Visual and spatial changes of translocated Javanese vernacular houses in Padi Heritage Hotel Malang, Indonesia

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Abstract. Recently, many Joglos, which is one of the Javanese vernacular houses have been translocated and converted by the locals to accommodate a variety of new functions, such as lodging and cafes. The effort to reuse those translocated Joglos becomes a conservation trend in Indonesia and assumed as an ex-situ conservation of cultural heritage buildings. Descriptively, this study examines the conservation efforts which runs in Padi Heritage Hotel Malang by translocating the Joglo Jepara and Joglo Kudus from its home and placed in this resort-hotel area. In its new homes, these re-rised Joglos adapt the new function and respectively it causes changes in the visual and spatial aspects of the Joglos as the result of the adaptive reuse approach. There are several factors that affect changes in the translocation of the Joglos in the Padi Heritage Hotel, such as the need to beautify the building visually, demands for new functions, as well as the need for certain additions to the structures of the building that makes questions about authenticity need to be addressed in this conservation issue.

1. Introduction

Based on the history of its development, the shape of the Javanese Omah (house) consists of five types, namely Tajug, Panggang-pe, Kampung, Limasan, and Joglo [1-4]. The roof is the differentiator between these types. Based on their usage, the types of Kampung, Limasan, and Panggang-pe are commonly found in common people's homes. Tajug is usually used for places of worship, like the mosque. Meanwhile, the Joglo is usually used as a house for kings or nobles. It is not surprising that Joglo is often found in the Javanese palace complex.

Over time, many types of Joglo and Limasan were built by the public because of its flexibility and expandability [4]. Not only as a home, but also for other various functions, such as meetinghouses, offices, and cafes. Besides, some use it as an accommodation building. Generally, the Joglo type is preferably used because of its history, status, uniqueness, and details therein as a special allure for admirers of Javanese culture.

Based on those background of historical status and value, many old Joglo, which are still in good condition, have been reused. Efforts to reuse Joglo buildings have become a trend in efforts to preserve Javanese vernacular buildings, especially Joglo which are translocated to new places [5]. Conservation efforts that include moving buildings like this can be called solitary ex-situ conservation [6].

This research aimed to study the Joglo that were translocated from Jepara and Kudus and placed in a resort-hotel area called the Padi Heritage Hotel in Malang City. The Joglos, which were translocated at Padi Heritage Hotel Malang, has changed its function, which originally served as a typical house, but in its new place becoming a lodging resort. The new function has made several changes to the Joglo in
order to adapt the building shape to its new functions. These adjustments are assumed as the result of the adaptive reuse approach [7-9].

1.1. Visual-spatial aspect in Joglo Pencu

According to Prijotomo [10], architecture in the Nusantara dominantly showing its beauty through the exterior. Visually, the shape of the Nusantara houses, including the Joglo, strongly emphasizes the roof as the predominant character. The structure underneath, such as columns or poles, will adjust to the roof covered area [11]. There are no walls, and if it does exist, relatively as physical dividers between spaces due to demands for privacy. Likewise, the floor, which exists as a separator from the surrounding ground level or is even elevated (stilt) in response to its environment. The supporting parts such as outer walls, doors, windows, and all other visual elements of the outside are related in responding to the environment and its cultural values [12]. The part that is partitioned under the roof (either by physical walls or imaginary) can be assumed as a spatial part who’s not related to the core structure of the house.

Figure 1. Standard Javanese Omah types based on the roof [13].

Initially, there was a philosophical standard in the plan arrangement. Likewise, in the Joglo, usually has spatial arrangement consisting of Pringgitan, Dalem, Senthong, Gandhok, and Pawon. However, in its development, the existence of these spaces fades away along with the need for a more functional space.

There are various types of Joglo. Roesman [14] divides the shape of the Javanese house by classifying it from the area where the house is located, that is from the northern part and the southern part of Central Java. Both Dakung [1] and Ismunandar [3] divided the Joglo classification based on the shape (roof) of the house. From the results of interviews with the hotel owner, the translocated Joglo in Padi Resort Hotel was moved directly from Kudus and Jepara. Due to the geographic location of Kudus and Jepara in the north, most of the Joglo forms in these areas are the Pencu type.

Figure 2. Roof types of: 1. Pencu; 2. Pencu; 3. Joglo (left) and the standard plan (right).

The Pencu type is classified as the Joglo type because of the roof shape identical to the standard Joglo’s roof. But, many peoples are not so familiar with this type because the utterance of Joglo has become a metonymy for all Javanese omahs whose similar to Joglo.

Due to identic, the Pencu also has the same construction as the Joglo, which has four central pillars to support the core of the roof, known as the Sokoguru, but differs in the construction details where the poles and the roof meets [14]. It is named Pencu because of its high-ridge ([Jw] Pancud) roof and along the roof ridge decorated with typically carved tiles of northern Javanese (coastal) communities.
Figure 3. Joglo Kudus (left) and Joglo Jepara (right). (Source: (left) https://kebudayaan.kemdikbud.go.id/ditwdb/Joglo-pencu-rumah-adat-kudus-warisanbudaya-takbenda-indonesia-2016/; (right) https://id.wikipedia.org/wiki/Joglo_Jepara)

There are differences in the shape of the roofs between Pencu in Kudus and Jepara in terms of the size and the roof bends (see figure 3). Jepara’s Pencu is more aerodynamic than Kudus in response to the Java Sea wind (Jepara is located right on the north coast of Java Island).

Typically, the inner space of Pencu Jepara consists of Pringgitan, Dalem, Senthong, Pawon, and Pakiwan [14], while in the Pencu Kudus consists of Jogosatru, Gedongan, Senthong, Pawon, and Pakiwan [15,16]. Although there are several differences in room names, almost the entire function of the room in the Kudus’s Pencu is similar to the Jepara’s Pencu.

1.2. Adaptive reuse

Adaptive reuse is an approach that can be used in building conservation efforts to replace or change the old function of a building with the new one. The adaptive reuse approach not only tries to bring back the physical appearance of the old building but also tries to appreciate the historical and philosophical values therein by maintaining the physical form of the building, yet transferring its role to a better and more useful function. The new function assumed can rejuvenate the building’s value while providing a positive impact on tourism.

In the adaptive reuse approach, a building that has changed its function can experience the addition or reduction visually or spatially as a form of adjustment or adaptation to its new roles. According to Scuderi [8], this adjustment can be called the concept of adaptive building exoskeletons which can be classified into two types, that is addition and subtraction. The addition is adding the new elements to the building and then combined with old elements that are deliberately preserved, while the subtraction is adding the new parts that replace old parts or elements, both in terms of function, characteristics, and performance.

2. Methods

This research took a case study on Javanese vernacular buildings which were translocated to Padi Heritage Hotel Malang, located in Perumahan Tata Surya, Jalan Regulus No. 9, Lowokwaru, Malang City, East Java. This research has focused in observing the changes of the visual and spatial aspects of the translocated houses. The variables used in the visual aspect are all visible elements from the outside with the roof as the main character and other features such as doors, windows, walls, and floors (elevation). The variables used in the spatial aspect are spatial function, spatial orientation, organization, circulation flow, and building orientation. By analyzing all of these aspects, this paper describes the changes that occur from the original form of Javanese vernacular buildings after being translocated to the Padi Heritage Hotel Malang.

3. Results and discussion

Padi Heritage Hotel was founded in 2010 and has undergone several changes, one of which is the name used that previously known as Paddy City Resort. This hotel offers a unique staying experience in the form of a resort-hotel with a rural atmosphere. There is a stretch of rice fields along with rice terraces that fill the voids of this hotel zone. The main thing that makes this resort-hotel unique is some of the
lodgings are using the translocated Javanese vernacular houses. The translocated dwelling moved from Jepara and Kudus. In this hotel area, it is named Twin Cottage 1, Twin Cottage 2, Cottage Lumbung, Joglo Limasan, and Joglo Pakudusan.

Figure 4. Rice fields as the void of the site (left) and the location of five translocated houses in Padi Heritage Hotel Malang (right).

The expansion of the Padi Heritage Hotel originated from the owner's penchant for Javanese cultures. By translocating four Javanese houses from Jepara and one from Kudus, the owner creates a hotel-resort concept with a rural atmosphere by adjusting these translocated houses to the existing site’s contour. The condition of the hotel’s site is quite steep because located on the bank of the Brantas River. At the beginning of its construction, the structures were built following the contours. Then the voids of the area are filled with rice fields and playing a significant role in heightening the rural atmosphere. The rice field is placed in the middle of the site so that it becomes the main focus from the surrounded buildings makes an enclosure pattern facing the river. At several points in the middle of the rice fields, there are some huts as a place for visitors to take pictures, relax, and get breakfast.

The building’s arrangement at the Padi Heritage Hotel consist of several zone areas. The area that closest to the entrance is a public zone that can be accessed by anyone. At there, the receptionist building and the parking area were placed. Then followed by the semi-public zone consist of rice fields and a swimming pool, and the private zone, that is the lodgings that only can be accessed by the hotel guest and the employees.

3.1. Twin Cottage 1 and 2
Twin Cottage 1 and 2 is a twin building at the Padi Heritage Hotel which is translocated from Jepara. Both of these units are originally a type of Kampung with the saddle roof as the main identifier. In the new site, both buildings have been developed in optimizing its 28.6 m² to accommodate its new function as a lodging unit. Some modern utensils were added such as a bed, fan, and tv.

Figure 5. Twin Cottage 1 (left) and Twin Cottage 2 (right).
Besides the visual aspect, both buildings have also experienced spatial changes, such as access, space plan, function, orientation, and circulation flow. Change in the building access was seen previously from a staircase to a small bridge due to the pond placement in the front of the units. Inside, the space plan and circulation flow changes following its new function as a lodging. Previously, the original plan usually served as Dalem and Senthong while in its new state, this space only used as a bedroom. There is also an additional structure to the left elevation of both buildings for a bathroom. Meanwhile, both buildings were placed on the north end side of the site and the orientation of both units follows the site plan concept which is oriented to the center of the site.

3.2. Joglo Jepara Panggung (Cottage Lumbung)
Joglo Jepara Panggung (on stilts) is the next translocated building found at the Padi Heritage Hotel which is also translocated from Jepara. Visually, on the top, the shape of the roof follows the Joglo types and it has decorated carved tiles along the roof ridge which is typically the same as the Joglo pencu type. This unit is placed in the middle of the site due to its size and uniqueness. Compared with other translocated house, this unit has a compact size and well decorated. Its stilts construction also supporting
the placement wherein its reconstruction phase, some adjustments have been made to the structure. The addition to the lower structure was carried out by lifting the floor of the unit with elevated pedestals. Due to elevated, access to the building uses a wooden ladder that is flowed indirectly from the ground so that there is a landing before entering the main door. The beam modules were used to strengthen the wooden-boards floor structure between the pedestals. All the material of the lower part of this unit were completely new due to the retrofitting.

Spatially, the change inside the unit which is previously used as Dalem and Senthong now become a bedroom with the supporting utensils. In the east side of the elevation, there is an addition space to accommodate bathroom. The orientation of the building is directed towards the center of the site by optimizing the L-shaped terrace facing to the southwest which is usually used by residents to sit back and relax.

Figure 9. The outdoor and indoor condition of the Joglo Jepara on stilts.

Figure 10. Redrawing cottage lumbung.

3.3. Joglo Jepara Besar (Joglo Limasan)
The other Joglo that have been translocated from Jepara is Joglo Jepara Besar. Named Besar (large) due to this Joglo served as the largest lodging in the Padi Heritage Hotel compared to the three earlier. This unit has a total area of approximately 86.7 m². Inside, this unit accommodates three bedrooms, two indoor bathrooms, and a large living room. Some of the facilities that have been mentioned above are also filled in this building. Overall, there is no additional building was made, only optimizing the space inside to accommodate all facilities.

Figure 11. The facade and the interior of the Joglo Jepara Besar (Joglo Limasan).
Besides the visual aspect, this building has also experienced changes spatially, such as access, space plan, function, orientation, and circulation flow. Different from the three units that explained before, there is no change in the building access. This unit is only placed on the new site and has been adjusted to the new floor material and some supporting reinforced structures. This unit still maintains the original access which consists of five doors.

Inside, the space plan and circulation flow changes following its new function as a lodging. Previously, the original plan can accommodate multiple functions with the void inside (served as Dalem Senthong, and Pawon) while in its new state, this space accommodated only for a living room (Dalem), three bedrooms (Senthong) and two bathrooms (Pakiwan). This change is based on the its new function as a lodging. Meanwhile, this building was placed on the north side of the site and the orientation of unit follows the site plan concept which is also oriented to the center of the site.

Figure 12. Redrawing the Joglo Jepara Besar.

3.4. Joglo Pakudusan

Joglo Pakudusan is the largest translocated building in Padi Heritage Hotel, but this building does not served for lodging. This unit was the only one that translocated from Kudus and its new site served for gathering place, workshop events, or performance venues. To support its function, inside this building there is a set of Javanese musical instruments, namely Gamelan.

Figure 13. Comparison of standard plan of Joglo type (left) and the Joglo Limasan’s plan (right).

3.4. Joglo Pakudusan

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Figure 14. Joglo Pakudusan.
Visually, there is no significant change in the shape of the building. Only in its placement, there are adjustments to the base. Because this unit is placed on a contoured location, the owner wants the lower part of the building can accommodate the smaller lodging room units for the backpackers. Thus, the construction below was formed like a basement. But it does not mean that the Joglo Pakudusan above has direct access to the basement. The owner makes separately access for both functions so that the Joglo Pakudusan can be accessed directly via the upper road, while the backpacker room can also be accessed from the side of the building.

On the top, the roof still maintains its original shape that can be identified from the bending of the roof. The bend in the roof plane is visible as a differentiator from the Jepara’s Joglo type. Inside, the space plan and circulation flow changes following its new function as a gathering place. Previously, the original plan was usually used as Dalem and Senthong while in its new state, this part is left as open space. There is an additional bathroom on the backside of the house. Meanwhile, this unit was placed side by side as the balancer with Joglo Limasan on the north side of the site and the orientation follows the site plan concept which is oriented to the center of the site.

4. Conclusions

By observing the visual and spatial aspects of the translocated Javanese vernacular houses in the Padi Heritage Hotel, it can be concluded that every aspect of the houses has changed. Visually, there is no significant change in the appearance of the houses. Only visible strengthening of the structure and improvements to the house’s facade due to demands to enhance its appearance. There is also an adjustment in the facade as a result of the additional space function therein. While the elevation of the lower structure is aimed for adjusting its placement to the new site and to avoid moisture and termites.

Spatially, many changes occurred in these translocated houses. Fundamentally changes seen from the space that previously functions follow the standard of the Javanese dwelling house, but now change as a bedroom. Some functional adjustments are also seen, such as adding a bathroom to accommodate its new roles as lodging that respectively makes the facade changes. Meanwhile, the orientation of all houses has changed due to its position in the new contoured site.
Several factors affect changes in the translocation of these houses, such as the need to beautify the building visually, demands for new functions, as well as the need for certain additions to the structures of the building that makes it appropriate in the new site.

The adaptive re-use approach which is used in these houses is one of the efforts in conserving heritage buildings. Despite questions about authenticity need to be addressed in this conservation way, the Padi Heritage Hotel is one of the results of ex-situ conservation. Changing the function to the new one is more appropriate to be done at this time. Instead of living with the old buildings, peoples now prefer to live in it but fulfill the demands of today's functions [17].

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