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ARTEKS
JURNAL TEKNIK ARSITEKTUR

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Research paper doi: 10.30822/arteks.v6i2.360

The signs and symbolic markers of sacral orientation in Mosque architecture

A case study of At-Tin and Al Safar Mosques

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ARTICLE INFO

Article history:
Received December 18, 2019
Received in revised form June 25, 2020
Accepted November 29, 2020
Available online August 01, 2021

Keywords:
Marker
Mosque
Orientation
Sacred
Sign

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ABSTRACT

Mosques as a religious building for the Moslem Community have two orientations and they include the qibla as the main and direction of the sky as the secondary. Praying is the main element of worship for Moslems and is recommended to be led towards the Qibla or upward direction. The mosque has been discovered not to have a sacred space but qibla, mihrab, and qibla marker walls are considered sacred. These sacred orientation signs and markers have been used and developed since the beginning but their existence and understanding have been eroded due to the influence of locals as well as development. Currently, the majority of the mosques in Indonesia have a centralized and strong orientation towards the upper direction when they are expected to have the main orientation in the form of qibla direction. This study was, therefore, conducted to examine the anatomy of these mosques using semiotic theory by comparing the two mosques with several signs and markers of sacred orientation in the country. The results showed there are new signs and markers but the old ones are still significant in the mosques in the present time.

Introduction

The mosque does not have a sacred space unlike other religious buildings but has qibla orientation where the qibla wall, mihrab, or pulpit are signs and markers considered to be sacred (Frishman 1994; Paramitha and Salura 2020). Therefore, the qibla is tagged as a sacred orientation for mosque buildings. It is important to note that the Islamic community worship through the use of two orientations including the qibla direction as the main and the upper direction as the secondary which are both accommodated in a mosque (Mutmainnah 2017).

The signs and markers of this sacred orientation have been provided in the mosques since inception but observed to be disappearing gradually due to the influence of local culture and other factors.

The mosques in Indonesia generally have cone and meru roofs (Ashadi, Antariksa, and Salura 2015). The shape of the joglo and meru roofs is a symbol of sacred mountain stilation (Siswayanti 2016) and this was followed by the introduction of domed mosques typology by the Dutch (Maulida, Siahaan, and Pane 2020). Both forms are observed to have a strong upward and centered orientation in accordance with the concept of mundi and parahyangan axis which is considered to be sacred in Indonesia (Mangunwijaya 2009). A mosque's architectural orientation is, however, expected to point towards the qibla as the main sacred orientation while the upward is the secondary. Moreover, some abstract contemporary mosques often have inner spaces

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which do not fit into their functions. Thereby causing a lack of clarity in the front, back, and side orientation which further interferes with the activities inside the mosque (Ching 2000).

The signs and markers of sacred orientation have developed since the triumph of Islamic architecture and are found in the elements of both plain and ornamented mosques (Al-Asad et al. 1994; Mintaredja, Salura, and Fauzy 2021). The landscape, demarcation space, qibla wall, mihrab, pulpit, minaret, pond, dome, and Iwan are some of the elements commonly used as markers of orientation, either sacred or buildings in general. They are usually decorated with geometric or calligraphic ornaments to emphasize the building's orientation (Grube et al. 1991) while those leading to qibla are usually decorated with more ornamentation (M. Thackston 1994; Al-Asad 1994). However, contemporary mosques have reduced, eliminated, or changed the meaning of the signs and markers of this sacred orientation due to the influence of local culture and modernism (Loos 1997).

Several studies on mosque architecture have generally discussed the aspects of history and typology (Alexandrin 2010; Akkach 2006) but this research focuses on the issues related to signs and markers of sacred orientation in the mosque architecture. This, therefore, involves using semiotics theory (Hoopes 1991) to analyze the development of these signs and markers over time, their significance in current mosque architecture, and to determine new ones currently being applied. The expectation was to the appropriate signs and markers of mosque architectural orientation and to fulfill the literacy scarcity related to this topic.

Method

This study compares two mosques with several signs and symbolic sacred orientations. It was conducted based on the theory of turning aspects for function and shape functions of the two mosques (Salura and Fauzy 2012) due to the continuous attachment of architecture with accommodated activities (Sidharta Muljadinata, Antariksa, and Salura 2018). Moreover, the aspects of function and form were overviewed and analyzed using anatomical theory (Salura 2018) through the scope of the site, building, and inner space to determine the barriers, connectors, filters, and switches context (Norberg Schulz 1965).

In line with these phenomena, issues, and descriptions, Al Safar Mosque, Purwakarta (2017) as a contemporary and At Tin Mosque, East Jakarta (1999) as a classical mosque were selected as objects of study. Their signs and markers of sacred orientation were revealed and compared.

This research was conducted in several steps which are as follow: 1) The building was identified based on architectural anatomy theory in several spheres including site scope, building, and the form of inner space; 2) It was analyzed with the denotative - connotative approach (Barthes 1964); 3) The results of the analysis were confirmed through interviews with local visitors and some architecture students after they have been well-understood and interpreted; 4) A conclusion was made.

Result and discussion

Site scope

The discussion on site scope emphasized on the arrangement of the building mass to form the exterior space on the site. This means the signs and markers of the sacred orientation are reflected in the arrangement of the softscape, hardscape, and ponds which are all connectors to the surrounding elements.

a. At-Tin Mosque

In a situation the prayer hall capacity is exceeded by Friday worshippers, new places are often created in the landscape area (Napitupulu et al. 2018). The axial frontal, freestanding, and symmetrical mass arrangements of the At Tin Mosque apply a geometric concept to reinforce the orientation of the building mass to the qibla. This, therefore, aid the formation of a legitimate new line to the praying activity. (1) The main function of the landscape element is for greening but its arrangement in line with the qibla axis provides a linear connotative meaning to the qibla direction as indicated by the blue line in figure 1; (2) The main function of the hardscape elements for both the pavement and hallway treads is to direct the pilgrims to the qibla iwan/main entrance of Masjid At-Tin and this shows it has a linear denotative meaning towards the qibla as indicated by the red line in figure 1; (3) Two types of ponds

were identified and the main function of the first, which is the front pond, is to serve as an outdoor ablution area. It consists of four symmetrical arabesque-shaped pools forming an imaginary trapezoid liniter towards the qibla direction where the corner point is the fourth position of the pool. Meanwhile, the pond behind the decoration has a linear connotative orientation towards the qibla as indicated by the yellow line in figure 1.

Figure 1. At-Tin Mosque site orientation
Source: Photo by Arif Aprianto

b. Al Safar Mosque

In contrast to At-Tin Mosque, the Al Safar Mosque site is arranged to be asymmetrical, dynamic, tends to be confusing, and observed not to be leading to the qibla. The signs and markers of clear orientation to qibla are the exterior of the mihrab recesses which are in the form of a triangular pyramid. (1) The landscape element primarily serves as a site decorator with the parks and tubs on the hardscape composed to form a centering denotative orientation to the entrance of the mosque or as a barrier to the outside of the site. Moreover, the plants around the mosque are arranged in a connotative orientation centered on the main mass as indicated by the blue line in figure 2; (2) The denotative-oriented Al Safar Mosque hardscape directs visitors to the main entrance of the mosque, both the hallway and pavement on the site as shown by the red line in figure 2; (3) 3. The main function of the pond in this mosque is to serve as a micro-climate footprint but its shape like a terraced rice field is composed in a connotative direction to the qibla as described by the yellow line in figure 2.

Figure 2. Al Safar Mosque site orientation
Source: Photo by Dudi Sugandi

Building scope

The building scope emphasizes the roles being played by the elements of the scope and composition of the structural elements in strengthening the sacred orientation and also to determine how the ornaments become signs and markers of the sacred orientation of the building.

a. At-Tin Mosque

The floors and roofs are square-shaped and have a linear connotative orientation to the qibla as shown in figure 3. This is observed in a large dome naturally centered and upward and placed in the middle of the roof as well as the concept of upright, outward, and inward formation followed by the outside wall (Tin 2018).

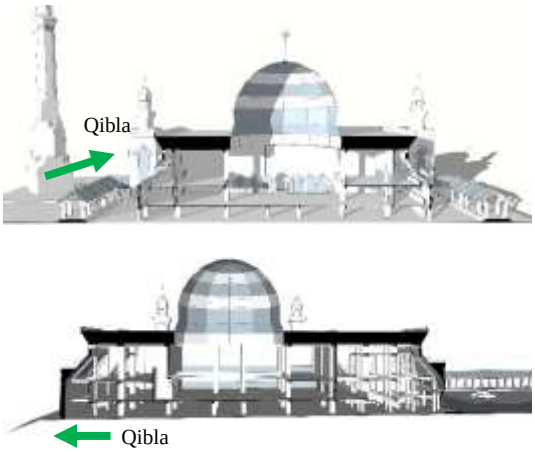

Figure 3. Pieces of At-Tin Mosque

The structural elements including the large-span column frames and concrete beams presented in figure 3 provide a free view of the mihrab and the qibla wall as shown in figure 4.

This connotatively means the composition is linearly oriented towards the qibla and this was also observed for the small Minaret which is a cluster of sacred orientation on all four sides of the mosque as shown in figure 1.

Figure 4. The condition from the direction of the entrance to the prayer hall

The main function of the ornaments is to decorate but the calligraphy and geometric ornaments indicate the qibla orientation based on their greater level of intensity compared to the other elements as observed in the qibla iwan, qibla wall, mihrab, pulpit and the parallel wall on qibla in figure 5. This connotatively means the ornaments point to the qibla.

Figure 5. The use of ornament as a sign of qibla on the walls and mihrab in At-Tin Mosque

b. Al Safar Mosque

The scoping elements in the main building are shaped according to the mosque structure. The floor plan and roof are in the shape of a gem connotatively leading to the qibla. Meanwhile, the composition of the floor and wall depicts a strong inner space and the wall is observed to be connotatively centered by being tilted inward as indicated in figure 6.

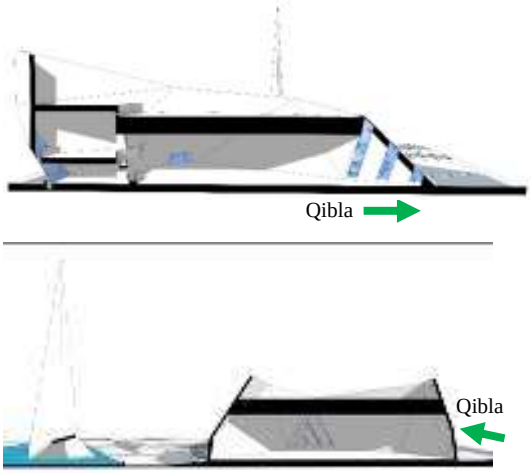

Figure 6. Pieces of Al Safar Mosque

The structural element is in the form of A-frame (Jamaludin and Salura 2018) and has the advantage of forming large spans and free columns and also to provide a free view towards the qibla as shown in figure 7. Moreover, a steel beam-column frame structure is placed on the mezzanine floor on the east side of the mosque as indicated in figure 6.

Figure 7. The condition from the mezzanine floor

The application of the ornaments is similar to the At Tin Mosque with the intensity and scale observed to be greater on the elements of signs and markers of qibla orientation such as the mihrab and the pulpit. However, due to the contemporary concept associated with Al Safar Mosque (Awlia 2019), its ornamentation is simple and homogenous as presented in figure 8.

Figure 8. The use of ornament to reinforce the qibla signs and markers on the qibla wall and mihrab of Al Safar Mosque

Inner space scope

This focuses on analyzing the level of openness and surface quality of the elements forming a qibla-oriented space.

a. At-Tin Mosque

The prayer hall has four sides and these include the qibla and mihrab side as well as the front entrance and side walls (Kahera 2009). The front and side permeability are very high with the three sides filled with doors and filigree walls made of teak wood carvings and opened on the top floor as shown in figure 9. They are connector - switch - filters and have simple small calligraphy blends with the surrounding elements. Meanwhile, the qibla wall has a ± 10 m high massive emerald green wall adorned with seven geometric ornamentations and golden calligraphy as indicated in figures 4 and 5. This, therefore, means it is a strong sign and marker in the At-Tin Mosque prayer hall.

Figure 9. The front and side conditions

b. Al Safar Mosque

The prayer hall is multi-shaped as shown in figure 10 and divided into four sides including the mihrab, two sides, and the backside to facilitate discussion. The backside and the two closed sides are barrier-filter with a few random square windows on the wall as presented in figure 8. There is also a hidden curtain window as high as ± 8 m at the backside. In contrast to the three sides, the mihrab was observed to have a high openness in order to utilize the elements of light and calligraphic ornamentation required to strengthen the qibla orientation. This, therefore, means the transparent mihrab niches are strong signs and markers in the Al Safar Mosque prayer hall.

Figure 10. The backside of the Al Safar Mosque

Conclusion

The findings of this research showed that elements of signs and markers of sacred orientation such as ornaments, minarets, clouds, qibla walls, and mihrab are significantly being used in contemporary mosques.

Unlike the use of calligraphy and geometric ornamentation as signs and markers of sacred orientation in old mosques, contemporary ones apply materials and light games as markers of qibla orientation.

The shape of buildings, ponds, minarets, mass structuring, and landscape arrangement become signs and markers in the scope of the site. Meanwhile, the mihrab and shape are the main signs and markers of the mosque prayer hall.

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Author(s) contribution

Muhammad Rushdi Adiputra contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

Purnama Salura contribute to the research concepts preparation and literature reviews, data analysis, of article drafts preparation and validation.