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СЕМИОТИЧЕСКИЕ ПРОСТРАНСТВА КОГНИТИВНОГО МЫШЛЕНИЯ ЯВАНСКИХ МУСУЛЬМАН В СИНКРЕТИЧЕСКОЙ МЕЧЕТИ АГУНГ ДЕМАК, ИНДОНЕЗИЯ©

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Аннотация. Мечети строятся в соответствии с культурными национальными традициями во всем мире, но для Индонезии совместные молитвы были изначально чем-то новым. Священный Коран содержит несколько предписаний относительно формы мечети. Яванские архитекторы интерпретировали эти требования, основываясь на формах индуистско-буддийских храмов. Доисламские традиции учитывают дух места и его художественные стили, поэтому суфии-мистики заимствовали элементы этих традиций, соединяя их с верой в святость мечетей, встраивая идеи и формы ислама в структуру места. Привычные формы способны побудить немусульман войти в мечеть и воспринять исламское учение. Характер яванской мечети тесно связан с местной культурой. Мусульмане рассматривают индуистско-буддийские элементы как мистические подступы к Богу, а учение ислама утверждает, что Аллах сотворил этот мир как мечеть. Таким образом, рассуждения развиваются от узкого понимания физической формы к всестороннему включению духовно-символических аспектов ислама в архитектуру. Вопросы касаются пограничных взаимодействий в разных частях пространства мечети. Где проходит граница между святостью и профанацией? Как она формируется? Что является означающим? В этой статье используется концепция семиосферы Лотмана, понятия «чужой» и «центр» для определения сакрального

пространства-времени через когнитивные особенности сознания яванских му-
сульман, унаследованные от местных традиций.

Ключевые слова: семиосфера Лотмана; синкретические яванские мечети;
Агунг Демак; сакрально-профанные пространства; когнитивный менталитет.

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Semiotic Spaces of Javanese Muslims' Cognitive Mindset in the Syncretic Agung Demak Mosque, Indonesia[©]

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Abstract. Mosques are built according to cultural traditions throughout the
world, but communal prayers in Indonesia were novel. The Holy Koran contains few
regulations about a mosque's form. Javanese architects can interpret its requirements
following an individual meditation from Hindu-Buddhist temples. Pre-Islamic tradi-
tions underline the form and setting of the site; thus, mystical Sufis borrowed these
elements based on their belief that mosques are holy, creating indigenous and Islamic
ideas and forms in the structural arrangements of the site. Existing forms could encourage
non-Muslims to enter the building and receive Islamic teachings for conversion. The
Javanese mosque's character is its culture. Muslims consider Hindu-Buddhist elements
a mystical approach to God, and Islam teaching is their primary obligation, validating
Allah's creation of this world as a mosque. These debates changed from a narrowed
concern for the physical form to comprehensive incorporation of Islam's spiritual-
symbolic aspects of the mosque. Questions concern liminal encounters in different parts
of mosque spaces. When does the border between sacredness and profanity occur? How
does it get formed? Who is the signifier? This paper adopts Lotman's semiosphere of
the "alien" and "centre" concept to define the sacred temporal space through Javanese
Muslims' cognitive mindsets, inherited from local traditions.

Keywords: Lotman's semiosphere; syncretic Javanese mosques; Agung Demak;
sacred-profane spaces; cognitive mindset.

The Origins of Javanese Mosques

Debates on the Javanese mosque's origin started in the late 1920s
and continued until 1980. The first idea was to maintain continuity with

pre-Islamic traditions. The second was a cultural influence from Islamic India and China [Sudrjadjat, 1991]. Two ideas emerged: Javanese mosques altered Balinese cockfighting (*wantilan*), and Muslims adopted this prototype despite its profanity.

While both saw the mosque as a physical form, a search for its spiritual symbolism called attention to the significance of the triangular-shaped Cosmos Mountain, Meru, in animistic and Hindu-Buddhist societies. In Javanese Islam, a three-tiered roof structure reminiscent of Cosmos Mountain implies that Allah can be approached in three different ways (Fig. 1): (I) the lowest roof represents *Sharia*. Islamic Law, (II) *Tariqa*, a way to get Allah's blessing, (III) *Hakika*, the spirit of a Muslim's righteous deed, and (IV) *mustaka* at the top: *Marifa* for knowing Allah [Tjandrasasmita, 2005]. Practically, this roof shape is suitable for tropical weather with heavy rains and ventilation.

(4) Marifa
(3) Haqiqa
(2) Tariqa
(1) Sharia
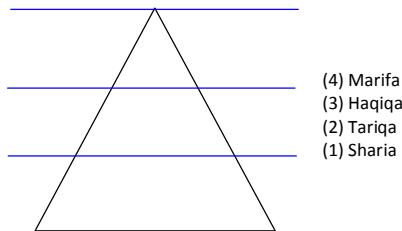
Fig. 1. The notion of a three-tiered roof (drawing: the Author)

A systematic analysis of ancient Javanese mosques was carried out. The characteristic features are (I) square ground, (II) soko guru (four columns), (III) a pointed roof with two-five stories, narrowing upward, (IV) mihrab, (V) serambi (veranda), and (VI) open space enclosed by a wall and a front gate. Accordingly, the mosque was a pre-Islamic structure adapted to the requirement for Muslim worship. The profane serambi was a later addition taken from Javanese houses [Pijper, 1947].

Characteristic Features

A mosque (Arabic *masjid*) is a place of prayer, the supreme act of submission to God. The Holy Koran defines it as the place where Muslims worship and express their belief in the unity of God achieved

through prayer: 'And the mosques are for Allah (alone): so invoke not anyone along with Allah' (the Koran 72:18). Other functions are a political institution for religion-law-government and an educational centre for teaching the Koran. Three types of mosques exist in the urban context: *masjid al jami* (daily mosque), *masjid al jumah* (mosque for Friday prayers with a sermon), and *mussalla* (ceremonial prayer place). The first mosque of the Prophet in Medina (623) was an enclosure of mud-brick walls and established the standard for the Muslim community. Despite several mosque styles following various cultural traditions in the Islamic world, the basic elements are shared [Lee, 2006].

In Java, the close political relationship between Muslim rulers in different regions brought common features in mosques such as a tripartite division (base / body / superstructure), a centralized plan, multi-tiered roof, *mustaka* (crown), an outer colonnade, serambi, courtyard with two gateways, and graveyard. The architecture was a means of introducing non-Muslims to Islam [Prijotomo, 1984]. In spirituality, a multi-tiered roof connects God and Muslims, based on the Sufi view, as mentioned. A *mustaka*, a crown of a red lotus at its apex, is a container of the essence of divine unity in Hinduism. However, it embodies the ultimate goal of the mystical path to God in Islam. Originally developed from the Hindu belief in the identity of the self and the universal soul, soko guru represents the spiritual context of verticality and centralization. Hindu-Buddhist rituals use water to purify a person, and Islam requires ablution for Muslims before prayer. The water channel in the front of the mosque signifies new creatures that will fill the void of the universe with life [Isnaeni, 1996].

Three Building Principles: Javanese-Traditional Houses, Hindu-Javanese Temples, Islamic Mosques

Architectural syncretism evolves existing forms to generate novel ones while preserving their original characteristics. Due to demand or necessity, Javanese Hindu elements are integrated into mosque buildings. This demonstrates the transfer from the Hindu Majapahit kingdom of East Java to the Islamic Demak kingdom of Central Java in the fifteenth century. Javanese traditions and temple courts are adapted to mosques in terms of ideas and forms, and three building principles are incorporated; (I) Javanese-traditional, (II) Hindu-Javanese, and (III) Islamic.

(I) The Javanese-traditional principle looked at climate / humidity, comfort / privacy / security / emotion / imagination / belief / symbols, and movable wooden constructions for natural catastrophes. In general, a Javanese house has a semi-public space (pendopo) attached to the private space (dalem) directly or separately (Fig. 2). A *sentong tengah* (middle *sentong*) is the sacred space of three *sentongs*, where heirlooms and sacred objects are kept. The overall building form is symmetrical and formal, and its dark interior with small windows provides privacy, security and a mystical atmosphere. On the contrary, the pendopo facilitates official ceremonies [Ismudiyanto dan Atmandi, 1987].

dalem	dalem: sentong tengah	dalem
pringgitan		
pendopo		

Fig. 2. The house of the village head at Bawu (1910–40)
(Image: Tropenmuseum, drawing: the Author)

(II) A Hindu-Javanese principle originated from the Majapahit kingdom, which practised Hindu philosophy. Its physical spatial organisation determines various directions from the central point, indicating the locations of Hindu gods with meanings and symbols [Acharya, 1931; Pudja, 1971]. For example, the three-courted Panataran temple of East Java (1197–1454, Fig. 3) has a hierarchy of sanctity in the spatial setting. In this way, the open square, the royal palace, and the sacred

buildings occupy the heart of Majapahit. Hindu elements also appeared in the head-body-foot construction [Atmadi, 1979]. The temple head defines the building's characteristics, and its shape is determined by the number of pyramidal roof layers, reminiscent of Javanese-traditional architecture. The temple body was carved and plastered with walls having small openings for windows and doors [Maclaine Pont, 1923; Galestin, 1936].

Fig. 3. Hindu Panataran temple of East Java with the hierarchical three courts
(Image: the Author)

(III) Regarding the Islamic principle, as the introduction of the mosque and the idea of communal prayer was revolutionary in Indonesia, and the Koran seldom mentions the form of a mosque, Javanese architects were free to interpret its requirements following their experience in temples. The pre-Islamic form and setting of the site, its buildings and images in sacred places were borrowed by the mystical Sufis and resulted in a combination of indigenous and Islamic forms and ideas.

The Agung Demak Mosque (1479), **Central Java**

Despite its restoration in 1986, the mosque has preserved its originality. In the early Islamic period, Agung Demak (Fig. 4) on the northern coast (pasisir) was a syncretic mosque mixing Javanese-

traditional and Hindu-Javanese principles. It enjoys a hierarchy over other mosques and the entire region's believers. There are four zones around the open square (alun-alun) of the town. (I) The south zone is identified with the remains of the old palace of the sultan. (II) Ritual ceremonies and religious activities in the mosque occur in the west. (III) The market appears in the north. And (IV) Dutch colonial buildings are situated in the east.

	market	
mosque	*alun-alun*	building
	palace	

Four zones around the *alun-alun* (drawing: the Author)
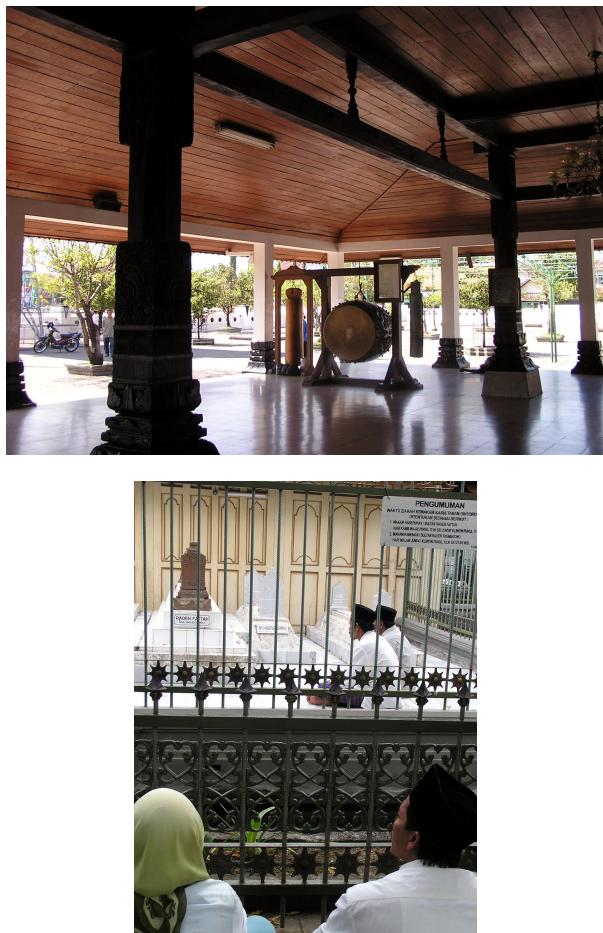
Fig. 4. Agung Demak. Javanese-traditional and Hindu-Javanese principles are
visible in the mosque: multi-tiered roof, veranda, drum, column, grave visit
(Image: the Author)

The mosque located on the west of the open square in the city
centre is similar to the Hindu Majapahit city pattern. Java had sacred
temples before Islam arrived, but the mosque replaced the exact loca-
tion later. Accordingly, a site that accommodates the mosque and the

cemetery complex illustrates the syncretism of different building philosophies. This is because indigenous villages posit their most sacred or significant buildings in the village centre. The idea of the mosque and cemetery complex being on one site was developed during the Hindu-Javanese period. At Kalasan Temple (8 C), erected by the Buddhist Saliendra Kingdom, tombs surround the sanctuary. Moreover, the mosque complex on a hilltop (Astana Mantingan 1559) is reminiscent of the Hindu concept, which places worship facilities for Hindu gods in a higher place oriented towards the sea and the sunrise.

The mosque and cemetery complex are oriented toward Mecca, suggesting a symbolic relationship with Mecca. Walls and separate entry gates surround the complex. The mosque entrance has three openings: (I) a sacred opening in the centre, (II) men on the north gate, and (III) women on the south side. The central opening falls on the orientation axis of the mosque. In the order of the hierarchy, the cemetery gate is lower than the mosque gate, but the cemetery hosts the most revered graves (cungkup), such as Sultan Demak Raden Patah and his family, as a hope for the sacred location of Mecca after death.

The mosque building has a three-tiered roof with a *mustaka*, and its size concerns the scale and proportion between the main building and others. The mosque's spatial hierarchy and pattern divide the sacred space for ritual service and the profane space for other activities. Within the sacred space, no spatial hierarchy exists like that of Hindu temples.

The spatial patterns also depend on materials of several shapes and sizes; thus, the width of the round soko guru (four master columns) predominates over other columns in thickness of wood in the material. The location of the mihrab (the prayer niche) strengthens the horizontal orientation, and its simplicity reveals the influence of the Javanese mindset and culture on Islamic regionalism.

A mosque's elevated alteration also determines whether the space is sacred or profane. At higher elevations (prayer hall / serambi), they are sacred. The courtyard between the mosque and the entrance gate is profane. Worshippers should pass through the courtyard and proceed to a washing place for ritual purification before entering the prayer hall. The washing place borders a spatial transition between sacred and profane spaces.

Agung Demak is the place for daily prayers, and residents near the mosque, outside villagers, and town people participate every Friday. Pilgrims walk through a series of cemetery courts and gates. They realise that each succeeding court becomes more sacred than the previous one until they arrive at the most sacred cemetery. In a word, a change from lower to higher elevation increases sacredness. As the mosque is an ancient one, pilgrims often visit the cemetery to offer flowers, burn incense, and read the Koran [Ismudiyanto dan Atmandi, 1987].
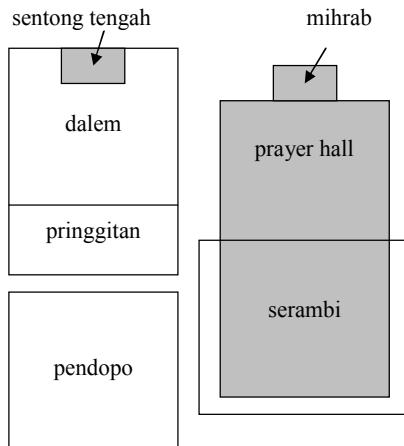
Fig. 5. (White) Profane space, (Gray) Sacred space.
Javanese-traditional house spatial concept adapted to Islamic mosques
[Ismudiyanto dan Atmandi, 1987, p. 108, redrawing: the Author]

The open square (courtyard) facilitates an introductory space to a mosque. It is an extension of the prayer hall and a place for other activities during certain ceremonies. An amalgam of Javanese-traditional, Hindu-Javanese, and Islamic spatial principles is reflected in the pattern and arrangement of the mosque and cemetery complex. The spatial hierarchy and form of the mosque prayer hall are in accord with the space of the *dalem* in traditional houses, while the mosque serambi (veranda) connects to the *pendopo* with modifications (Fig. 5). Above all, the dominant spatial orientation of the mosque is through the mihrab, the prayer hall, and the main entrance gate.

There are three divisions of sacredness (sacred, semi-sacred, and profane) in a temple, compared to a mosque whose sacredness resides in the prayer hall /serambi / courtyard. Thus, part of the temple's sacred spaces integrates with the mosque space to form a "centre"; another part remains "alien" under Sufi consideration (Fig. 6).
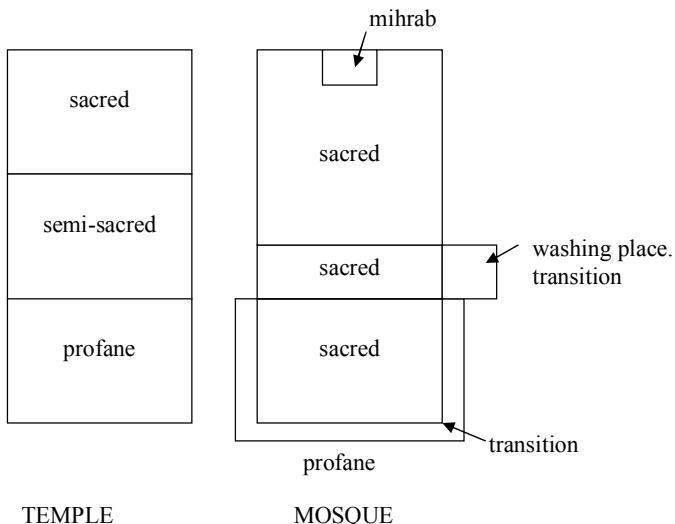

Fig. 6. The syncretic spaces of Hindu-Javanese and Islamic spatial organisation [Ismudiyanto dan Atmandi, 1987, p. 114, redrawing: the Author]

It was mentioned that Javanese mosques could have originated as cockfighting houses [Galestin, 1936], but the multi-layered roof of the mosque came from Hindu architecture and gave them a distinctive exterior. The entrance gate was a complete adaptation of Hindu-Javanese temple gates, but the use of gates and their locations in the mosque met new functions. Finally, the tradition of burying distinguished people west of the mosque demonstrates a physical relationship to the cemetery as a syncretic location, Hindu-Javanese and Islamic court patterns and rituals. Several courts in the cemetery indicate the temple's spatial hierarchy in three categorised (profane / semi-sacred / sacred space) zones.

Semiotic Spaces (Semiosphere)

Lotman's semiotic space deals with the notion of culture in the entire universe of senses: [...] culture organises itself in the form of a special "space-time" and cannot exist without it. This organisation is realised in the form of the semiosphere and at the same time comes into being with the help of the semiosphere [Lotman, 2009, p. 133], cited by [Vólkova, 2017, p. 8].

The nature of a semiosphere allows dissimilarity from other semiospheres, and the homogeneous space boundaries on other semiospheres are classified as cultures, non-cultures, or anti-cultures. Every culture (semiosphere) requires another culture to identify its core and limits. In semiotic spaces, the border is functional and structural and lends substance to its semiotic system. It translates external communications bilingually into the internal language of the semiosphere or the other way around. The border assists the semiosphere to establish contact with non-semiotic and extra-semiotic spaces [Lotman, 2005].

The border is phenomenal whether it divides one semiosphere from others or unites them. However, the phenomenon of border mobility depends on observers and is understood by their semiospheres as "alien" when viewed outside. The border limits the invasion of "alien" elements, which are then selected, sorted, adapted, and translated into the semiosphere's language.

A semiosphere and border concepts derive from the resistance of human culture – the separation of our world and the alien world. When the semiosphere is perceived as orderly and safe, its outer spaces are perceived as disorderly and chaotic, defining the non-culture. The difference between these two opposite worlds lies in a mirror-like relationship. What is forbidden in one space is welcome in another space [Lotman, 2009].

This dissimilarity occurs in the centre-periphery context of the semiosphere, near its borders. The centre is immobile and incapable of evolving; the periphery is dynamic. It is generated from its ongoing exchange of information with the extra semiotic space, whose contact enriches and renews the semiosphere. Therefore, its border areas need a new sense of production.

As a consequence of the dynamic semiosphere, languages and cultural texts challenge constant dialogues, multiplying and competing

for their central position. The peripheral processes are more active than those in the stabilised centre. A peripheral text is in contact with "alien" space and acts as a catalyst for generating new senses and texts. At a certain point, the dynamic tends to occupy the "centre", resulting in a shift of the centre-periphery position in the semiosphere [Vólkova, 2017].

Architecture is a cultural language, evoking different perceptions and traditions by users. Within the three building principles (Javanese-traditional, Hindu-Javanese, Islamic), the syncretic Agung Demak mosque can testify to Lotman's concept of "alien-central" and "centre-periphery."

Semiosphere in Ideas and Forms of Agung Demak

The assimilation process of the texts by the receiving culture is a schematic outline, and the process is not constant in realisation unless shared interest and favourable historical circumstances are available [Lotman, 2009]. If we apply this principle to Agung Demak, Javanese-traditional and Hindu-Javanese principles are "alien", while Islamic principles are "central."

(I) (Lotman): The semiosphere border texts were viewed as "alien" and of high value to the receiving culture. *Agung Demak*: *The "alien" principles were viewed in light of the Islamic "centre" principle to determine if they could be applied to mosques.*

(II) (Lotman): A joint adaptation occurs between the imported texts and the receiving culture in translation. (*Agung Demak*): *Principles of the "alien" and the "centre" are confronted in the transfer from temples to mosques.*

(III) (Lotman): The imported texts find their realisation in the culture that receives them. (*Agung Demak*): *Of the "alien" principles, the "centre" principle is responsible for separating and choosing which elements will be accepted by the mosques.*

(IV) (Lotman): The imported texts are assimilated into the receiving culture, producing texts that conform to the cultural codes of the assimilated texts. (*Agung Demak*): *The "alien" principles start to integrate with the "central" principles to produce a new idea and form in the construction of the mosque.*

(V) (Lotman): The receiving culture issues its texts, directed to peripheral areas of the semiosphere. (*Agung Demak*): *The new idea and*

form of mosque architecture is being proposed in the border area and will be exported to other Islamic structures in Java.

On the dynamic process between the liminal border, the Islamic "centre" principle chose, sorted out, adapted and translated "alien" Javanese-traditional and Hindu-Javanese ideas and forms into the mosque's spatial relationships and architectural features. To facilitate an Islamic religious centre, pre-Islamic traditions and Islamic doctrines shaped the mosque patterns such as open space (courtyard) and a mosque (prayer hall / serambi). In brief, Javanese-traditional and Hindu-Javanese principles shifted from the "periphery" to the "centre" of a mosque (fig. 7). Additionally, an orthodox Islamic structure like a dome was set aside as the "alien" to generate regional identities in Javanese architecture. This phenomenon continued in Christian churches during the Dutch colonisation period (16 C-1945) and is still intact. The Javanese cognitive mindset was a way to preserve their beliefs, traditions, and cultural heritage.

	Mosque
Javanese-traditional	Centre
Hindu-Javanese	Centre
Islamic	Alien

Fig. 7. A shift of semiosphere between arriving and receiving
(Drawing: the Author)

Cognitive Mindset of Memory and History

Hegel (2007) describes an image as a representation of internalised and recollected objects by intuition. The subjective human mind invents an image as a direct reflection outside of reality [Sak, 2013]. It has a privileged status in classic and contemporary memory descriptions. In this regard, collective memory is a recollection of images arranged by chronological order or groups [Halbwachs, 1992]. However, mental representation is inconsistent in referring to an image; thus, other representation modes can exercise memory theories. Philosophers Hume (2007) and Locke (1847) provide explanations of mental constructs in the mind, and words can provide meaning to images [Kansteiner,

2002]. When dealing with images in mind and naming mental representations as images, the permission of semantic, visual, and auditory images or combinations is necessary. These images are not essentially pictorial [Fentress, Wickham, 1992].

Memory is related to time and belongs to the past; perception is present and allows predictions for the future. Memory as the past implies that the object of memory is the past [Aristotle, 2007]. And memory with time confuses the notions of memory and history as they are associated with a particular time. An effort to separate memory from history indicates that memory is a dynamic operational phenomenon related to the present. History is a static representation of the past. Memory continually creates and recreates the past, while history stabilises it. This viewpoint coincides with Halbwachs' approach that history starts at the end of tradition and the fading or breaking of social memory. If a memory resides in social memory without becoming the entire past, it is a representation instead of history. History always represents the past, but memory takes references from the present to represent the past [Halbwachs, 1992; Nora, 1989].

Moreover, a historian narrates past events; an individual constructs memory. This comparison reveals historians' objectivity in presenting what individuals do not intend to remember [Hume, 2007]. As a memory maker without ownership, history is an element of collective memory facilitated by the individual. Memory and history nurture each other. Past knowledge influences the human experience of the present, linking with past events and objects. The memory comprises history as an object of its representations; history is embodied in memory in testimonials [Connerton, 1989]. Accordingly, historians are recommended memory as a source of knowledge and an indicator of practices of remembering [Burke, 2011].

Concerning place, memory attaches itself to sites, while history does so with events [Nora, 1989]. The construction of places requires a memory of relevant knowledge and spatial understanding. Places demand a social memory practice that depends on people's experience of physical construction [Lefebvre, 2007]. To become a place, the space must be loaded with memories and traces of experience. Tuan (1977) argues that an individual's place can be wherever he or she wishes to allocate meaning, which is produced semantically within the space.

Human experiences of a place vary over time. Space has to be considered within a historical context, while places must be treated with memory. Memory exists in places with extensions, and the memory process occurs from different perspectives. Individual memory of places is associated with mental or physical places; collective memory is almost exclusively associated with physical places [Sak, 2013].

The concept of existential spaces has a double meaning. It denotes the spatial aspects of an inter-subjective form of life and a person's image of the spatial relations which shape part of one's existence – public and private existential spaces. The private space takes shape during mental development through interactions between the individual and the environment. Existential space transforms them into experiences, resulting in a characteristic cultural heritage of change and progress. It means that existential space can be understood as a hierarchy of interrelated characters, and its environmental image is architecture [Nordberg-Schultz, 1975].

Final Thoughts

Syncretism has been demonstrated in the mosque and cemetery complex in Java. Spatial organisation adapted the spatial pattern of Javanese buildings with wide courts, gates, and a surrounding wall. The symmetry of a wide court with the division (public, semi-private, and private) resembles that of the mosque (gate: public; washing place: transition between profane and sacred places). The sacred mosque entrance is used for various activities; a mihrab is a development from the middle space (*sentong tengah*) of the Javanese-traditional house, the most sacred place for Sri, the goddess of life. The hierarchical cemetery courts and the internal spatial organisation of the sacred grave attest to the synthesis of traditional-Javanese house architecture and Islamic style toward the northwest of the gravesite.

One final question arises concerning the Javanese cognitive mindset in memory, history, and places. Its answer is the core of understanding syncretic Javanese Islamic architecture by applying Lotman's semiosphere. In my opinion, Javanese Muslims' openness and tolerance to "alien incursions" and love for their cultural heritage are the primary answer. Islamic Sufism prompted this process, which led to distinct regional identities in Java.

Further challenges to definitions of sacredness in architecture are waiting for us. According to Le Corbusier [Le Corbusier, 1948], architecture itself produces the sense of the sacred through its materials, proportions, and design crafts. Architects' creativity is crucial to sanctifying a space and making it sacred.

How do we define what is sacred architecture? People of all ages are turning away from organised religion, and looking for a more genuine, personal experience of the spiritual. In considering sacred architecture, a distinction is whether architecture itself is sacred or that architecture is an instrument that calls forth the sacred. Distinctions should be drawn between situational versus *substantive* sacred space. A divine presence is believed to reside in substantive sacred space. In situational, any place can be sacred depending on the presence, location, and actions of human beings, often acting in a community [Crosbie, 2017, p. 352).

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