

THE DEVELOPMENT of JUWANA SETTLEMENT as a NORTHERN JAVA COASTAL CITY in INDONESIA HAS THE POTENTIAL TO SUPPORT GLOBAL MARITIME AXIS

Naniek Widayati Priyomarsono, Rudy Surya, Ninawati, Theresia Budi Jayanti
Master-Architecture, Faculty of Engineering, University of Tarumanagara
Jakarta, Indonesia

Address: S Parman no. 1 Grogol Jakarta Barat, Indonesia

naniekpriyomarsono@gmail.com, +628164821799

Keywords (3-5): *settlement development, coastal city, global maritime axis*

1. THE BACKGROUND

Juwana was a subdistrict town in Java north coastline of Indonesia became a trajectory of post lane (*Daendels*) from Anyer to Panarukan. Juwana was a coastline area and low plain passed by a largest river of Pati district namely Gonggo river. Society on the coastline of Gonggo river as a preliminary society developed Juwana as a town by applying dualistic concept cosmology and expressed in shape of residence, shape of worship building. Besides, concept of religious dualistically cosmology in determination of site of building toward the position of The Creator. Two aspects of dualistic were reflected on spatial form of outside space, spatiality, and shape of its building.

In its development of Dutch colonization, Juwana became Trade Hub a bit hectic and a significant port in Java island. Trade transaction of foreigners buying earth crops, including opium transaction. Therefore Juwana was North lane very significant, as a place for assembling-up ships, and industrial center of brass handicraft, batik, and cigarette.

Society living in Juwana from generation to generation was a fishery society and milkfish producer whose their yields dominated milkfish market in Indonesia. Besides Juwana area has specific traits namely; a settlement of the beginning existed on the bank of river and coastline, formed liniary settlement. As time went by the Chinese merchants visited Juwana and established settlements with radial forms, there was open space in the midst as orientation center. Juwana developed with the established axis of Daendels street penetrating liniary settlement, growing to be a town with a building in the architecture of colonialization of the Dutch, *Indisch*, the Chinese and the Java becoming characters of Juwana town.

This town experienced changes and development with the usage of settlement by fishermen, merchants, and handicraftsmen. Information from numerous sources, in the beginning of the fifteenth century the coastline cities in Java island underwent the rapid progress and its peak was at 16th century, due to trade advance of inter-continent.

Condition today Juwana undergoes decline in the businesses of handicrafts, traditional fishermen, and the building-up of ship. This is due to the lack of facilities and facilities of town supporting the town including facilities and diminution in an environmentally significant quality, as well as its usage of news tools for seeking the fish named *cantrang* effecting less favorably on traditional fishermen.

2. PROBLEMS

Problems are how Juwana as a Java North coastline town which location is strategic and potential with power resources and in the past time was trade hub affords to support World Maritime World as initiated by President of Republic of Indonesia, Joko Widodo.

3. THE USED METHODS

Research done qualitatively interpretative with a natural approach in the study of the phenomena at hand for comprehension and interpretation (Norman Denzin, Yvonne Lincoln, 2002:176). A data search with strategy method of *grounded theory research* with an observation, interview on informants pertinent to research objects. Data compared to notes and writing pertinent to problems. Then analyzed to obtain the accurate findings.

4. DATA IN THE FIELD

Juwana as a subdistrict town with Pati as a district capital city are both located in a lane which was a trait separating Java island with Muria island in the north (it is the present Jepara town), both are trade towns.

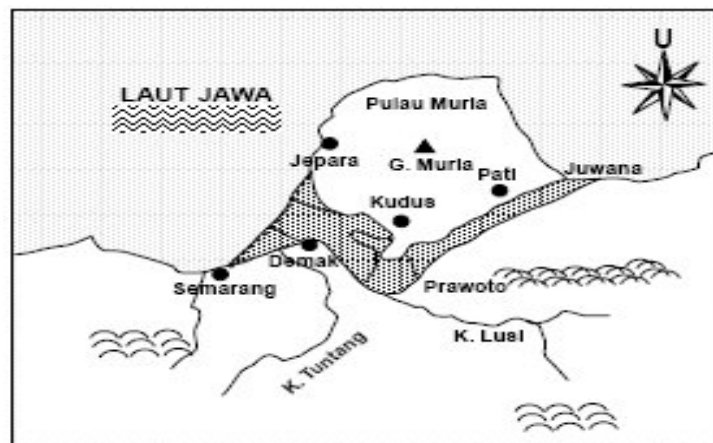


Figure 1. Juwana's position on Muria island
(Source: wongpati.com, accessed on April 2017)



Figure 2. Juwana position in Unification of Mataram
(Source: Kasunanan Surakarta, 2017)



Figure 3. Gonggo river as icon Juwana with the past time's fishermen
(Source: (<https://www.kabarkotapati.com/2014/03/koleksi-foto-kuno-pati.html>))

4.1 The Colonial Epoch

From the map and historical criteria at hand Juwana since in the Mataram epoch was a significant port hub and reckoned due to eographical site and potencies they hold. Juwana of the colonial epoch was a trade hub a bit hectic. Likewise about port hub dominated by the Dutch usually there was building of fortress as a place for supervising the pace of loading in the port and guarding toward the rebel as it was in Juwana. Juwana in addition was famous as the building-up place for ship as well as brass handicraft industrial center. Also it was a district region. In the administrative period of Governor General Daendels there was a built-up road of post or well known as *Gorte Postweg*, as a great road piece made from Anyer to Panarukan. In the Dutch administration, Juwana was a center of Kawedanan city (*District*). Started on January 1902 up to present, its status became Subdistrict, a part of Pati district. City's profile stretched from South-East to North-West, perpendicular to Gonggo river.

Juwana was a Java coastline area used by Mataram kingdom as a port for selling earth crops and the entry of overseas merchants mainly deriving from the China. Its linear settlement pattern followed Gonggo river flow and changes to enter into the rural area to form radial pattern with squares as event center. In the 16th century, Juwana is an important port town in Java island. The foreigners bought the earth crop and sold to other places. Opium was one of witnesses how Juwana became a North coasatline lane that was important. *Henri-Louis Charles Te Mechelen*, head of inspector for Regi Opium & Residency Asistant of Juwana in 1882, reckoned that one of twenty Javanese persons had been inhalers of opium during the epoch.



Figure 4. Building of Dutch epoch was function-tranferred into Administrative Office
(Source: Private Document, 2018)

4.2 The Today's Juwana

Juwana, geographically is domiciled 12 kms from Pati district capital city and 87 kms from the capital city of Central Java, Semarang. Juwana is adjacent to Java sea and also passed with Pantura road (Pantura is Java North Coast). Majority of population in Juwana was Javanese and minority was Chinese ethnic dwelling in the area of city center. Juwana as a fisherman city with inhabitants work hecticness starts from about 04.00 in the morning, road of Juwana city starts to be alive, hundreds of mothers and fathers working in the fish landing quay are seemingly busy with bicycle heading to their work places. In the morning at 07.00 o'clock like in the other small cities, Juwana starts to experience hectic hours where hundreds or even thousands of workers from the outside and the inside of Juwana crowds on the roads and it was added with childrens at busy time there in Juwana except Sunday. In the midday, the atmosphere of Juwana city is also busy. In the afternoon at 16.00, streets are again crowded with workers already leaving from the work places. Whilst in the afternoon & evening, the bustle is concentrated on squares and area of Juwana market.

The latest development of Juwana is most of shop-residences as office and mini market shops like Indomart, Alfamart, as well as great number of state banks or either private banks spreads. Besides, Juwana also has ample cooperatives such as; Cooperative of Muria and Cooperative of Pangestu which are both as great cooperatives headquartered in Juwana. This marks an economical cycle and financial cycle in Juwana a bit well. Juwana together with Pati, Jepara, and Kudus categorized into area of integrated economy potency named then as WANARAKUTI (Juwana, Jepara, Kudus and Pati).

Juwana itself has a big role for Pat district. Juwana is an industrial centers for a brass handicraft, furniture handicraft, ship-building, batik handicraft industry, and as district's fishery center with a fish auction place, and cultural center in Pati district. Ample customs, tradition, cultures in Juwana still sustainable up to present and Juwana deserves as "cultural city" from Pati district, street facilities in Juwana itself lacks of sufficiency such as narrows streets in the city, a bit dirty streets and less available sidewalks.

Juwana has ports in Bajomulyo and Pajeksan-Kudukeras, both ports are located on the area of Gonggo river every day, hundreds of ships parks on the bank of river. Gonggo river is a "grace" and also "disaster" for Juwana city. The grace is that due to this river, Jakarta residents are successful to be fisherman. Juwana is exception from fishermen. Fishermen in Juwana mostly have rich houses, cars, and luxurious stuffs. This is seen from fishermen deriving from area of Bendar and Bajomulyo. "Disaster" of Juwana river is about almost every year Juwana undergoes flood mainly in the area of Bumirejo & Doropayung due to overwater of Juwana river unable to accomodate the water.



Figure 5. Situation of Juwana Fisherman's settlement
(Source: Private Document, 2018)

Settlement Spatiality Pattern of Kampong Nelayan Tambak Bendar Bajomulyo Juwana can be identified to have a character of fisherman's settlement in the aspect of spaceness

(unique) as well as factors taking influence in order to restrict and establish reliance (*determine factors*) on spatial pattern. It is seemingly visible that components of space shapers (*spatial space and urban space*) relates to social culture, economy and fisherman's settlement physics having significance on growth of fisherman's settlement also on Juwana city. Through a spatiality pattern significance as a response on dependence/reliance factors will be produced by a parameter going to determine considerate steps, pattern shapers or spatial perspective thus it can be identified so far about the possibility of spatiality problem troubleshooting able to do in fisherman settlement development and Juwana city overall.

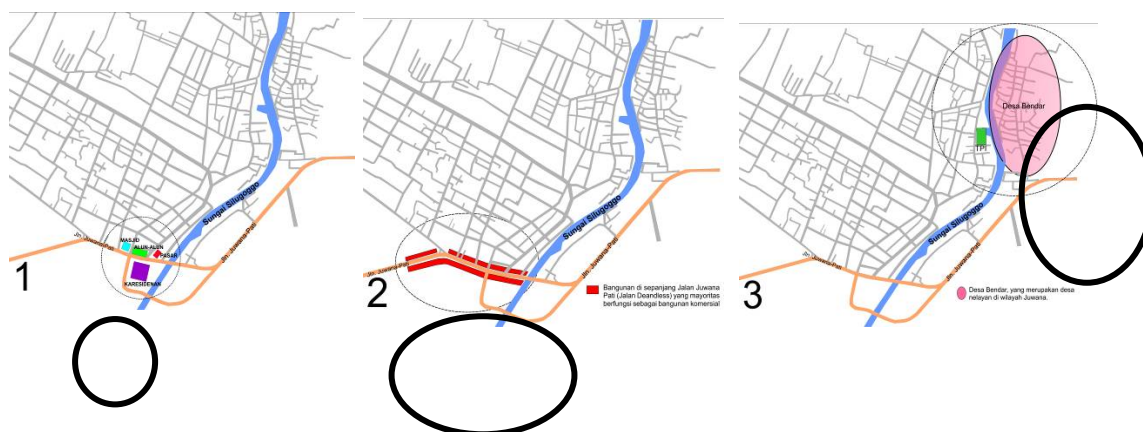


Figure 6. Juwana Room pattern Map with River
(Source: Private Document, 2018)

Pattern of Space 1: Subdistrict Office with City Squares as Juwana city activity

Pattern of Space 2: Commercial center forming the axist on the road of Daendels (PANTURA)

Pattern of Space 3: Location of Bender village as Fisherman settlement village unique along the Gonggo river. A mosque (green color) as society's activity center

Research event done in steps of formulating research design, conducting comparison and existing region identity, determining variables and measurement parameters, probation and analysis. It is concluded that fisherman settlement spatiality pattern of Bender village was formed from nature condition as basic form and develops in the frame of economical activity as determinative factors for setting the space in spatial scale or urban structurized in the basic level (*core*), transition and difusion (separated level). There is access determining mode/mobility from social aspect or economical aspect (*backward-forward linkage*) with *leading sector* of fish capture activity, public space availability has significant meaning in spatiality pattern marked with the importance of quay existence and Fish Auction Place as *core area*. Thus social alteration aspect very relates to society economy increase that cause on city spatiality detail. Therefore it is necessary to have planning integration by placing determinant factor such as ecological humanism which influences on sustainability of fisherman settlement quality increase.



Figure 7. Juwana Beach Area
(Source: Private Document, 2018)

5. DATA STRUCTURE AND ANALYSIS

What's on the mind when thinking about Juwana town ? A fisherman town, a town of folks friendly, successfull and many more....

Juwana is a town on Java north coastline with an area width of about 5.593 ha (55,93 km²). Juwana town is the second largest in the Pati. Geographically, Juwana is adjacent with Java sea, on the north adjacent directly to subdistrict of Batangan, near the South adjacent directly to Jakenan subdistrict and Pati subdistrict, and near the West adjacent to Wedarijaksa subdistrict.

A number of Juwana subdistrict's population was 104.901 inhabitants (District Document; 2017). Majority of Juwana subdistrict has employment as fishermen. Since in Juwana there is fishery port located in a village of Bajomulyo. This fishery port is District's Fishery Port abbreviated or called as PPD, however this port's quality is assumed o equal with *Nusantara* Fishery Port or National Fishery Port. It is a fact from facilities available at around port such as: fish auction place, gasoline filling place, docking work place, ice factory and salt plant. The objective is as a fish ship-support media at sailing time. In this port there are fishery ships from numerous sizes and different types in terms of capture devices *started from purse seine, long line, fish trawling, bagan apung and bagan tetap*.

Juwana fishermen are hard and dilligent in work, due to dilligence of this Juwana fishermen thus almost all inhabitants live prosperously. It can be seen from houses of inhabitants. Juwana can be equalized to big cities at hand in Indonesia.

Village of Bendar, is one of villages in Juwana assumed as most prosperous village. If you visit Bendar village, then you will feel as if being in the elite houses of businessmen and apparatus. You will forget that Bendar is solely a fishery village. How is possible with majority of employment as fisherman, almost all inhabitants of Bendar have luxurious houses with vehicles and motors with assumption that they have more than one. However Bendar is still Bendar and Juwana is still Juwana. Even though it can be said as most prosperous town of fishermen, Juwana inhabitants is still low profile and humble.

This success can be obtained since they use capture device called as *cantrang (purse seine)*. That device can capture marine yields up to the bottom of it. Fish capture are at about Java Sea waters. Fish capture area in about Java Sea and Makasar strait is a most proper for ships with capture devices. Since that area has no coral but mud and is still rich of fishery resources. Therefore the condition can put opportunities for fishermen to gain capture yields in maximum. They with big ship can be the in the midst of sea for about 2-3 months. This makes discrepancy toward traditional fish capture which its fish yield is just so.

A governmental policy, in this case it is a Minister of Marine and Fishery as the authority in terms of prohibition of trawling or *cantrang* device receives protests and blasphemy. A policy issued by Minister Susi Pudjiastuti makes ample fishermen into bankruptcy.

A head of association of Lamongan's fish trawl or Pukat Tari Lamongan, affirmed that ample fishermen are jobless since a ban to use capture device of trawl, *payang* and *cantrang* up to the effective date in December 2017. Minister of Marine and Fishermen announced that extension of cantrang usage in six districts like Rembang, Pati, Juwana, and Lamongan with the condition.

Faculty of Law, University of Indonesia (FHUI) held *Focus Group Discussion (FGD)* "Decreasing the Vulnerability of Indonesia's Fishing Communities: Countering the Threats of Illegal & Unsustainable Fishing" on Friday (3/11/2017) presented a field report of Newton

Fund in Bitung and Dobo by three researchers named Prof. Melda Kamil Ariadno, Ph.D., Prof. Adrianus Meliala, Ph.D and Muhammad Bilahmar before the audience, with outcome; these fishermen conducts traditional capture and aware the importance of keeping-up nature resources in the waters. Society do the warning, and threatening if finding big ship using trawl, by reason of destroying the marine habitat.



Figure 8. A meeting of President and accompanied by Minister of Fishery and Marine Susi Pudjiastuti with Association of Indonesian Fishermen 08 May 2018
(Source: Association of Indonesian Fishermen, 2018)

With pro and contra about capture device named *cantrang* it its kind in the field, finally the president Mrs, Joko Widodo (Jokowi) said, Government keeps attempting to suggest fishermen in their green-minded effort of the fishing capture. According to him, effort of Minister of Marine and Fishery, Susi Pudjiastuti forbidding the usage of fishing capture named *cantrang* is a nature in terms of marine ecosystem is not wrecked thus capture yields of fishermen can be ample.

Jokowi also asks fishermen's understanding that the ban of *cantrang* has no mean at all to block fishermen doing fishing. Transition of leaving from *cantrang* usage to devices recommended by KKP shall be done by Indonesian fishermen for the prevention of marine ecosystem destruction.

Besides, another potency held by Juwana is ship production or ship building-up with Marbau wood already famous all around the Indonesian waters. Experts making this ship is Juwana native inhabitants and Bajo ethnic from South Sulawesi. Both are fishing societ. This industry is local genus rarely found in the other places since the needs of experts in capability and special skills.

In order this industry can develop thus Minister of Liaison places order of 100 transport ships in capacity of 35 gross tonnage later to use as logistic transport ships in East Indonesia.



Figure 9. Process of Ship Building-up in Juwana as One of Indonesia's Maritime Axis Establishment
(Source: Private Document, 2018)



*Figure 10. Prototype of Juwana Traditional House
(Source: Private Document, 2018)*

6. SUMMARY

Juwana having marine resources and coastline as well as human resources grants important support for Juwana economy in specific and Indonesia in general, as well as holding the interest in the national and in the global since holding a rich nature biodiversity. For the power resource is harmony it takes as follows;

1. Integrated approach for planning and management of coastline zone,
2. It is necessary for availability in information and accurate data for the sake of proper management,
3. Transparency is needed in power resource allocation,
4. Cooperation is needed between PEMDA (District Administration) and local societies in resources management.

Juwana can be a prototype for Java North coastline own able to support the establishment of world maritime axis in order to form economy network, culture, and life of all Indonesian societies integrated with numerous resource potencies.

Resources they have are: ship building-up, fisherman port, milkfish/*tambak* fishery industry, food industry, and town spatial structure already formed with Gonggo river as a bit large port mainstream for fish with ship-building-up potential to support Indonesia as world marineity axis.

7. THE FUTURE HOPE

Becoming Indonesia as World Marineity Axis is a vision to future relied on reality that in the region of Unity State of Republic of Indonesia, there are potencies of marine resources super indefinite in numbers. This was initiated by Joko Widodo President of Republic of Indonesia in his presidential early period. Thus coastline area becomes development attention necessary to focus on architectural researches in order to strengthen marine axis in Indonesia, particularly in Java island. Thus it takes as follows;

1. It is necessary for a sustainable development and marine and coastline resources management as well as human resources with target of "function management of ecology and social economy", and protection toward the production.
2. Capacity increase of local production commensurate with international standard sustainable development management toward coastline resources, marine and human being with work synergy between BAPPEDA (District Planning Institution), and Ministry of Marine and Fishery or KKP

3. It takes as follows: 1. *Art District*, 2. *Financial District*, 3. *MICE Activity*, 4. *Creative Industry District*, 5. *Food, SME & Traditional Comercial Center*, 6. *Education*, 7. *Fishery Center*. With existing completion, it is expected that Juwana can be main destination of PANTURA (*Pantai Utara Jawa* or Java North Beach). It shall be single destination and single management. Therefore it needs new Branding, one of most proper one can be seen from preliminary establishment of the town namely "World Marineity Axis"



Figure 11. Example of Juwana Brand Image
(Source: Private Document, 2018)

4. Presidential Regulation is necessary in the usage of fish capture net based on green environment. Thus no "pro and contra" activities in the fields.
5. From the four points above, it is hope that there will be Juwana prosperousness as world marineity axis held by Indonesia and have a positive impact on marineity Indonesia in the eyes of the International.

REFERENCES

- Asian Development Bank. 2012. *Indonesia: Marine and Coastal Resources Management Project*. Ref Number: PVR-179, Project Number: 31153, Loan Number: 1770. Validation Report: ADB
- Creswell, John W, 1968. *Qualitative Inquiry and Research Design, Choosing Among Five Traditions*. California: Sage Publication.
- Denzin, Norman K. Lincoln, Yvonna S. 1997. *"Handbook of Qualitative Research"*. Yogyakarta: Pustaka Pelajar.
- Djunaedi, Caroline. 2002. *"Transformasi dari Vernakuler ke Global Melalui Pendekatan Morfologi Kota"*. Tesis. Bandung: Institut Teknologi Bandung.
- Freedom to Build Dweller Control of the Housing Process*. New York: Macmillan Company. <http://www.ftsp1.uui.ac.id,04,Maret> 2014.
- Glaser, Barney G. L Strauss, Anselm. 2010. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. USA: Aldine Transaction.
- Giddens, Anthony. 1984. *The Constitution of Society: Outline of the Theory of Structuration*. USA: University of California Press.
- Gilbert, Alan. 1981. *Cities, Poverty and Development*. New York: Oxford University Press.
- Groat, Linda and Wang, David, 2002. *Architectural Research Methods*. USA: John Wiley & Sons, Inc
- Groeneveldt, W.P. 2009. *"Nusantara in Chinese Records"*. Jakarta: Komunitas Bambu.
- Hutter. M, I. Rizzo, 1997. *Economic perspective on cultural heritage*, Macmillan Press, Ltd.
- Panggadjito, 1999. *Spatial Planning Pattern of Tambak Lorok Fishermen Semarang and Bendar Bajomulyo Juwana*, Tesis. Semarang: Universitas Diponegoro
- Ritzer. George. Smart. Barry. 2001. *Handbook. Social Theory*. London: SAGE Publications.
- Strauss, Anselm. Corbin, Juliet. 1990. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. USA: Sage Publications.
- Setioko, Bambang. 2011. *Conceptual Spatial Mode of Coastal Settlement in Urbanizing Area*. Semarang: Jurusan Arsitektur Fakultas Teknik UNDIP.
- Wibawanto, Dyan W. 2005. *Fisherman's Boat Pier and Regional Fish Auction place of Bantul Regency*. Skripsi. Surakarta: Universitas Sebelas Maret.