Identification of Spatial Pattern in Pakungwati as a Reflection of Architectural Transformation between Hindu-Buddhist and Islamic Palace in Jawa

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ABSTRACT

Studies relating to the architectural transformation of Javanese Palace ranging from the late Hindu-Buddhist era of the Majapahit Kingdom to the subsequent Islamic era have not yielded any substantial revelations so far. This phenomenon can be said to suffer from a missing link. Dalem Agung Pakungwati is estimated to be one of the first palaces to have been established in the era of Early Islamic development on Java after the fall of the Majapahit Kingdom and is currently part of the Kasepuhan Palace in Cirebon, West Java. This study is expected to be an eye-opener leading to new insights, which can be used to examine the spatial pattern of the transitional palatial architecture from the Hindu-Buddhist Era to the Islamic Era. This research has been conducted with both the historical and qualitative approach. Through this study, the Dalem Agung Pakungwati Palace can be identified as showing a spatial pattern that contained the transformative Hindu-Majapahit concept of Islamic values. The findings obtained are expected to be used to reconstruct the local values in the form of understanding the spatial pattern of architecture as the genuine essence or identity of the archipelagic architecture that is sensitive to the appreciation of ancestral heritage.

Keyword: Palace, Transformation, Pakungwati, Islamic, Hindu-Buddhist

INTRODUCTION

Javanese Palace are historical heritage buildings that illustrate the development of architecture in Indonesia along with the civilization behind it. The palace is considered to be the center of culture that has survived to this day, and it plays a very important role in urban life in Indonesia, both relating to the design of buildings and aspects of their environment. A palace can be considered as an embodiment of adaptive and dynamic architecture in response to the development of a particular era. Palace buildings (referred to as Keraton) have been around since the era of Hindu-Buddhism and continued during the period of Islamic expansion in Indonesia [1]. Studies related to the architectural transformation of palace on Java ranging from the late Hindu-Buddhist Majapahit Era to the Islamic Era are still lacking in terms of substantial revelations. This phenomenon can be said to entail a missing link in the context of its transformation.

The palace deemed to have developed in the era of transition, that is to say from the Hindu-Buddhist Era to the Islamic Era, is the Dalem Agung Pakungwati palace. It is located in the complex of the Kasepuhan Palace which was rejuvenated/renovated or modernized a few centuries later. The building pattern of the latter is outlined in a linear manner referring to the north-south axis as well as the more recent palace, known as the Keraton Warisan Mataram Islam, for example in Yogyakarta and Surakarta.

To connect the red thread between the architecture of the Hindu-Buddhist palaces and the architecture of the Islamic palaces, the Dalem Agung Pakungwati palace can serve as a bridge. Therefore, the study of this particular palace can be an important source of knowledge for the development of Keraton architecture in Indonesia, especially on Java. Based on artifacts in the field, the remains of the Dalem Agung Pakungwati are estimated to be recognizable so that it is possible to interpret the spatial architectural patterns through the reconstruction following the orientation of the arrangement. By employing the architectural typo-morphological approach [2] it is expected that spatial patterns and architectural forms can be identified.

2. RESEARCH METHODS

This research was been conducted using the historical approach to understand the phenomena or aspects underlying the Pakungwati Palace's spatial design and its correlation with other manifestations of palace architecture found on Java, and with the Royal Puri Palace on Bali. Drawing a comparison with the latter is necessary for understanding...
spatial patterns in the Hindu context and in the context of Hindu-Buddhism. The Puri Palace on Bali can be considered as a continuation of the Majapahit tradition and style. The variables used in the analysis process are spatial planning in addition to mass and form. The analysis of this study has been conducted in a descriptive argumentative manner through the study of architectural morphology. To arrive at an interpretation, the spatial pattern and architectural orientation have been reconstructed. In general, the research steps taken consist of the following:

1. Reviewing and identifying matters related to the background of the Pakungwati Palace architecture in Cirebon, for example, covering historical, cosmological, cultural, ritual, geographical backgrounds through the study of relevant background literature, observations, and data collection regarding the object of study (method of observation and interviews); Reviewing matters related to phenomena that affect the architecture of the Pakungwati Palace.
2. Assessing the spatial pattern of Pakungwati Palace architecture in Java based on the morphology including its transformation.
3. Comparing spatial patterns and assessing Pakungwati Palace’s analogous correlation with the architecture of the Majapahit Palace, the Puri Palace on Bali, and other Keraton palaces on Java from the Islamic era such as the ones found in Yogyakarta or Surakarta.

This knowledge can underlie the understanding of the reconstruction of the Pakungwati Palace’s spatial pattern so that it can be used as a basis for understanding the development of the architecture of these early Islamic palaces on Java. Through this research the palatial heritage built in the early transitional Islamic era on Java is closely examined, which is estimated to have retained elements of Hindu-Buddhist architecture such as Majapahit. This research can open one’s mind to the idea that the legacy of the Majapahit spatial pattern is actually estimated to be still recognizable in coastal areas on Java, besides the ones found on Bali.

3. RESULTS AND DISCUSSION

Spatial Patterns of the Majapahit Palace on Java and the Puri Palace on Bali

According to Hemanislamet [3] which considering the several interpretations of the arrangement of the city of Majapahit in Trowulan based on Kern, MacLaine Pont, Pigeaud, Stutterheim, Kern, Slametmuliana, show similarity in certain elements, namely: (1) the position of the city towards the direction of the wind; (2) identification of the palace as a city center as the core even though the core of the city is not always located at the center; (3) more details in the form of 3 palaces by having its own winata ward; (4) the location of Dharmajaksa Shiva and the Buddha at the back of the Palace; (5) at the front of the central core is a public zone containing a meeting hall (manguntur), pendapa (open verandah serving as an audience hall), pahoman / sacred buildings / temples, large fields (possibly town squares), and markets whose details are interpreted differently by researchers, whereas the palace of the princes and the houses of officials and noblemen are located around the core at the same distance.

Based on the results of Bakorsurtanal aerial photographs, it can be seen that there is a grid geometric pattern in the Trowulan area which is estimated to be the former center of Majapahit city. This grid pattern can be linked to the mandala concept along with the distribution of zones, especially for elite/official/clerical groups, while organic patterns are possible for villages outside the city on the hillsides and mountainsides. It is believed that Majapahit also made use of an axis pattern referring to the mountain concept-Mount Penanggungan. Another description of the form of settlements can be seen in enshrined reliefs. Relief illustrations show a grid pattern in the buildings and concentric patterns in rural and urban areas.

Studying the remnants of Majapahit civilization can be accomplished by searching the rural and urban arrangement on the island of Bali, considering the influence of Majapahit is still quite strong there, such as on Puri[4]. The pattern of urban and rural settings in Bali shows the use of square-grid and linear concentric elements. The sacred point is placed at the intersection (Perempatan Agung) which is formed from the cross line of paths, lanes, and roads. This intersection is an ‘empty space’ shaped node. Around this center there is the Puri palace (residence of the ruler), Pura (place of worship), and a gathering place in the form of Wantilan/Bale Banjar that is equipped with fields and a market place. The arrangement of the position of the elements around the intersection looks equally distributed; it does not look prominent, and it is doubtful whether any of them mattered. The castle uses the Sangamandala or Nawasanga pattern [5] which is arranged to form a grid pattern for the actual placement of the buildings. The description of the Balinese pattern is also recognized in the spatial pattern depicted in the reliefs of the heritage of Majapahit. Broadly speaking, the spatial structuring pattern in Bali shows the existence of linearity, namely the concept of the mount-sea,
and at the same time it is concentric in the form of a grand intersection, and the use of the grid, and the Sangamandala appears to have been used in the Puri buildings and its dwellings.

Figure 1. The Relation between Majapahit and Balinese Patern, Grid, Mount-Sea Orientation and intersection (Perempatan Agung)[6][7]

The Spatial Pattern of Javanese Palaces in the Islamic Era on Java

On the island of Java, towns that were characterized by Islamic features developed from the era of Demak followed by Cirebon, Banten, and others. These towns show a unique arrangement of spatial structures, namely the square, with the palace to the south, the mosque in the west with santri settlements for Islamic students/adherents located behind the mosque [8]. Cosmologically, the spatial structure refers to the concept of Moncopat (manca = 5 and pat = 4), that is to say one main center in the middle surrounded by four surrounding areas and emphasizing linear orientation on the north-south axis (the mountains). This shows the presence of spatial duality other than concentric with the four corners and linear.

Basically, the Moncopat concept not only regulates the problem of territorial constraints but is also related to the basic concepts of community life which refer to the balance between the macrocosm and microcosm. If it is drawn on the scale of the concept of cosmology, then the core palace/town as the center is surrounded by four sacred points around it as its protector, such as the Surakarta palace with its metaphysical supporters in the North (Krendowahono forest under the authority of Kalayuwati Goddess), South (Sea under authority of Kanjeng Ratu Kidul Goddess), East (Lawu Mount under authority of Kanjeng Sunan Lawa), and West (Mount Merapi under the authority of Kanjeng Ratu Sekar Kedaton) [7], while Yogyakarta places more emphasis on the Northern (Mount Merapi) orientation, and the Southern (South Sea). However, in general, the territorial structuring principle of the heritage city of Mataram is divided into 4 zones arranged hierarchically, the more central to the central position that is held sacred. Physically, other cities in the Sultan Agung era can be divided into Kutagara, Nagaragung, foreign countries/regions, and peripheral/coastal regions (pasisiran).
According to Selo Sumardjan in Santoso[9] the territorial structure of the Mataram kingdom is generally in the form of a multi-level circle system with four different radius. The central circle is the manifestation of the ruling king. The physical representation of the sultan is the palace and its accessories (internal and religious administrators) The second circle is the state that covers the central area of the kingdom or the capital, the location of aristocrats and important people in profane life (traders, commanders-in-chief called senopati, and the like), and the economic-market center. The third circle is the Supreme State, covering all the main regions under the absolute authority of the king, which is headed by the Supreme Governor (mahapatih) and divided into sub-regions headed by the vice-governor (patih) and given responsibility for land management and tributes. The fourth circle consists of foreign regions, each headed by the Regent appointed by the sultan of the local nobility.

Figure 2. Yogyakarta and Surakarta Palace (Kraton) [10][11]

Spatial Pattern of the Pakungwati Palace
Based on the artifacts in the field, the Pakungwati building complex is a square grid pattern with brick walls [12]. This pattern is reminiscent of the pattern of residential buildings or chateaux on Bali or as depicted inside reliefs of the Majapahit era. When it was in the form of an initial residence, Pakungwati was expected to face East. Functionally, the East indeed displays the sea, so that the initial building is expected to face the sea as a characteristic feature of a coastal building.

Buildings that are estimated to be even older, namely the Bale Witana Kraton Kanoman, also face east or towards the sea. The direction of this orientation can be attributed to two thoughts, namely the concept of the sea mountain which is the ancient concept of the archipelago or the concept of the Kiblat (direction of Islamic prayer) considering that the occupants are Muslim families, led by Prince Cakrabuana. In the West, apart from the Kiblat associated with the imaginary orientation of the mountains, there is Mount Ciremai. On the East side of Pakungwati, the building that is considered important is the Pejagrahan Mosque which was built earlier than the Sang Ciptarasa Great Mosque. Pejagrahan refers to the terminology of floating on water, which indicates the location of this mosque was indeed close to the sea in the past.

In subsequent developments when it became the center of government, the next building was estimated to have been added. The Pakungwati building then developed into the palace, adding sitiklinggil, alun-alun, and mosque elements. This mosque became known as the Great Mosque of Sang Ciptarasa. With the existence of these buildings, it is estimated that the orientation of the Palace in general began to be used in the north-south direction, even though the orientation of the East-West was still recognized in the main complex of Pakungwati. Thus the orientation that
refers to the four directions can be identified in this complex which is identical to the concept of the arrangement of the Majapahit Palace.

North-South refers to Mount Sembung (the tomb of Sunan Gunung Jati) in the north and in the south there is a river or Rara Denok (a place to store heirlooms) or Bale Kambang (all use elements of water like the ocean), and in the West Mount Ciremai is located, while in the East there is a sea. The use of buildings surrounded by a pool of water or he typical Bale Kambang is closely related to the Hindu-Buddhist tradition of describing jambudwipa surrounded by oceans. The earlier Islamic Mataram palaces also featured buildings surrounded by water, for example Tamansari in Yogyakarta. The cosmological pattern embodied through the pattern of space that pays attention to these four directions shows that the ideas developed in the linear (hierarchical) and Hindu-Buddhist traditions of the four-way grid Mandala. This indicates the concept of ambiguity, namely linear and concentric patterns leading to four directions.

Referring to Jo Santosa [13], in the Eastern worldview according to geomatics, cities are imitations of the macrocosms that must be built according to the structure of the laws of natural balance. The relationship between the spatial parts of space in these places is formed based on two hierarchical microcosmic principles and microcosmic duality. The above study shows that the Pakungwati complex can be associated with concentric and linear grid patterns (north-south) mountains developed in the Pre-Islamic era. The influence of Majapahit is reinforced by a grid pattern that is insulated.

Majapahit is also estimated to have used a four-way orientation but there is a main reference, namely the mountain-sea; if we take Mount Penanggungan as the former, then the latter can take the form of rivers or ponds in the middle. Pakungwati has a mosque in the western part of the square, while Majapahit has a temple. Thus it can be seen that there is a phenomenon of transformation from the center in the form of open space node (Majapahit-Bali) and in the form of a crossroad into a palace building (Pakungwati). If in the order of the Perempatan Agung, Palace, buildings of worship, the marketplace, and the gathering place are equal and balanced, then the concept of Pakungwati is transformed with the center in the form of a palace with its square and mosque (in Demak the center is a mosque and its square).

Within the Pakungwati complex, the concept of duality can be recognized by the existence of linear and grid-concentric elements such as the ones found in the Majapahit and Balinese styles[14]. Based on reflections from Bali, it is estimated that the composition of a Majapahit town will not be much different from the one found on Bali. Square-hybrid and linear concentric elements are also expected to have been used in cities and rural areas during the Majapahit period. During the Islamic Mataram period this tradition continued with the use of square-grid linear and concentric patterns, such as the Moncopat concept.

During the formation of the city of Yogyakarta and Surakarta this linear concept was strengthened by the existence of two squares in line. However, the intersection of Prapatan Agung which is known in the spatial arrangement of Hindu traditions was transformed into the Kraton palace and its squares in the era of Islamic Mataram. In the context of Pakungwati it is estimated that it still employed two concepts such as Majapahit, namely the alun-alun square and the grand intersection called Perempatan Agung.

Islamic values subsequently enriched the meaning in the spatial pattern in the Pakungwati complex by strengthening the Kiblat orientation of the residential complex in Dalem Pakungwati which places the entrance on the East side which is characterized by the existence of receiving buildings, and the placement of male and female zones separately. This is evident from the existence of Keputran (man) and Keputren (women) zoning. The latter (the place for women) is attached to the main building of Dalem Pakungwati which is marked by the existence of a water park, while the former (male zone) is separated by a corridor and is located in front of the close to Sitihinggil. Based on the North South orientation in Pakungwati, the female zone called Keputren is located on the south side adjacent to the Rara Denok Building as a place to store heirlooms and the male zone called Keputran is situated in the North. These models of Keputran and Keputren were followed and developed by later Islamic-style palaces such as the Surakarta Palace and Yogyakarta.[15].
The north-south pattern was still used by the Palace which was built earlier than the Dalem Agung Pakungwati namely Kasepuhan in this complex, and Dalem Agung Pakungwati was later abandoned. The Kasepuhan Palace still uses sitihinggil, alun-alun, and the existing Sang Ciptarasa Great Mosque. The building inside the Kasepuhan Palace is linearly arranged to the north and south. In the south there are also a Balekambang and Mount Indrakila, such as Dalem Agung Pakungwati. In the south this is indicated by the existence of small Indrakila hills and Balekambang (water) which are basically sourced from ancient traditions depicting Jambudwipa and Samudra (the Ocean). In this complex, there are finally two important points, namely Dalem Pakungwati in the form of a grid oriented to the East-West and the core building of the Kasepuhan Palace itself, which is oriented to the North-South direction.

The figure of the building in the Dalem Pakungwati complex is estimated to be identical to Majapahit architecture, namely using a hip-roof, with various patterns of poles and walls, and surrounded by walls. The rest of the building that remains is only the shape of the gate that is identical to the Majapahit split gate. The building that is still considered intact and recognizable is a Sitihinggil building with a group arrangement forming a grid pattern with gable roofs and floors that resemble the Majapahit building typology depicted in enshrined reliefs, which look like chateaux or dwellings on the island of Bali. The Sitihinggil building is surrounded by walls and has a split gate conform to Majapahit's heritage. The wall decoration is reminiscent of the geometric cruciform medallion ornamentation patterns as encountered on the walls of the Majapahit temples. If the year of construction for Sitihinggil is not far removed from Pakungwati, the building inside Pakungwati can also be analogous to using the same patterns as Majapahit.'
5. Conclusions

Pakungwati shows a pattern that combines transformative Hindu-Majapahit concepts with Islamic values. This can be seen from the use of grid patterns in the Majapahit and Balinese style and tradition. In addition, linear and concentric concepts are also identified - leading to four directions, so that hierarchical concepts and duality can be recognized. This can be gleaned from the typo-morphology of the space and mass order both in Pakungwati itself and the relation with other buildings, namely Sitihinggil, Alun-alun (squares), and the Great Mosque. In Dalem Pakungwati, it is estimated that the division of zones based on gender is known, namely areas reserved for males and females, thus reflecting Islamic values. The concept of Islamic Mataram cities that is currently discernable at the Yogyakarta and Surakarta Palace is estimated to be a further development of the existing patterns in Cirebon Kasepuhan, especially the ones observed at the Dalem Pakungwati palace. This phenomenon shows that there has been a transformation of the mass and space of the city center, from the Hindu-Buddhist period to the Islamic Era, even though the archetype is the same but the physical composition of the layout has been subject to change. The use of duality and its forms of transformation show that the dynamism of the creativity of the Indonesian society in responding to the changing times. This shows a strong awareness of the necessity to attain harmony with nature and show respect for one’s ancestral heritage. This awareness should in the modern period be fostered continuously in urban design, including its buildings.

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REFERENCES

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Workshop ‘Arsitektur Etnik dan Aplikasinya dalam Arsitektur Kekinian, Universitas Udayana, 2016


[10] https://twitter.com/MapStorms/status/907118685785088001


[12] LPPM Unpar, Pendokumentasian Dalem Pakungwati, 2017

