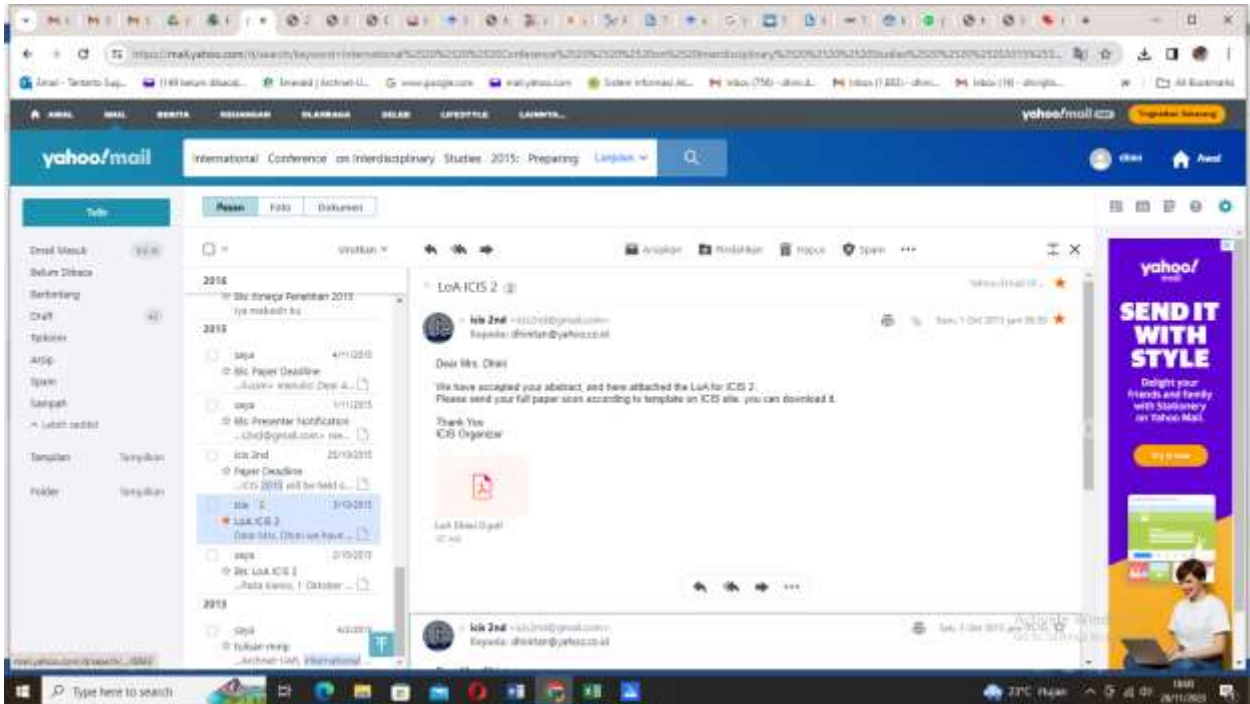
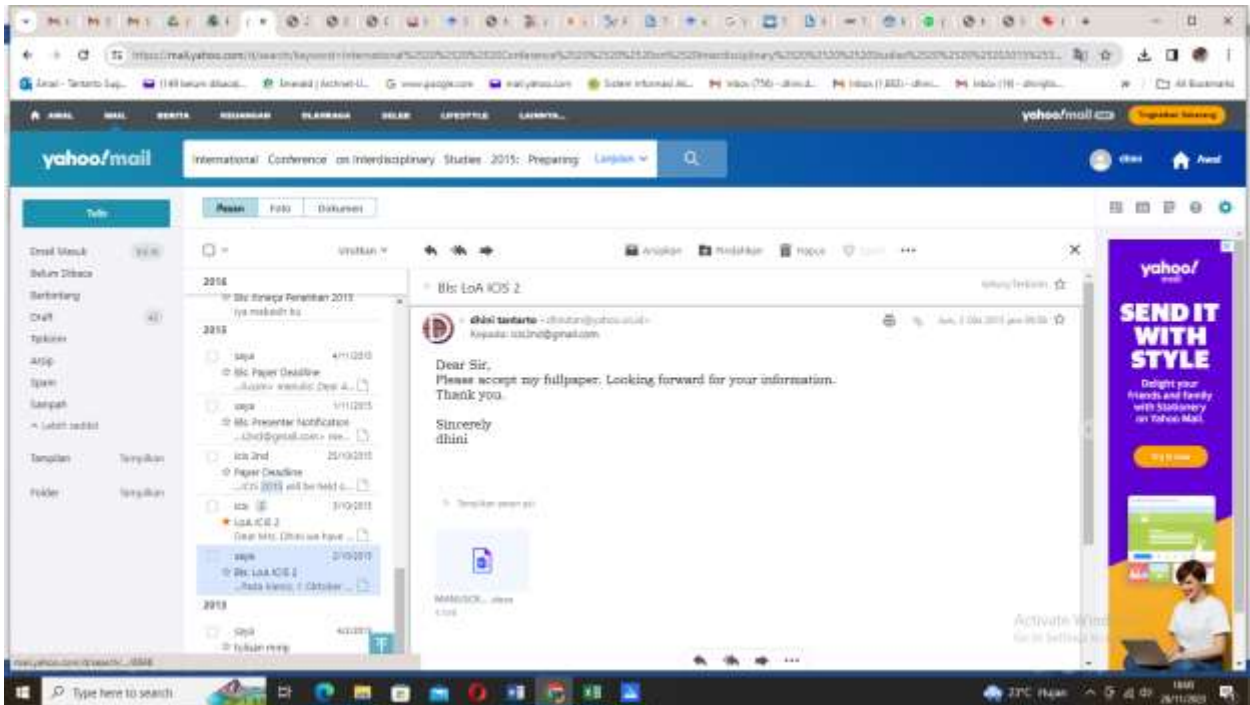


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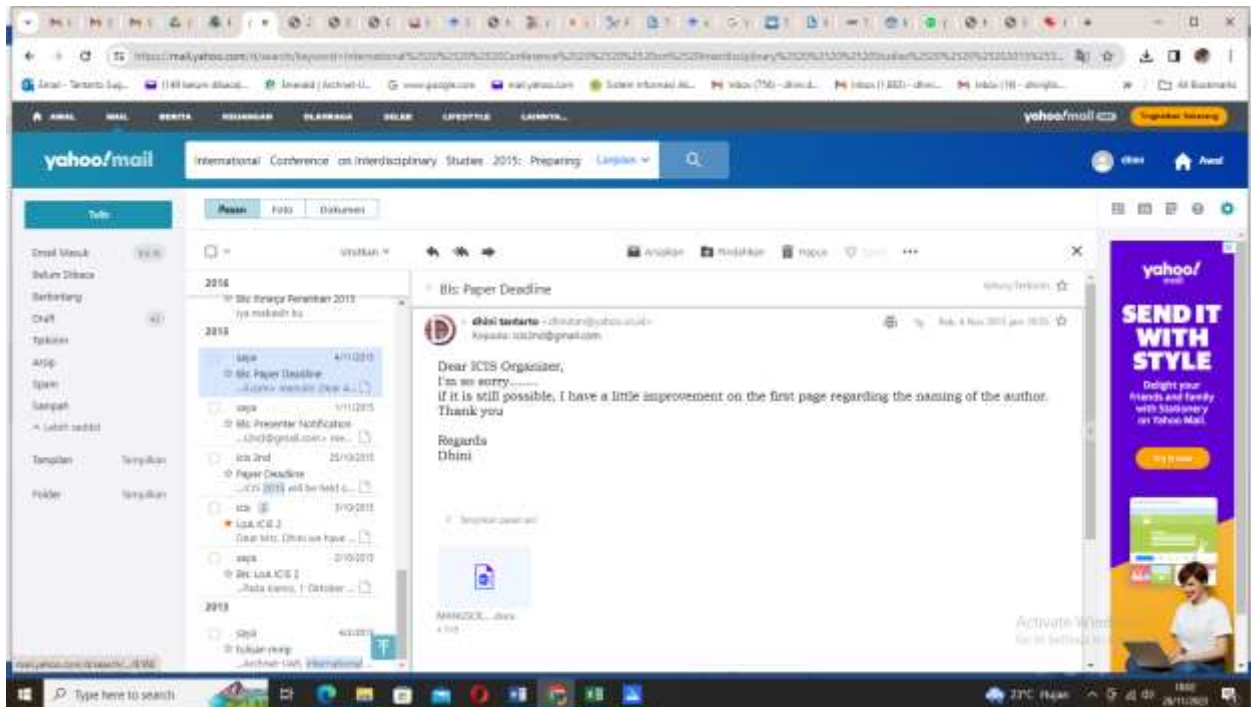
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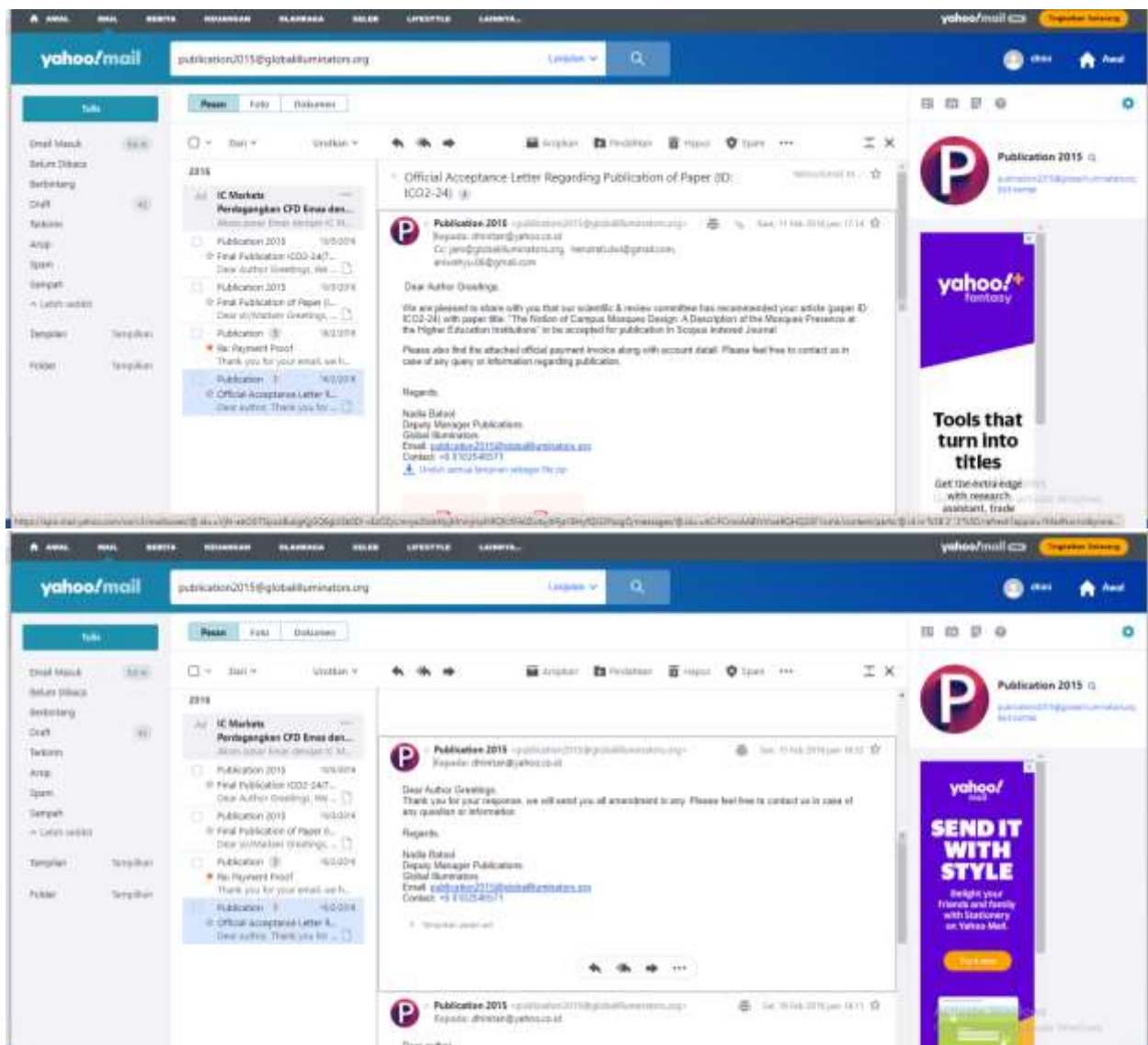
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## THE NOTION OF CAMPUS MOSQUES DESIGN: A DESCRIPTION OF THE MOSQUES PRESENCE AT THE HIGHER EDUCATION INSTITUTIONS

Dhini Dewiyanti<sup>1,2</sup>, Widjaja Martokusumo<sup>3</sup>, Budi Faisal<sup>4</sup>,  
and Bambang Setia Budi<sup>5</sup>

**Abstract:** *This paper describes the historical process of the emergence of the campus mosque in Indonesia. Understanding of Islamic architecture and the architecture of the mosque has been formed from generation to generation over centuries. Architecture of mosques in Indonesia eventually emerged with the inherited form of tiered roof of the local architecture, and dome roofed as a result from the relation to Middle Eastern world. An architect named Ahmad Noeman with his work, Salman Mosque in Bandung Institute of Technology campus - a first technological institution in Indonesia - eventually change the tradition of old-style thinking. Radical change at that time led to the mosque without a dome, the mosque with functional minimalist look, a design breakthrough in his time that urges other architects transformed the idea of the mosque form. This paper will provide an overview of the development of the campus mosque, in the context of shape flexibility. Discussion is focused on Ahmad Noeman thinking, which in turn inspired a number of designers to explore the idea of a mosque without the shackles of tradition.*

**Keywords:** *Indonesia, campus mosque, Ahmad Noeman, architect thoughts, flexibility*

### INTRODUCTION

Indonesia is the largest Muslim country in the world. Although 88% of the population is Muslim, Indonesia is not an Islamic state. Other religions such as Hinduism, Buddhism and Christianity were present in Indonesia. A variety of conditions make Muslims in Indonesia also known to have moderate and tolerant nature. Islam came to Indonesia when Hindu and Buddhist influence still strong. Indonesian people acquainted with the religion and culture of Islam through the trade, the same as when acquainted with Hinduism and Buddhism. Through the commercial activities, the Indonesian people who are familiar with the Hindu-

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Buddhist gradually get used to the teachings of Islam. Early spread of Islam was at coastal communities, after that it continues to the countryside and mountains through economic activity, education, and politics. The introduction process of Islam to Indonesia does not take place in a revolutionary, but rather evolved, gradually, and very diverse. The assimilation pattern characterizes the lives of Muslim society in Indonesia as well as in cultural artifact itself. One of them is the development of mosques in Indonesia.

Geographical condition of Indonesia consists of many island, making the history is different from one island to another. Islam reached Sumatra in the XIII century, while the spread in Java, South Sulawesi, North Maluku and Kalimantan in the XIV century (Sumalyo, 2006). Relics of mosques from that period are very little, in fact nothing could be said for the mosque were made of wood or bamboo are destroyed over time. It was only in the nineteenth century mosque is made of brick, so that the legacy of the existing mosque can still be traced.

Islam is a religion that came third in Indonesia after the previous Hindu and Buddhist. The arrival of Islam is not with revolution and domination, but with peace and tolerance. The process of Islamization in Indonesia is considered as one of the seven branches of Islamic civilization (after the destruction of the unity of Islamic civilization centered in Baghdad in 1258 AD). Those seven civilizations are the Arab Islamic civilization, Islamic Persian, Turkish Islam, Muslim Black Africa, Indian Sub-continent Muslim, Arab Islamic Malay, Chinese Islamic (Musyrifah, 2005). Islamization in Indonesia belongs to the Arab Islamic Malay Civilization.

The presence of Islam in Indonesia can not be separated from the history of Islam itself. The arrival of Islam to Southeast Asia is enlightenment for the local community, because Islam is very supportive to intellectualism that is not visible in the Hindu-Buddhist period. Long history of the spread of Islam to the archipelago then paved the way for the development of science, thanks to personal contacts with scholars in the Middle East which is centered in the Haramain at Makkah and Madinah (Zada, 2003).

## **THE HISTORY OF CAMPUS MOSQUE.**

The term "campus mosque" became popular about the beginning of the 1980s, along with the rise of student and youth activities in the campus mosques. Campus mosque appears as partner for universities in improving the spiritual aspects of students. In some colleges, mosque became an alternative choice for killing time outside lecture activities. This fact continues to evolve, so the campus mosque serves not only to the interests of religious activities (ritual), but also other types of activities, such as study groups, cultural events, leadership training, and so forth.



In the history of the rise of Indonesian Muslim student movement, the campus mosque appeared as the lead role. The role of the mosque as a multifunctional is seems like the era of the Prophet Muhammad. To arrive at the term “campus mosque” one should be first traced the history of the emergence of the mosque located on campus.

### **SALMAN MOSQUE AS A OF CAMPUS MOSQUE**

The rise of the campus mosques in Indonesia can not be separated from the presence of Salman Mosque, the campus mosque in Bandung Institute of Technology. As a prominent educational institution in Indonesia, ITB is known to have advanced technology (based on interviewed by Samsu Baharudin, Imam Choirul Basri and Syarif Hidayat, 2012). Since around 1960, the Islamic *da'wah* (the proselytizing or preaching of Islam) activities at ITB began frequent. At that time, mosques in Bandung were few and far between, so that students had to perform Friday prayers at the Cipaganti mosque as the nearest mosque to the ITB campus. The Cipaganti mosque had to be reached by walking through valleys and rivers, as a short cut. At that time, there was no public transportation. Figure 1 shows the distance that had to be covered by the students to reach the Cipaganti mosque. The urgent of need eventually forcing the campus to allow *Aula Barat* used for Friday prayer worshippers (Figure 2).

**Figure 1: The position of Cipaganti Mosque relative to ITB Campus**

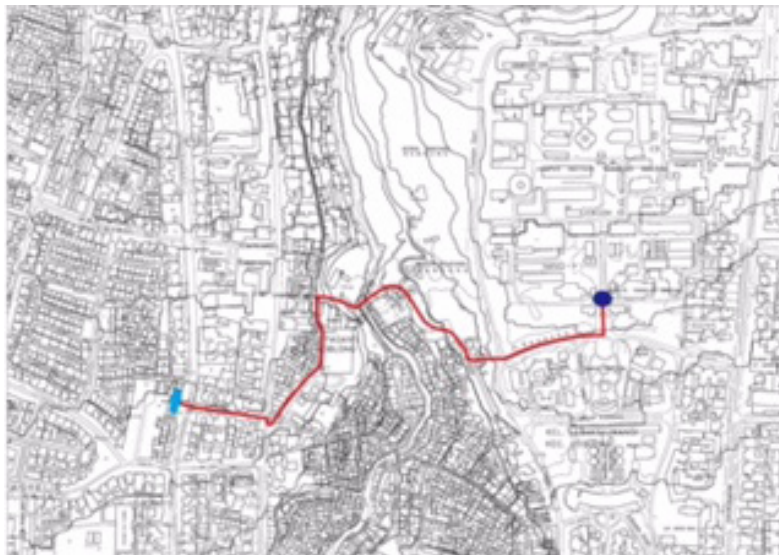


Figure 2: Friday prayer at Aula Barat ITB YPM Salman ITB Collection, 1960



While waiting for the construction of Salman Mosque who was finally allowed through a very long process, a simple building was made to hold religious activities of ITB campus temporarily. On 22 June 1965, the Salman Mosque tower was inaugurated as the milestone of the construction of the Salman Mosque where the fund raising was still in progress. The location was a corn field by Ganesha Street, near the ITB campus. The tower was first to be constructed due to insufficient funds available to construct a mosque.

The name "Salman" was given by President Sukarno, the first president of the Republic of Indonesia, on May 28, 1964, because of his interest in Islam leader Salman Al Farisy (based on interviewed by Achmad Noe'man, 2012). Soekarno himself, graduated from Department of Civil Engineering, ITB. Soekarno supported many monumental projects in Indonesia. Salman mosque construction process itself takes a long time, because it was only completed in 1972. The architect of Salman mosque is Ahmad Noeman, which is a graduate from ITB, an institution known for its technological strength. Ahmad Noeman himself has strong Islamic religious education. Noeman attitude towards the realization of the building is its opposition to Salman `attitude` *taqlid* (imitation) that is received without understandable in all matters. Especially in the world of costume design/ architecture, is certainly something which is not justified, so that the door of *ijtihad* (the use of reason to arrive at a knowledge of truth in religious matters) to generate new ideas must always be wide open. Architects should always *ijtihad* with science

to produce `excellent` works, so be creative and innovative for the benefit of all (Setiabudi 2003).

Noeman always underlies his work in *Al-Qu'ran* and *Hadith*, as strongly indicated by the holy Koran (Al Baqara verse 170). Islam does not actually set the design work, as long as not contrary to the provisions of the Qur'an. There is no rule in *Al-Qu'ran* and *Hadith* that requires certain building forms and expressions. According to the guidance narrated by Imam Bukhari:

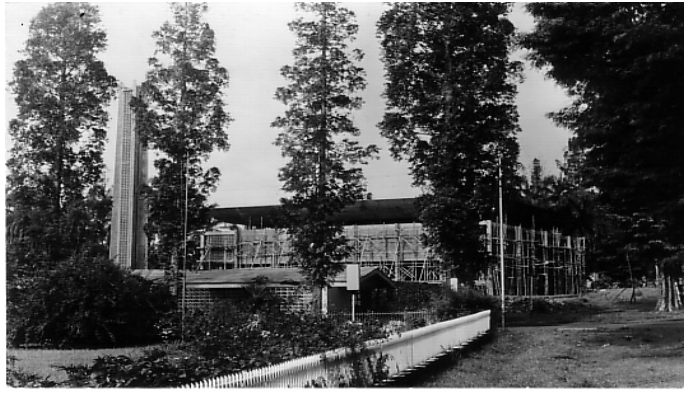
*“And when those things are your earthly concern, then it is you who know it more (has the right to determine)”*.

Then comes the belief that the designers was the most right to determine and translate them into the design without being tied down to the ideas and cultural traditions before. View of the architectural expressions of the foundations of the prevalence and tradition, has clearly shifted to the interpretation of the free individual. This led to the idea of Salman mosque form and expression that outpacing previous mosques in Indonesia. Works of architecture of the mosque must be returned to the value of the spirit of Islam (based on interviewed by Achmad Noe'man, 2013). He stressed that the work of Islamic architecture should be returned to its functions so as not to invite people to make it a place that raises disbelief in God. The mosque should be functional, not to make it excessively.

As a child, young Noeman often taken by his father to the construction site of the mosque, things that inspired him to become a building expert (formerly the term architect was unknown). Formal education brought him to *Technische Hoogeschool* in Bandung (now known as ITB: Insititute of Technology Bandung), the first technological university in Indonesia. Artistic taste and the love of beauty propelled him to the Department of Architecture in 1952 where the lecturer “Kentucky Contract Team” brought modern architectural ideology. Noe'man learns the work and ideas of Mies van der Rohe, Le Corbusier, Walter Gropius, Oscar Niemeyer, and other modern architects. Young Noe'man very impressed at the Bauhaus model (Ekomadyo, 2007).

He adopted the style of the Bauhaus aesthetic concept for the design philosophy: ‘the beauty of simplicity’. Even this idea is reinforced by the Islamic understanding of “useless concept”. “Let us not create something that is not used so wasted” That is why the work of Ahmad Noeman appear in a simple, functional, anti ornaments, and stressed the importance of material honesty. In the early years of its establishment, the impression material honesty was very clearly felt, supported by environmental factors that are still empty. (Figure 3). At a later date, along with the change, material honesty is slightly reduced and no longer visible due to the color. (Figure 4).

**Figure 3: Elevation on Salman Mosque during construction from Ganesha Street YPM Salman ITB Collection, 1960**



**Figure 4: Façade of Salman Mosque, 2002. YPM Salman ITB Collection, 2002**



Salman is among the first works of Ahmad Noeman, which further determine the direction of his architectural works; a number of mosques in Indonesia, Sarajevo and Palestine. The most monumental in this mosque is on the form of the roof. At the moment most of the roofs of mosques in Indonesia is overlapping roof shaped, dome, or a combination of both. The mosque was designed with a flat roof that each end of the roof is curved-shaped. Some observers say the roof looks like a hand similar to 'pray' or a 'bowl' for science, blessings and good luck. Regarding the tower, this form can also be interpreted as the word *bait*, the 'ba' means temple of the house, while the tower 'menhir' serve as the letter *aleph* that started the word

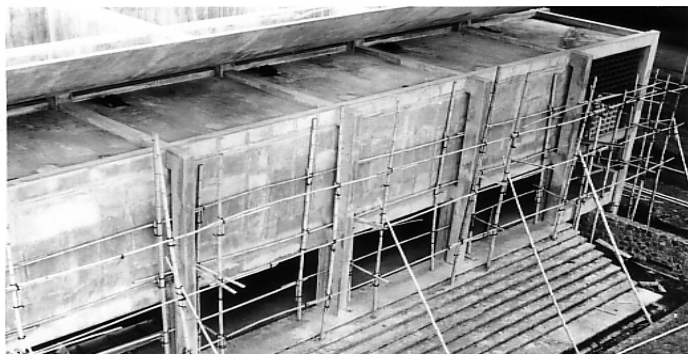
'Allah', so that the overall means *Bait Allah*, the house of God (Setia Budi, 2003). But again Noeman argued that his design was never to serve a specific purpose, if there is such a presumption that was due to people interpretation.

According to Ahmad Noeman, concrete roof forms using prestressed concrete beams in a two-way grid that stretches 25 meters was inspired by the negative form of the roof of the building East Hall - which characterizes the roofs of ITB campus - across the street. Arch roof is actually not just a mere form of expression, but also serves as a large chamfer to the flow of water from flat roofs. (Figure 5)

By using prestressed concrete beams for wide spans, Salman then have vast prayer hall with free column that has always been one of the important characteristics of mosque designed by Achmad Noe`man (Figure 6). Empty space and no visual obstruction will help to form a good prayer atmosphere. Good *shaf* (the row in prayer activity) and the time of prayer will give reward to the faithful. *Habluminanash* (human relationships) with fellow prayers can still be well maintained without being hampered by poles or columns. This mosque has become the first mosque in the use of such techniques and technology in Indonesia. This can happen only because of advances in technology.

Women's prayer rooms are placed on the back, in times when full capacity reached, a mezzanine is provided upstairs. The views will be maintained, but protected against the congregation of men. Separation was performed with a flexible low barrier. If the congregation is full of men, the women moved to the mezzanine. At first, the mosque accepts women on Friday worship. Along with the quantity of male congregation are getting bigger, the women are no longer be able to worship on Friday. Priorities are preferred to men in accordance with the Qu'ran.

**Figure 5: Curved roof that also serves as the rainwater channel. YPM Salman ITB Collection, 2002**



**Figure 6: The interior of Salman Mosque, it's free of column, one of the Noe'man design character. Private Collection, 2012**



Salman mosque has an area of 7,500 square meters. In addition to the mosque, there is a dormitory for students of ITB. There is also a means of multifunctional room and a business area for rent. The main room can function both as a place of worship and meeting place. Usage space tailored to the mandatory prayer time. Usually the use of main hall outside the religious activities conducted at the interval between dawn and midday prayer time, and pauses between *Dhuhr* and *Asr* prayers. The use of both ritual and social space shows that Salman is a "living mosque", functioning in accordance with Qu'ran:

"The Mosques of Allah shall be maintained only by those who believe in Allah and the Last Day; perform As-Salat (Iqamat-as-Salat), and give Zakat and fear none but Allah. It is they who are expected to be on true guidance" (QS At-Taubah: 18).

Noeman seems to emphasize the work of many factors that move or sequential space. Building can not be understood without the user having to move and experience the space in it, as applied to Islamic architecture (Al Faruqi, 2003). This seems in line with the hadith which states:

*"Who is performing ablution in his house and then went to the house of God to fulfill one of the obligations of Allah (prayers), undoubtedly the steps that one will eliminate errors and others will raise the degree of"* (HR Muslim).

In the end the primacy of a Muslim is when he goes to the mosque and then back through another route so that his faith and good relation with others always taken care. Therefore, what was once a sequential space in the mosque arranged so that these routes were created well.

Since its establishment, Salman Mosque has never been renovated, which made only minor repairs only. Originally, the mosque has a floor carpet, but in

1987 changed to the wood, since it is easier for a carpet to get smelly and dirty. Several times change the color gradation on the façade. The last time was in 2013, which seeks to return the initial color of green (based on interviewed by Imam Choirul Basri, 2013). (Figure 7).

**Figure 7: Gradual changes in façade color**



Because of the unusual shape of the building at that time, the only marker in the mosque is the tower (*minaret*). In addition to a marker region, the tower also serves to broaden the reach of the call to prayer. In the current context, the tower also serves as a means of exercise climbing wall for the youth. This *minaret* appeared in simple form, harmonious with the mosque facade. (Figure 8).

**Figure 8: Minaret as a signage. Masjid 2000 Collection, seri 1: Pulau Jawa.**



The honest of the structures display, materials appearance, and simplicity concept became a strong character of Salman mosque. The interior spaces perform in accordance with its function. The influence of modern architecture in the 1960s was so strong on Noeman's works. The building form was simple, performed without ornaments and calligraphies. Surely this is became an uncommon feature at that time.

### **The Importance of Ahmad Noeman**

The design of the Salman mosque cannot be separated from its architect: Ahmad Noe'man. His collaboration with his brother: Ahmad Sadali produces a unique, phenomenal and special collaboration. Ahmad Sadali who was also an artist, expert in the field of Islamic calligraphy and lecturer in the Fine Arts Department ITB, was the one who challenged Noe'man not to create an "ordinary mosque". Discussions between these two siblings produced a creation that at that time became a hot topic within the world of architecture. The touch of Ahmad Sadali (who died in 1987) in the design of the Salman Mosque is visible at the front wall of the mosque (fig.7), a game of color gradation. The collaboration of these two persons was felt when Ahmad Noe'man acted as creator (fig.9) and Ahmad Sadali as filler (fig.10). The creator was the one who materialized the building and the filler was the one who organized activities within the building. Furthermore, Ahmad Sadali does not involve in the future works of Ahmad Noeman.

**Figure 9: Ahmad Noeman, Oktober 2014. Private Collection**





**Figure 10: Ahmad Sadali, 1924-1987. <http://archive.ivaa-online.org>**



### **Flexibility of Form that Established The Term of Campus Mosque.**

A touch of modern architecture as well as the style of Ahmad Noeman, ultimately contributes to a new understanding for the mosque designers in Indonesia. Mosques design has a very high flexibility because Islam permits playing in the form of design ideas. Campus mosque became the architects of creative event. Image of the campus as a place of science, technology advances, and supported by the willingness of using new material, also influence the birth of a number of campus mosque in Indonesia, particularly in Java.

The improved understanding of the Islamic religion on young people, contributed to the need for a mosque in the area of higher education. The rise of the campus mosque began to look sharp in the early 1980s. Today, mosque existence in campus is a must, when the location has a large enough area. Because the number of mosques and campuses are more and more widespread, the term "campus mosque" is often expressed as a term referring to the mosque which is located in the campus area. The presence of mosques in the area of higher education has provided a platform for designers to provide new ideas on the architecture of the mosque. Often in order to get the best design, a contest is conducted. According to the development time and design ideas that emerged, it appears that the architect is no longer fixated on the forms passed down a tradition that has been adopted by the community (Figure 11). Ahmad Noeman broke the barrier of knowledge on Islamic Architecture (especially the mosque building) in Indonesia. Some designers

are still carrying the traditional style as a form of respect to the local context, others are also carrying the adapted forms of Middle Eastern architecture. It seems that the tendency of architects to apply the concept of regionalism is confused with the concept of modernism (referring to the style of universalism). Interpretation of the architect in applying Qur'an verses are also attempted to perform both at the exterior and interior.

**Figure 11: Timeline development of Campus Mosque in Jawa, Indonesia. Dewiyanti, Dhini. 2013**

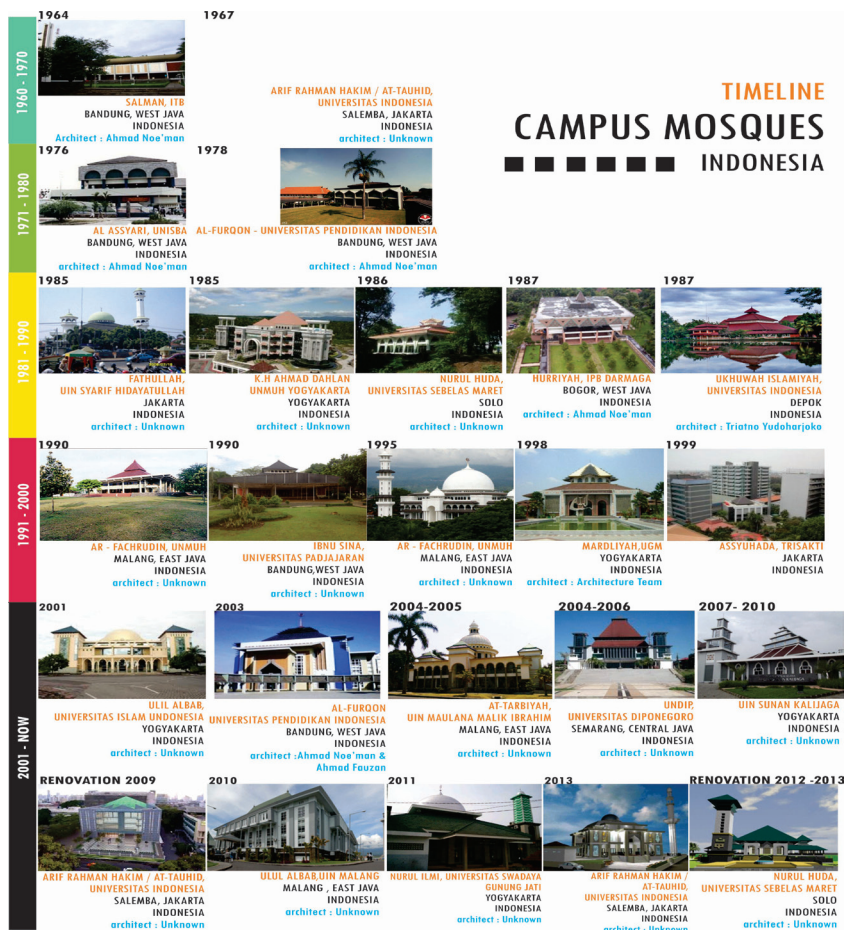


Figure 11 shows the development of campus mosques in Indonesia. The presence of mosque in educational areas was seldom encountered in the 1960s, and became plentiful in 2000s. Due to the limited display of figures, only a few mosques can be displayed. A number of mosques in campus areas, were designed by Ahmad

Noe'man, such as campus mosques at the Indonesia University of Education (UPI), Bandung Islamic University (UNISBA), Lambung Mangkurat University, Bogor Agricultural University (IPB) that all show technological advances in their era. The presence of the Salman mosque inspired a number of mosque design ideas that in the end appeared in a more bold and contemporary shape, usually expressing "the face" of its campus so that it shows the unity of existing themes. This development shows the keywords of a unique serial: Bandung Institute of Technology as the first institution that has a mosque, Ahmad Noeman as a key figure, and Bandung as the center of the birth of a large number of well design campus mosques in Indonesia.

### **Geometric Design Ideas as A Form of Creativity**

Technology still seems to dominate the spirit of other work of Ahmad Noeman: the Al Hurriyyah mosque. The mosque is located in a natural area located on the farm campus. This three-storey mosque can accommodate over five thousand worshippers. Currently, the most often functioned as a place of prayer is the second and third floors. Especially the third floor which is the mezzanine floor reserved for female worshippers. Second floor acts as the main floor of this mosque. There are a number of rooms on the second floor, each of which is named after the first four caliphs. On the left side of the sanctuary, there is a space Ali, Uthman adjacent to the space. On the right side there is a mihrab Abu Bakr. Meanwhile on the ground floor there is a vast place of ablution and lobby which is used as a place to sell books, food and Islamic products.

**Figure 12: Façade of Al Hurriyyah Campus Mosque, Bogor Agricultural University, Baranangsiang, Indonesia.**



The use of other forms of cubical/ volumetric, simplicity/ minimalism, functionalism, material and structural principles of honesty, as well as an emphasis on the details without ornamentation still seems to dominate the work of Ahmad Noeman at this mosque (Figure 12). Triangular elements are chosen because it is a stable form. Consistency seems to dominate the use of the triangle from the outside to the interior space. Material exploration, massive-transparent display in the triangle applied to the exterior. Triangle patterns also appear in the interior of the fabric of the space frame structure system inadvertently disclosed. The concept of this triangle is a symbol manifestation of Islamic teachings, which calls human beings to carry *hablumminallah, hablumminannaas*, and relationship with the surrounding natural environment (Putra, 2013).

### Design ideas Sourced From Reverence To Someone

Some sources state that the up triangle which is applied in the design of Masjid Al-Hurriyah is a form of respect for the professor and former rector of IPB, Andi Hakim Nasution (Sumalyo, 2006). Andi Hakim as an important figure for the Bogor Agricultural Institute is an expert in statistics. Ahmad Noeman interprets that up triangle is an important element in the world of statistical sciences.

Figure 13: Main room and the mihrab. Private Collection 2011.



Figure 14: Form of triangle and the shadows Private Collection 2011.



*Mihrab* (a semicircular niche in the wall of a mosque that indicates the qibla; that is, the direction of the Kaaba in Mecca and hence the direction that Muslims should face when praying) in the interior also appears simple without any ornament (Figure 13). Material composition and space exploration seems to have an aesthetic displays, because the dark light effect is so natural. Flexible space is also displayed on the design, reminiscent of Salman mosque is also designed with a high flexibility with extended rooms that can be opened and closed according to

the usage. The column-free space allowing the use of the room as a multifunctional space. A contrast impression of building exterior feels “hard” because of the use of “cold” concrete in the interior alongside with marble material (Figure 14). If the Salman mosque feels warm because of many uses of wood materials providing an atmosphere of softness, not in the mosque Hurriyyah case. The space feels cold because of the vast column-free space, accompanied by the use of maroon marble. The technology of the exposed steel at the time gave a separate admiration for pilgrims to come to appreciate the building.

Not only bring something that make it unique, the triangle shape also has another benefits which maximizing natural lighting and air circulation. The sunlight effects obtain through the exploration of materials that display the composition of big and small triangles, giving a distinctive effect on this mosque. The light from the roof also gives a distinct impression on the interior space. The exploration of the rotating triangle is composed into the building of the Masjid Al-Hurriyah as an application of Islamic art. This refers to the geometric patterns which have long been used in Islamic architecture. Based on theory, the triangular shape is believed to be the most stable form in mechanical systems (Figure 15).

**Figure 15: Lighting in the form of massive-transparent in triangle form Private Collection 2011.**



The mezzanine floor as the top floor, remains functional used as a prayer room for women. The composition of the structures, materials, colors, and shadows, provide an experience of its own space especially for women pilgrims who are usually given a closed chamber (Figure 16).

Just like the Salman mosque, not all of the communities are able to “read” and realize that this building is a mosque, especially since the building is still has a lot of green space that full of trees in the area of education. The tower use as a marker of the existence of the mosque. (Figure 17).

**Figure 16: Mezanine floor in the space structure, as prayer room for women. Private Collection 2011.**



**Figure 17: Minaret as a signage. Private Collection. 2011**



### **Flexibility on Building Renewment**

The next works of Achmad Noe'man is the Al Furqan Mosque located at the area of Education University of Indonesia, Bandung. This mosque formerly called as At Tarbiyah (1952). When transformed into the Al Furqan mosque, Ahmad Noeman gives a local forms to the roof, which no longer a concrete roof. The influence of an educational institution is infused with the local culture as a place to forge the prospective teachers. Ahmad Noeman work's continues to be a simple perform. (Figure 17)

**Figure 17: Mosque on the year 2000. Masjid 2000 Collection, seri Pulau Jawa**



**Figure 18: Mosque at present. Aditya, Nova Chandra Collection 2011**



Renovation of the mosque occurs on the roof by adding the tiered roof and given a calligraphy reads ‚Allah’ at the height of it. This mosque has 4 floors, ground floor serves as a lecture room, laboratory and ablution area. At 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> floor functioned as a place of prayer. This mosque can accommodate more than 10,000 worshipers and is believed to be the largest campus mosque in Indonesia, even in Southeast Asia at this time (Figure 18).

The mosque building expanded due to the increasing of needs and capacity of the congregation. The main basic needs held in this building are the spiritual “laboratory” provided on the ground floor. Mosque then placed on the top of it. The renovation gives a change in the placement on prayer area, which were given at the place in the highest hierarchy areas. This time, the work is done by Fauzan Noeman, the son of Ahmad Noeman. Fauzan still maintain some basic character of the old building, the work of his father. The most obvious thing is at the opening. The triangle geometric shape is maintained but has been modified with the new colors, materials and “hang impression” form (Figure 19 and 20).

**Figure 19: Triangle geometric openings by Ahmad Noeman Masjid 2000 Collection, seri Pulau Jawa.**



**Figure 20: Triangle geometric openings by Fauzan Noeman. Aditya, Nova Chandra Collection 2011.**



**Figure 21: Interior by Ahmad Noeman**  
Masjid 2000 Collection, seri Pulau Jawa.



**Figure 22: Interior by Fauzan Noeman**  
Aditya, Nova Chandra Collection 2011.



Just as with the interior. The main impression still feels the same, but now the building has three floors of the prayer hall, where the third and fourth floors is a mezzanine floor, the ground floor reserved for lectures and laboratory purposes. Women's prayer room has broad visibility. If the earlier work appears "more modest" (Figure 21), this work feels more diverse because of the colors, materials and geometric ornaments (Figure 22). Wood is no longer used.

Due to the addition of wide floor and the larger space, the rooms use many artificial lights in interior. This is giving a consciousness to a Fauzan Noeman, he believes that maintaining and financing factors must get into the important attention. There was a statement that the free column concept of his father gives a certain effect on people that attitude *Habluminallah* (man's relationship with God) and *Habluminash* (human relationships) stay up well, but do not be mold, which in turn provides a limitation. By designing this mosque, Fauzan Noeman arrived at a learning that:

*..... Column free concept is good, but I think that the column could be necessary to reduce the cost of construction, so that the shaft was the one who in the end must be set in such a way, without disturbing the view. Wide span construction is very expensive* [Noeman, Fauzan, 2012]

Fauzan still use the old tower, in this case it has no change at all (Figure 23 and 24).



**Figure 23: Tower by Ahmad Noeman Masjid 2000 Collection, seri Pulau Jawa.**



**Figure 24: Still the same tower. Aditya, Nova Chandra Collection 2011.**



**Figure 25: Mihrab Al Furqon by Ahmad Noeman. Masjid 2000. Collection, seri Pulau Jawa.**



**Figure 26: Mihrab Al Furqon by Fauzan Noeman. Aditya, Nova Chandra Collection 2011.**



If Salman has a very simple mihrab (Figure 25), not in the case in the Al Furqan Mosque. Setback areas as well as variations in the material trappings are still present. When experiencing a rejuvenation, exploration on the mihrab was more emphasized with colors and materials. (Figure 26). While space in the work of Ahmad Noeman appear in shades of his typical wooden design (Figure 27), Fauzan prefer a wall of ornamental geometric exploration of colors (Figure 28). The composition of the ceilings design allowing the incoming light that gives the attractive impression (Figure 29).

**Figure 27: Interior wall by Ahmad Noeman. Masjid 2000 Collection, seri Pulau Jawa.**



**Figure 28: Interior wall by Fauzan Noeman. Aditya, Nova Chandra Collection 2011.**



**Figure 29: Ceiling by Fauzan Noeman. Aditya, Nova Chandra Collection 2011.**



### **Flexibility of Architect's Thinking Ideas**

Figure 11, shows a number of flexibility in thinking phenomena, that the campus mosque does not always have to appear in the form of a modern or contemporary. A number of campus mosque was also trying to get back to the context of the locality, like using stacked roof as shown by Josef Priotomo (the Minarul Ilmi Mosque, Surabaya Institute of Technology), Triatno Yudo Harjoko (the Ukhuwah Islamiyah Mosque, University of Indonesia, Depok) and the work of Totok Rusmanto at campus mosque of the University of Diponegoro, Semarang. Traditionalism once again used to explore the values of the local architecture. Some choose the eclectic form of architectural styles of Masjid Nabawi, Chinese architecture, India, and Java, such as works of architecture team (the Masjid Mardliyah, Gadjah Mada University, Yogyakarta). Some works even take the form of domes like the common image of a mosque, such as the Ar-Fachrudin Mosque, Muhammadiyah University, Malang, the Ulil Albab Mosque by the faculty team of Islamic University of Indonesia and also the At-Tarbiyah Mosque at National Islamic University Maulana Malik Ibrahim, Malang.

### **CONCLUSION**

The development of the campus mosque in Indonesia showed that the area of the higher education institutions today requires a means of mosque and has become a part of the planning area campus. This is encouraging because the campus contains the younger generation who needs to keep pace with the spiritual aspects of worldly knowledge. It also shows a high level of tolerance of other faiths. They

realize that the five daily prayers in congregation need a container that must be designed properly, without offending others.

The presence of mosques in Indonesia campuses provide learning and new understanding to the people of Indonesia that Islam does not complicate and limit the creative person. As far as the work of Islamic architecture does not deviate from the Qu'ran and the Hadith, as well as functionally designed according to the needs and capacity, then the work will still be present with its own aesthetic. It is hard to break a tradition that has been attached for centuries, that the roof of the mosque should be dome-shaped. At least the presence of mosque architecture of the campus through the hands of Ahmad Noeman is able to bring a new history in Islamic architecture, especially mosques in Indonesia.

This paper describes how the campus mosque in Indonesia is able to provide creative freedom to show flexibility in the form of restrictions that are not bound by tradition. The presence of a new typology on campus mosque has given a new form of the mosques design discourse. Mosques in the campuses environment has the characteristics of a typical room, which can not be found in other mosques. The flexibility of form can be realized by referring back to the verses of the holy Koran as a reference for Muslims.

Islam is a flexible religion, not rigid one and do not be complicate to the congregation. The flexibility in the form of mosques architecture can be present along with the knowledge of technology, the need for spaces, the local materials, and also the financial ability to take care of the mosque during operation.

In the future, it seems that the presence of a mosque in the campus masterplan will continue growing, with a new ideas to enrich the discourse of Islamic architecture diversity in Indonesia, providing a learn means for people in appreciating the mosque architecture.

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4. Based on interviews by Salman administrators: Samsu Baharudin, Imam Choirul Basri and Syarif Hidayat (2012): in around 1960, a mosque in Indonesia is still very small,

and usually only located in the city center. At that time, the public understanding of Islam is still very low, however, there was a movement of Islamic student associations containing young people who aspire to create missionary endeavor cadres. One of the leaders of Islamic student movement, which sought to develop activities to take part were Dr. Ir. Muhammad 'Imadudin' Abdulrahim. His doctrine of *tauhid* is phenomenal in the era of 1970 to 1980. His action in the spirit of Islam could be considered at odds compared to political atmosphere in Indonesia at that time, so he was imprisoned.

5. Based on interview by Ahmad Noeman (2012): Salman names refer to a brilliant technocrat, companions of the Prophet, Persian origin Salman Al-Farisi who proposed the idea of digging the ground at Battle of *Khandaq*, thus becoming one of the keys to success in detaining enemy attacks.
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7. Al-Qur'an (2,170): *And when it is said to them, "Follow what God has revealed," they say, "We will follow what we found our ancestors following." Even if their ancestors understood nothing, and were not guided?"*
8. Based on interview by Ahmad Noeman (2013): the term Islamic Fire was proposed by Ahmad Noeman, from a lot of reading a religious book as well as western architectural books.
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