

Influences of Culture on the Spatial Development of the Juwana Sub-district of Pati, Central Java, Indonesia.

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Abstract

Juwana is a sub-district in the coastal area of the North of Java Island, which has been traversed by Gonggo. Initially, the settlement was linear-shaped following the river shape and the trading area was around the harbour. The settlement later expanded and changed when Daendels built the Post Road from Anyer to Panarukan. This road created a new trading center alongside that road, with some parts following the Dutch grid pattern. Spatial Developments of the Juwana Sub-district thus has been heavily influenced by the cultural dimensions.

This paper examines the spatial development of Juwana and its cultural determinants. The research employed a qualitative method with grounded theory as a research strategy. Data was gathered through observations and interviews with people who play significant roles in the community. Giddens's theory was used to understand the sociological perspectives. The research objective is to offer a comprehensive analysis of Juwana's urban spatial developments.

In conclusion, the paper divulges that the community structure affected Juwana's urban space pattern heavily. Six urban space patterns have emerged in Juwana: 1) the fishing community based urban pattern alongside the Silugonggo river and the harbor as the central business district. 2) The urban space pattern, which consisted of Alun-Alun as the focal point and the central power. 3) The Chinese merchant's urban pattern, which surrounded the central power and the business area. 4) The merchant's urban pattern around the city center - linear with Pos/Pantura road, some of them created clusters using the grid pattern. 5) The industrial urban space pattern. 6) Historical urban space pattern.

Keywords: Settlement, Community Development, Business/Trade Development, Urban Space Pattern, Juwana, Indonesia.

Introduction

Juwana is one of the sub-districts in the district Pati of Central Java existing in the Northern Coastline of Java Island. Juwana was initially on the river line of *Silugonggo* and used the coastline as a living source as well as the area of residence of the Juwana society. Its first change occurred as the visit-based of Sultan Agung on the first attack to Batavia, and this has affected the structure of the development. With this, Alun-Alun, or a square-oriented center appeared as seen from the royal urban area of the rural area of Java. Juwana thus became an attractive place for visitors, mainly the Chinese merchants; they dwelled in the rural areas contiguous with the Mataram settlement (Widayati, et al., 2017).

When the Post Road was built by the Dutch (Daendels) traversing the South of Juwana to form a spatial pattern and merchant area structure/linear business alongside the Post Road emerged, which created a grid settlement pattern in the South of that Post Road (Widayati, et al., 2017).

The structure and spatial pattern of Juwana currently is an accumulation of diverse societal forces of life as lived in the region; for instance, the coastline has been often attacked by the fishermen

from outside Juwana. The fishermen's society is mostly from South Sulawesi (Bugis and Makassar), while the merchant community is of Chinese descendants. The batik merchants' community come from Surakarta. While this diversity of communities create peaceful life structures, their shared activities contribute to a unique composition of the settlement (Giddens, 1984).



Fig. 1: Urban map of Subdistrict Juwana with 29 villages traversed by Pantura road (Formerly the Post road)

Source: Google, modified by Author, 2019

The research focuses on those who are actively or passively involved in the process of Juwana's expansion. The investigation is centered on actors affecting businesses either internally or externally. It is noted that the Juwana community intertwines in harmony through joint activities such as alms near the sea, religious rituals, and religious great days. All this is done with mutual work of inter-residents, either as sailors, craftsmen, or merchants. The activities or events not realized have been growing local substance sustainably (Giddens, 1984). This research is very interesting to study because the harmony and togetherness of the Juwana community with different occupations can affect the culture of Juwana's spatial patterns.

This research constructs a theoretical understanding based on current empirical observations. It intends to describe the patterns of spatial developments of Juwana through analysis so that it can operationally unravel the concepts (grounded research). The research is based on observations of cultural influence on the spatial patterns of Juwana.

Literature Review and the Theoretical Basis

To discuss the structure and the spatial patterns, it is useful to look at theories of urban morphology, which explain comprehensively the spatial patterns (Sukada, 1997). While morphology describes urban artefacts, where visualization from process or artefact development becomes a research object. Urban morphology provides a significant foundation to study urban physical characters. It answers questions such as how urban spaces always experience changes, and how to value the character of an urban setting in the future (Widayati, et al., 2017). Urban morphology is an attempt to process tract and expansion factors of an area through its history, the effect of space, structures altering an area intertwined with artifacts in a given region. It includes the buildings, spatial elements, individual

buildings, plots, and roadblocks as well as open spaces (Sukada, 1997). The structure and layout of this pattern influenced Juwana.

Juwana is an urban sub-district having a settlement with different patterns. It is due to the influence of various aspects, one of which is the environment consisting of urban settlement environment, change of administrative power, and culture seen from physical and social systems. The environmental conditions have a significant role in the alteration process. Change of cultural values of a community is seriously affected by two factors: solidness and durability to overcome shift of value, and power and the intensity value of other cultural effects on the existing social interactions (Farkhan, 2002).

Changes in the physical environment of the Juwana settlement are inseparable from both systems; this is because there is a social agreement arising from dwelling shapes, and meanings, the settlement environment produces with the dwelling group and facilities. Juwana's economic strength is very dominant in the determination of these changes (Farkhan, 2002). It is an architectural work that reflects a settlement's basic life realization, containing a variety of meanings. According to Rapoport (1969), life experience can affect the perspective of an architect's work commensurate with the cultural and social dynamics experienced by that society. This enables specific settlement shapes to become embodiment/realization of civilization, development, or social change of society.

This view of Rapoport can be seen in the Juwana settlement in terms of life's views and experiences concerning cultural and social dynamics. Although geographically, Juwana settlement is in the development of settlement along the northern coastline of Java Island, the development pattern of Juwana settlement can be studied from this perspective. It can also be looked at from a historical perspective, which can reveal the influence of the development culture. This cultural change or expansion can make the architect's point of view shift in line with the existing cultural changes (Santoso, 2008). Meanwhile, community social relations are the practice of existing social life. These social relations affect the structure of spatial formation (Giddens, 1984).

Research Method

The research used a qualitative method to obtain field data. It used the strategy of grounded theory research (Glaser, 1967). It engaged the activity of 'dwelling' to have long time observations and in-depth interviews with several important parties. This method is appropriate since research must be able to provide a strong basis from a theory (Spradley, 1979). Research is focused on environmental conditions related to space and architectural patterns, influenced by social structures, affecting social change in the process of living in Juwana (Giddens, 1984). It seeks out its relation to the urban spatial developments. The unit of analysis is the actor getting involved in Juwana, who can provide information about structures of Juwana society related to each period. The study focuses on the changes to the spatial patterns and shapes of the settlement environment. The research started with the observation of the existing Silugonggo and the coastline of Java as living sources of the Juwana society & the center of orientation to examine how it continuously developed and progressed up to the present times. Data accumulated had an 'investigation focus' directed on the doers or actors involved in the changes to understand the historicity of Juwana.

For data collection, is done by:

1. Gathering physical data alongside river line of Silugonggo, coastline, urban center utilizing documentation and interviews.
2. Research on Juwana's history archives. Based on these investigations, it is expected to figure out the current spatial expansion in Juwana based on social and cultural changes as well as its historicities.

This study thus accumulates knowledge by Judging from the history of Juwana's development from time to time and discussion on the structure and patterns of Juwana City Spatial Planning.

Findings and the Discussion

From the viewpoint of the old maps of Juwana, one can recognize phases of changes in the layout and changes to its environment. The first map located was a map of the twelfth century (in google) downloaded on 22nd June 2018. According to this map, it appeared that Juwana is separable

from Java Island. Here, Juwana is included in the area of Muria Island. However, in the current situation, Muria Island has been unified with Java Island.

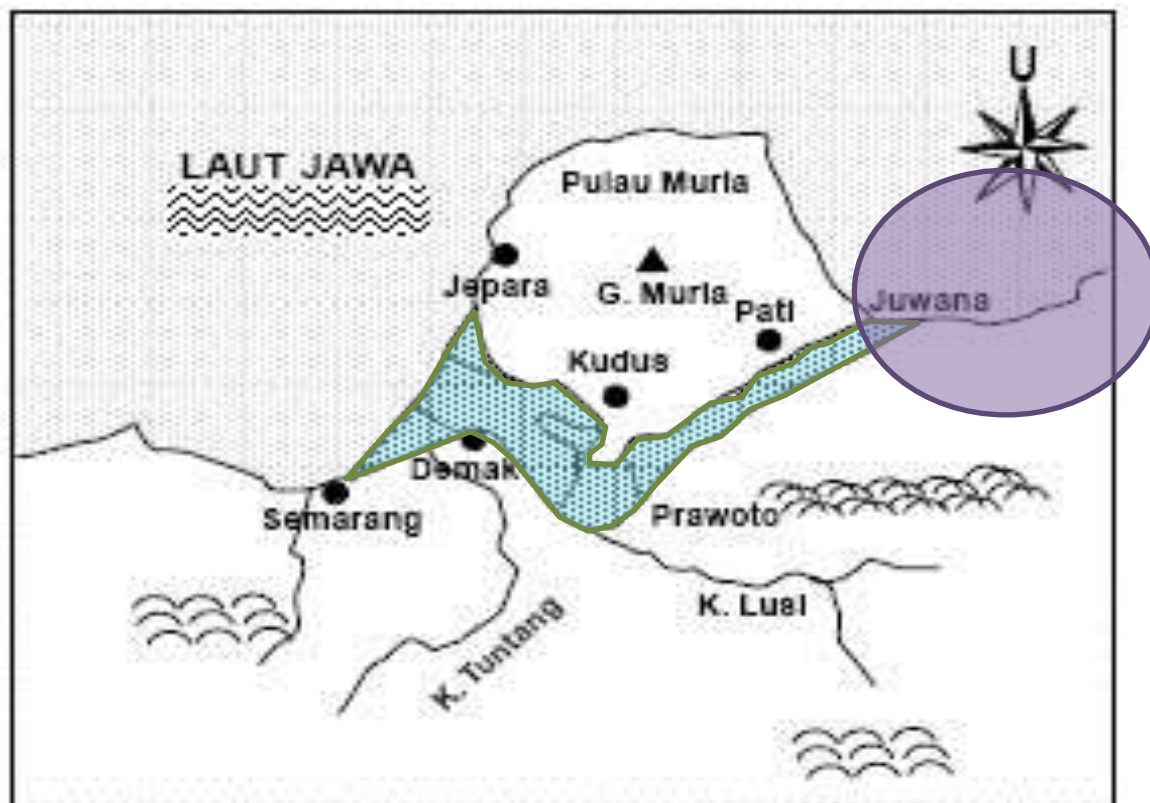


Fig 2: Map of Juwana in the twelfth century, at the time Juwana is still separable from Java
 Source: <https://nasirunpurwokerto.wordpress.com/2012/04/27/catatan-kaki-50-ketika-pulau-muria-masih-terpisah-dari-pulau-jawa/> accessed on 22nd June 2018. Reproduction: Author, 2019

A. Seen from Juwana's development history from time to time, seen as follows;

1. Period of Mataram Kingdom and Demak Sultanate

At the time great families of Palace Kasunanan Surakarta proposed king Sultan Agung as National Hero, then struggling track of Sultan Agung started to review. The first strike of Sultan Agung with his soldiers to Batavia has tracked the Northern coastline of Java, using rice barn as stock for his soldiers. Some historical artifacts are still seen, such as; Tomb of Regent Juwana named Prince Mangkudipuro, the Tomb of Sunan Ngerang, Sepapat island whose tomb is grandpa Datuk Lodang, as a person designated to be elder by sailormen. Names have a common in toponymy with names in the kingdom of Kasunanan Surakarta.

Juwana became Karesidenan, like in common in a royal urban area in Java rural area, usually signaled with "Alun-Alun" or squares as its urban center. Besides "Alun-Alun" or squares today are also available buildings that surround as royal urban in Java rural area namely; Masjid Agung, Pasar (market), Subdistrict as current condition (formerly called as Karesidenan). Besides Juwana also became an urban district only for a short term, later to become a sub-district. This forms a space pattern centered on "Alun-Alun" or squares as its center. There is also a street named same with the name of Prince from Kasunanan Surakarta, such as Dipo Kusumo street.

2. Colonial Period

Interview outcome with Mr. Hendra (owner of a cigarette factory of Tapal Kuda), dated 20 June 2019, reveals that; in the colonial period, Juwana remained to function as an urban hub whose activities grew increasingly since the entry of Chinese merchants to do business; such as opium and crops. In the

sixteenth century, Juwana became a harbor urban hub getting involved significantly in the Jawa island. The existence of the Opium trade and the crops trade shows that Juwana functioned as a very important centre in the Northern line.

In the colonial period, Juwana had seen most visitors from fishermen mostly from Bugis and Makasar. They started to work hand in hand with the fishermen in Juwana to make shipyards. Today, their shipyard has been famous all around the Indonesian archipelago. Besides the Chinese society who formerly arrived as merchants in Juwana shifted to stay. They started to open brass craftsmanship, ketchup, and cigarettes. Moreover, they became merchants for crops in Juwana, and it was a brass craftsmanship hub. During the rule of Governor-General Daendels, they built a post road known as Goter Postweg from Anyer to Panarukan and the road traversed the south of "Alun-Alun" or squares. Once the road had been used for public traffic for interurban areas, gradually Juwana's space pattern changed.

3. Current Period

Recently Juwana is one of the sub-districts held by the district Pati. Juwana is an important sub-district due to the possession of potencies as furniture craftsmanship industry hub, shipyard industry, batik craftsmanship industry, fishery industry with fish auction place, and exploration industries for marine pond and river pond outcomes. Juwana has an ample fleet of fishermen produced through the family system from generation to generation up to present.

B. Structure Discussion and Spatial Pattern of Urban Juwana

The structure and space pattern of urban Juwana can be understood through the urban morphology theory (Sukada, 1997), involving process tracking and development factors through historicity. Thus it can be said that search track is divided into activities and structures of the society namely;

1. Early settlement alongside river line of Silugonggo and coastline as settlement of fishermen
2. As an area of the urban center, with squares or "Alun-Alun" as open space becoming center of the structure and spatial patterns of Juwana. The urban center is also an old town in the villages of Kauman and Doro Payung (Widayati, et al., 2018).



Fig. 3: Map of Subdistrict of Juwana in the early building of Settlement alongside Silugonggo
Source: Google modified by Researcher, 2019

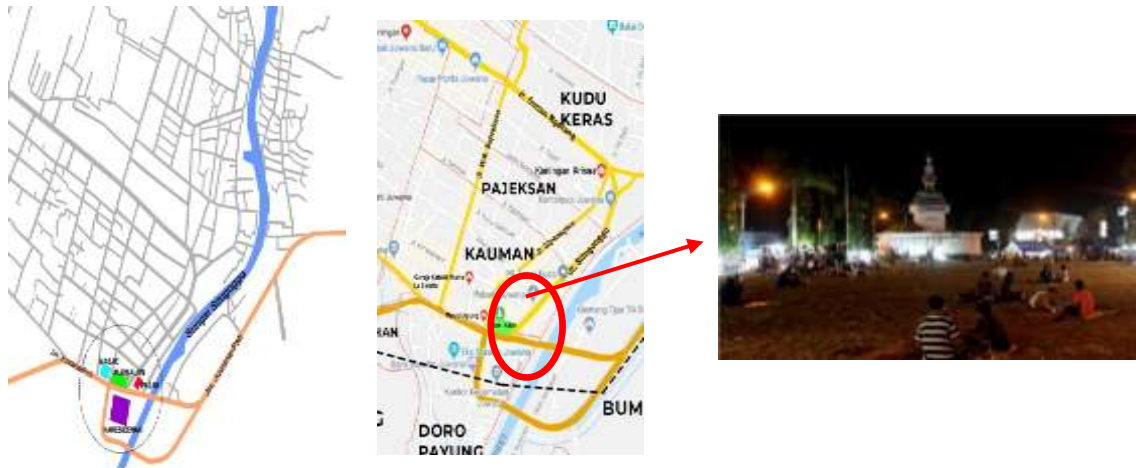


Fig. 4: Map of Layout of Alun-alun or Squares as Urban Center when the Mataram Kingdom made Juwana as Rice Barn.

Source: Basic map taken from Google modified personally, personal picture, 2019

The old town of Juwana has come into being as Alun-Alun or squares as open space and urban center as available in general in towns in the Java island. There, squares are surrounded by artifacts or buildings having historicities and architecture like; Subdistrict office of Juwana known formerly as an office of Regent, local Police Office of Juwana & Mosque Masjid Agung Juwana having a renovation, and Market or Pasar (Widayati, et al., 2018).

3. The area where fishermen do the activities and hold domiciles is in the village Bendar and village Bajomulyo, with Fisherman's Ship harbour, Fish Auction Place (TPI), Cold Storage, and the Fish Exploration Place (smogging and arid system). Besides, the farmer village of Tambak is known as a place to explore fish named *Bandeng presto* (Widayati, et al., 2018).

Spatial pattern of the three locations of Village Bendar as settlement village of Fishermen can be seen when we traverse alongside the river Silugonggo with the Mosque Masjid Agung (green color) as a hub of society's activities.

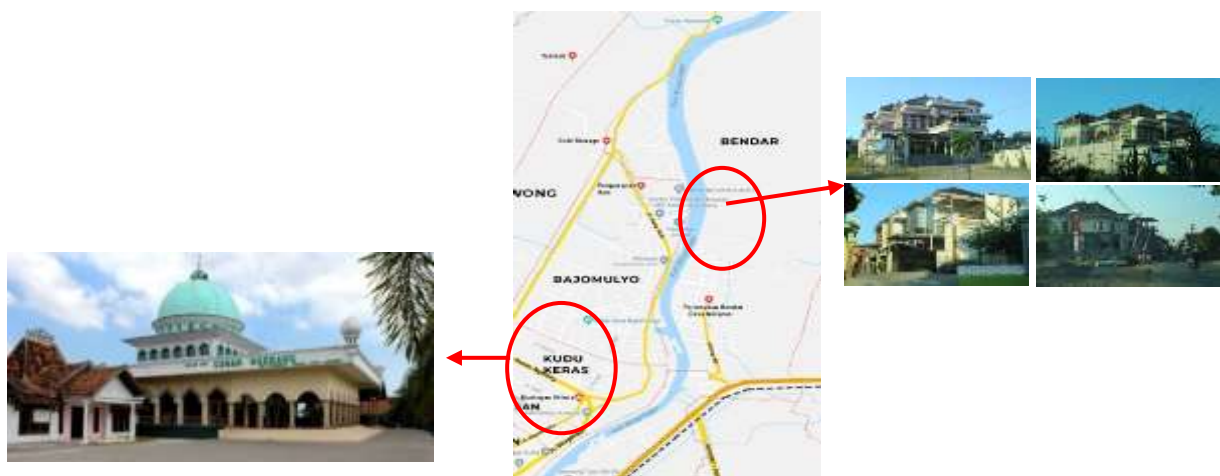


Fig 5: Layout Map of Alun-Alun or Squares as Urban Center at the time the Mataram Kingdom turned Juwana as Rice Barn

Source: Basic Map taken from google and modified, Author, 2019

Industry center area, as society's economy circle. For instance; brass craftsmanship industry from villages Kudu Keras, Pejaksen to Growong Lor. Fishery exploration industry (*Bandeng presto*) mostly existent in the village of Duku Alit. Smoked Batik craftsmanship Industry as all around the village of Bakaran Wetan (Widayati, et al., 2018). A pattern of commercial center forms an axis alongside the Daendels street (Pantura).



Fig 6: Map of Layout of Growong as an area of Brass Craftman and Layout of Bakaran as an area of Batik Craftsman

Source: basic Map, google modified by Author, 2019

4. The area having historicities for the urban and the rural of Juwana societies, such as existant of the tomb of Regent Mr. Juwana 1 in the village of Growong Lor precisely in the street of Magkudipuro, the tomb of Sunan Ngerang in the village of Pekuwon, Pulau Seprapat island in the village of Growong Lor (Widayati, et al., 2018).



Fig. 7: Historical Site as determined into Sacredness in Juwana

Source: Author, 2019

The structure of Juwana society rapidly expanded from traditional fishermen to fishermen with sophisticated devices (named Cantrang). This turns Juwana society to develop swiftly in economics (Giddens, 1984), and Juwana's spatiality also develops. Initially, its spatiality followed Silugonggo with a linear pattern. Thus, it turns to be central at the time the Mataram kingdom started to make Juwana as a hub of rice barn and orientation center of Alun-Alun or squares. When Daendels opened the Post Road, the development started increasingly following its economic value.

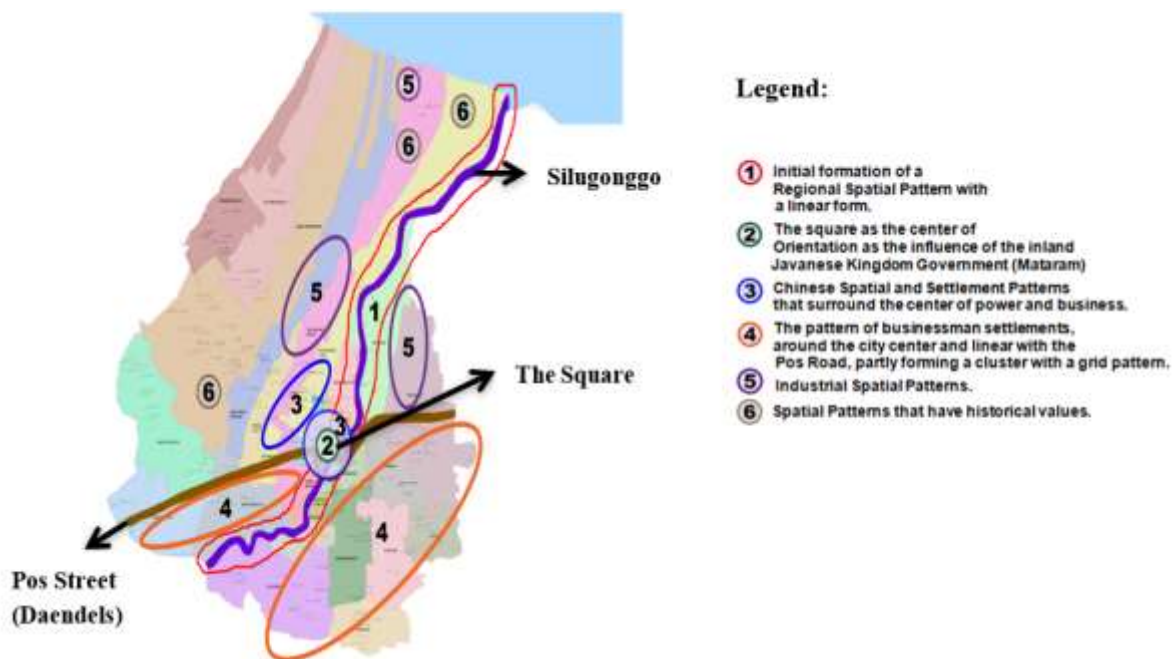


Fig. 8: Mapping result of Juwana's spatial development

Source: Author, 2019

Conclusions

Juwana urban development is very much related to the morphology in terms of the structure and spatially. As revealed by urban experts, artifacts or historical legacy had become the basic developed-structure and spatial pattern of Juwana. Thus, the structure and spatial pattern that arose have been influenced by economic, social, and societal factors which from generation to generation inherited their business activities. Urban structure that arose is interesting, affected by Silugonggo as the heart of Juwana's societal life, forming a linear space structure. Thus, the urban structure of Juwana has changed in orientation from the linear to central with a concentration point of squares or Alun-Alun. In fact, this is similar to a keraton or a palace spatial pattern that exists in the rural areas. The Post Road traversing the South of Alun-Alun or squares makes the business orientation center to be alongside the line. Later, the settlement spatial development follows a grid pattern similar to settlement spatiality that exists in Europe.

All results of the investigation were coherently mingled with field observation data, documentation, and the literature review so that the insight gained is an accurate description. It can be concluded that six spatial patterns have emerged consisting of:

- 1) Fishermen's spatial pattern that exists alongside Silugonggo and harbor as a center of business orientation.
- 2) Spatial pattern with "Alun-Alun" or squares orientation center as the center of power.
- 3) Spatial pattern and Chinese settlement surrounding centers of power and businesses.
- 4) The settlement pattern of merchants alongside urban center in a linear manner with Post Road or Pantura Road followed by a cluster with grid pattern;
- 5) Industrial spatial pattern
- 6) A spatial pattern having a historical value.

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