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## Urban Settlement Typology of Solo (1500s-2000s)

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### ABSTRACT

*The objective of the research is to reveal a city as urban settlement diversity. This study explored the type and the form of urban settlements which were growth in the last 500 years in Solo. The object of study was approached by a rationalistic research. The method of research was carried out by a three-archive: (1) primary files; (2) secondary files; and (3) physical files. This study found some urban settlements that had a strong character as follows: Javanese; Chinese; Arab; and the Dutch. The finding of this research is the urban settlement typology which has developed in a three-step as follows: early period (1500s-1750s); middle period (1750s-1950s); and the latest period (1950s-2000s). In the early period, the primary urban settlement of Solo was begun in Pesanggrahan Ki Solo, the first Javanese settlement along river Bengawan Solo, near port of Nusupan, in 1550s; the next urban settlements were constructed not only by Javanese but also by the people from many countries (Arab, Chinese, and the Dutch); and the latest urban settlements were constructed by many people from the urban-rural citizen of Surakarta. The other findings of this research are the urban settlement typology in the early period has developed in a three-pattern as: linear; cluster; and central, while the latest urban settlement found another pattern as: organic, grid-iron and cut-de-sac. Besides, according to its facade typology, the urban settlement in its district has a specific sign as: a high-fence in noble Javanese settlement; a side-entrance in Arab settlement; a curve-roof in Chinese settlement; and a tall-house in Dutch settlement.*

**Keywords:** *typology; urban; settlement; solo*

### 1. Introduction

Solo (also known as Surakarta) is a town on the island of Java, Indonesia. Geographically, this town is located at 110° 45' 15" – 110° 45' 35" East and 0° 70' 36" – 0° 70' 56" South. Laid between the mountain Lawu and Merapi, Solo is a lowland area (92 meters above sea level). The temperature is between 21.9 and 32.5 degree Celsius. There are three main rivers in Solo: Bengawan Solo, Pepe and Jenex (see Fig. 1). According to the administrative area, Solo occupied in the province of Central Java. It is surrounded by the province of East Java, West Java and Yogyakarta. There are 44 km square area and 552,542 citizens in 2005.

Solo is originally an ancient city which grows into one of modern cities in Indonesia (presenting malls, apartments, high rise buildings, etc.) while maintaining its cultural heritage. The Kingdom of Mataram Surakarta was established in Solo in 1745. The Kingdom of Surakarta had been the last monarchy of Mataram (the biggest and the longest Javanese kingdom) before it was separated, as we saw nowadays, into a-four-palace as: Kasunanan Surakarta, 1745 (Palace of Paku Buwono or PB); Kasultanan Yogyakarta, 1755 (Palace of Hamengku Buwono or HB); Mangkunegaran Surakarta, 1757 (Palace of Mangku Negoro or MN); and Pakualaman Yogyakarta, 1812 (Palace of Paku Alam or PA) (Lombard, 2005).



Figure 1 Map of the Various Urban Settlements of Solo in 2000s  
(Source: Modified from [earth.google.com](http://earth.google.com), 2008)

Surakarta, one of the oldest cities in Indonesia, has an extraordinary of urban culture and ancient architecture. The urban settlements have developed since 1500s. There were not only from Javanese and the Dutch but also from Chinese and Arab population (see Fig. 1). The city of Solo, which has been developed by many people from many countries, is being a cross-culture-city. Besides, having surrounded by a four-palace (*Pajang, Kartasura, Mangku Negoro* and *Paku Buwono*), the city of Solo is a unique-Javanese-culture. Solo, known as the spirit of Java, had become the one of the most popular heritage tourism cities in Indonesia. The existence of Javanese kingdom (*Mataram*) is still appearing in Solo until now (*PB XIII*). According to the previous research, the beginning of Solo is found at Port of Nusupan, near to the river of Bengawan Solo in 1500s. Firstly, Solo was actually a water-front-city. Having developed in 250 years, the urban activities were being moved to the land by the Kingdom of *Mataram* and the Dutch. Lastly, Solo has been developed in the both sites.

## 2. The Research Question

How has the typology of urban settlement been developed in Solo from 1500s to 2000s?

## 3. The Objectives of Study

The objectives of this study are to reveal the development of form (morphology) and to identify the type (typology) of urban settlement which has been developed in Solo.

## 4. Review of Related Literature

### Morphology

The word morphology stems from the Greek word *morphos*, meaning form. Morphology is the branch of biology which deals with the form and structure of animals and plants. Morphology in architecture, analogy with biology, is the study of form and structure of the space and built environment (Rose, 1979). Morphology is concerned with the plan and builds of habitat, viewed and interpreted in terms of its origin, growth and function. Morphology of the town is a



reflection of its function and the ideas of planning and building at each phase of its development. The study of morphology in architecture deals with the process of rise, stand and open of building in the environment (Steadman, 1983).

### Typology

Typology in architecture can simply be defined as a concept which describes a group of objects characterized by the same formal structure (Monaco, 1978). The study of typology in architecture deals with the type of space and built environment. To raise the question of typology in architecture is to raise a question of the nature of the architectural work itself. To answer it means, for each generation, a redefinition of the essence of architecture and an explanation of all its attendant problems. A work of architecture has to be considered in its own right, as an entity in itself. That is, like other forms of art, it can be characterized by a condition of uniqueness. From this point of view, the work of architecture is irreducible within any classification (Rossi, 1982).

### Urban Settlement

City is the most complicated that have ever been created by human (Cohen, 1999). City can be defined as the place that contains buildings, land and people. The process of city can be found either by organic or artificial. The structure of the city can most simply be identified as 'skeleton' (street, railways, duct, etc.), 'meat' (buildings) and 'blood' (the activity of citizen) (Golany, 1995). Urban settlement is the part of city that contains buildings and land which are used by the citizen for living. Urban settlement is, in Indonesia especially, the housing district which is having some special characters as follow: the inhabitants have a-rural-behaviour; the buildings have a-high-density; the land has a-bad-condition. Urban settlement is always developed from a-rural-settlement which appears in the past time (Daldjoeni, 1997).

### Conceptual Theory

The beginning of the old city is always developed by the urban settlement. The city is

always characterized by a non-agricultural activity of its inhabitants. In *Solo*, it has been developed by many people from many countries in many periods. They have lived and died from one generation to another generation in many interests. Having for the long time, the type and the form of its urban settlement has been established and developed in many differences. The process of rise, stand and open of the urban settlement is the term of morphology, while the character and the type of urban settlement is the term of typology.

### 5. Methodology

The research was conducted by a rationalistic inquiry. The main frame of rationalistic inquiry were referring to the several theories from documents (literatures, concepts, thinkers, etc.) and exploring to the purposive sample from empirics (field surveys, archives, interviews, etc.). Both of them are being done by a reflective activity. The objects of the research are the urban settlements which are growth in the last 500 years and approached by a benchmarking map. As a historical study, the method of research was carried out by a-three-archive: primary files, secondary files and physical files.

The primary files were collected from Javanese documentaries: (1) *parintah*; (2) *undhang-undhang*; (3) *pranatan*; (4) *piyagem*; (5) *kakan-cingan*; and (5) *babad*. They were mostly found in the library of Kasunanan, Mangkunegaran and Radya Pustaka Solo. The secondary files were collected from historian and researcher documents: (1) Ricklefs; (2) Houben; (3) Lombard; (4) Nas; (5) Vorstensteden; (6) Pakubuwano XII; (7) Muljana; (8) Notosusanto; (9) Kartodirdjo; (10) Sajid; (11) Ngadijo; (12) Ronald; (13) Ikapetra; (14) Adishakti; (15) Mutiari; (16) Priyatmono; (17) Azzahra; (18) Setyaningsih; and (19) Margana. They were mostly found in the library of university (UMS Surakarta, UGM Yogyakarta and UNS Surakarta). Furthermore, the physical files (artefacts) were collected by field surveys (see Fig. 2).

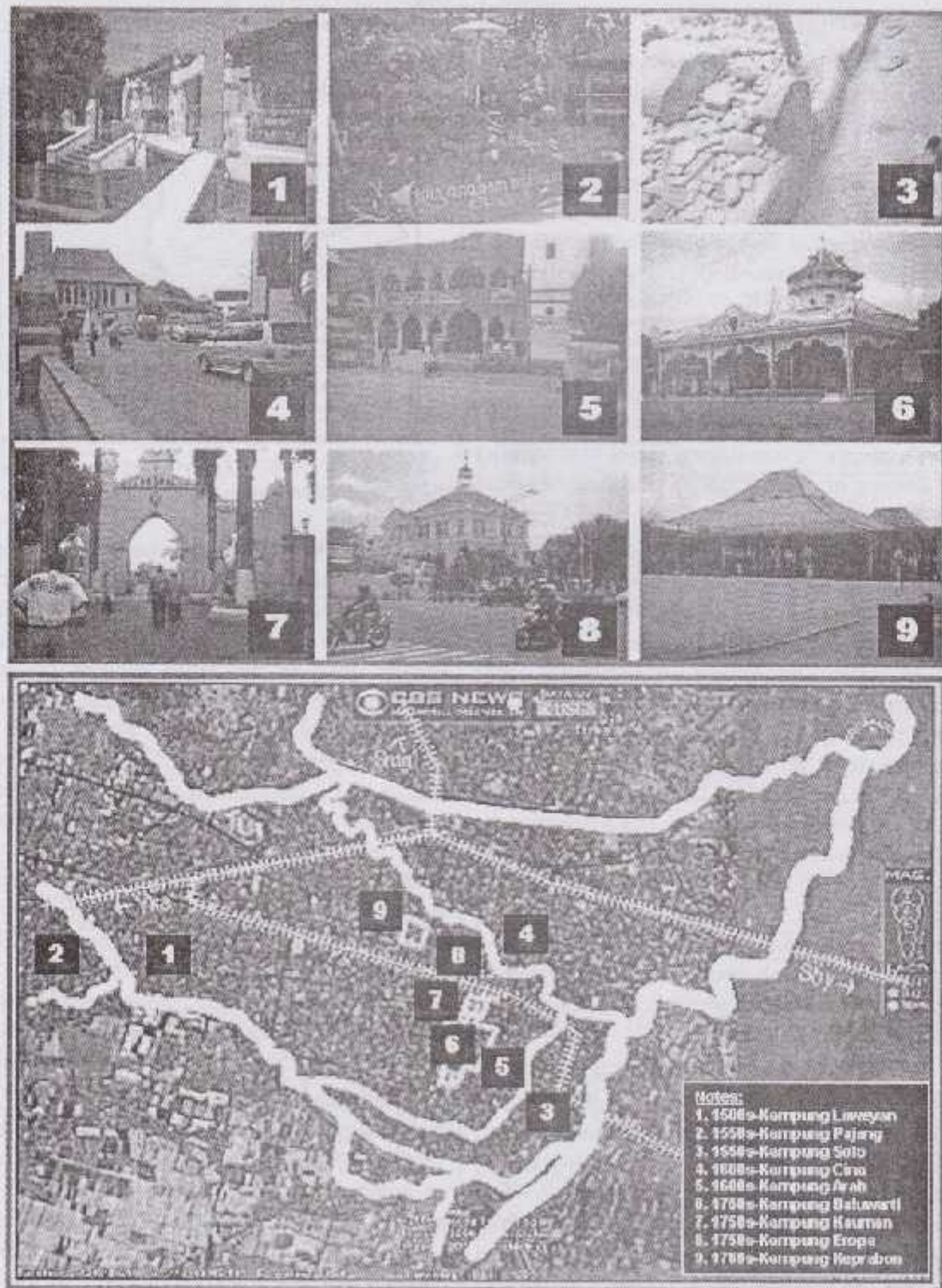


Figure 2 Photos and Map of the Various Artefacts of Solo in 2000s  
 (Source: Modified from [earth.google.com](http://earth.google.com) and Field Survey, 2008)



## 6. Discussion

### Urban Settlement Morphology

Solo stems from the Javanese word *Ki Soroh*, meaning chief of laborers (Sajid, 1984). He lived and worked with his workers for *Pajang* in near river *Bengawan Solo*, on the north of port *Nusupan*. Based on this data, the process of stand, rise and open of urban settlement in Solo was equal to the period of *Kadipaten Pajang*, the part land of *Demak*. According to *pranatan* (king's regulation) no. 4 (PB-II, 1726), *kadipaten* was the land which was occupied by the vice of king, known as *adipati*. While according to *pranatan* no. 84.1 (HB-V, 1759) *adipati* was the leader of: *wadana* (chief of regencies); *bupati* (chief of regent); *rangga* or *tumenggung* (chief of villages); and *demang* or *bekel* (chief of village) (Margana, 2004).

According to the secondary files, the early settlement in Solo was established in *Kampung Laweyan* (1500s), *Pajang* (1550s) and *Solo* (1550s). Afterwards, the Chinese and Arab lived in Solo in 1600s. The Chinese lived on along river *Kali Pepe*, near port *Pepe*, while the Arab lived an along river *Kali Jenes*, near port *Jenes*. Solo became a city when the *Mataram* kingdom moved to *Kampung Solo* in 1745. To protect and to serve the King, *Kampung Baluwarti* and *Kauman* was built in surrounding to the palace. Afterwards, the Dutch began to build some houses in 1750s, around the fort of *Vastenburg*. After the *Treaty of Salatiga* (1757) had happened, Solo had a-two-kingdom, *Kasunanan* and *Mangkunegaran*, and afterwards, *Kampung Keprabon* was arisen (see Fig. 2) (Ricklofs, 2005).

After Independence Day (1950s), *Solo* or *Surakarta* was divided into five districts as: *Banjarsari*; *Laweyan*; *Serengan*; *Pasar Kliwon*; and *Jebres*. The first district was *Mangkunegaran* ex-territory; while the four latest districts were *Kasunanan* ex-territories (see Fig. 3). According to primary files, *Banjarsari* has 16 sub-districts, *Laweyan* has 11 sub-districts, *Serengan* has 7 sub-districts, *Pasar Kliwon* has 9 sub-districts and *Jebres* has 11 sub-districts. From 1750 to 1950, the city of Solo was developed by the King of

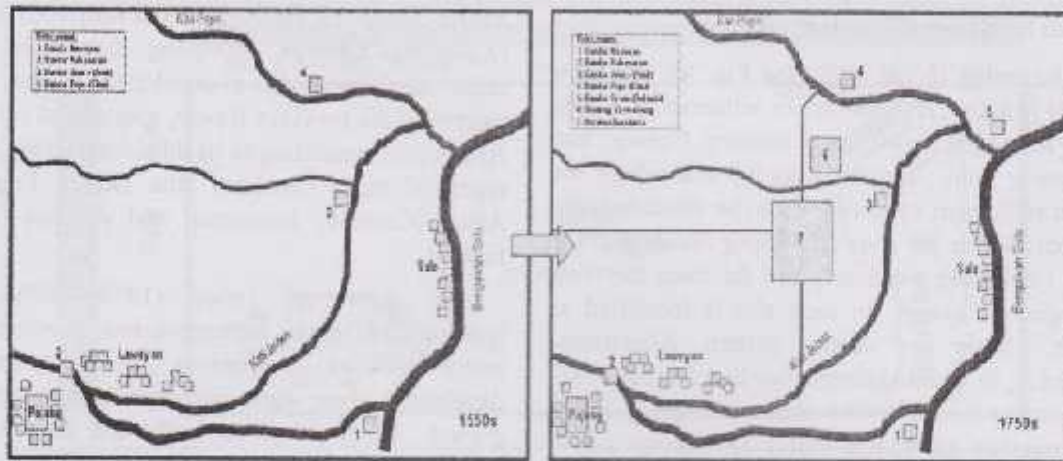
*Paku Buwono* (PB), the Vice-King of *Mangku Negoro* (MN) and the Dutch. Afterwards, from 1950 until now, the city of Solo was developed by the mayor.



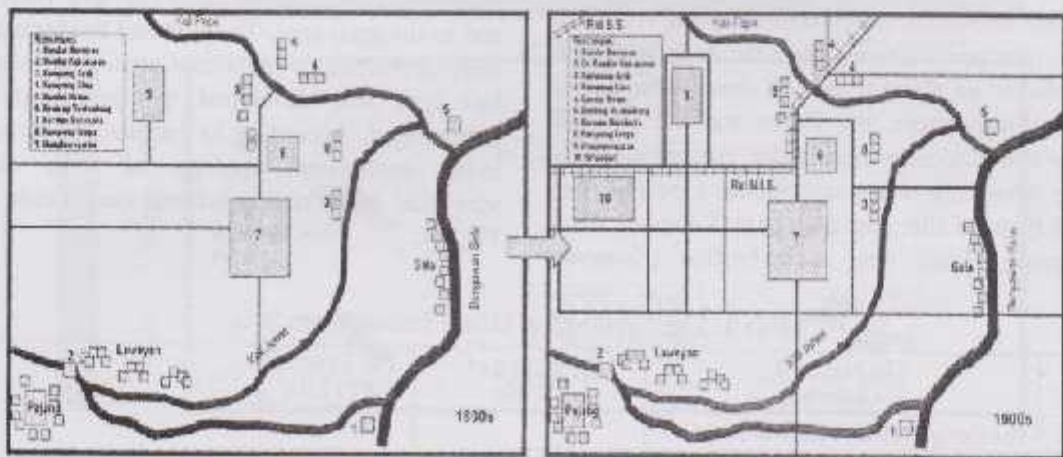
Figure 3 The Five Districts of City of Solo  
(Source: Modified from [www.surakarta.go.id](http://www.surakarta.go.id), 2005)

The urban settlements have developed in many areas since 1950s. Following the industrial era, the urban settlements have developed in three types as: horizontally; vertically; and interstitially. Having installed the urban utilities (railways, streets, bridges, electricity, water, etc.), the urban settlement developed not only by individual but also by the mass models (developers). The individual model developed on around the old urban settlement, while the mass models developed in some urban-rural areas. The mixed model was developed in between of them. The examples of individual models are: *Kemlayan*; *Gajahan*; *Jayengan*; *Serengan*; *Danukusuman*; *Gandekan*; *Joyosuran*; and the examples of mass models are: *Solo Baru*; *Fajar Indah*; *Mojosongo Housing*; *Palur Housing*; while the examples of mixed models are: *Sumber*; *Ajar*; *Dawung*; and *Tipes*.

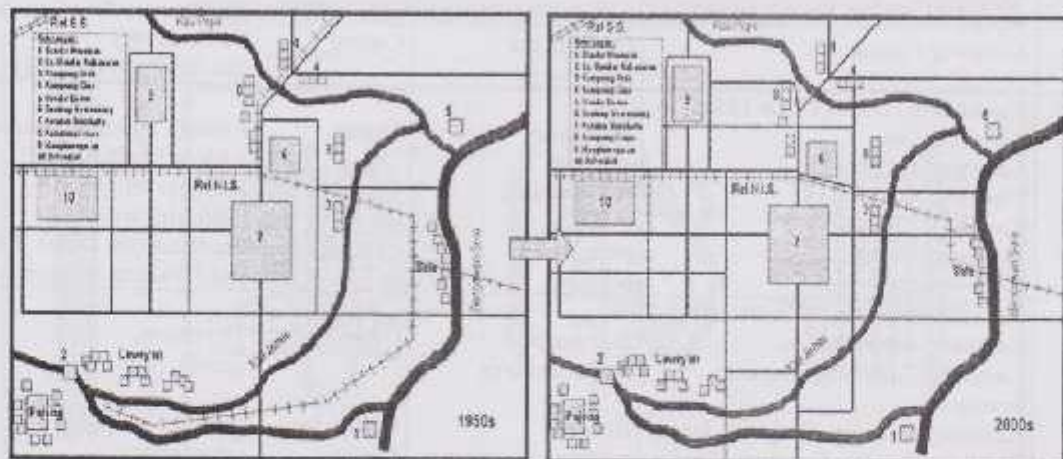
According to the analyses above, the morphology of urban settlement in Solo (from 1500s to 2000s) can be identified as a-three-period as follows: the early period (1500s-1750s); the middle period (1750s-1950s); and the latest period (1950s-2000s). In each period is identified as the embryo, the growth and the maturity of the city. The morphology of urban settlement in Solo from 1500s to 2000s can be drawn as follows (see Fig. 4);



(1) The Embryo of Solo (1500s-1750s)



(2) The Growth of Solo (1750s-1950s)



(3) The Maturity of Solo (1950s-2000s)

Figure 4 The Three Periods of Urban Morphology of Solo:

(1) 1500s-1750; (2) 1750s-1950s; (3) 1950s-2000s

(Source: The author, 2008)



### Urban Settlement Typology of Solo

Referring to the map (see Fig. 4), the early period (1500s-1750s) of urban settlements in Solo was: *Kampung Laweyan*, *Kampung Pajang*; and *Kampung Solo*. According to the site where the urban settlement appeared, it can be identified into 3 types: beside the river (*Kampung Solo*), near the river (*Kampung Laweyan*) and far from the river (*Kampung Pajang*). In each site is identified as linear, cluster and central pattern. Afterwards, according to its inhabitants, they had 3 types of social status: labour or low status (*Kampung Solo*); businessman or middle status (*Kampung Laweyan*); and noble or high status (*Kampung Pajang*).

In the middle period (1750s-1950s), the Chinese settlement established on along river *Kali Pepe*, near port of *Pepe*, while the Arab settlement established on along river *Kali Jenes*, near port of *Jenes*. Furthermore, the Dutch and the Javanese noble surrounded to their leader. According to the place where the urban settlements appeared, they had 3 types of site: near their port (*Kampung Arab*, *Kampung Cina*), near their bastion (*Kampung*

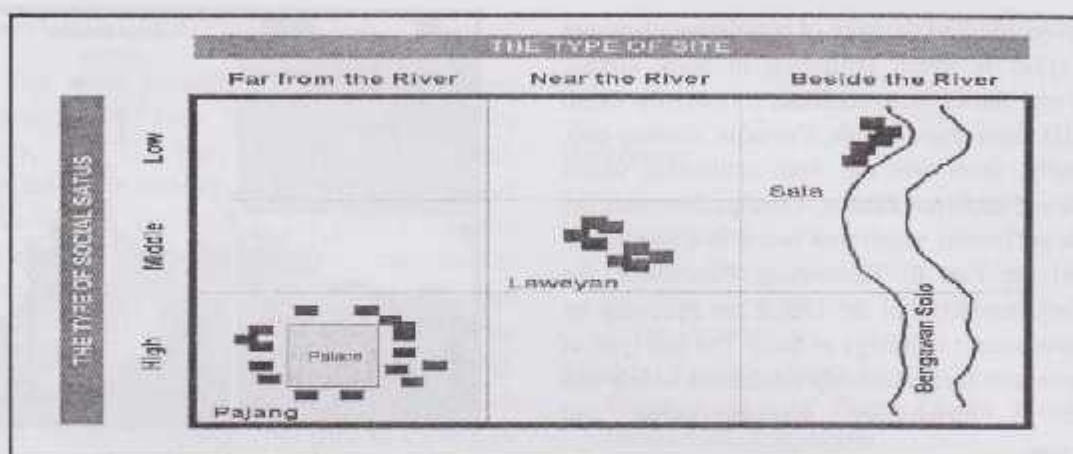
*Eropa*, *Kampung Batuwarti*) and near their leader (*Kampung Kauman*, *Kampung Keprabon*). The urban settlements have developed in the same pattern as the previous (linear, cluster and central). Afterwards, according to its inhabitants, they had 3 types of race: European (the Dutch, English); Asian (Chinese, Javanese); and African (Arab, Indian).

In the latest period (1950s-2000s), the typology of urban settlement has developed in many patterns. According the direction of developing, there was a-tree-type urban settlement growth: horizontally, vertically and interstitially. Furthermore, according to the site of developing area, there was a-tree-type location: in the old urban-settlement; between urban and rural area; and in the rural area. The first and the second type were developed by individual inhabitant, while the last type was developed by the company or government. According to the analysis above, the urban settlement typology of Solo can be identified as following scheme (see Table 1 and Fig. 5):

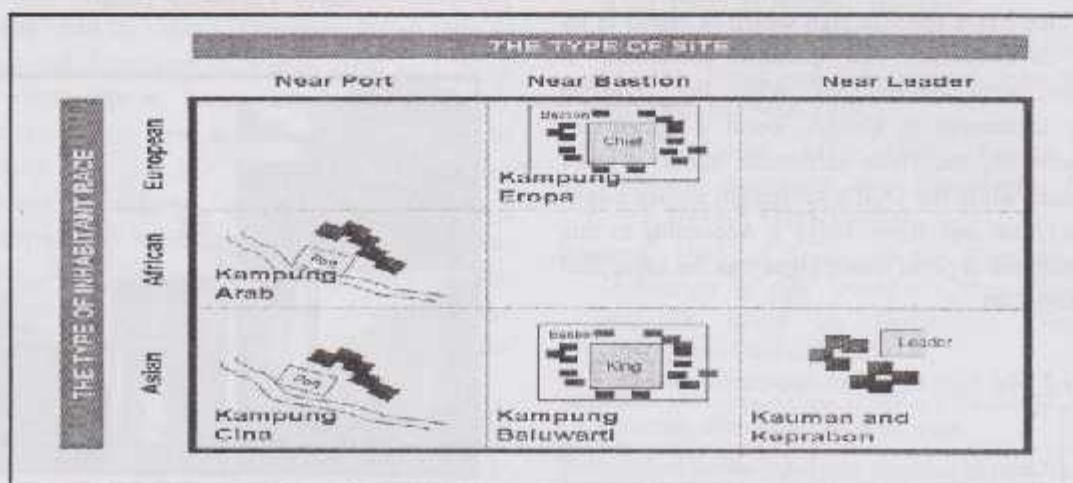
Table 1. The Typology of Urban Settlement in Solo

No.	The Name of KAMPUNG	The Type of SITE	The Type of PATTERN	The Type of USER
1.	The Early Period (1500s-1750s) <i>Kampung Solo</i>  <i>Kampung Laweyan</i>  <i>Kampung Pajang</i>	Beside the river Near the river Far from the river	Linear Cluster Central	Civil society (the labour of port <i>Nusupan</i> ) Middle society (the industrialist of cloth/ <i>lawe</i> ) Noble society (the family of the king)
2.	The Middle Period (1750s-1950s) <i>Kampung Cina</i> , <i>Kampung Arab</i> <i>Kampung Kauman</i> , <i>Kampung Keprabon</i> <i>Kampung Eropa</i> , <i>Kampung Batuwarti</i>	Near their port Near their leader Near their bastion	Linear Cluster Central	Asian (Chinese, Javanese) and African (Arab, Indian) Javanese religious, noble and army European (the Dutch, English) and Javanese noble or army
3.	The Latest Period (1950s-2000s) <i>Kampung Kemplayan</i> , <i>Kampung Gajahan</i> , <i>Kampung Jayengan</i> <i>Kampung Dawung</i> , <i>Kampung Jajar</i> , <i>Kampung Sumber</i> , <i>Kampung Tipes</i> <i>Solo Baru Housing</i> , <i>Pajar Indah</i> <i>Hauring</i> , <i>Mojosongo Housing</i> , <i>Palur Housing</i>	In the urban-settlement area  Between urban and rural area Out the urban-settlement area	Organic  Cul-de-Sac/ Linear Grid-Iron	The native people  The native and urban people The native, urban and rural people

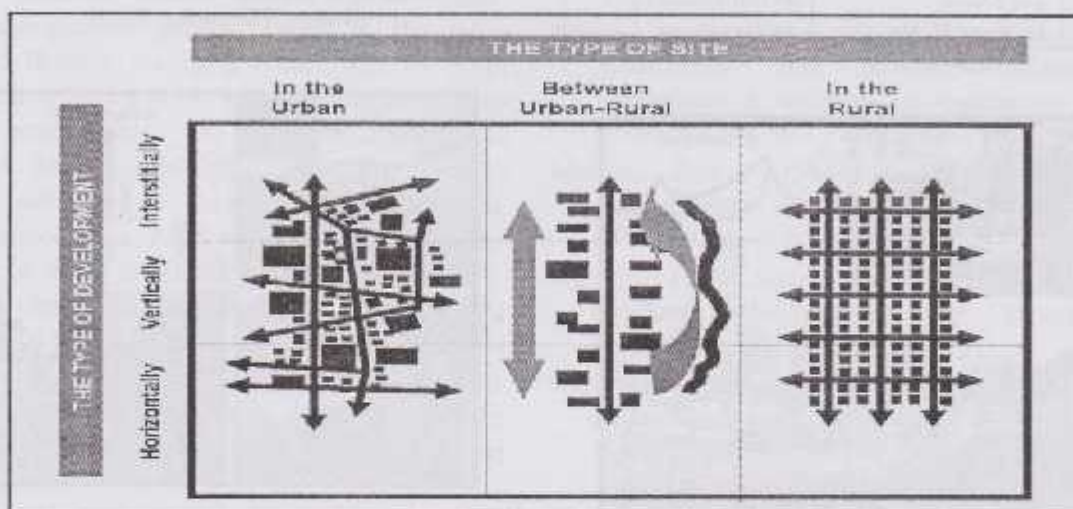
(Source: The author, 2008)



(1) The Typology of Urban Settlements of Solo in the Early Period (1500s-1750s)



(2) The Typology of Urban Settlements of Solo in the Middle Period (1750s-1950s)



(3) The Typology of Urban Settlements of Solo in the Latest Period (1950s-2000s)

Figure 5 The Typology of Urban Settlements of Solo (1500s-2000s)  
(Source: The author, 2008)



According to the race of population, there are four types of urban settlement in Solo. Firstly, there was the Chinese settlement. It mostly found in CBD areas (*Pasar Gede, Coyudan, Gading* etc). Secondly, there was the Arab settlement which was found in *Pasar Kliwon*. Thirdly, there was the Dutch settlement which was found in some places around the Fort of *Vastenburg*. Nowadays, the built environments of the Dutch are occupied by the government buildings of Solo. The last type of settlement is Javanese nobly settlement which was found in *Kasunanan, Mangkunegaran* and *Laweyan*.

According to its artefact (see Fig. 6-9), in each race has a specific sign which is found in its built environment. The Chinese settlement is always found a-curve-roof, while the Javanese nobly settlement is always found a-high-fence. Furthermore, the Arab settlement shows a-side-entrance, while the Dutch settlement shows a-tall-house (Java: *loji*, from 'lodge'). According to this analysis, the type of those signs can be identified as Table 2 as:

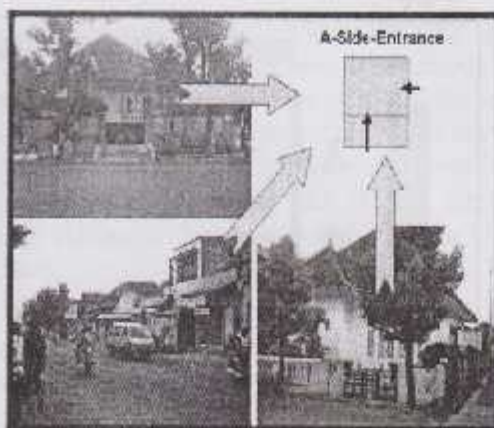
**Table 2** The Sign of Urban Settlement Facade

No.	Race	Type
1.	Chinese	A-Curve-Roof
2.	Arab	A-Side-Entrance
3.	The Dutch	A-Tall-House
4.	Javanese Noble	A-High-Fence

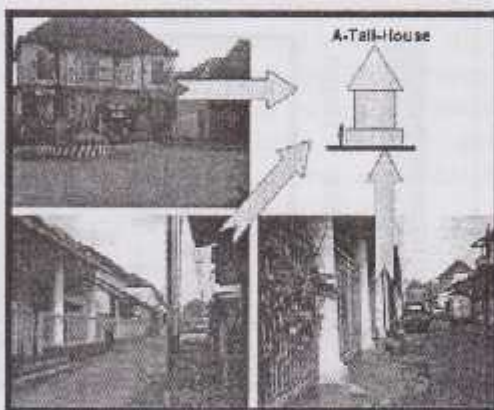
(Source: The author, 2008)



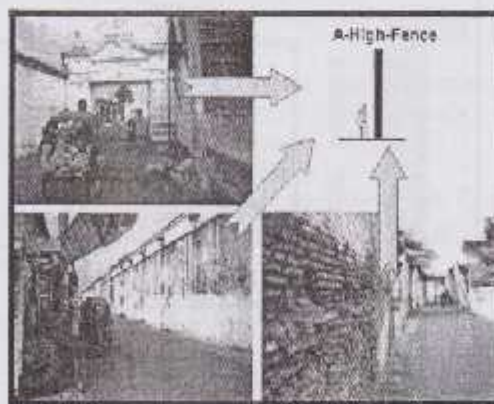
**Figure 6** The Chinese Settlement Sign  
(Source: The author, 2008)



**Figure 7** The Arab Settlement Sign  
(Source: The author, 2008)



**Figure 8** The Dutch Settlement Sign  
(Source: The author, 2008)



**Figure 9** The Javanese Nobly Settlement Sign  
(Source: The author, 2008)

## 7. Conclusion and Recommendation

This study finds that the urban settlement morphology of Solo has developed in three periods: (1) the early period (1500s-1750s), identified as the embryo era; (2) the middle period (1750s-1950s), identified as the growth era; and (3) the latest period (1950s-2000s), identified as the maturity era. In the early period, urban settlements have found in *Kampung Laweyan* (rise in 1500s), *Kampung Pajang* (rise in 1550s), *Kampung Solo* (rise in 1550s), *Kampung Arab* (rise in 1600s), *Kampung Cina* (rise in 1600s). In the middle period, urban settlements have found in *Kampung Bahuwarti* (rise in 1750s), *Kampung Kauman* (rise in 1750s), *Kampung Eropa* (rise in 1750s) and *Kampung Keprabon* (rise in 1760s). Afterwards, in the latest period (1950s-2000s), urban settlements have found in the three types of locations: (1) in the urban area (examples: *Kampung Kemlayan*, *Jayengan*, *Serengan*, etc); (2) between of urban and rural area (examples: *Sumber*, *Jajar*, *Dawung*, *Tipes*, etc); and (3) in the rural area (examples: *Solo Baru Housing*, *Fajar Indah Housing*, *Mojosongo Housing*, *Pahur Housing*, etc).

This study also finds that the typology of the urban settlement has developed in 2 types: (1) a-linear-cluster-central pattern, found in both the early and the middle period; (2) a-organic-culdesac-gridiron pattern, found in the latest period. Besides, according to each race, the urban settlement has a specific sign which is found in its built environment. The Chinese settlement is always found a-curve-roof, while the Javanese nobly settlement is always found a-high-fence. Furthermore, the Arab settlement shows a-side-entrance, while the Dutch settlement shows a-tall-house (Java: *Loji*). Furthermore, during in the latest 500 years old, this study finds that the urban settlement has developed in horizontally, vertically and interstitially in which is done either by the individuals or the mass models (developers and government).

The recommendation of this research is the further researches conducted in the several old cities from the island of Java (such as: Yogyakarta, Jakarta, Surabaya and Semarang, Bandung), to

find out the variant of typology of urban settlement.

## References

- Adishakti, Laretna T., 1997. *A Study on The Conservation Planning of Yogyakarta Historic-Tourist City Based on Urban Space Heritage Conception*. Disertasi Universitas Kyoto, Jepang.
- Azzahra, Fatimah, 2006. *Konsep Rumah Tinggal Keluarga Arab di Pasar Kliwon Surakarta*. Tesis UGM, Yogyakarta.
- Daldjoeni, N., 1997. *Seluk Beluk Masyarakat Kota*. Penerbit Alumni, Bandung.
- Golany, Gideon, 1995. *Ethics and Urban Design: Culture, Form and Environment*. John Wiley and Son Inc, New York.
- Houben, Vincent J.H., 1994. *Kraton and Kumpeni Surakarta and Yogyakarta, 1830-1870*. KITLV Press, Leiden.
- Ikaputra, 1995. *A Study on the Contemporary Utilization of the Javanese Urban Heritage and its Effect on Historicity*. Disertasi Universitas Osaka, Jepang.
- Lombard, Denys, 2005. *Nusa Jawa (Jilid 1-3)*. Penerbit Gramedia, Jakarta.
- Margana, S., 2004. *Kraton Surakarta dan Yogyakarta 1769-1874*. Penerbit Pustaka Pelajar, Yogyakarta.
- Moencoe, Rafael, 1976. *Aldo Rossi: The Idea of Architecture and Modena Cemetery*. Oppositions 5, Institute for Architecture and Urban Studies, MIT Press, USA.
- Mutiari, Dhani, 1997. *Keragaman Spasial Perkampungan Pecinan di Surakarta*. Tesis UGM, Yogyakarta.
- Ngadijo, 1993. *Sejarah dan Budaya Keraton Surakarta Hadiningrat*. Tiga Serangkai, Surakarta.
- Priyatmono, Alpha F., 2004. *Studi Kecenderungan Perubahan Morfologi Kawasan di Kampung Laweyan Surakarta*. Tesis Arsitektur UGM, Yogyakarta.
- Ricklefs, M.C., 2005. *Sejarah Indonesia Modern*. GMU Press, Yogyakarta.
- Ronald, Arya, 2005. *Nilai-nilai Arsitektur Rumah Tradisional Jawa*, GMU Press, Yogyakarta.



- Rose, Richard, 1979. *Morphology in Architecture: Etymology and Commentary (Terjemahan)*. Penerbit Arsitektur-UGM, Yogyakarta.
- Rossi, Aldo, 1982. *Typology Readings*. The MIT Press, Cambridge.
- Sajid, 1984. *Babad Sala*. Penerbit Rekso Pustaka, Solo.
- Setyaningsih, Wiwik, 2003. *Sistem Spasial Rumah Ketib di Kauman Solo*, Tesis UGM, Yogyakarta.
- Steadmen, J.P., 1983. *Architectural Morphology: An Introduction to the Geometry of Building Plans*, Pion Limited, London.
- Sudibjo, 1980. *Babad Tanah Jawi*, Departemen P dan K, Jakarta.
- Vorstensteden, Beeld van de, 1998. *Djokja en Solo*. Asia Major, Nederland.