2020a). Based on this intention, the main building stretches along the east-west axis. Likewise, the design of the ground floor, kitchen, dining room, and living room all face the garden to get natural light and ventilation. In general, it can be said that the design of this dwelling is dominated by efforts to respond to local climatic conditions.

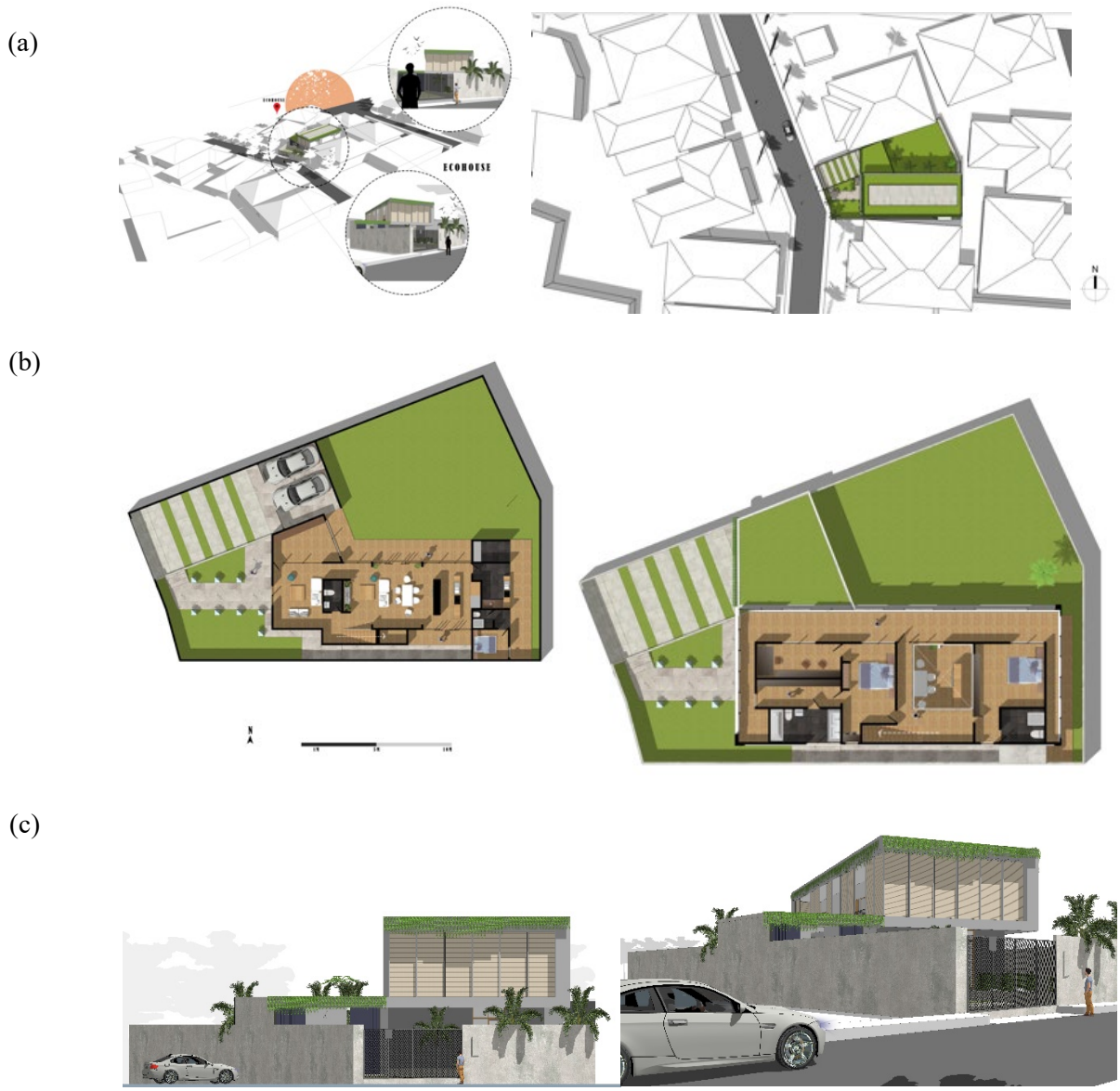
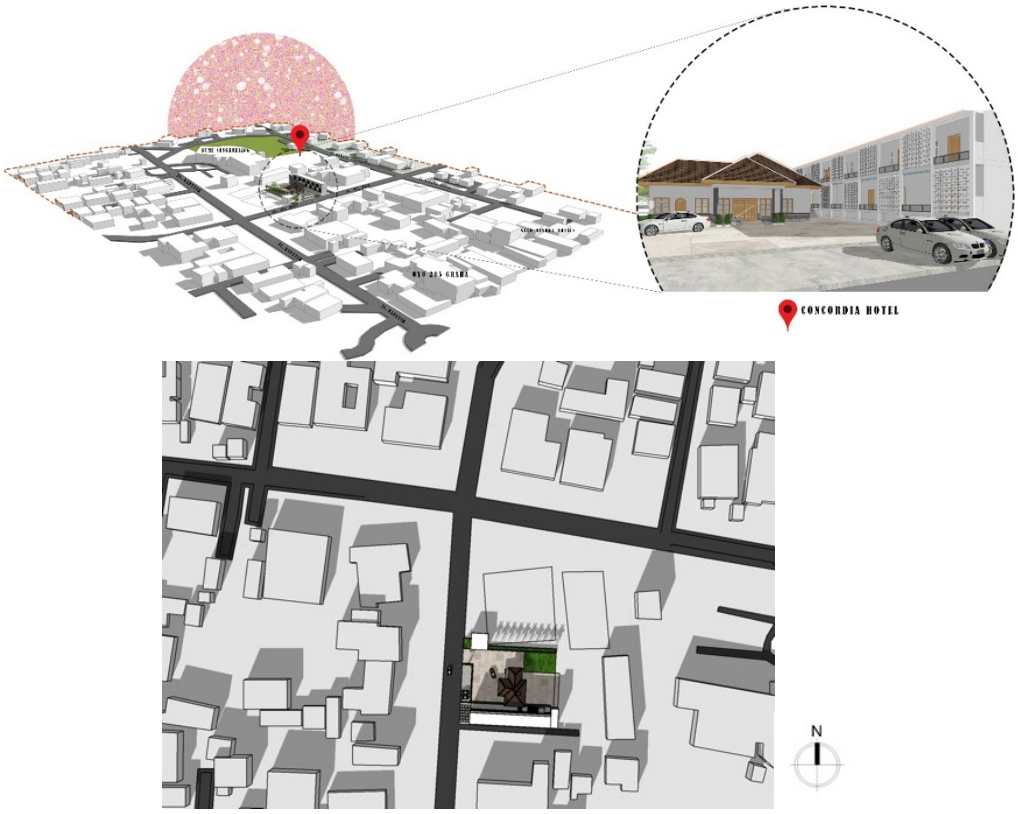


Figure 1. Eco House (a) block plan (b) floor plan (c) elevations and perspective

Case 2: Concordia Hotel (2006) – Tan Tjiang Ay

Tan Tjiang Ay is one of the senior-practising architects in Indonesia. His first modern-minimalist house design was built in 1983. In 1991, the work was awarded the Indonesian Architectural Association Award for the residential category. The design is considered successful in accommodating the client's wishes, as well as providing solutions to environmental problems. Until now, Tan Tjiang Ay is widely known as a trendsetter of 'reductionist' architecture, which is manifested in the form of box-shaped, minimalist building, free from excessive ornamentation. His works were published in the introduction to Robert Powell's book The Tropical Asian House, and were nominated by the local design magazine Indonesia Design as Best Architecture Design (Indonesia Design, 2018; Omah Library, n.d.).

(a)



(b)

(c)

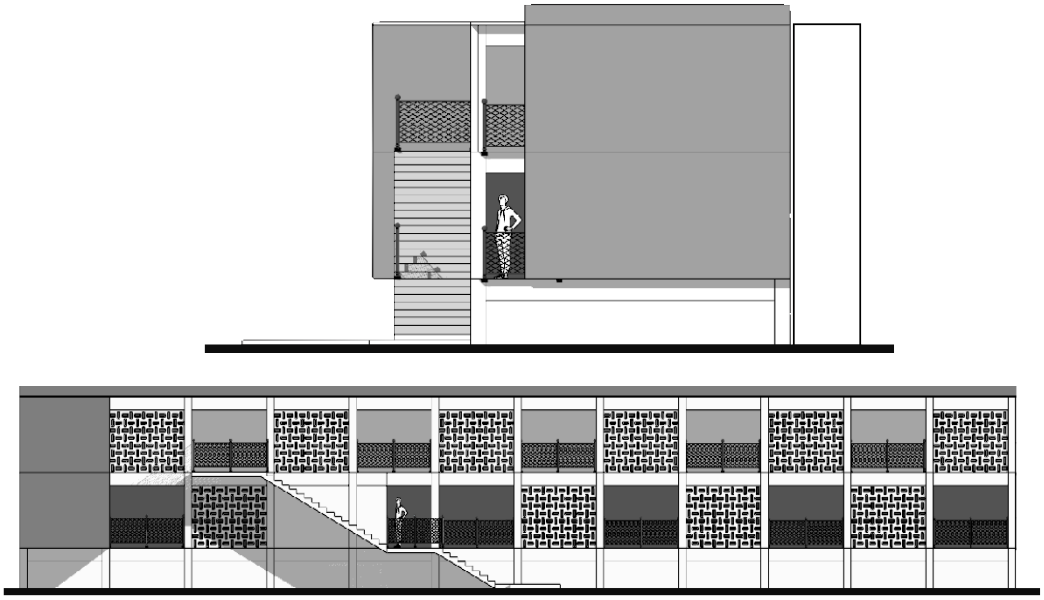


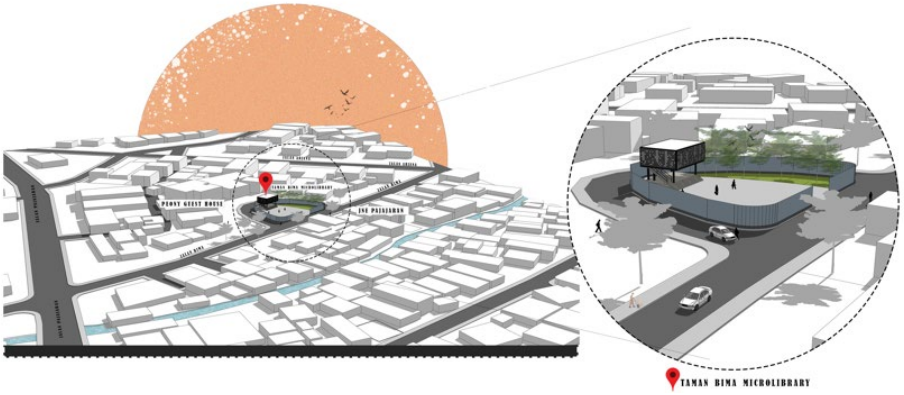
Figure 2. Concordia Hotel (a) block plan (b) floor plan (c) elevations

Concordia Hotel which will be discussed in this research is part of Bumi Sangkuriang Meeting Hall. Bumi Sangkuriang itself was built in 1957, based on the design of a Dutch architect, Ir. Gmelig Meyling. Bumi Sangkuriang was designed by adapting Jengki-style, the Indonesia post-independence architectural style. Initially, Bumi Sangkuriang was named Country Club Concordia, because it was used by Societeit Concordia, which consisted of Dutch or indigenous people from the *priyayi* community. This building is a meeting hall with restaurants and guesthouses. In 2005, in line with the revitalization efforts being carried out, the management agency decided to increase the guesthouse area from 6 rooms to 25 rooms. Renowned expert architect, Tan Tjiang Ay, was chosen to design the project. Almost similar to the characteristics of modern minimalist style that is shown in all of his works, Tan Tjiang Ay also chose a flat roof and modern expression to be displayed at Hotel Concordia. Thus, the expression of the form of this new building is in stark contrast to the early Bumi Sangkuriang building.

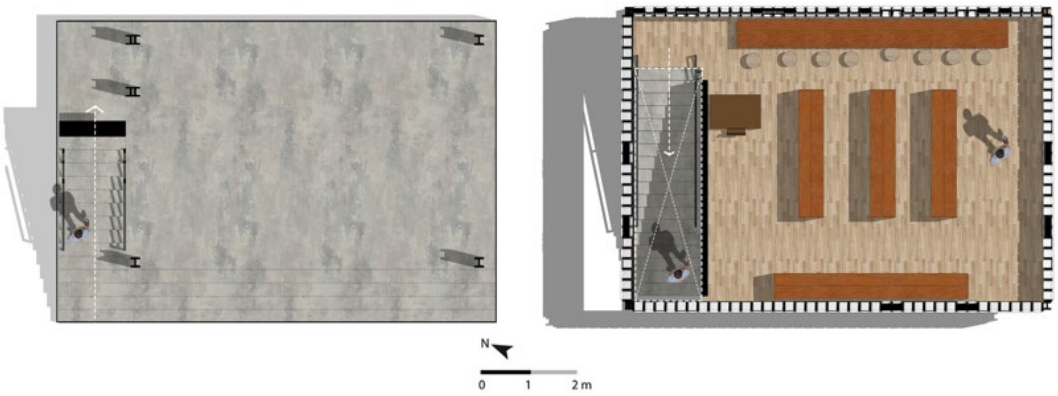
Case 3: Taman Bima Microlibrary (2016) – SHAU

The Microlibrary at Taman Bima was designed as a pilot project for a broader initiative, which aims to boost Indonesia's literacy rates by bringing accessible community reading facilities to urban public spaces across the country (Ichioka, 2019). As a small reading facility for community use, the planning process engages participation from the community. The architectural concept is to free the ground to accommodate multiple existing activities, while the library is positioned at the second floor. The surrounding neighborhood is best known for used-material vendors. Plastic canisters were often present here; this led to the idea to apply reused materials. Later plastic ice-cream buckets were found as a viable replacement because the canisters were not available in the quantities needed. This also aims to trigger awareness about use of plastics and plastic waste as a problem in Indonesia. The pattern on the facade is a representation of from the idea that "books are the windows of the world" (*buku adalah jendela dunia*). In 2017, this library has won Architizer A+ Winner Architecture+Community category, Jury and Public Choice Awards.

(a)



(b)



(c)

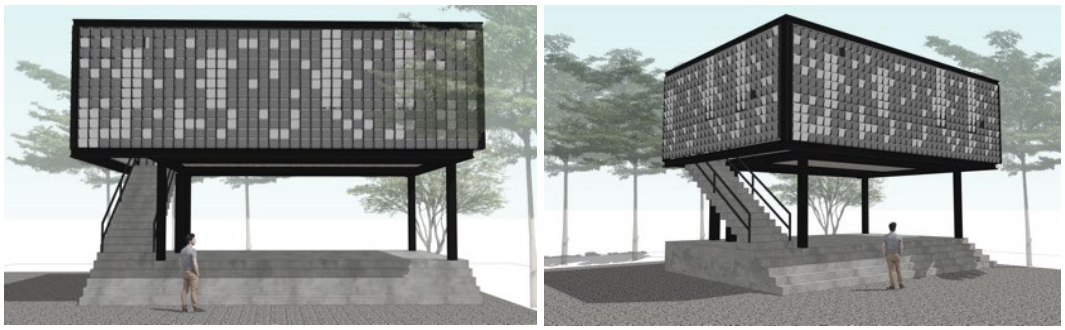


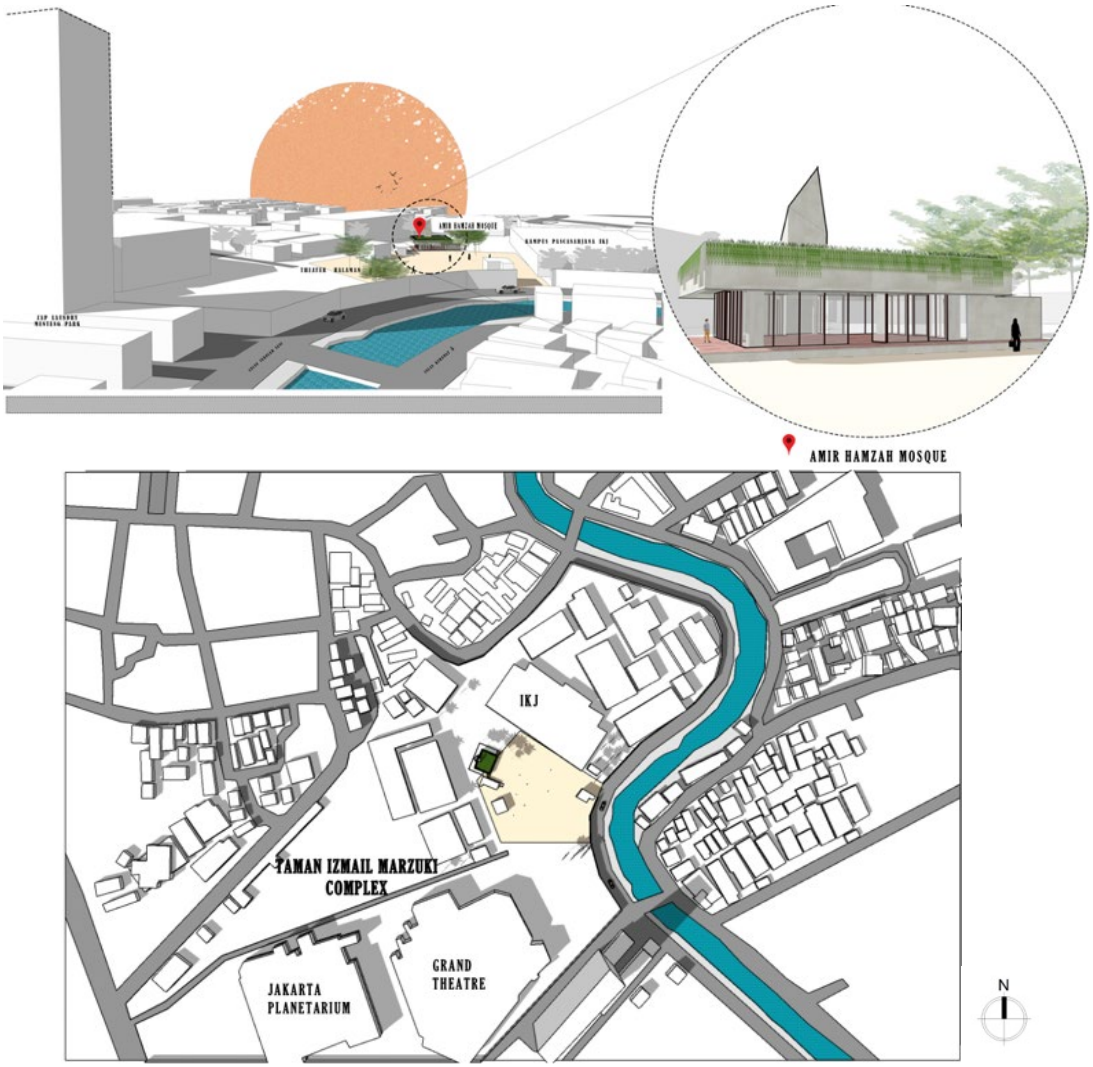
Figure 3. Taman Bima Microlibrary (a) block plan (b) floor plan (c) elevation and perspective

Case 4: Amir-Hamzah Mosque (2018) – Andra Matin

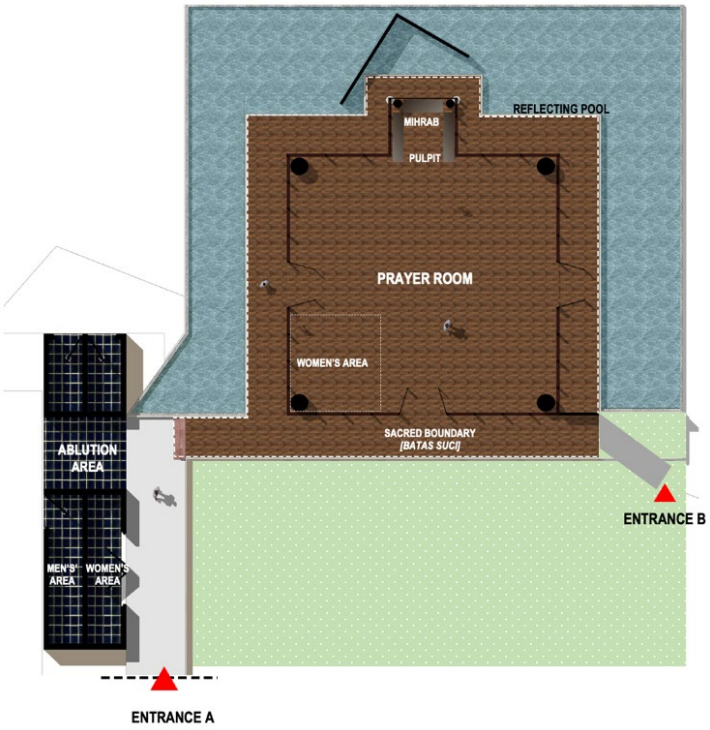
Isandra Matin Ahmad (Andra Matin) is an Indonesian architect whose works have received many awards. Since establishing Andra Matin Architects in 1988, Andra Matin won the IAI (Indonesian Architect Association) Award in 1999 and 2002 for the Le Bo Ye Graphic Design office building and Dua8 Building in Kemang, South Jakarta. Meanwhile, the Conrad Chapel in Bali which he designed with Antony Liu and Ferry Ridwan, and the Javaplant office in Tawangmangu, Central Java, received three awards from IAI DKI Jakarta in 2006 (andramatin, n.d.).

Amir Hamzah Mosque is the new name of Al-Manan Mosque (1977), located in one of the largest cultural parks in Indonesia, namely Taman Izmail Marzuki (TIM). Visually, the shape of the new Amir Hamzah Mosque is very different from the previous building. The new mosque was designed in the form of a massive box, dominated by concrete material. At first glance, the building of this mosque has similarities with the shape of the mosque in Tubaba, which was also designed by Andra Matin. The mosque building is also surrounded by a reflecting-pool, so it seems as if it is floating on water. The inner and outer space are separated by a transparent glass wall which is intended so that the congregation in the area can still see the preacher's area.

(a)



(b)



(c)

Figure 4. Amir Hamzah Mosque (a) block plan (b) floor plan (c) elevation and perspective

2.2 Analytical methods

Hitherto, the existing research on the function and form of architecture generally tends to be partial, with dominance between one of its aspects. For example, research that focuses on redefining the meaning of the terms function and functionalism in architecture was conducted by Ichioka (2019), Zurko (1957), Harries (1998), Seelow (2017), and Rezaei et al. (2018). Another quite inspiring research on function was conducted by Poerschke (2016), who put forward the different meanings of 'function' and 'purpose'.

Research that focuses on architectural forms is carried out by Constanzo (2012), Schmitz (2016), Mitias & Al Jasmi (2018). Hendrix's research (2012; 2013) are indeed focusing on the contradictory relation between function and form. However, a review of these studies shows that the functional aspects referred to by Hendrix are structural elements, so it is more appropriate to classify them in terms of architectural form.

Both pieces of research on function and form are deductive research based on the literature which is applied as a case studies. Literature studies that only aim to describe or verify existing theories without being based on empirical experience to interpret real architectural works are not necessarily in accordance with current architectural developments. On the other hand, inductive research generally does not begin with a theoretical study, but directly collects empirical facts. Its generalization depends on the numbers of empirical facts collected. However, not a few experts criticize the purely inductive approach, because researchers may reach false conclusions even with accurate empirical observations. It was prone to errors due to the need to infer a universal principle based on the experience of only a subset of instances. Similarly, a purely inductive approach will basically only find other variations of things that are already known. Thus, the problems of the two approaches are actually similar: misinterpretation and their inability to generate new theories.

This research provides an in-depth understanding of important aspects of function (function - purpose - use), aspects of form, and the relationship between the two. Thus, this study will refine the research of Salura (2001); Salura & Fauzy (2012) which discusses function and form holistically rather than partially, as well as perfecting Poerschke's research on the difference between function and purpose, by prioritizing the understanding of purpose-function-use architecture. In contrast to the purely deductive nature of previous studies, which believe in absolute truth from literature review; or purely inductive research that completely negates the role of literature, this research continues to conduct a literature review by not closing the possibility to accept new knowledge/ideas from empirical observations. It is hoped that the nature of this research opens up the possibility of the emergence of new findings that are different from previous theories.

The analysis steps are formulated as follows:

Firstly, elucidating the basic needs that must be met in every architectural work, namely purpose, function, use based on the corresponding literature. From this understanding, a reference will be formulated for each aspect of purpose, function, use in detail. This reference will then be used to interpret the case studies.

Secondly, observing the case studies. The unit of observation was determined based on a theory of architectural elements as a whole, which is able to discuss architectural forms comprehensively, instead of focusing on partial emphasis on elements. Therefore, the reference that is used as the basis for elaboration is Salura's theory of anatomy and architectural property-composition (Salura, 2018a). The concept of architectural anatomy puts forward the thesis that every architectural work can be read from the widest to the specific scope; starting from the scope of the surrounding environment, the scope of the site, the scope of space inside the building, the scope of the building enclosure. Although at first glance the anatomical theory of this building only focuses on architectural forms, these scopes are actually rooted in the ability of architectural

forms to provide space as a place for specific activities. Instead of analogizing architectural forms with parts of the human body, the use of architectural anatomy theory actually presents the possibility to analyze the quality of the architectural space created, by relating it to the surrounding elements. All the observations are then redrawn, and then described based on all the properties and compositions.

Thirdly, analyzing the results of the description with reference to the purpose-function-use formulated in the first step. Parallel to the researcher's analysis, the analysis will also be based on the results of interviews with the laypeople (non-architect) and architects. Thus, the analysis is not based on the opinions of the media, their designers or researchers alone.

3.0 RESULTS AND DISCUSSION

3.1 Purpose – function – use as basic architectural needs

Salura & Fauzy (2012) put forward three essential aspects of architecture, namely: function, form, and meaning. These three aspects arise from an understanding of the nature of the creation of architecture itself. Architecture was born as a need for space so that humans can do activities safely, comfortably, and easily, without being disturbed by wild animals, as well as by the scorching sun or pouring rain. Therefore, every purpose of creating architectural works must start from the need to accommodate activities, because activities are the generators of the emergence of architectural works. This activity or group of activities always has the basic nature of its movement, which is then structured to form a zoning. This zoning is then made into the shape of the building by covering it or enclosing it with horizontal and vertical elements, such as floors, walls, and roofs. This shows that the aspect of form aspect always departs from the structures of activity. Forms that accommodate space for certain activities will display certain expressions that will always be interpreted (given meaning) by the observer. Their expressions will imply activities within the building, or about the three-dimensional shape of the building down to the smallest detail of the building, etc. The results of this meaning will be stored in the memory of the observer. If the observer is a layman, then these vocabularies will act as references when he sees other buildings. If the observer is also a practicing architect, then these vocabularies will be a reference for creating new architectural works. Thus, it was concluded that Function-Form-Meaning is the ever-rotating aspects of architecture.

Salura-Fauzy's research on the rotation of function-form-meaning is actually only a development of Salura's (2001) research on the process of architecture. Hence, partial reading of this study will result in misinterpretation. If we only read the former, the cycle of function-form-meaning will be considered the same as the typical hermeneutic-circle approach, which ontologically positions architectural works as a kind of a 'play'. If architecture is only considered as a kind of play, then the logical consequences are as follows: Firstly, an architectural work cannot be considered an object so that the analysis of it cannot be narrowed down to an analysis of the user's interpretation. Secondly, like a play, an architectural work cannot be represented by anything but itself so that an analysis of it must ignore all external references (including functions or activities) which actually become the generator of the architectural work itself. As a result, architecture exists only for the sake of the architectural form itself.

Salura's research on architectural processes is also often considered the same as Klassen's research, which describes three processes in architecture: making - experiencing - understanding (Klassen, 1990); (Salura, 2018b). Differing from Klassen, Salura puts forward four processes: making-using-experiencing-understanding.

The word 'using' is the key word that distinguishes the function-form-meaning cycle from a mere hermeneutic circle or Klassen approach. If it is only based on the 3 processes above but has no usability value, then architecture is just the same as a work of art such as painting, sculpture, or music. If architecture is classified as a work of art, then the designer may create a space with an enclosure in the form of rubble or debris that does not protect us from the pouring rain that might disturb our activities. Likewise, if the priority is only sensory experience, it is also acceptable to design an indoor space that is extremely hot or cold, because each person's sensory perception is different. A very hot or cold room may actually provide an interesting sensory experience, which makes our work different and stand out from other ordinary works. If we only want to interpret an architectural work without using it at the first place, then media appreciation which merely worship or condemn without critical evaluation can also be considered as a certain form of truth. But if we were grounding our evaluation from the understanding that the value of architecture is first determined by the value of its use, then the main ideas from its creation is the ability of the building to accommodate human activities in a safe, comfortable, easy, and healthy environment. From these examples, it can be seen that the word "use" makes Salura and Klassen's views on the nature of architectural creation completely different.

While Salura's research focuses on three important aspects that are always present in architecture and interprets function as a collection of activities structured into zoning, Poerschke's (2016) research argues that the terms function and purpose are often interchanged. However, the meanings of these two terms are very different in respect. The term purpose indicates a subject-object relationship, where the subject has the ultimate goal of creating something and the object is used to fulfil that purpose. When the term function is used in biology, mathematics, and sociology in the first place, it tends to indicate the relationship between objects in a system. When viewed mechanically, the elements of walls, roofs, and floors may function well as a composition, but they are not sufficient to protect humans from natural disturbances or are not in accordance with the character or pattern of activities that take place in them. In other words, there is a need to redefine the purpose-function-use that is specific to the architecture.

Architectural purpose could be understood as the ultimate achievement of the creation of architecture. The purpose of the creation of architectural works is to accommodate interactions between users, through the composition of the surrounding elements that allow the creation of a comfortable artificial climate, as well as protect building users from natural disturbances and the surrounding environment. In connection with the highest goal of creating architecture, the basic requirements that must be met by all architectural works are the presence of building elements that is able to protect users and ensure user comfort. This requirement applies universally, be it for residential buildings, hotels, libraries, or religious buildings.

Architectural function could be understood as certain results that can be generated by buildings that accommodate specific activities. The function of the building is to organize all properties of activity, which involve the entire program of activities. The program itself is strongly influenced by the character of the activity, which of course differs from one type of activity to another. At this point, the function-form relation is no longer universal but is highly dependent on the specific character of the activity embodied by the form.

Architectural use is the overall composition of the existing patterns in the building. In this aspect, it is important to explicate how the designer integrates, positions, and organizes the properties of all existing patterns, be it user's activity patterns, building element patterns, three-dimensional shape patterns, to the patterns of furniture and equipment, in order to support accommodated activities.

The following is a purpose-function-use frame of reference that is applied to read the architecture in the case study (**Figure 5**).

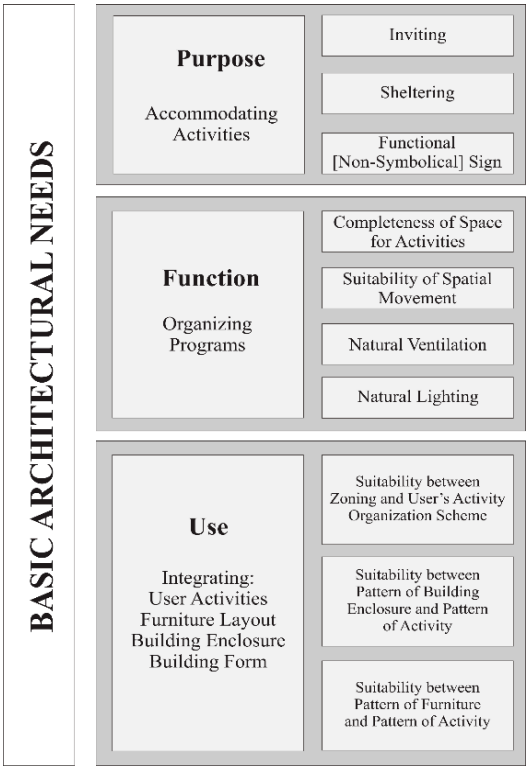


Figure 5. Purpose-function-use as basic architectural needs
(Source: elaborated from Salura (2001))

3.2 Analysis of purpose-function-use in Amir Hamzah Mosque

Description of Amir Hamzah Mosque:

To maintain the continuity of the analysis, this section will only include examples of descriptions and analyzes of one case study, as well as the overall results of the research conducted on the four case studies. The following analysis will only focus on the Amir Hamzah mosque by Andra Matin.

The Amir Hamzah Mosque is located within a cultural park in downtown Jakarta, namely Taman Ismail Marzuki. The area around this cultural center is a public area that accommodates various activities, which are dominated by public offices, restaurant, and shopping malls. The overall shape of the Amir Hamzah Mosque itself is not visible if visitors are at the main entrance to the cultural park, because the mosque is located at the back of the site. Instead of a mosque, what is visible from the main road is a planetarium building which is dominated by a white domed roof.

Moving closer to the mosque area, the entire shape of the mosque can be seen. The overall shape of the building looks like a monument, which is dominated by concrete material. At first glance, the shape of the building and the materials surrounding this mosque are very similar to the As-Shobur Mosque in Tubaba-West Sumatra which was also designed by the same architect (**Figure 6**). Similarities are also found in the reflecting pool that surrounds the mosque building, which separates the mosque building from the open courtyard.

Looking at the floor plan, access to the ablution and prayer areas is quite easy to identify. The mosque has a simple basic square shape. In contrast to the shape of the prayer room, the ablution area is positioned diagonally to the square shape. On empirical observation, the ablution area is also quite easy to identify because of it is located closest to the entrance to the mosque site. Ease of identification is also supported by the

proportions which are quite large and quite clearly visible if we enter the site from the direction of the main street.

In line with the Islamic convention, the ablution areas for women and men tend to be separated. However, the circulation path to the prayer room itself is not separate. Hence, at times when the mosque is crowded with visitors, there is always a mixture of men and women before they enter the prayer room. Mixing can also occur between visitors coming through the ablution area (A), and visitors coming through the entrance on the opposite side (B). Visitors who come through B will pass through the terrace area which is actually a sacred boundary for people who have already performed ablution (**Figure 7**).

The prayer room entrance can be identified quite easily because there is a sign that reads 'MASJID AMIR HAMZAH' right on the side of the entrance (**Figure 8**). The entrance itself is positioned right in the middle of the enclosing elements. Entering the prayer room, it appears that the supporting structure of this building is four circular columns which are also made of concrete. These four columns are positioned at the ends of the room, so as not to block the view of the congregation from looking at the *mihrab* and *mimbar* (pulpit). In contrast to the concrete material on the towering walls of the tower, the entire side of the prayer room is made of transparent glass material (**Figure 9**). If it is only based on the enclosing material, it is difficult to identify the orientation of the mihrab and the pulpit. However, the mihrab area and the imam's pulpit area are emphasized in the form of a wall addition, so that from the inside it looks like a niche. The difference in hierarchy is also seen in the elevation of the pulpit area which is slightly higher than the congregation area, as well as in the curtains installed on the inside of mihrab and pulpit area. The prayer shaft could be identified from the use of a specific floor pattern, which is assisted by natural light that comes from the holes in the ceiling. This ceiling hole is made in such a way that it reflects the shape of the longitudinal line on the floor.

The prayer area is designed to give an atmosphere of sacrality. Although the building entirely enclosed by transparent glass, the wide canopy covering the terrace makes the prayer room slightly dark. At this point, the ceiling design plays a role in showing that this building is a religious building. The slightly dark prayer room accentuates the natural light that enters from the skylight. Unlike buildings in general, the ceiling in this mosque tends to be fairly high; even the proportion is almost the same as the height of the prayer area itself. This depth enables a ray of light illuminating the prayer room. The light is subtle that it does not interfere with the orientation towards the mihrab. The ceiling design itself is very simple, with materials and colors similar to the tower, without any ornamentation. This simple design does not 'force' the devotees to turn their gaze upwards, but they could still be aware of the presence of the subtle light reflecting on the floor, thus supporting a degree of solemnity when performing prayer activities (**Figure 10**). It is safe to say that this ceiling design is a non-symbolic sign inside the prayer room that was able to support this building to express its religious, sacred impression.

As a mosque located in a public area that is always crowded, not only men but also women pray at this mosque. Seen on the floor plan, it appears that a special area for women's prayers has been provided separately from the men's prayer area. However, in actual conditions, the special area for women is only limited by a curtain which can be opened and re-attached at any time as needed.

Based on the overall form seen from the outside, this building in general resembles a sculpture; which is suitable to accommodates the activities of a museum or exhibition space. While based on the composition and building enclosure seen from inside, this mosque looks like a multi-purpose room which, as the name implies, can be used to accommodate any activity as long as this activity involves the audience and speakers. However, this building has a religious impression when we are inside and saw the subtle light that comes from

the high ceiling. While this building can easily be interpreted as a mosque only when we see the congregation praying inside. On this side, transparent glass material that surrounds the entire building is indeed important, because when the overall shape of the building does not play a role in displaying the expression of the mosque, then the architectural glass is the easiest element to display the activities that take place inside the prayer room. Apart from people doing prayer activities, the impression of the mosque is also obtained by hearing the sound of the call to prayer echoed from inside its towering figure, and by the symbolic letters embedded in the interior of the prayer room.

Figure 6. The overall shape of Amir Hamzah Mosque (left) and As-Shobur Mosque (right)

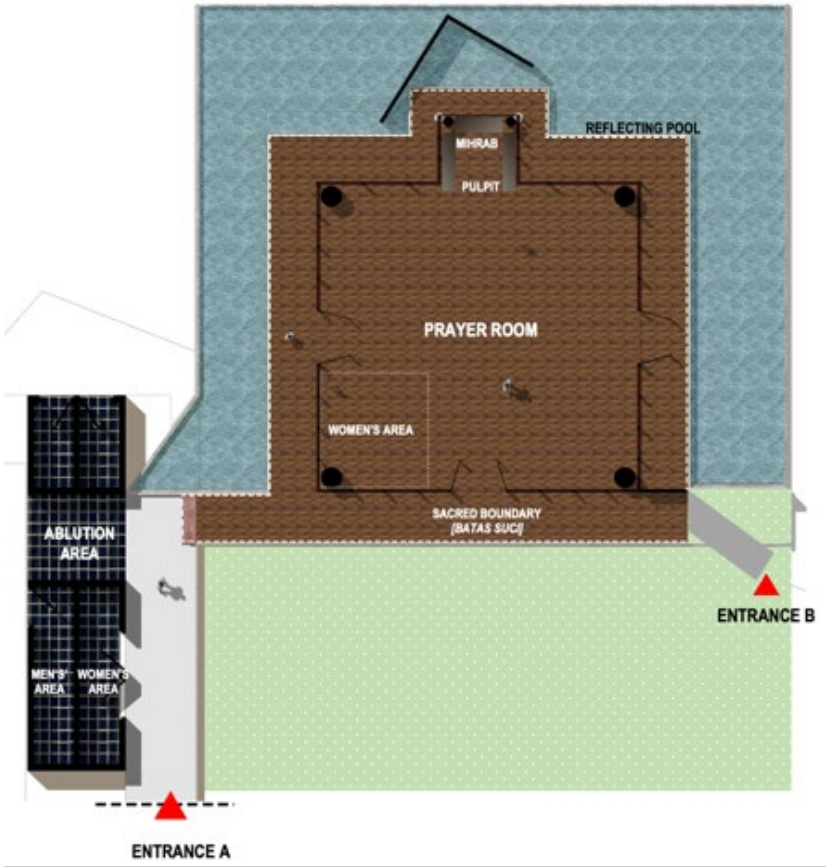


Figure 7. Access to prayer room

Figure 8. Non-symbolic sign on the entrance side

Figure 9. Transparent materials as wall element

Figure 10. Implementation of natural light inside the prayer room

3.3 Evaluation based on architects and non-architects

The points of architectural purpose-function-use were then asked to the respondents, which consisted of 20 laymen (non-architects) and 20 architects. Respondents were given the choice to fill in a scale range from 4, which indicates that all parameters are met, to 1, which indicates that these parameters are not met. **Table 1** shows an example of an assessment parameter on the points of the purpose aspect, while **Table 2** is an example of a summary of the results of the respondent's assessment.

Table 1. Example of evaluation parameters

Basic Architectural Needs		Example of Evaluation Parameters	Scale			
			4	3	2	1
Purpose	Inviting	Entryways could be identified easily				
		Entrance was oriented to face the main street				
		Entrance-side was in contrast to other side of the building				
	Sheltering	Building elements enclosing the entire space for activity				
		A clear boundary between inner-outer space				
		High level of element closure				
		High level of safety in terms of structural & non-structural elements				
	Functional sign	Overall shape of building form shows that this is a religious building				
		Overall shape of building form shows the activity of Islamic religious activity				

Based on **Table 2**, it can be seen that the purpose aspect, especially those related to inviting and sheltering, has the highest value than the function and use aspects. The existence of functional/non-symbolic signs is difficult to identify if we only see the mosque from the outside, but it can be balanced with the experience of natural light in the interior space. The criticism from all respondents is the mixed circulation between men and women from the ablution area to the prayer room. In fact, this separation is an important prerequisite for a mosque whose laws are regulated based on the ideology of Moslem's own religion. Respondents also complained about the lack of privacy and a sense of solemnity when praying at times when the cultural park was filled with visitors. The pool and the middle enclosure, which are made entirely of glass, are apparently not enough to act as a buffer of noise from outside, so they are interfering with the activities of praying and listening to sermons. Another criticism is the lack of accents in the pulpit area and the insignificant difference in elevation (10 cm). In the Friday prayer ritual, when religious activities do not only involve private prayers but also congregational prayers that require people to follow the movements of the *imam sholat* (prayer leader), this position causes the movements of the prayer priests to not clearly seen by the congregation.

The function aspect that was also criticized by the respondents was the lack of natural ventilation. Because the entire middle scope is made of glass material and there are no windows at all, this mosque uses air conditioner as artificial ventilation. The pool that surrounds the mosque, as well as the wide terraces that surround the prayer room are apparently less significant in reducing the climate in the prayer room, hence the use of air conditioner is necessary.

Table 2. Result of the questionnaires for Amir Hamzah Mosque

Basic architectural needs		Architects (20)	Non-architects (20)	(A + N A)/2	Total points
Purpose	Inviting	2.3	2.3	2.3	6.6 (12)
	Sheltering	2.3	2	2.15	
	Functional (non-symbolical sign)	2.6	2	2.15	
Function	Completeness of space for activities	3.3	3	3.15	11.5 (16)
	Suitability of spatial movement	2	2.5	2.25	
	Natural ventilation	2	3	2.5	
	Natural lighting	3.6	3.6	3.6	
Use	Suitability between zoning & user's activity organization scheme	3.3	4	3.65	9.95 (12)
	Suitability between pattern of building enclosure & pattern of acitivities	3.3	3	3.15	
	Suitability between pattern of furniture & pattern of activity	3	3.3	3.15	
		69%	71%		28.05 (40) = 70 %

Figure 11 shows the results of the evaluation by the non-architects and the architects of the other three works, namely Eco House, Concordia Hotel, and Taman Bima Microlibrary. Although this manuscript does not provide a detailed description of the results of the analysis, it is hoped that the results of this interpretation can provide an overview of the evaluation of Indonesian star-chitect works in the eyes of fellow architects and the general public.

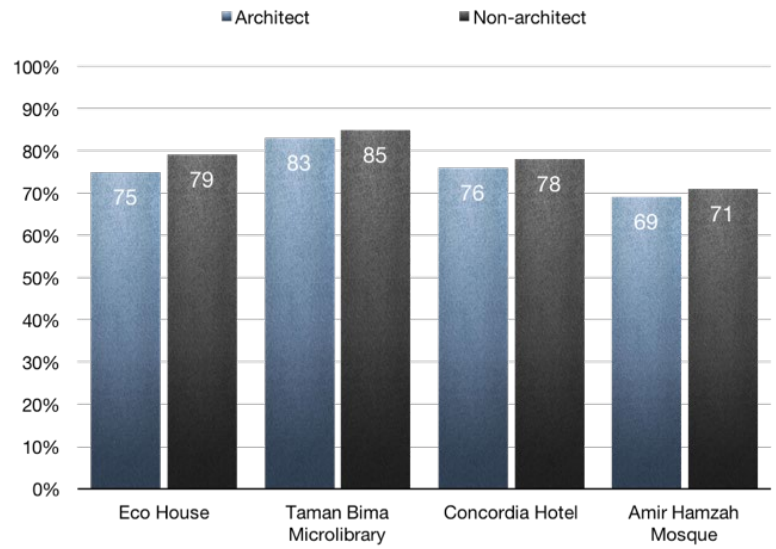


Figure 11. Results of the questionnaires for all case studies

4.0 CONCLUSION

The results of the analysis show that:

Firstly, this research put forward a conceptual framework for reading the basic needs of architecture consisting of purpose-function-use. It cannot be denied that the meaning of architecture is not only limited to basic needs but also tends to be layered and contains other meanings, such as cultural and ideological meanings.

Especially if our understanding is based on the fact that architecture is a container for activities, while the activities in question may also include activities based on specific cultures and ideologies. However, basic needs are the existence of an objective-material terminus which in the last analysis explains all subjective-mental phenomena of culture and ideology. In other words, basic needs are an objective point of departure that conditions the existence of all that is subjective. If we don't want to be trapped in simplistic relativism and excessive-delusional aesthetics in the realm of architectural practice, then the basic needs must be the basis for evaluating and creating architectural works themselves.

Secondly, the results of the case study analysis based on the architectural basic needs reference show that the work of star-chitect does not always perform well when evaluated based on theory and empirical conditions. This shows that an appreciation that is based on the media, based on the discourse of the designer, or based on the background of the designer does not apply universally.

Thirdly, all of these conclusions lead to the importance of critical evaluation and critical solutions amid the worship of 'artistic-genius intuition' and 'anything-goes' architectural forms. This fact calls for academics and practitioners to start conducting architectural research that is far from mere media appreciation or the architect's own discourse. Simply believing in 'intuition', 'feeling', or 'subjective-personal impression' is simply an evaluation that is not critical, as well as irresponsible, even though the evaluation is called 'architectural research'. Therefore, rethinking the grounds for conducting architectural research becomes very relevant and significant.

ACKNOWLEDGEMENT

This preliminary research was supported by a grant from *Lembaga Penelitian dan Pengembangan Masyarakat Universitas Katolik Parahyangan*. The data presented, the statements made, and the views expressed are solely the responsibility of the authors.

REFFERENCES

Andramatin. (n.d.). *About Andra Matin*. Andramatin.Com. [cross ref]

Bay, J.-H. (2008). Architecture of place and cogitive biases. In M. Zarzar & A. Guney (Eds.), *Understanding meaningful environments: Architectural Precedents and the Question of Identity in Creative Design*. IOS Press: Delft University Press.

Bonta, J. P. (1979). *Architecture and its interpretation: A study of expressive systems in architecture* (1st ed.). Rizzoli International Publication Inc.

Brolin, B. C. (1976). *The failure of modern architecture* (1st ed.). Van Nostrand Reinhold Company.

Constanzo, D. R. (2012). Venturi and Scott Brown as functionalists: Venustas and the decorated shed. *Cloud Cuckoo-Land: International Journal of Architectural Theory*, *July*, 10–25. [cross ref]

Danesi, M. (2007). *The quest for meaning: A guide to semiotic theory and practice*. University of Toronto Press, Scholarly Publishing Division.

Haack, S. (2007). *Defending science-within reason: Between scientism and cynicism*. Prometheus.

Harries, K. (1998). *The ethical function of Architecture*. The MIT Press.

Hendrix, J. S. (2012). Theorizing a contradiction between form and function in architecture. *South African Journal of Art History*, *27*(1), 9–28. [cross ref]

Hendrix, J. S. (2013). *The contradiction between form and function in Architecture*. Routledge.

Hurford, J. R. (2007). *The origins of meaning (Oxford Studies in the Evolution of Language)* (1st ed.). Oxford University Press.

Ichioka, S. M. (2019). Taman Bima Microlibrary. In *On Site Review Report*. [cross ref]

Indonesia Design. (2018). *iD Award Nominee - Best Architecture Design: Tan Tjiang Ay*. ID. [cross ref]

Klassen, W. W. (1990). *Architecture and Philosophy: Phenomenology, hermeneutics, deconstruction*. University of San Carlos.

Lukianova, N. A., & Fell, E. V. (2015). Meaning making in communication processes: The role of a human agency. *Procedia - Social and Behavioral Sciences*, *200*, 614–617. [cross ref]

Mclntyre, L. (2018). *Post-truth*. The MIT Press.

Millais, M. (2017). *Le Corbusier, the dishonest Architect* (1st ed.). Cambridge Scholars Publishing.

Mitias, M. H., & Al Jasmi, A. (2018). Form and function in the congregational Mosque. *Estetika: The European Journal of Aesthetics*, *55*(1), 25. [cross ref]

Nichols, T. M. (2017). *The death of expertise: The campaign against established knowledge and why it matters* (1st ed.). Oxford University Press.

Omah Library. (n.d.). *Tan Tjiang Ay: The art of thinking through, writing by Bangkit Mandela*. Omah Library: Bittersweet in Design Experience. [cross ref]

Poerschke, U. (2016). *Architectural theory of modernism* (1st ed.). Routledge. [cross ref]

Rezaei, H., Keramati, G., Sharif, M. D., & Nasirsalami, M. (2018). A meta-analytical attitude to the form–function relation in architecture using the concept of creativity. *Cogent Arts & Humanities*, *5*(1), 1506602. [cross ref]

Salura, P. (2001). *Ber-arsitektur; Membuat, menggunakan, mengalami, memahami*. Architecture & Communication.

Salura, P. (2015). *Sebuah kritik: Arsitektur yang membodohkan*. Gakushudo Publisher.

Salura, P. (2018a). Anatomy of architecture based on the creation of space for activity. *International Journal of Engineering and Technology(UAE)*, *7*(2.14), 205–207. [cross ref]

Salura, P. (2018b). The philosophy of architectural ordering principles. *International Journal of Engineering and Technology (UAE)*, *7*(2.9), 52–55.

Salura, P., & Fauzy, B. (2012). The ever-rotating aspects of function-form-meaning in Architecture. *International Journal of Basic and Applied Scientific Research*, *2*(7), 7086–7090. [cross ref]

Schmitz, K.-H. (2016). Form and function in library design. In *Libraries – A Design Manual* (pp. 30–37). De Gruyter. [cross ref]

Seelow, A. M. (2017). Function and form: Shifts in Modernist Architects' design thinking. *Arts*, *6*(1), 1–6. [cross ref]

SHAU. (2020a). *Eco House*. SHAU Projects. [cross ref]

SHAU. (2020b). *SHAU Info*. SHAU. [cross ref]

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, *185*(4157), 1124–1131. [cross ref]

Tzonis, A. (2014). Creativity real and imagined in architectural education. *Frontiers of Architectural Research*, *3*(3), 331–333. [cross ref]

Tzonis, A., & Lefaivre, L. (2018). *Times of creative destruction shaping buildings and cities in the late C20th*. Routledge.

Zurko, E. R. De. (1957). *Origins of functionalist theory* (1st ed.). Columbia University Press