

## Changes in the Form, Space, and Meaning of Community Mosque Architecture in Surabaya, Indonesia

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### -----ABSTRACT-----

Referring to the architecture of the Wali mosque as a prototype of the architecture of traditional mosques in Indonesia, the architecture of today's mosques that are considered to have changed significantly is the Community Mosque. Community mosques are mosques at the village and sub-district levels designed by the community. This study aims to find details and patterns of changes in the form, space, and meaning of the Community Mosque architecture in Indonesia as input for further studies of the factors that influence these changes. The study subjects were several community mosques in Surabaya as one of the cities with the highest number of community mosques in Indonesia. Data obtained from physical observation, interviews, and visual documentation. Analyzes performed with the comparative method by comparing the current Community Mosque architecture with the architecture of the mosque before that had the characteristics of the Wali mosque. This paper can conclude that almost all elements of the community mosques are undergoing changes, and a small part of the elements of the mosque are constant or unchanged. Some of the changing elements of the community mosque show similarities with the form, space or meaning of non-local mosque elements, that mosques in the Middle East.

**Keywords** – architecture, change, community mosque, form, meaning, space.

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### I. INTRODUCTION

In the early development of Islam, Mosque building is simple, but for more than 14 centuries, a mosque architecture has evolved to such an extent that nowadays the mosque have varied forms and spaces and some are not simple. The diversity of the mosque's architecture is due to the process of architectural change, which among others is due to the guidance of the Islamic religion (Islamic Shari'a) that does not provide specific rules regarding the physical form of the mosque, except those relating to prayer and other practical considerations. Islamic Shari'a does not provide specific guidelines for the development of Islamic art (including mosque architecture) [1]. It provides freedom for Muslims in Indonesia included in determining the architecture of the mosques.

From the Mosque Information System, the Ministry of Religion of the Republic of Indonesia known that the most numerous mosques and the most varied architecture today are Jami Mosque and the Great Mosque [2]. The Jami Mosque and the Great Mosque designed by the community in this paper are called Community Mosques. One of the cities in Indonesia with the largest number of Jami mosques is Surabaya. Jami Mosque is a mosque located at the village level, while the Great Mosque located at the sub-district level [3].

From the initial observations, it obtained a general description that the architectural elements of the community mosques have now changed when compared to the Wali mosque. The specific characteristics of the Wali mosque architecture have become one of the local cultural identities. This opinion supported by the inclusion of the Demak Great Mosque into the tentative list of UNESCO World Heritage Sites in 1995. With the greater change in the architecture of the community mosque today when compared to the architecture of the Wali mosque, it is feared that one of Indonesia's local cultural identities will uproot. Therefore, it needs a study of mosque architectural changes detail as well as the study of the factors that influence these changes. This paper aims to answer one of these questions, which is the changes detail of the form, space and meaning that occur in the community mosque architecture in Surabaya, Indonesia. This paper is expected to contribute as a data or input for the further study of factors affecting changes in the community mosque architecture, as well as data for academic and professional purposes related to design and construction of a mosque in Indonesia, especially the community mosque.

## **II. LITERATURE REVIEW**

### **2.1 Change in Architecture**

Changes in architecture occur due to the transformation process. In the process of transformation, is not all the elements change but would still found their constancy.[4]. Transformation is a process of changing forms gradually so that it reaches the final stage. Changes made by responding to the effects of changes in external and internal elements that guide changes in forms that have been known previously through repetitive replication. Transformation of architectural forms can be done by means of translation, rotation, reflection, stretching, shrinking, scale and twisting [5].

To seek the changes that occur in the built environment, must be a conscious effort to see the past, compared to the present and then predict the future. The past became the starting point of the analysis, so the transformation process identified several cultural elements which included core elements, peripherals, and new elements. Core elements are elements that are slowly changing, but sometimes can be steady. Peripheral Elements are elements that change very quickly; this change occurs due to certain factors such as urbanization, development, technological progress which are the result of socio-cultural and socio-economic influences. New Element is an element by which it can predict growth patterns and future prospects [6]. In this study were used as the starting point is the Wali mosque architecture era to see changes in the present era mosque architecture in Indonesian society.

### **2.2 Change in Mosque Architecture**

The thing that influences the change in mosque architecture is the principle of being faithful to the faith of religion and high adaptability to the local culture of the Islamic community. This principle allows Islamic architecture to accept the existing cultural heritage including the great culture of Greek, Roman, and Christian heritage .[7]. Another opinion says that changes and transformation of mosque architecture can be influenced by the existence of two general aspects. First; the existence of external influences and responsiveness to external factors such as environment, history, and culture. In the cultural sphere, locality proved to be very influential. Second; as a consequence of the function of the mosque as a public facility of worship so it must always submit to the Muslim liturgy (prayer) which will continue [8].

### **2.3 Elements of Local and Non-Local Mosque Architecture**

The architectural elements found in local mosques and non-local mosques are minaret, ablution place, mihrab, minbar, prayer hall, roofs, gates, and ornaments. The characteristics of the architectural elements differ between local mosques and non-local mosques. The non-local mosque minaret style is not the same as the local mosque. The form of ablution place is different especially because the body position is different when ablution; at a local mosque in a standing position, while at a non-local mosque with a sitting. Mihrab of non-local mosques in the form of niches and the Imam's body position is not full in the mihrab room, while the local mosque is not a niche and the Imam's body position is full in the mihrab room. The roof of a local mosque in the form of a tajug while the roof of a non-local mosque is dome-formed. The local mosque gate is in the form of the candi bentar, paduraksa, and semar tinandu which is on the fence line, while the non-local mosque gate is a niche or portal which is on the mosque's front wall. Local mosque ornaments in the form of mustoko, inscriptions or local motifs, while a non-local mosque ornaments in calligraphy, arabesque, and muqarnas. The elements typical of local mosques and nonexistent in non-local mosques are bedug and serambi, while the elements that are typical of non-local mosques and not in local mosques are sahn, riwaq, iwan, and arcade [9]

### **2.4 The Element of Architecture**

Changes that occur in every community mosque architectural elements are possible on all or part of the components of the architecture. Francis D.K. Ching stated that there are three elements of architecture, namely Form, Space, and Order. Forms and spaces are not the ends of their own meaning, but as a tool to solve problems in an effort to respond to the conditions of an architectural function, purpose, and context. The architectural order done when organizing its parts reveals relationships with each other and the overall structure. Order in addition to related physical aspects (form and space) are also perceptual and conceptual. Conceptual means a thorough understanding of the relationships arranged or not arranged between the element and system of a building, as well as its response to the meaning contained [10]. According to Francis D.K. Ching, a discussion of elements of form and space is also related to function, and architectural order also means of meaning in architecture.

David Smith Capon mention three elements in the architectural embodiment that is Form, Function, and Meaning. Form relating to the visible existence of the building and being judged by its beauty. Form elements include lines, fields, and spaces, so discussion of forms also includes discussion of space. The Function relating

to what the building actually does and being judged according to how well it performs. Meaning relating to what we know about the building and being judged in terms of the various kinds of truth [11].

### III. METHODS

This research classified into qualitative descriptive research with the interpretive approach. Library data mainly from the results of previous research with the theme of architectural changes, especially mosque architecture. As the study subjects, five community mosques chose in Surabaya which were considered relevant to the characteristics of the Wali mosque as a reference to see changes. Visual data in the form of certain photographs are re-sketched in order to clarify the variables to be analyzed, namely form, space, and meaning. The data analyzed by interpretive and comparative methods. Comparative methods are carried out by comparing the existing architectural elements of the mosque (new mosque) with elements of the mosque before the change (old mosque) to see changes in form, space, and meaning. Comparisons were also made between the new mosque and non-local mosques to see the possible similarity of characteristics. Interviews were carried out to the management and committee of the construction of mosques, as well as mosque worshippers mainly to explore the meanings of the architectural elements of the mosque. From the results of the analysis obtained findings about changes in the characteristics of each element of mosque architecture; including findings about the presence of non-local mosque elements.

### IV. RESULT AND DISCUSSION

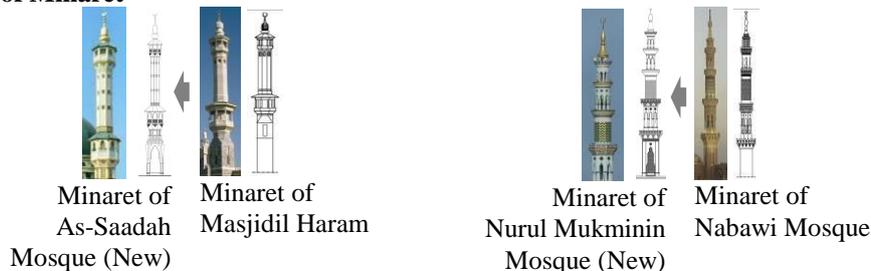
#### 4.1 Elements of Local Mosque Architecture

Community mosques in Surabaya that used as subjects in this study were community mosques whose characteristics of architectural elements were the same or were close to the local mosques or Wali mosques in Indonesia. With these criteria, five community mosques were selected, namely: As-Saadah mosque, Nurul Mukminin mosque, Qowiyul Islam mosque, Al-Jihad mosque, and Al-Hikmah mosque.



The five community mosques analyzed for architectural changes by comparing the elements of form, space, and meaning of the old mosque (before the change) with the new mosque. The mosque's architectural elements compared include elements: minaret, bedug, ablution place, mihrab, minbar, prayer hall, serambi, roof, exterior façade, fences and gates, and mosque ornaments.

#### 4.1 Change of Minaret



The five old mosques do not have minarets, while the new mosque which has a minaret is only the As-Saadah mosque and Nurul Mukminin mosque. When compared to the non-local mosque minaret elements, the minaret form of the As-Saadah mosque is similar to the minaret of the Masjidil Haram in Makka, while the

minaret form of the Nurul Mukminin mosque is similar to the Nabawi Mosque minaret in Madina. The meaning of the new mosque minaret is as the identity of the mosque's function and a symbol of grandeur.

#### 4.2 Change of Bedug



The bedug of As-Saadah mosque (New)



The bedug of Nurul Mukminin mosque (New)



The bedug of Qowiyul Islam mosque (New)



The bedug of Al-Jihad mosque (New)

Only the old and new Al-Hikmah mosques do not use a bedug. In the other four mosques, there was no change in the form of the bedug in the new mosque. Only Qowiyul Islam mosque that uses the type of bedug rested on the supporting structure, while the others using a bedug that hangs in the bedug support structure (hang type). The meaning of the bedug does not change as the identity of the mosque function.

#### 4.3 Change of Ablution Place



The ablution place of As-Saadah mosque (New)



The ablution place of Nurul Mukminin mosque (New)



The ablution place of Qowiyul Islam mosque (New)



The ablution place of Al-Jihad mosque (New)



The ablution place of Al-Hikmah mosque (New)

The form of ablution place change from the pool type to the faucet type. Pool type ablution place is a water tub with a height of about 90 cm. The ablution person takes water with hand to wash his face, hands, head, ears while washing the feet the person taking water using the dipper. Two types of faucet ablution, the first type only provides a faucet to wash body parts in ablution such as the Nurul Mukminin mosque, Qowiyul Islam mosque, and Al-Hikmah mosque. The second type is the type that in addition to providing a faucet for washing face, hands, head, and ears, is also provided a water tub and a dipper to wash feet such as the As-Saadah mosque and Al-Jihad mosque. The function of ablution remains as a place to carry out ablution as a condition before prayer. The meaning of the place of ablution changes from the meaning of togetherness to an instrumental meaning.

#### 4.4 Change of Mihrab



The mihrab of As-Saadah mosque (New)



The mihrab of Nurul Mukminin mosque (New)



The mihrab of Al-Aqsa mosque (New)



The mihrab of Qowiyul Islam mosque (New)



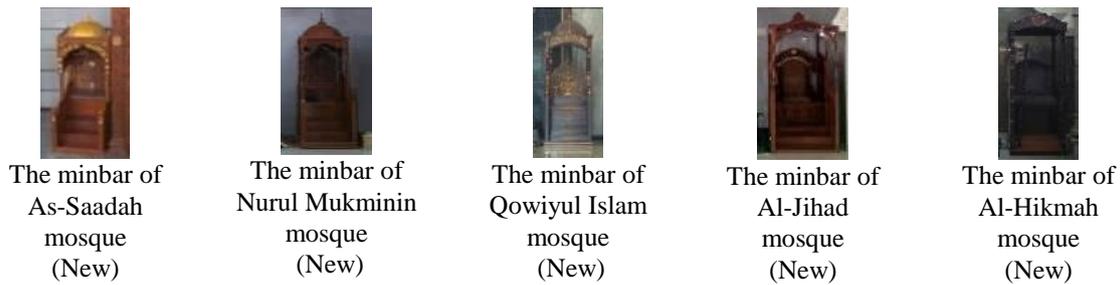
The mihrab of Al-Jihad mosque (New)



The mihrab of Al-Hikmah mosque (New)

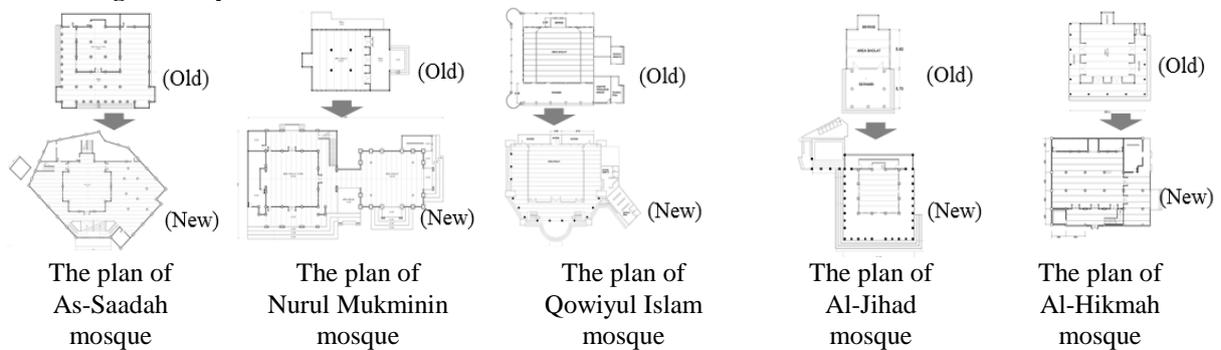
The mihrab plan remains rectangular but the scale changes larger. Mihrab frames change from plain to ornamental frame. Mihrab Nurul Mukminin mosque was the most similar form to a non-local mosque, which was indicated by the existence of a portal frame-shaped with a round column and pointed arch type, and ornaments of arabesque and calligraphy. Space changes because of the scale of the space changes to greater. The mihrab function remains as a room for Imam prayer. The meaning of changing from simplicity becomes the meaning of grandeur.

#### 4.5 Change of Minbar



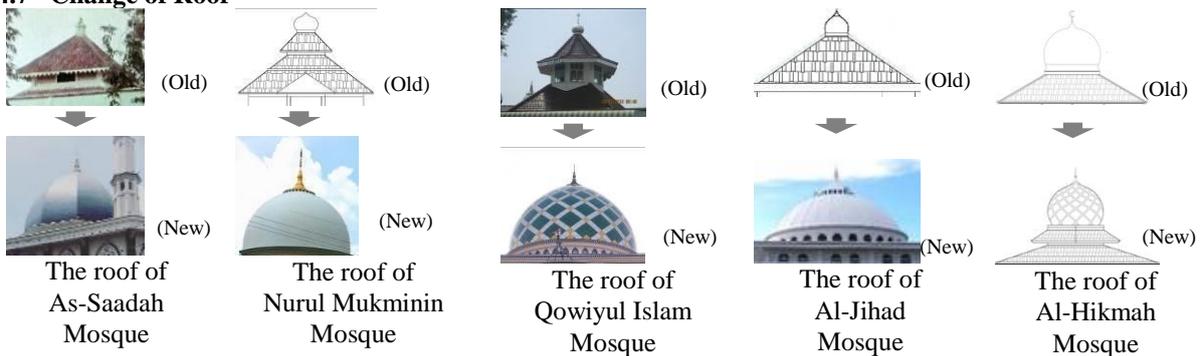
The number of minbar steps changes from 1 step to 3 steps. The minbar of the As-Saadah mosque, Nurul Mukminin, and the Qowiyul Islam Mosque of changed from roofless to a dome roof. The form of this dome-roofed minbar is similar to a non-local mosque minbar. Space changes due to changes in the number of steps and roof of the minbar. The function remains as a place for sermons to deliver sermons. The meaning changes from the meaning of closeness and simplicity to the meaning of identity and grandeur.

#### 4.6 Change of Prayer Hall and Serambi



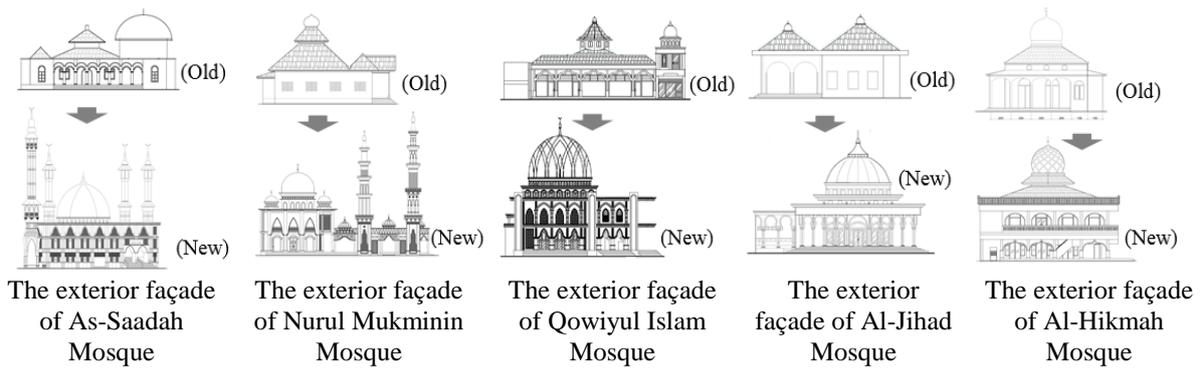
The basic form of the prayer hall and veranda plan are fixed rectangular, except the As-Saadah mosque which changes from a rectangular to many facets. In general, the serambi changes from only the front serambi to the front serambi, left side, and right side. Function is constancy, the prayer hall for prayer in congregation, while the serambi in addition to prayer also for other activities, including recitation, courses and so on. The meaning of changing from simplicity becomes a great meaning, especially the prayer hall where the upper part is void.

#### 4.7 Change of Roof



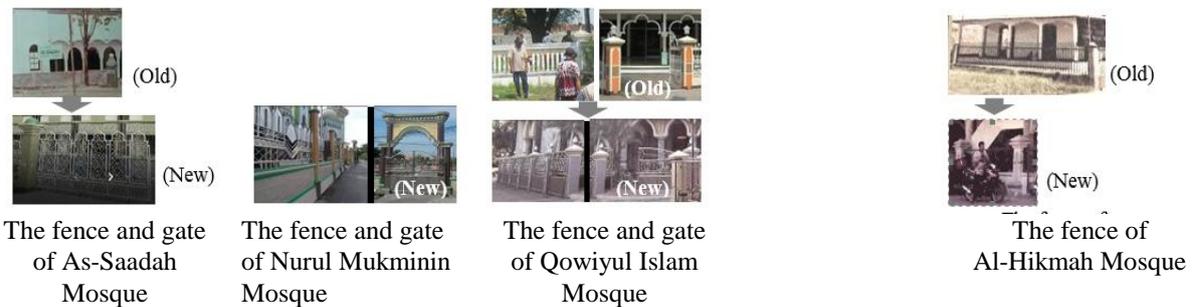
The form of the roof of the As-Saadah mosque, Nurul Mukminin, and Qowiyul Islam changed from two-tiered pyramidal type (*tajug tumpang 2* type) to a dome roof and flat plate. While the roof of the Al-Jihad mosque changed from the pyramid roof without overlapping into a dome and a flat plate. The roof of the Al-Hikmah mosque is still pyramidal roof (*tajug*) with a dome. The function of the roof remains as a protector of the space below. The meaning of the roof change from philosophical meaning and identity becomes the meaning of grandeur and identity.

#### 4.8 Change of Exterior Façade



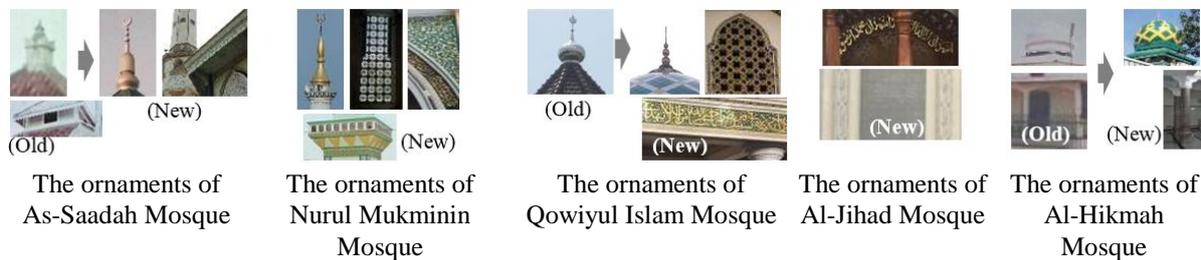
The front façade forms are generally fixed in terms of the use of arcades or arched portal lines, and change in terms of old one-story buildings and new two-story buildings. The side façade's form generally changes because in the old buildings there are generally only front serambi so that the side façade is only the serambi which appears to use an arcade, while in the new building the entire side façade seems to use an arcade because of the side serambi. The form of the arcades also turned into an arcade that uses fillers with arabesque motifs that are similar to the *mashrabiyya* in non-local mosques, while those in old buildings do not use these fields. The meaning of the façade changes from the meaning of identity to the meaning of identity and grandeur.

#### 4.9 Change of Fence and Gate



The fence form of the As-Saadah and Nurul Mukminin mosques changed from the plain wall railings and bars to the steel trellis fence of arabesque and arches. The gate of the Nurul Mukminin mosque also changed from just a gate pillar to a curved portal with Arabic stylized ornaments. A Function of fence and gate are constancy. The meaning of fences and gates changes from instrumental meaning and simplicity to the meaning of identity and grandeur.

#### 4.10 Change of Ornament



The form of ornament changes. Mustoko ornaments on the rooftops of the As-Saadah mosque in the form of a lotus or pineapple change into the form of a crescent moon. Ornaments on walls, beams and the minaret change from plain to calligraphy, arabesque, mashrabiyya, and muqarnas. The meaning of ornament changes from identity and philosophical meaning to meaning of identity and grandeur.

## V. CONCLUSION

Summary of changes in form, space, and meaning of the architectural elements of the five community mosque in Surabaya is presented in Table 5.1 below:

**Table 5.1** Changes in the Architecture of Community Mosques in Surabaya

NO.	COMMUNITY MOSQUE MOSQUE ARCHITECTURAL ELEMENT	As-Sa'adah Mosque			Nurul Mu'minin Mosque			Qowiyul Islam Mosque			Al-Jihad Mosque			Al-Hikmah Mosque			Note
		F	S	M	F	S	M	F	S	M	F	S	M	F	S	M	
1.	MINARET	●	●	○	●	●	○	○	○	○	○	○	○	○	○	○	F = Form S = Space M = Meaning ○ = change ● = change & similar with non-local mosque □ = do not change ■ = do not change & similar with non-local mosque ○ = no element
2.	BEDUG	□	■	□	□	■	□	□	■	□	■	□	○	■	○		
3.	ABLUTION PLACE	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
4.	MIHRAB	○	○	○	●	○	○	○	○	○	○	○	○	○	○		
5.	MINBAR	●	○	○	●	○	○	○	○	○	○	○	○	○	○		
6.	PRAYER HALL	■	○	○	■	○	○	○	○	○	○	○	○	○	○		
7.	SERAMBI	■	○	○	■	○	○	○	○	○	○	○	○	○	○		
8.	ROOF	●	○	○	●	○	○	●	○	○	●	○	○	■	□		
9.	EXTERIOR F AÇADE	●	■	○	●	■	○	●	■	○	●	■	○	■	□		
10.	FENCE & GATE	○	■	○	○	■	○	□	■	○	○	○	○	○	○		
11.	ORNAMENT	●	■	○	●	■	○	●	■	○	●	■	○	○	○		

The community mosque's architectural elements are unchanged form and meaning is the bedug (the drum). Elements of community mosque architecture that changes are: the minaret, ablution place, mihrab, minbar/pulpit, prayer hall, serambi (veranda), roof, exterior arcade, fencing/gates, ornaments. An element of the local mosque architecture that always exist in these community mosques is Serambi, while the non-local mosque architecture is an arcade or arched portal. The architectural elements of the community mosque that are similar to non-local mosques are: a minaret, mihrab, minbar/pulpit, domes, an arcade / arched portal, ornaments (calligraphy, arabesque, muqarnas).

The architectural elements of the community mosque identified which changed and did not change (constancy). Among the changing or unchanging elements of the mosque's architecture also identified that some of the community mosque architectural elements are similar to non-local mosque architectural elements. These conclusions can be used as input for further research on the factors affecting changes in community mosque architecture in Indonesia primarily from cultural factors.

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