

# **Contextual Modernization; New Town Planning in Petaling Jaya of Malaysia**

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**ABSTRACT:** The post-war period has witnessed the emergence of new towns in a number of countries in Southeast Asia. The new town development in Malaysia started with Petaling Jaya(PJ) as a satellite town. PJ was designed in accordance to the British town planning principles, which was based on modern ideal city. It also PJ constituted a regional character because new it was developed taking into considering local site, climate, and local technologies. Kenneth Frampton(1998) and others discoursed on the Asian regionalism and described this opinion as “Contextual Modernization”. This study starts with the same point of view that the impact of universal civilization can be reduced and modified by critical regionalism. This study aims to identify how new town planning principles of Malaysia which were first applied in 1950s have been developed over time and how they have been regionalize and transformed in cultural and regional context. For the analysis, we chose 5 sections in PJ according to the built period; from 1950s to 2000s. To identify the planning principles, we analyzed 5 sections in terms of their history, land use, density, street system, distribution of public, religious and commercial facilities, and housing typologies.

**Keywords:** New town planning, Contextual modernization, Regionalism, New towns, Petaling Jaya, Malaysia

## **1. INTRODUCTION**

### **1.1 Background and Aims of Study**

Since the World War II, many countries in Southeast Asia have experienced urbanization problems resulting from rapid population influx in cities and changes in industrial structure. New towns started to be developed as one of solutions to reduce urbanization problems. Modern new town concept originated from the Garden City of

E. Howard(1902) of England in the late 19th century, spread all over the world as an alternative of poor liable environment in a big city, which was created by urbanization (Lee Boon Thong, 2006). Kuala Lumpur, the capital city of Malaysia, had also experienced urban sprawling because of rapid population influx. The shortage of dwelling sites caused serious social problems such as producing illegal residents and temporal dwellings. Accordingly,

Malaysian government initiated new town development projects as part of solutions to improve such unfriendly urban and dwelling environment. In developing the city, as the government introduced British style urban development system and legislations and various types of housings consisted of bungalow, semi-detached house, terrace house, flats and apartments.

Petaling Jaya, the first new town in Malaysia, was designed in accordance to the British town planning principles, which was based on modern ideal city. PJ also constituted a regional character because it considered local site, climate, and local technologies. Kenneth Frampton(1998) and others discoursed on the Asian regionalism and described this opinion as ‘Contextual Modernism’.

Therefore, this study has the following objectives in researching the PJ as a case.

First, to understand development strategies and background in new towns.

Second, to identify design principles of a new town development and investigate what changes were brought by the passage of time.

Third, to study what kind of housing typologies are allocated within the new towns, the changes were brought by the passage of time.

Finally, to find unique characteristics of new town development in Malaysia by reviewing an original form of and changes in principles of new towns development settled in Malaysia environment.

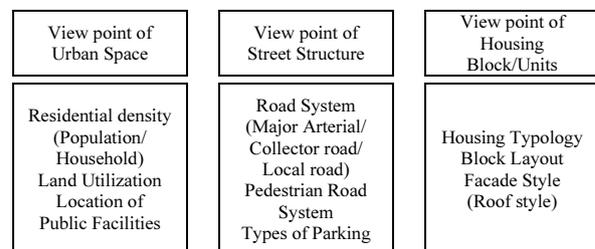
## 1.2 Scope and Methodology of Study

This study focuses on Petaling Jaya, the first new town in Malaysia, and covers the time line from 1950's when the development started to presence. We chose 5 areas in PJ according to the built period; from 1950s to 2000s. These are Old town, Section 17,

Damansara Jaya, Kelana Jaya, Kota Damansara.<sup>1)</sup>

The components required to develop a city can be divided into the urban space, street structure and characteristics of housing block and units. In this study, the framework was set up base on these criteria and detailed elements were selected from each view point as in Figure 1.

Based on such methodology, the theoretical background of this study refers to literature and documents. In addition, field study was conducted during 3 weeks from 4th to 19th of May, 2009. Measurement and photographing were used in the field study.



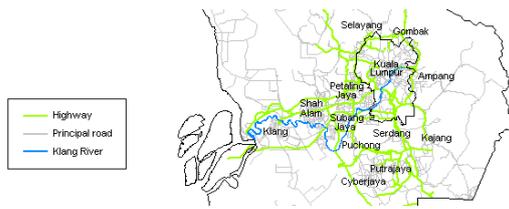
**Figure 1:** Frame of Analysis

## 2. THE DEVELOPMENT OF NEW TOWN IN MALAYSIA

### 2.1 The Birth of New Towns

New towns in Malaysia can be mainly divided into two types(Lee Boon Thong, 1987). The first type of new towns was developed with a main purpose to solve urban problems and congestion of a metropolitan city, such as Petaling Jaya, Shah Alam, and Bangi. These new towns built in outskirts of metropolises were located within 10 to 30km from the city. The second type of new towns was built at frontier areas to provide rural residents with urban service, such as Bandar Pusat in the Jengka Triangle, Pahang; Bandar Tenggara in Johor Tenggara; and Bandar Muadzam Shah in Pahang Tenggara.

1) The five new towns were selected by recommendation from five urban planners and architects.



**Figure 2:** Location of Klang Valley  
(Source: Wikipedia, the free encyclopedia)

KL and the cities surrounding KL in the state of Selangor are called the Klang Valley. With such rapid expansion of new towns, Klang Valley also quickly grew and showed mega-urbanization. While KL is developed from the east to the west between Gombak and Port Klang, other cities in Klang Valley grew from the south to north between Negeri Sembilan and Rawang.

Petaling Jaya(PJ) was constructed to accommodate rapid growing population of KL in 1953. Shah Alam(SA), the second new town was developed it in 1963. Subang Jaya(SJ) was built at the place where was once an old palm plantation in 1974. KL, PJ, SA, and SJ are all located in the Klang Valley and take a role as a hub of social and economic development in the nation.

## 2.2 The Development of Petaling Jaya

Petaling Jaya in the district of Petaling, an area of 97.2 km<sup>2</sup> with 486,040 residents, is located 11km from KL. The construction of PJ was officially declared in 1953 and the name originated from ‘Jaya’, which means ‘Success’ in Malay. PJ was planned based on planning of British new towns(Lee Boon Thong, 1987). It was planned as a self-contained city to include commercial, residential, industrial, administrative and recreational functions(Concannon, 1955). The initial goal of resettling squatters was changed to improvement of quality of living. This phenomenon was related to the emergence of middle class, which had since grown very fast.

After 1954 Petaling Jaya Local Authority was officially established, the sections, which were residential complex, were constructed on rubber and oil palm

plantations(Mohd, 1973). Currently it consists of 65 sections(administrative districts). These sections were not planned at once. Rather, each section was developed in different period. A land owned by one owner was divided into several sections and developed by different developers. Because of this reason, developers and developmental features are different in the sections even through they are in the same period.

The Federal Highway which was opened to traffic in 1957, it divided into two parts. It connects KL, PJ and Port Klang, and they made PJ a strategically important city. In 1977, PJ Town Authority was promoted to PJ Municipal Council(MPPJ<sup>2</sup>). From that time, the growth of PJ accelerated and the city accommodated more people.

By the middle of 1970s, two town centers were developed in PJ, the Old town<sup>3</sup>), which was the central district when PJ was initially constructed and the first shopping complex for its residents, and later, a new town (Section 52) was planned as a district with administrative function. However, these two districts did not keep their functions as geographical centers as PJ was growing to the northwest direction. As a result, a commercial area, known as ‘SS2’ and another center, called as ‘Kelana Jaya’ were developed. As PJ kept growing, PJS(South PJ) area in the south and PJU(North PJ) including Bandar Utama, Kota Damansara, Damansara Perdana in the north were also developed.

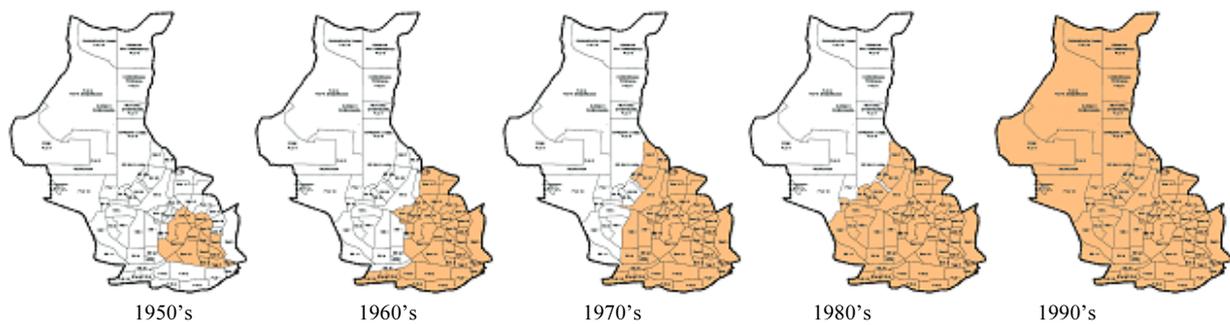
## 3. ANALYSIS OF CASE STUDY

### 3.1 1950’s; Old Town(Section 1)

The total area of Section 1 is 118.61 acres and population density of 28.859 p/a. It is located in the southern border of PJ. PJ

2) Majlis Perbandaran Petaling Jaya

3) As the first planned Town center, it is called ‘Petaling Jaya Lama’ and located between Section 1 and 2.



**Figure 3:** Development of Petaling Jaya

started expanding from the section 1 to the northwest. The Old Town had a geographical advantage because it was close to the railway line. It lines with a rectangle shape urban spatial enclosure by surrounding Road 1(Jalan Templer<sup>4</sup>) and Road 2(Jalan Othman). The town shows a simple basic planning with schools and open space located in the central area of the town and surrounding residential areas through a planning scheme reflecting “*Padang*(or open space) concept<sup>5</sup>”. With residential areas, construction of local shopping centers, temples, mission houses, bus stations and market were also planned. Markets and shop houses were formed along main road.

Street pattern of Old Town is grid pattern, which can be easily found in the earlier urban planning. Local roads were also constructed with simple grid patterns. For Jalan1/5<sup>6</sup>, it is shown that it has a curve pattern that followed its geographical conditions with land. Most of cars were parked on the street or private property of a resident.

More than 81.4% of houses were originally planned to be built as a bungalow type. Semi-detached houses or flats were not planned to be built at that time; 10 terrace houses were built as trial. Therefore, low density bungalows were the main typology at that period. For a bungalow, timber and galvanized zinc were used as main construction materials. Considering the structure and roof shape of a Bungalow, it seems to be strongly affected by Malay traditional timber house. But in nowadays, much of these have been renovated has a unique facade and style according to each house.



**Figure 4:** Image of Old Town

4) Jalan Templer is a major road in Petaling Jaya city, Selangor, Malaysia. It was the first road built in Petaling Jaya and was simply called "Jalan 1" or Road 1. The road was named after the former British High Commissioner in Malaya, Sir Gerald Templer.

5) Padang means ‘field’ in Malay. Padang concept is a planning which allocates open space in the center.

6) Malaysian street naming system shows Jalan/ name of section(area), name of street and ‘Jalan’ means a road in Malay. Therefore, Jalan 1/5 means the Street5 in the Section 1.

### 3.2 1960’s; Section 17

The total area of Section 17 is 321.23 acres and density of population is 40,136 p/a. It is one of the largest residential sectors in PJ. The Section 17 has nearly rectangle shape. A primary school is located in the central area and residential and public facilities are surrounding it. The area adopted natural environment and geographical elements. Examples of Landmark in the section are 'Lisa De Inn Hotel' and 'Wet market', which are located near to main road, Jalan Universiti. In addition, several play grounds and kindergartens were planned to be built in the terrace house areas.

Expressway and the major arterial road(Jalan Universiti) run through the north and south side of the section the collector road(Jalan 17/21) runs through the center of Section 17, connecting these two main roads.

Street pattern varies according to the typologies of houses. For terrace houses area, the road system is grid, while a road system in the bungalow area, which serves a mixed pattern of loop and cul-de-sac, to restrict flow of traffic to the surrounding. With geographical effects and positions of semi-detached houses, both grid and curved patterns can also be seen. Apartments were constructed on separate building lots with loop roads that helped traffic circulation. For terrace houses, there are back lanes<sup>7)</sup> serving as a service and sanitary purpose space. Most of cars were parked within a private property of the resident.

There are various housing typologies including bungalow(10.25%), semi-detached house(3.9%), terrace house(46.3%) and apartment and flat(39.54%). The major typology is a terrace house. The area secured a good view and has avoided being monotonous residential pattern. This was achieved by arranging flats along roads. In addition, some apartments were constructed on the hill. They show formative beauty. Land was divided narrowly and deeply to accommodate houses as many as possible. The uniform design pattern(rectangle shape allocation of building lots in two rows) is a major characteristic. In terms of facade pattern, bungalows still applied traditional Malay style to its roof. It shows gable or flat type. However, the roof was designed in much simpler style. Red tiles were used for the roof and a pastel paint was used in the building for the contrast of colors.



**Figure 5:** Image of terrace house

7) Back lane between terrace houses has 3.8m width. Some back lanes include 0.5m's drain.

### 3.3 1970's; Damansara Jaya(SS22, SS22A)

Damansara Jaya includes SS22 and SS22A. The total area of this township is 294.05 acres and its population density is 28.736 p/a. It is located south of the Expressway, which started to be developed from 1975. The main commercial area, called as 'Atria' is located in the center of the district. Residential areas were developed surrounding the commercial area. A primary school is located in SS22 and a secondary school in SS22A. In addition, a Hindu Cemetery is located in the east side of the area. Open space located in the center of the area functions as walking tracks and parks and provides delightful living environment.

It is surrounded by Damansara Puchong Express way(LDP) and Kayu Ara river. A collector road(Jalan 22/43) divided SS22 and SS22A. While most of road systems show a grid pattern, some loop patterns are found in Jalan22/27A and Jalan22/37. A voluntary community organization called as DJROA<sup>8)</sup> installed a private gate for each area and controlled traffic security. Cars are mainly parked at a private property of a resident. For Semi-detached houses, a parking lot is located in the ground floor and living area is above the parking lot. Entrances for pedestrians and cars are separated from each other.

The area consists of terrace house (75.75%), bungalow(5.01%) and semi-detached house(19.23%). It is found that the proportion of terrace house(75.75%) is the highest. As a play ground or open area is located in the center of each town, continuity of green area can be achieved. The housing complex is surrounded by high fence. It shows closed atmosphere. As for bungalow houses, it has ample set back from the road. This allows for a division of front space into two areas, a garage and a garden.

8) DJROA(The Damansara Jaya Residents and Owners Association) was formed in 1994 represents the interest of residents in this township. DJROA's community center is located on a piece of land on Jalan SS22/30.

Roofs of two houses are connected, so that they look like one house. Bungalows show asymmetric facade shape and have long eaves like other types of houses.



**Figure 6:** Image of terrace house

### 3.4 1980's; Kelana Jaya(SS5)

Kelana Jaya includes SS 3, 4, 5 and 6. SS 5 started to be developed from 1984. The total area of this township is 261.93 acres and its population density is 39,208 p/a. It has office buildings as well as residential areas. The planning shows green areas and schools located in the center of the area and residential areas in the surrounding. Many neighborhood parks and schools were originally planned to be built in residential areas.

SS 5 is directly connected to a highway (LDP) and it has a convenient transportation system to the city center. It is found that the area is formed in accordance to types of roads. The area has a grid system with radial line. Most of cars are parked at a front court of a house or on the street.

The area consists of a many terrace houses(90.05%) and semi-detached houses(9.95%). Rectangular building lots in two rows are arranged in a grid pattern. Facade patterns of terrace house are divided into two types; a terrace house has an independent gable roof or continuous roof which has long eaves; and a small roof with a window, which is a jack roof style.



**Figure 7:** Image of Kelana Jaya

### 3.5 1990's~2000's; Kota Damansara (Section 6 in PJU5)

The development of Kota Damansara started from 1992 and it is still in progress. It was included in the administrative district

of PJ in 1997. It is located in the northwest of PJ and the biggest district of PJ with 3,993.22 acres. Kota damansara consists of 14 sections. Section 6 has total 235.57 acres and 44.806 p/a. A lake is planned to be constructed on the edge of the area using natural river flow. It is interesting that each town has 'Surau'<sup>9)</sup>. Commercial areas are located on both sides of the town. Connection from outside area to the commercial areas is convenient.

Overall, a loop road system is planned for Persiaran Surian and Persiaran Mahogani. Although the area is opened, it can also protect privacy by adopting a cul-de-sac road system. The area has a mixed road system combining cul-de-sac pattern with loop pattern, rather than a uniformed grid pattern. With regard to parking, cars are parked on the street or a front garden of each house. As for commercial area, it has separate parking lots for visitors and residents.

The area shows relatively various types of house; bungalow(3.98%), terrace house (35.67%), semi-detached house(2.08%) and apartment(58.27%). A good view is secured by locating apartments at the edge of the town and planning terrace houses on slopes near a lake. Back-lane is also available between of terrace houses. But it is blocked by fence. Two single storey terrace houses share one gable roof, while a double storey terrace house has its own gable roof.



**Figure 8:** Image of Kota Damansara

## 4. CONCLUSION

The five new towns in Petaling Jaya according to the built period from 1950s to 200s were chosen and surveyed.

9) Surau is a smaller prayer building than the mosque where Muslims pray.

To identify the planning principles, we analyzed the cases in terms of urban space, street pattern and block & unit design.

The results can be defined as follows;

First, in the viewpoint of urban space, it is found that the residential density has been increased. The planning aims to accommodate houses as many as possible in the same residential area. It is supported by the construction of apartments in the area developed in 1990s. Allocating schools and large open space in the center of area is a basic technique of Malaysian planning. In addition, planning small play grounds and green areas is common in all the areas. Although there is a big mosque in PJ, a 'surau' is also planned in accordance with planning standard.

Second, a street system shows a grid pattern in the earlier cases of development, which is the most economical and easiest way to be planned but loop, cul-de-sac, radial and grid roads system were adopted in the recent towns. The planning technique adopting and using geographical elements has not changed. Cars are basically parked within a resident's lot. Public parking spaces are also provided when there are many commercial areas.

Third, various typologies of houses in the same town is one of main features. The results seem to be generated because of a part of Malaysian housing policy to accommodate different social classes in the same area. During 1970s and 80s, a terrace house was a dominant typology. The roofs of houses were continuous and uniform at the beginning but in recent towns, the roofs were designed with more articulation and variations.

Through the survey of Petaling Jaya, we can understand the unique characteristic and guidelines of new town planning in Malaysia. They were designed as low density and low rise house community and recently they were planned as more eco-friendly community. Because the terrace houses are main typologies in new towns, the old towns look monotonous. But in

recent project, more detailed and articulated façade designs provide more identity and diversity to the resident and community.

**This research was supported by** Basic Science Research Program through the National Research Foundation of Korea(NRF) funded by the Ministry of Education, Science and Technology (2009-0064763)

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Site		Old Town (Section 1)	Section 17	Damansara Jaya (SS22, SS22A)	Kelana Jaya (SS5)	Kota Damansara (Section 6 in PJU5)	
Location							
Map <sup>11)</sup>							
	Development Year	1953	1965	1975	1984	1992-Current	
General Info.	Land Size	118.61	321.23	294.05	261.93	235.57	
	Population	3423	12893	8450	10270	10555	
	Household	680	3072	1932	2536	2348	
	Household Density	28.859 Persons/acre	40.136 Persons/acre	28.736 Persons/acre	39.208 Persons/acre	44.806 Persons/acre	
Urban Space	Household Density	5.008 houses/acre	9.563 houses/acre	6.57 houses/acre	9.681 houses/acre	9.967 houses/acre	
	Land Use	Residential	75.76%	86.87%	71.8%	73.55%	78.82%
		Commercial	9.21%	4.92%	5.65%	1.93%	2.24%
		Facilities	7%	2.62%	12.46%	20.96%	4.83%
		Green area	8.03%	5.59%	10.09%	3.56%	14.11%
	Public Facilities	National School kindergarten Padang (Open space) Church, Temple Hindu temple Market, Bus station	Primary School kindergarten Surau, Church Padang (Open space) Wet market Hotel	Primary School Secondary School kindergarten Commercial Center Hindu Cemetery	National school primary School Secondary School kindergarten, Surau Community Hall Telekom Wisma FAM Hostel Jemaah Haji	Primary School kindergarten Surau Commercial Center Police station	
Street Structure	Road System						
	Types of Parking	The roadside parking Parking in housing	Parking in housing Parking lot (Apart.)	Parking in housing Garage (Semi-D)	The roadside parking Parking in housing	Parking in housing Public parking lot	
Housing Block and Units	Housing Typology	SB	358(60.27%)	106(3%)	-	-	-
		DB	126(21.21%)	256(7.25%)	98(5.01%)	-	84(3.98%)
		ST	10(1.68%)	535(15.15%)	-	1534(68.42%)	27(1.28%)
		DT	-	1100(31.15%)	1481(75.76%)	485(21.63%)	726(34.39%)
		SSD	-	48(1.36%)	-	-	-
		DSD	-	90(2.55%)	376(19.23%)	223(9.95%)	44(2.08%)
		A, F	100(16.84%)	1396(39.54%)	-	-	1230(58.27%)
	Total	594(100%)	3531(100%)	1955(100%)	2242(100%)	2111(100%)	
Neighborhood Block							

**Figure 4:** Analysis of 5 sections in Petaling Jaya.  
(Source: Statistics from Jabatan Perangkaan Negeri Selangor.)

11) Each colour shows different housing typology (SB; single storey bungalow. T; terrace house, SD; semi-detached house, A; apartment, F; flat).