Local Wisdom of The Native Settlement as A Main Gate in The Northern Axis of Javanese City Center In Semarang

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Abstract. Similar to the city structure of Islamic cities in Java, Semarang also has multi-ethnic kampongs located around alun-alun / traditional square. There is a uniqueness kampong ethnic village that was located in the coastal city of Semarang. Now there are no longer in coastal area. Based on historical method using some old maps and the old images and field study resulted that the old city centre of Semarang had a north axis connecting the seaport (Kampung Darat - 14th century) to the alun-alun as administrative city centre (16th century). The axis was once a commercial corridor with settlements arrays behind the commercial corridor. There is some local wisdom in the settlement arrangement. The economic and religious harmonies live together along the corridor. The ethnic Chinese and Arabs as a merchant set up shop houses in the corridor that had a strategic value. Meanwhile, Malay, Arab, Cirebon and Banjar settlements located behind commercial corridors. This corridor present that the economic activity dominated done by Arabic and Chinese trader. Local wisdom in urban design heritage along North axis functioned as main gate to traditional city centre. The local wisdom is potential to be integrated with recent situation and replicated in another region

1. The first section in your paper

This paper is a continuation of research that has been done since the doctoral thesis 2010 that focused on traditional cities in Java, research funded by Sumitomo foundation [1], the similarity of urban patterns in Java and Japan research funded by Diponegoro University in 2016 [2]. Those studies revealed a strong Islamic and Chinese influence in Javanese urban design in the past. The influence of trade and Islamic broadcast that has been done by Cheng Ho from 1405 to 1433 (during his seven expeditions overseas) [3]. Cheng Ho participated in spreading Islam In Java. So, It is not surprising to find many Islamic sultanates in Java that have a building character with architectural style from China. [4, 5].

Semarang city is the capital of Central Java province. With an area of 373.67 km, originated from a city that grew from a small village in the area of Bergota [6]. Due to the sedimentation that occurred on the north side of the island of Java since the 10th century [7] then the center of the city turned to the area near to the seaport in the old boom area (Late 14th century). The area of seaport grew into a multi ethnic village because it became a meeting place for traders from various nations [8]. Recently, the old
village has a potential historical value and has significance in the formation of the city of Semarang, namely Kampung Melayu. Kampung Melayu is one of the oldest kampung in Semarang city that has characteristics as multi ethnic village such as Arabic, Chinese, Pakistani, Indian, Cirebonan and Banjar.

Rukayah and Sahid [8] found that the village of multi ethnic was located exactly right on the north side of Alun-alun. Its existence is now not directly faced with the alun-alun because the alun-alun has been closed by the building. It is estimated that since the alun-alun and the old Semarang city center in Kanjengan were cut off by the posweg street in 1809/1811 the north side of the area seemed to have no connection with the administrative center in Kanjengan [2]. Thus, it is hard to understanding the historical form of the old Semarang city by future generations.

Hartono [10] states that an understanding of the history of the city is very important for planners and urban designers. This is because most urban planning techniques depend on extrapolation from the history of the city itself.

The oldest urban planning in Java is the Majapahit palace (1293 to 1500). The planning of cities in Java after the Majapahit era refers to the unwritten rules on the concept of the city layout in Majapahit. The planning of the city center consist of Alun-alun, palace, mosque and North-South axis with houses on the North side [11].

The structure and pattern of cities in Java can be recognized by the dominance of North-South axis [12]. The dominance of the North South axis is also found in the pattern and structure of Islamic cities in Java [11, 13, 14]. Similarly, the old city of Semarang. In contrast to the urban structural pattern in inland Java, Semarang is a coastal city with a pattern and a city structure that has a northern axis [9] (see Figure 1). At the end of North Axis there are multi ethnic settlements. To unveil the past condition, this research will be done using historical methods. How was the local wisdom of a multi-ethnic village located in the North Axis of the indigenous government at that time?

### 2. Research Methods

The research location is the settlement and corridor in northern axis of the old city center Kanjengan Semarang. The conditions in the past will explored by historical method. The old maps and photographs of the city of Semarang in 1695, 1719, 1875 and old photos obtained from kitlv have revealed the formation of a traditional city center with the composition of paseban (square), Javanese temple (mosque), administrativ government (kanjengan office), pasaar (market) and Javanese nagorij (Javanese settlement) on the North side. In old photo from kitlv, there is information of kampong Layur as center of old Semarang city. Through some old images and maps the researchers will do the research by using ‘seeing by believing’ approach from Pole [15]. According to Pole [15], pictures and maps speak more than a narrative. Overlapping of some ancient maps in current conditions (google earth) and manual sketches will be done to analyze urban design patterns. The type old buildings to be analyzed the architecture and function of the building at that time. The photo will be compared with the old photo to strengthen the analysis of the function of the area at that time.

### 3. The City in Java

Kuta (city-Jawa) means a residential area protected by a wall that built around a city center [16]. He stated that city in Java will be related to the context of the state as the center of government since Hindu-Buddhist era to Mataram-Islam civilization era. Unlike the city concepts in Europe, the physical form of city in Java is not absolute the result of the composition of buildings and spaces, but it was closer to the idea of community coaching consisting of peasants, traders and prijajis that centered on a public figure [14].

#### 3.1. The City Pattern

In the old view of the Indonesian people, the king is considered a figure identified as a god. At the time of the influence of Islam, the Sultan is also considered a figure who controls the living community and can connect it with the unseen society [17]. He revealed that the establishment of the
palace as the core of the royal city in Southeast Asia (including Indonesia) during the influence of Islam is associated with the symbol of Meru as in Hindu mythology. According to Tjandrasasmita [18], the city was made traditionally and planned by the supreme ruler. The ruler arranging the city with the composition of the square in the middle, the mosque in the west, and the palace on the south. Streets and other transportation routes made straight intersected form a square to the center of the Javanese Royal Palace. The center of the palace has a function as Imago Mundi (a world image), a center with its concentric circles [19].

The pattern of old city planning in Java is suspected to be found in the former ruins of the capital city of Majapahi. Rukayah [11] states the concept of urban planning from the era of Majapahit kingdom continued in the era of Islamic sultanate (Demak, Cirebon, Banten). In the era of Islamic sultanate still maintain the concept of north-south axis. In the end of the north axis was the sea. Thus, the city had a waterfront concept [20].

The old city Semarang in Kampung Melayu had a boom/seaport located exactly right on the end of the north side of the central square of the indigenous government. On the old map found a line connecting the port with the square. The line on the map is now named the Jalan Layur. In the area of Jalan Layur written the name of the village of Java (Javanese nagoirij). The pattern of urban planning with the North-axis of the square, is also found on the old map of coastal cities in Banten [21], Cirebon [22] and Surakarta sultanate [23].

3.2. The Boom Area on North Side of Alun-alun

There is an interesting about the sultanate city pattern and structure along the northern coastal of Java and in the inner-city of Java that facing the river/riverfrontcity (Surakarta sultanate). Some cities in coastal and inland Java have a port or boom that are directly connected to the alun-alun as the center of the city. Literally the meaning of the word 'boom' equals 'haven' in Dutch or pelabuhan in Indonesian [10]. In Tuban, city, the boom was built long before the Dutch came. The physical form of boom, is the land that protrudes to the sea. Geographically located just a few hundred meters in the northern side of the alun-alun Tuban [10].

Figure. 1. Old Maps of Surakarta, Cirebon and Banten. North axis connecting alun-alun and port [24].

Solo City which is located on the riverside in the interior of Java also has a port called a bandar. The city of Solo was originally formed by the coolie community living on the edge of Bengawan Solo, near the port where they worked for their employers in Kadiipaten Pajang (1530s). They formed a river bank settlement [23]. Similarly, the pattern and structure of the sultanates of Banten and Cirebon. The two cities became the center of the world market network and the local market. Both cities have a port, multi ethnic settlements and markets on the northern side of the alun-alun.

3.3. The Toponyms and Settlements in Ancient Cities in Java

The old city spatial pattern in Java consists of the structure of alun-alun, kraton, building of worship and market. The settlements are clustered and located around the core of the city. Settlements that develop outside the center of power are usually villages that are not guided by the street pattern but on the territorial integrity from the center to the sub center.

The road was not built earlier than the settlement, but was a liaison between the existing centers [16]. The grouping of the Javanese population depicts various social groups or types of occupations.
The existence of such toponyms can be used to track the existence of various physical artifacts that are now no longer visible. For example: group of craftsmen, group of services. Groups based on social status, groups of educators, groups based on race, ethnicity or place of origin [13].

4. Layur Corridor

4.1. Layur Corridor in Old Map
The existence of the Layur corridor has appeared on old maps from atlas of mutual heritage in 1719 (see Figure 2.). Layur Corridor is a road in Kampung Melayu Semarang formed by Chinatown and Arabic shophouses that served that corridor as a commercial area. Formerly this area was a port and entrance to the city of Semarang.

![Figure 2. Semarang old map 1787. Corridor Layur connecting alun-alun Semarang and rifer to the sea [24]](image)

The uniqueness that occurs in the Layur Corridor is the meeting of two ethnicities along the path, Arab and Chinese. The existence of these two ethnic groups is marked physically by the existence of the building of worship, the Menara Layur Mosque was built in 1802 AD and the temple Dewa Bumi built in 1900 AD Arabian merchant houses are behind the Layur Corridor.

4.2. The Traders in the Layur Corridor
The existence of Corridor Layur at this time is very apprehensive, looks shabby, and prone to crime. Many buildings that are not functioning, damaged and collapsed while the Arabian merchant house also not worked. Problems that arise due to several factors and aspects in relation to the development of Semarang City. The existence the Layur Corridor has been abandoned because it has been replaced with trading buildings equipped with modern facilities.

The tower of the mosque had served as a light tower has been officially designated as a cultural heritage building since 1992.

![Figure 3. a), Chinese and b), Arabic c), Malay shophouses along the corridor Layur](image)
5. ANALYSIS
The process of Islamization in Indonesia was possible done by traders from China and Arabic. The existence of Chinese and Arabic artifacts as shophouses and old mosques Masjid Menara Layur in the corridor in the northern side alun-alun Semarang proof that there are many local wisdoms found in settlement lay out. The Mosque building and Klenteng is a symbol of socio-cultural wealth in the glorious era of kampung layur. The Chinese and Rabs shophouses arranged along corridor, meanwhile the houses settlement arranged as the background.

China’s influence in some cities in Java became clearly. This finding strengthens the statement of Rukayah, 2014, that found a Chinese influence on urban patterns in the traditional cities in Java. The city formation look similar with traditional city in Japan that consist of North-South axis, grid pattern and position of worship building on the west side, central government on the south side. There was a sustainable Chinese concept due to the city lay out in Kyoto was a copy paste of the center of Chang an as the kingdom city in China.

![Figure 4. Some houses behind the corridor Layur a) corridor layur b) old house c) arabic houses](image)

Figure 4. Some houses behind the corridor Layur a) corridor layur b) old house c) arabic houses

![Figure 5. a) Corridor Layur in 1927 and b) recent time (2017).](image)

Figure 5. a) Corridor Layur in 1927 and b) recent time (2017).

![Figure 6. a) Corridor Layur in 1930 and b) recent time (2017).](image)

Figure 6. a) Corridor Layur in 1930 and b) recent time (2017).
In the old coastal city of Semarang, there was a strong Chinese-Arabic influences. The rows of store houses with Chinese and Arabic architectural styles, mosque buildings and temples show a harmonious life between Muslims and China in the 14th century. From the review of old cities of Java, it can be concluded that the spatial pattern of Semarang city follows an unwritten rule form the old traditional city center in Java. The city center consists of: alun-alun, government building, religious building and market. The North axis connects the alun-alun and sea port.

The physical structure of multi ethnic settlements in the north axis in the corridor Layur Semarang is a settlement that develops outside the center of power (central government of Kanjengan). However, the settlement pattern cannot be said to be based on road pattern. Existing road is used as the northern axis of the central square / government center.

The remains of old buildings along the northern axis indicate the uniqueness of an old shopping building. Now there are some buildings that still function as a shop. Below is a comparison of Layur road conditions in the past and present. (see fig.5)

Comparing the old photographs with the recent condition there is an indication of old buildings that show its function as a shophouse, or a home and shop. Figure 7. below shows that the corridor layur in the past served as a commercial corridor. Commercial corridor connecting the port in the village of Darat to the alun-alun Kanjengan. Here are juxtaposed maps in the present and in the past (in 1719) (see figure 7)

The development of the Layur corridor has a layer period

- Corridor as orientation of ethnic settlements at the outside the center of indigenous government.
- The development of the North axis of the Layur has increasingly become the direction of the orientation of buildings and villages since the construction of Groote Postweg path in 1809-1811 which is on the South side. Since then the Semarang River was no longer the orientation direction.
- The old city of Semarang lay out- grid pattern- is no longer visible since the construction of the postweg.
- The influence of China and Arab Islam dominates the shopping character of the Layur corridor.

6. CONCLUSION AND RECOMMENDATION

6.1. Conclusion

North axis of the old city center of Semarang towards the seaport at that time has an architectural and urban design that is dominated by Arabic and Chinese architectural style. There is local wisdom in the
settlement arrangement that locates Chinese and Arab traders. This area illustrates the process of Islamization in Indonesia made possible through the trade channels by both ethnic groups.

The city's architecture follows the pattern of urban planning in Java where the north corridor functions as a commercial corridor. This is marked by the discovery of the form of building with the function of the building as a light house. Meanwhile the residential area is located behind the commercial corridor. The layout of the city-based multi-ethnic settlement establishes enclaves behind commercial corridors.

The existence of mosques, Islamic boarding schools, temples in commercial corridors and arrangement of villages based on the region of origin, describing that the place were function as the coastal city at that time. The Local wisdom found in the area are harmony in social, economy and religious

6.2. Recommendation
Local wisdom in urban design heritage is need to be appreciated more as a traditional technology in city lay out especially along North-South axis as main gate to traditional city center in Java. The local wisdom is potential to be integrated with recent situation and replicated in another region. Recommendations are directed to the Tourism office and Trade office to revive commercial corridor areas and develop them as coastal trade that potential for tourism.

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