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A Study on Mosques Built by People in Surabaya, Indonesia

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Abstract: In Indonesia, there are two types of designers of Mosque Architecture, one is a professional architect and the other is a non-professional architect. A mosque built by a non-professional architect is commonly called "*mosque by people*." Looking at the arrangement of this type, we find simplicity of concept, traditional skill and an overall sense of the region's communities.

In Surabaya, one of the domestic mosques by people is "*Al Abror*" mosque. This mosque was built in 1889, and has undergone three extensions and alterations in 1955, 1966 and 1975 respectively. The layout of the original design followed traditional schemes of Javanese Architecture, with four wooden columns in the center and a "*tajug*" style roof. Following each development stage, the layout and performance of the building demonstrated significant changes in many respects. The style of *Attamim*, another domestic *mosque by people* is different from *Al Abror* style. This mosque was built in 1895 and has undergone one extension and alteration in 1985. Its original design followed the traditional scheme of Javanese Architecture and the "*tajug*' style roof, but with one wooden column in the center. Despite that the types of *mosque by people* have similar culture and social systems, unique differences have been identified by this investigation of architectural form space, structure, ornament and decoration.

Introduction

History has proved that the dynamics of architecture always grows together with the socio-cultural dynamics of a community. Architecture as a human product, either as an individual or as a group, will develop with the socio-culture of the community.[1] The orientation shift of cultural values in relation with the human views towards nature, and the essence of human beings within their environment, will influence the manifestation of architecture. The indications of a cultural change, in fact, will be very dominant within a society that grows more open towards external influences. This very dominant influence can be felt within a community living in big cities, because they have to make the biggest change in interaction and interrelation with other communities. The traditional society in rural areas give different results in method of life and product of human life compared with the ones produced by the culture of traditional society living in urban areas. This is because the technology levels of societies in urban areas shift and develop faster than in the rural areas. The individual freedom is more obvious, and the fast increase in population has more effects on the changes of their culture.

The fast development of the cultural community of metropolitan Surabaya, the level of skill of local laborers, the limited funds to build, and the limited land where the mosque can be built in densely populated Surabaya, played a major role in shaping the (*mosque by people*) option. The mosque was first built by following traditional Javanese architecture, then it developed dynamically, creatively, and uniquely.

Various architectural processes employed in expanding and developing the mosque were also influenced by Arabic architecture, modern architecture, and popular architecture in Indonesia. This study is based on observations on two different types of mosques, *Al Abror and Attamin*, which will focus in identifying the space arrangements, functions, the structural and construction systems, and the architectural details. By doing so, the uniqueness and distinctive features of each mosque can be revealed.

Javanese Traditional People

Javanese traditional society commonly considers life as a series of incidents that must be undergone with full determination and resignation.[2, 3] Therefore, Javanese traditional society correlates the final goal of the work they have done with the reward they will receive. Basically, the Javanese traditional cultural values are orientated towards the essence of work as a vehicle to status, honour and power. This is reflected in an attitude to produce the finest possible architectural works. Collateral orientation clarifies the individual attitude, which is more open towards other individuals. The buildings of traditional society tend to have an open characteristic towards other individuals.

The attitude of life of the Javanese traditional society is basically the realization of various elements influenced by ancient cultures and beliefs that mixed up with Islam which came at a later period. The demeanor and conviction of the Islamic teachings, based on Al Qur'an and Hadith, give guidance to the vitality of Islamic culture. They organise and regulate rules and laws for Muslims to perform the Qur'an and Hadith teachings in daily life. The value of Islamic teachings is open and tolerant towards cultural value prevailing in a certain place and time. Islamic teachings, which are full of piety to God, have changed the old religious orientations of the Javanese traditional society and eventually gave their religious service to God as the final goal. Consequently, orientation of cultural value of Javanese traditional society concerning what they do and what they have to produce are no longer to statue, honor or power, but for the sake of performing a religious service to God.

Mosques by People

As one form of architecture, the development of mosques follows the development of the society's cultural values in which they are built. There are two responsible designers for mosque Architecture, one is called the professional architect; the other is the non-professional architect. Mosques built by non-professional architects are commonly called *"mosques by people."*

In a traditional society, mosques are erected in accordance with local cultural value and environment hence following the development of the society and their knowledge as well as technical construction skills.[4,5,6] In short, the variety and development of mosques built by people can be classified based on typology and style or history that influence them, as follow :

- Mosques in the form of Javanese traditional architecture.
- Mosques in the form of Middle-East/Asia-Minor/Middle-Asia architecture.
- Mosques in the form of modem architecture.
- Mosques in the form of a combination of the above styles.

Complexity of the form presented by these *mosques by people* are obvious through their uniqueness if they are examined in light of how many influencing styles are found in each one of them. So, a mosque that is built and influenced by the traditional society and develops uninterruptedly until it comes to its form at present, of course has high and complex uniqueness. *Al Abror and Attamim* are two examples of mosques influenced by pre-Islamic Javanese traditional cultures, the Islamic architecture style and the popular cultural values in Indonesia's large cities.

Typology of Islamic Javanese Traditional Mosque

As reference to identifying the uniqueness of *Al Abror and Attamim* mosques, it is important to present a brief typology of some Javanese traditional mosques, namely the *Demak Great Mosque* which is the principal mosque of Jogyakarta, the *Baitussalim* mosque in Banyumas (both in central Java), and the *Cirebon Great Mosque* (in west Java). They all present Javanese mosque architecture in the era of the

Islamic Javanese Kingdom. By examining these three traditional mosques, the following features can discerned:

- The main hall and veranda have a rectangular form, the ablution place is in the left and right of each respective.
- Each mosque has a main axis symmetrical with the *mihrab* in the west end and the entrance as the east end.
- The placements of columns in the Principal Mosque of Yogyakarta and the Great Mosque of Demak exhibit similarity, that is four main columns as the main *"soko-guru"* (Fig. 1) which are erected in the center of the main room. They support the crown roof *"tajug"* (Fig. 2) and surrounded by 12 columns to support the second roof, and 20 columns at the outermost part to support the lowest roof. The veranda is supported by 8 main columns and surrounded by 28 columns at the outer limits.
- *Baitulssalam* mosque in Banyumn is special in having only a single main column in the center of the main hall. It function is to support the crown roof *"tajug "*.
- The roof shape in both the Great Mosque of Demak and the Principal Mosque of Yogyakarta is called *"Tajug Tumpang Tiga"*. (Fig. 3) The roof shape of the *Baituissalam* in Banyumas is called *'Tajug Semar Sinongsong Lambang Gantung"*. (Fig. 4)
- The rest of the mosque contains of a *mihrab*, an ablution place, a veranda and a gate.

Case Studies

Al Abror Mosque

Al Abror mosque is located on Kampung Simolawang, an area in the old town of Surabaya, Indonesia that is overpopulated and where the majority of the population are Muslims. In addition, this community has undergone a transition phase from a rural to an urban society. The mosque was built in 1889. The owner is Kvai Haji Imam Raoyan, who built the mosque soon after his return from Makkah. Then K.H. Imam donated the mosque and the land on which the mosque was built to the Simolawang people, a charitable practice established in Islam known as, *wakf.*

The original construction of the K.H. Imam Raoyan's mosque had undergone several expansions and renovations in 1955, 1966 and 1975 (Figs. 7&8). The original mosque was similar in form and structure to the Great Mosques of Yogyakarta and Demak in which the layout of the main room is a rectangular form. The roof was two stories high forming a *"tajug"* with four columns in the center. The brick wall was massive and closed to the main room. The veranda on the East Side was an open room consisting of eight rows of pipe-iron columns with the roof forming *"limasan"* (Fig. 5). The function of the corridor with the roof forming *"limasan"* is to connect the gate with the veranda. The place for ablution is located at the left side and right side of the main hall.

The renovation in 1955 was actually an enlargement of the main room at the west end of the original mosque. The new veranda was built to the south of the nucleus mosque and the *mihrab* was moved to the new room at the west side of the old mosque. The structure and construction of the main room used the wooden sawhorse with the roof, a construction method that was influenced by Dutch colonisation architecture of Indonesia. The structure and construction of the new veranda reflected simple traditional techniques with the form of rectangular *and "limasan"* roof style. The ornamentation was done by applying figure tiles illustrating yellow coloured flora. These tiles, which were 60 cm in height, decorated the wall of the main room. Above the wall we find decorations that employ black gravel in the form of a ribbon.

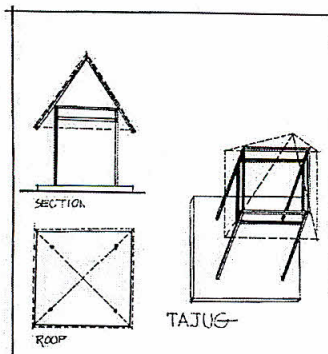


Fig. 2: Roof support.

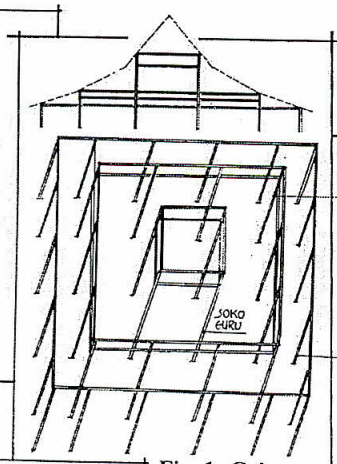
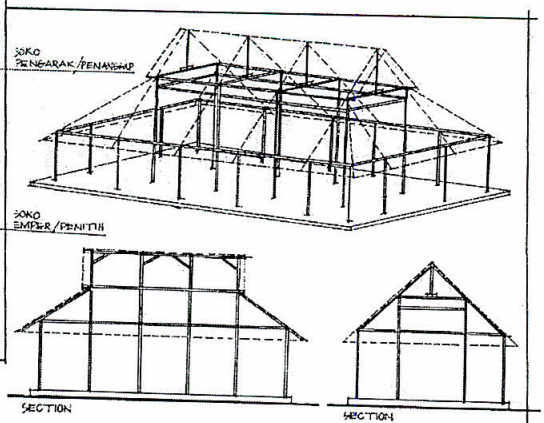


Fig. 1: Column Placement.



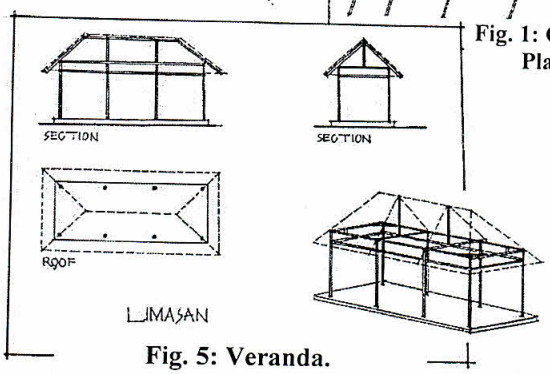


Fig. 5: Veranda.

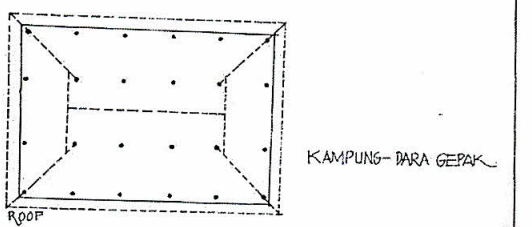
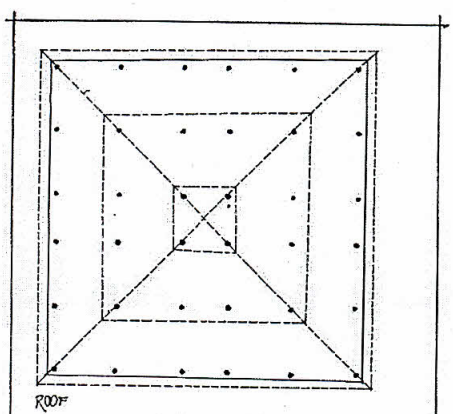


Fig. 6: 1975 renovation.



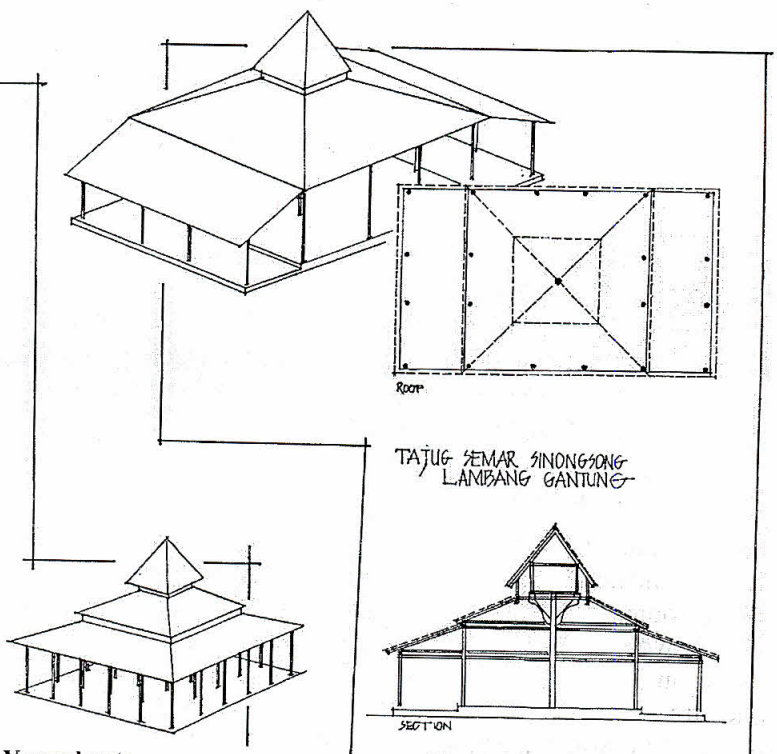


Fig. 3: Roof shape of Demak and Yogyakarta mosques.

Fig. 4: Roof shape of Batulssalam mosque.

The renovation in 1966 was also an enlargement that covered the whole mosque into the front yard. This vast new-veranda consists of several *"limasan"* constructed with a simple structure by wooden columns following traditional skills. The south wall of the main room of the nucleus mosque was torn down and then a new wall was reconstructed at the outer part, encircling the new veranda in the east side. The new wall at the outer part consisted of row of pillars with elements of beams forming a silhouette of onion dome.

The latest renovation was done in 1975 by providing teaching room at the north side of the veranda. The layout is rectangular in shape with the roof forming a *"Kampung Dara Gepak"* style (Fig. 6). The walls around this teaching room are made of glass with decorative elements of beams forming a silhouette of onion dome.

The uniqueness of Al Abror mosque's social and structural features are as follow:

- The original mosque was built in order to fulfill the conditions of Hajj pilgrimage status within social structure of the Islamic Javanese Traditional Society.
- The endowment *"wakaf"* of the original mosque whose site was donated by the owner was considered an honourable deed and a representation of his fulfilment of Islamic teaching.
- The old building of *"wakaf"* (the original mosque) was preserved, for it is considered a scared building.
- The renovation that had been carried out still used the styles of Javanese traditional building styles and construction methods *(Limasan and Kampung Dara Gepak)* with very simple structure and construction technology of the local society.
- There is a column at the center of the wooden sawhorse-like *soko guru*, it does not support anything.
- The way the people built the mosque was by mutual workmanship *(gotong royong)* either in collecting the material or in executing the work.
- The glass wall and decoration of beams was influenced by Modem Architecture.
- The decorations on the walls and entrance door demonstrate the influence of Islamic style.

Attamim Mosque

The Attamim mosque is located on Kampung Wadung Asri -Waru, Surabaya, a place that was once an Islamic Javanese traditional village that gradually exhibited intense interaction with the moral value of Surabaya society. The Attamim mosque was built in 1895, and its land and structure were donated by *Wadungasri* inhabitants. The shape of the original mosque took a rectangle form. There is one center column *"soko tunggal"* in the middle of the four main columns *"soko guru"*. All these columns are made of wood. The roof takes the shape of one story *"tajug"* type that functions to protect the main room. The massive wall with some windows and doors surround the main room.

An opened veranda with *"limasan"* roof is located in the east side. The gate is placed at the east of the mosque and has special characteristics. Observing the shape of the roof and it structure, Attamim mosque characteristics that are similar to those found in the Baitussalim mosque in Banyumas . The center wooden column *"soko tunggal"* has four cantilevers that each of the cantilevers is decorated with various vines and motif of carving. The place of ablution is in the north side of the main room. The width of the main room building is 10 x10 m and 4 x10 m for veranda, and its floor is raised from the outer ground by 75 cm (Fig. 10).

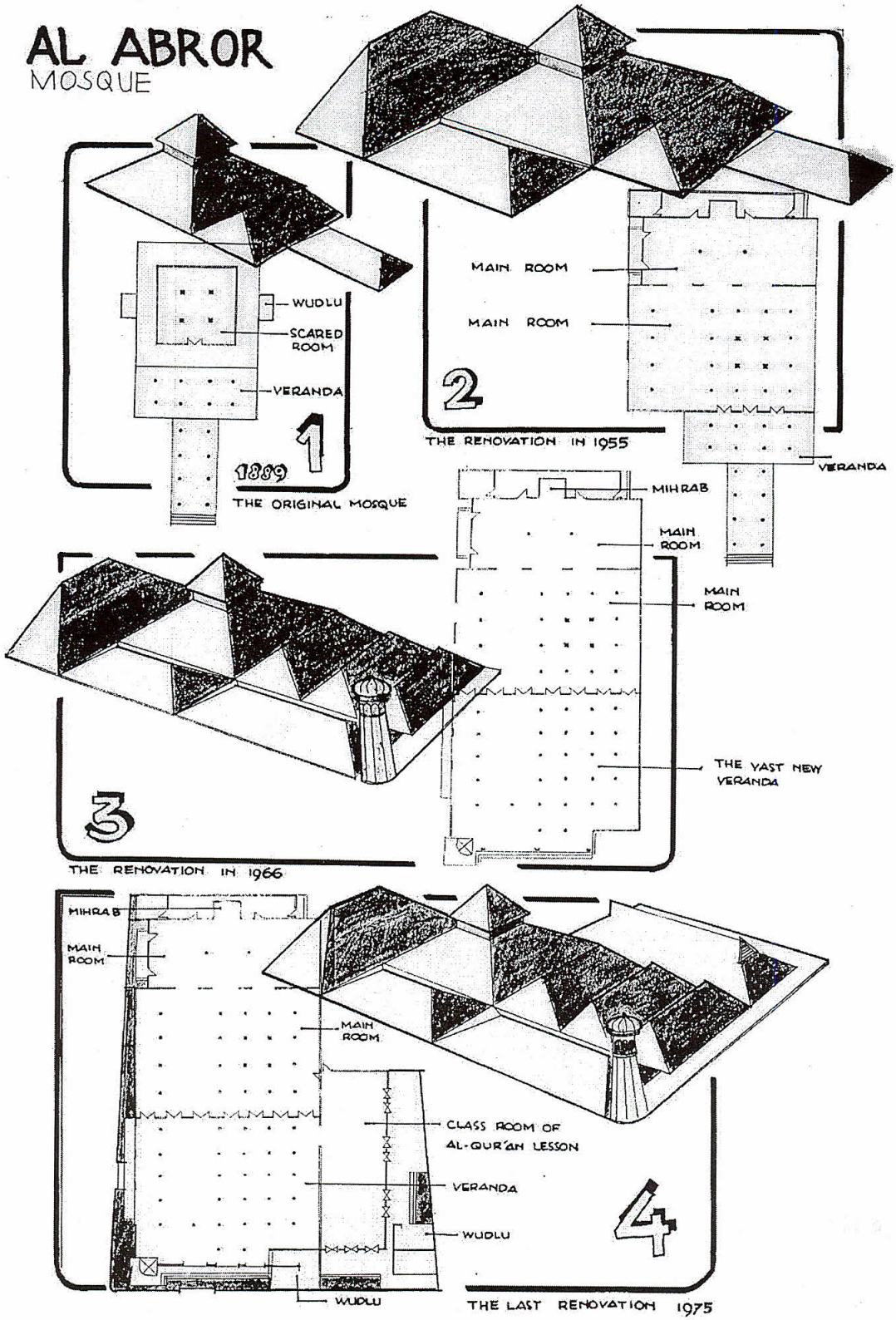


Fig.7: Al Abror Mosque.

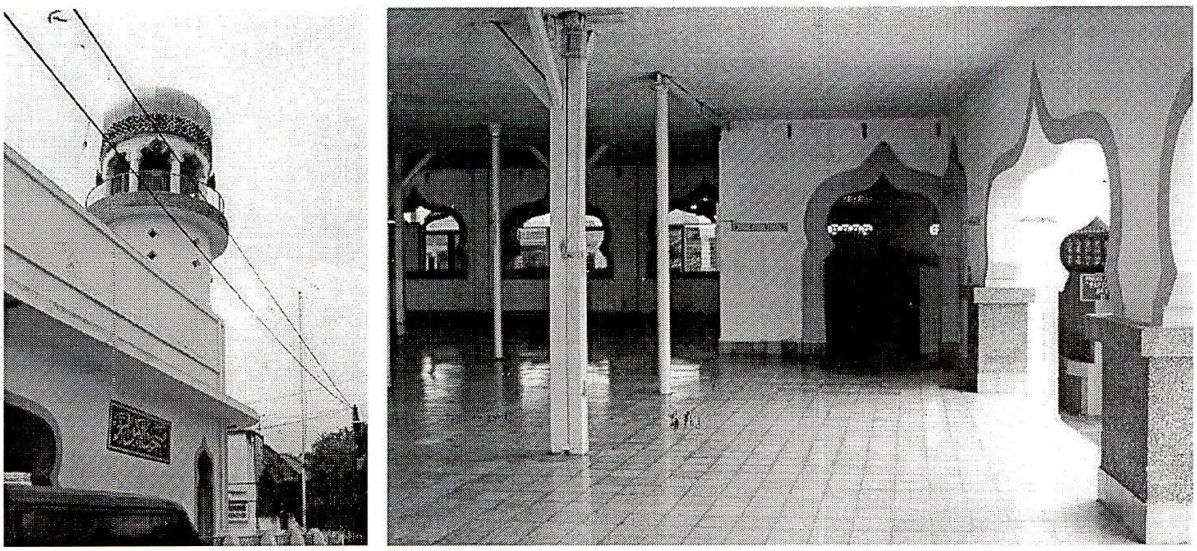


Fig. 8: Al Abror Mosque.

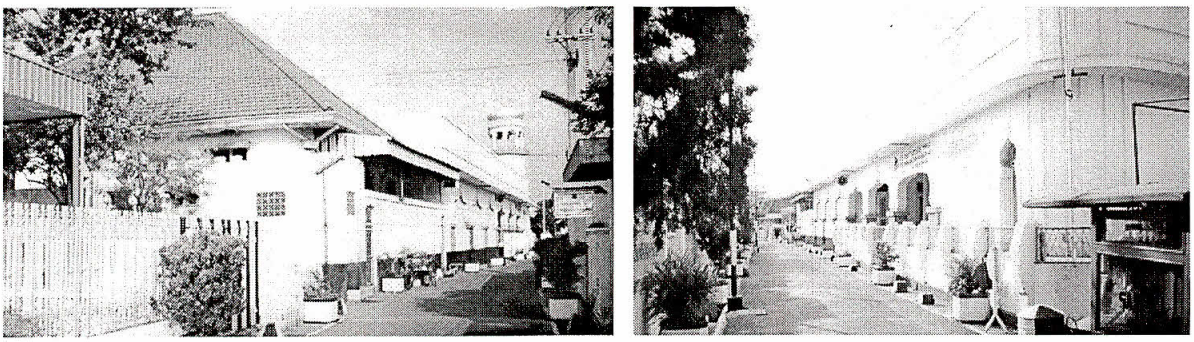
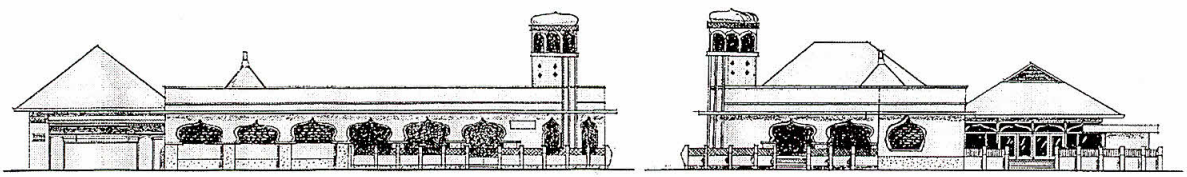


Fig. 9: Al Abror Mosque.



South Side of Al Abror East Side of Al Abror



The New Veranda (1966) The Building of Al Qur'an Lesson (1975).

Fig. 10: Al Abror Mosque, Simolawang, Surabaya, Indonesia.

Attamim mosque underwent renovation in 1985, because it could not accommodate the congregation. The veranda was torn down and replaced by a new building as an extension for the main room. The construction of the building imitated the Arabic mosque style and the dome roof was placed at the center of the flat roof. The dome was joined by four columns in the middle of the room. The perforation on the shape of the building was in the form of fines of pillars that were decorated by the roof beams that were painted. There was no ornament found in the new budding (Figs. 11, 12).

The unique features of Attamim mosque are:

- The mosque is a donated property. During the renovation, the shape and the structure of the original mosque is retained.
- The new building as the expansion of the original mosque imitated the architecture style of the mosques found in the Middle East (Arabic style).
- The new structure is applied on the development of the mosque.
- The original mosque was unchanged and preserved as a scared building. The structure of the original mosque was unique, because the form of the building can only be found in Banyumas area whose culture is influenced by Sunda culture.

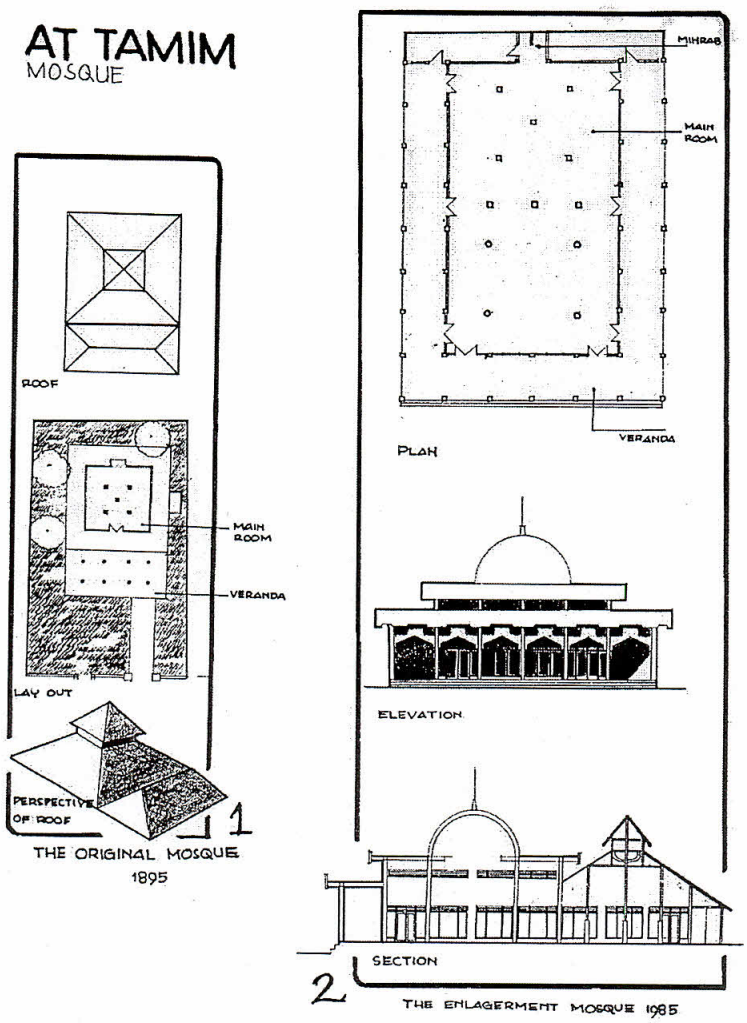


Fig. 11: Al Tamim Mosque.

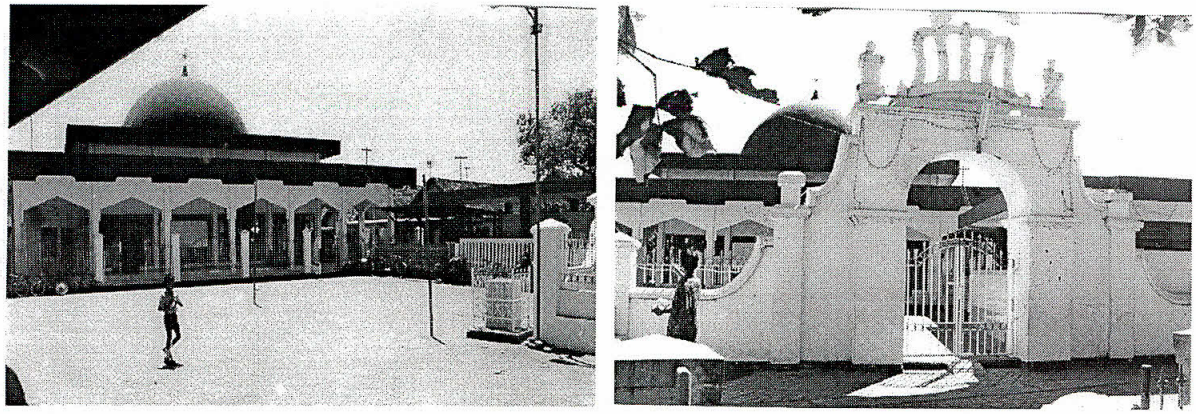


Fig. 12: Al Tamim Mosque.

Conclusions

Mosque architecture in Java has been always influenced by the prevailing values of Javanese traditional culture. The dynamics of mosque architecture also follows the development of cultural values of the society where the mosque is built. The cultural values of Islamic Javanese traditional society that influence the presence of contemporary Javanese mosque architecture are as follow:

- The construction and further expansion are performed for the sake of God. The existence of a prayer hall of a mosque is the evidence practising ritual prayers five times a day.
- It has been the custom that within Islamic Javanese traditional society, a person who is rich and managed to perform pilgrimage to Makkah, donates a land or a building, or both, to his or her community as a public place to perform Islamic teachings.

The donated land or building is considered the possession of God, and thus it's the responsibility of every person in the community to take care of and preserve the prayer house. For this reason, if a mosque needs an expansive or renovation, people commonly do the following tasks:

- Maintain the original structure and materials of the old building.
- If the land and building are donated, the use of the land cannot be replaced by other functions.
- Preserving the remains of the building.

Cultural values towards other people living around Islamic Javanese traditional society causes a mosque to be a sort of a communal housing. In addition, the mosque appearance is closely related to the life-style of the local traditional society as well as the local architecture. The above phenomena are very influencing and realized in the following:

- A mosque is built within a settled area and its shape is similar to local traditional architecture styles. Various habits that affect the completion of traditional building also become replenishment of a mosque, such as the use of local material, locally specific roof, the structure and the construction that are based on the technical skill of the local people.
- The use of a yard to accommodate the overflow of the congregation during a collective work represents a part of the life of traditional society in performing a collective work.
- Working together, a Javanese traditional cultural value, gives the people motivation to take care and renovate the mosque, and organise its activities. It is often found, therefore that the establishment of a mosque is done by the *people* themselves, and carrying out the work of establishing a mosque is only based on that habit.

Based on the cases explained above, the mosque that is producted by Islamic Javanese traditional society (*mosque by people*) reflects the cultural values of the society, employing a simple layout; applying structural and construction techniques that are suitable to the skill level of the local workmanship. In the concept of development, the architecture of the traditional society mosque is much more influenced by the demand for a spacious hall to accommodate more people.

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دراسة عن المساجد المبنية بواسطة الناس في مدينة سورابايا، إندونيسيا

مورتيجاس سوليتيجواتي و ديوي

قسم العمارة، كلية الهندسة والتخطيط، معهد سيبتولة نوفمبر التكنولوجي

سورابايا، إندونيسيا

ملخص البحث: يوجد نوعان من مصممي المساجد، الأول هو المعماري المهني والآخر هو المعماري الغير مهني، ويطلق في إندونيسيا على المسجد المصمم من قبل المعماري الغير متخصص "مسجد الناس." نجد من خلال النظر الى توزيع ونظام البناء لهذا النوع بساطة الفكرة التصميمة وتتضح مهارات البناء التقليدية المتبعة بين سكان الإقليم. في سورابايا يعتبر مسجد الأبرار أحد نماذج مساجد الناس. وقد تم توسعته ثلاث مرات منذ إنشائه في عام ١٨٨٩. ويعكس المسقط الأفقي الطراز التقليدي الجاوي الذي يتكون من أربع أعمدة خشبية في الوسط وسقفا يعرف بنموذج "التاجوق." كما تعكس مراحل التوسعة تغييرات هامة. ويختلف مسجد التميم والذي يعتبر أحد نماذج مساجد الناس عن مسجد الأبرارو وهو مسجد تم توسعته مرة واحده في عام ١٩٨٥ منذ إنشائه في عام ١٨٩٥. ويتبع تصميمه النموذج المعماري الجاوي المتميز بسقف التاجوق ولكنه يرتكز على عمود واحد فقط. ومع كون مساجد الناس تنتمي إلى نفس النظرة الاجتماعية والثقافية إلا أنها ومن خلال التحليل المتبع في هذا البحث تختلف من حيث الشكل المعماري وتصميم الفراغ وطريقة الإنشاء والزخرفة.