

# Knowledge Building on Architectural Characteristics of Peranakan Chinese House in Straits Settlements and Chinatown of Yogyakarta, Indonesia: Ketandan, Pajeksan, and Kranggan

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**Abstract** - Chinese residing in various countries can strongly maintain their culture, shown in the form of a distinctive architectural identity. The existence of Peranakan Chinese Architecture in Indonesia since the 5th century. Especially in Yogyakarta, Chinese Peranakan architecture currently plays a role as a cultural treasure of the city. The principles of Chinese architecture certainly experience adaptation to various natural and cultural contexts of countries outside their home country, the four-seasons country, Mainland China. Current situation of Yogyakarta as a fast-growing tourism destination, diverse in cultures and nature is both an opportunity and threat towards Chinese housing established since 1755. In this research, the principles of Chinese architecture in their home countries will be studied, as a major influence of Chinese Peranakan Housing in Yogyakarta in order to understand and later on categorize each housing based on its architectural characteristics. Research methods are in stages, the first stage being literature review on typology and principles of Chinese architecture; the second stage is to structure and analyze the architectural characteristic findings; and the third stage is to draw conclusions from the process of interpretation, answering the research questions. The results are in the form of architectural characteristics derived from philosophy, principles, libation ritual, and kingship in early China to 1900s China.

*Keywords: architectural characteristics, Chinese Architecture, Chinese Straits, Peranakan Chinese*

## Introduction

The existence of Peranakan Chinese Architecture in Indonesia since the 5th century which continued to develop into Chinatown in the 17th century (Handinoto 2008). Especially in Yogyakarta, Chinese Peranakan architecture currently plays a role as a cultural treasure of the city. The architectural characteristics of Mainland China appear and play a role in everyday life despite years of adjustment to the surrounding environment.

Changes in function and land ownership related to strategic settlement locations have threatened the diversity of Chinese Peranakan architecture, even though most houses are located in historical areas, which must maintain their unique characteristics (Shamsuddin, Sulaiman, and Amat 2012). Residential house is a group of spaces accommodating the daily lives of their residents, as the most common and basic building type, and as media that are most likely to express the imagination and expression desired by the occupants (Kumala 2017)

Culture is everything that is passed on or passed down from one person to another as a member of the community, by way of learning, being told (or not being asked) to imitate, being given an example or an example, but not something that is passed on and passed down genetically. By tracing extensive history and fundamental theory, one can gain a better understanding of the complexities of traditional culture (Zhang 2018).

The influence of the architectural forms of immigrants is due to the influence of the entry of culture only on elementary forms, the architectural style is seen in the expression of symmetrical forms and spatial arrangements based on their function. There are several elements of architectural formations that persist, such as: the type of roof shape, the pattern of the main room and the structural system of the building construction as an internal structure, while the elements and compositions that have changed due to the influence of Chinese ethnic culture lie in the type of barrier for house land plots, the use of ornamentation in the building as surface structure (Fauzy 2012; Fauzy, Antariksa, and Salura 2011). Therefore, a study on Chinese Peranakan Architectural Characteristics as a benchmark to find typology of Houses in comparison to Chinese Mainland House needs to be carried out.

### **1.1. Original Chinese House**

Chinese civilization does not have a single origin, civilization began with large rivers associated with mountain ranges in the west and north of Mainland China. The famous rivers are Huang He (Yellow River) in the north, Changjiang (Long River), and Zhujiang (Pearl River), the three rivers border the 3 central regions in the north, center and south. The words "Cheng", "Du", and "Jing" which means city wall, as a defensive wall or city wall for protection from wars between territories. The city walls packed with utility systems are equipped with towers with a function to protect the kingdom in times of war between kingdoms, as important element that was first established in the formation of a city (Ching, M, and V 2011). The largest Ancient Capitals of China were in Beijing, Nanjing, Luoyang, and Chang'an. Luoyang and Chang'an as the capitals of the Han Dynasty (206 BC – 220 AD), Beijing and Nanjing as the capitals of the Song (907 – 1207 AD), Ming (1368 – 1644 AD) and Qing (1644 – 1912 AD) dynasties.

The Chinese term, was acquired when the Silk Road became more and more famous for trade. The territories of most of the empires were unified under the reign of the Emperor of the Qin Dynasty, who used a single language, hanji script, currency, and bureaucracy. In the Qin dynasty, there was the merging of walls, as well as the construction of corridors/overpasses to keep the emperor's movements secret. Later, the territory of the Qin dynasty was known as the "Land of the Qin" (pronounced chin), so the name "China" was derived.

The Han dynasty was the dynasty with the longest reign and united the city walls known as the Great Wall of China, the Song Dynasty built the Great Canal for construction and water transportation, the Ming Dynasty built the largest royal complex, and the Qing Dynasty was the last dynasty where new architectural styles emerged and could remain to be found today. In the Han dynasty, within the city walls are houses with the style of Siheyuan, consisting of a square housing complex with rooms surrounding a central courtyard. Outside the city there is Ganlan's vernacular architecture with wooden materials and an architectural style influenced by a warm climate with lowlands and some flat land. In the Song dynasty the Chinese economy developed through maritime trade in conjunction with the development of the Silk Road. In the Song dynasty, a typology of shophouse buildings emerged, along with the development of night markets along the street equipped with the use of paper money. The shop house building typology accommodates residential functions on the upper level, and commercial functions on the ground floor (Han and Beisi 2015). In the Ming Dynasty, the development of architecture in society focused on the interior of buildings, in the form of furniture crafts (Wang and Duan 2016). In the Qing dynasty, the Tulou architectural style emerged with a concept that was dominated by protection against war, this settlement was able to accommodate 60 families with up to 400 rooms. The Tulou house is the home of the Hakka tribe with a Han cultural background who came from Mainland China but had to move to the south during the Qing Dynasty (Deqi 2004).



Dynasty has become one with a single system of government, language, and currency (Ching, M, and V 2011).

In everyday life, Mainland Chinese people are influenced by Fengshui which has been practiced for 3000 years. According to Evelyn Lip, Fengshui is studied to understand nature, and to integrate nature with the environment and architecture. The good Fengshui of a building is effectively influenced by the proper placement and orientation and has good energy (qi). The concept of Fengshui applies to landscape, interior, and public buildings and residential/residential scales. In China, success is influenced by five factors; yiming (destiny); eryun (wheel of fortune); san feng shui (art of laying); shi daode (virtue); and wu dushu (individual background). Of the five factors, which are non-individual and able to be cultivated physically are san feng shui, so they are considered important to be cultivated optimally. Fengshui or Chinese geomancy, is the art of placing applied to buildings and the environment. Perfect feng shui is expected to bring tianning, dili renhe, blessing from heaven so that it brings harmony and prosperity. Every person, company, and country needs auspicious feng shui in order to have peace of mind, success, and good luck. In architecture, feng shui is an intangible aspect that complements the tangible aspects of form and space, lighting and ventilation, and planning and circulation (Lip 2010).

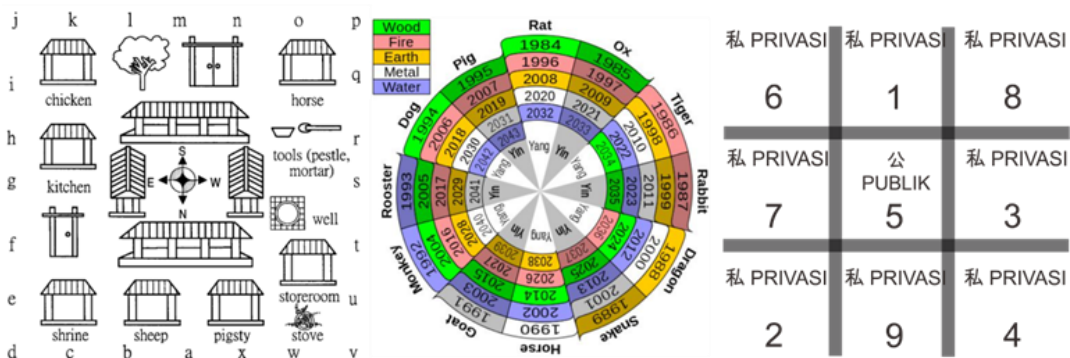
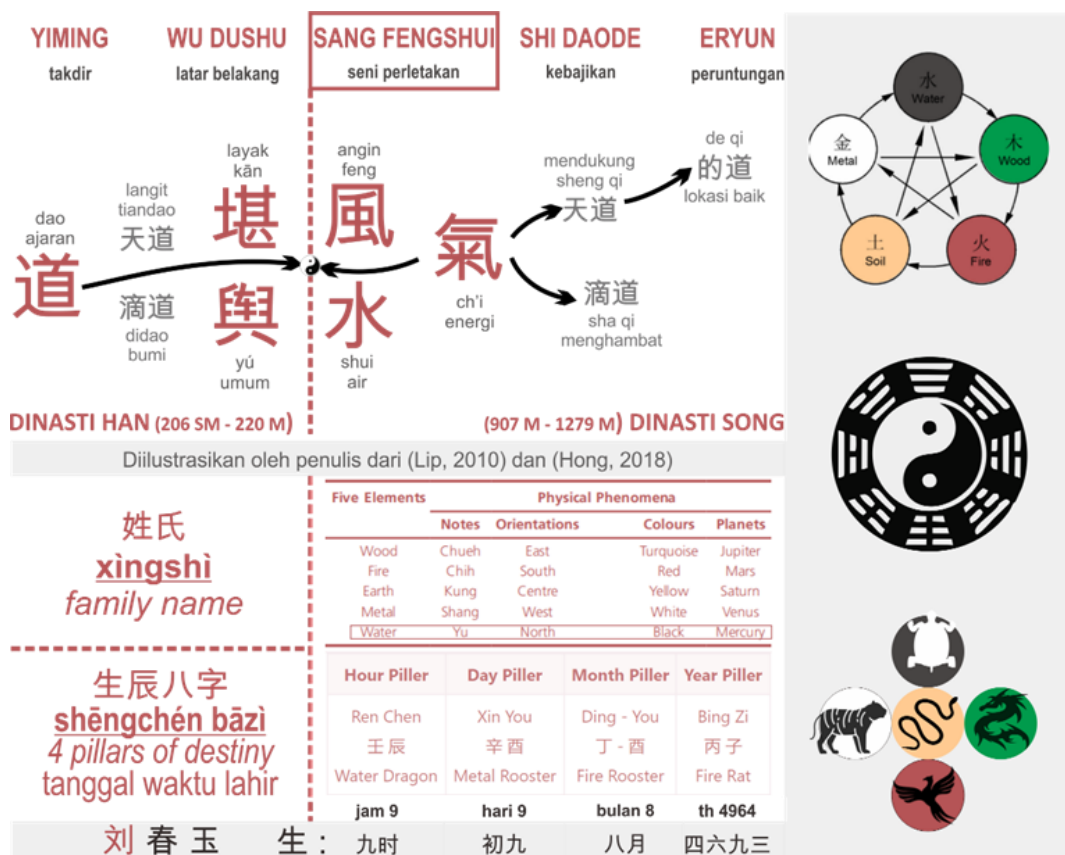


Figure 1: Personalized Fengshui.  
Source: Kumala, 2021

The word feng shui in Chinese means wind and water. The classic term for feng shui is kanyu, which means combining tiandao (heaven teachings) and didao (earth teachings). Kanyu Jia and Dili Jia are names for feng shui experts which means biogeographers since the Han dynasty (200 BC). Ancient Chinese civilization, believed that the universe was created from a combination of yin and yang. Yin represents earth, moon, darkness, night, woman, green, blue, white, and valley. and Yang represents sky, sun, light, noon, hills, red, orange, yellow, and man. Apart from Yin and Yang, important concepts in feng shui are the Five Elements (wood, fire, earth, metal, and water are associated with color), the eight trigrams (related to the cardinal directions), ganzhi (calendar), and qi (heaven and earth energy, geographical conditions) (Xinian 2018). Personally, feng shui is influenced by the date of birth of the user-owner of the building, the surrounding environment, color (meaning and symbolism).

In geomancy application, the orientation adjusts to the position of the sun, in Mainland China, the sun's position is always in the south due to the changing position of the sun but remains in the south of Mainland China in one year. So the face of the site should face south with a higher contour at the rear to repel bad influences and ponds at the front. The left side is in the east, and the right is in the west. In Beijing with a tropical climate, the wind blows from the north, so the back wall in the south, and the opening in the north are appropriate designs. The cold wind is blocked by the hills at the back of the house, creating a pleasant and prosperous environment. A good site shape is a pocket, with the back wider than the front, based on the location, the site is located in a highland, avoiding forks and small roads. The house is equipped with trees and a garden (Lip 2010).

## 1.2. Chinese *Peranakan* (Chinese Straits) House

Until around 1900, Chinese architecture in the archipelago was generally located in the Chinatown area. After that, some local elites built modern houses with different architectural styles outside the area that was formerly known as Chinatown (Handinoto 2008). The general characteristic that makes Chinatown very distinctive is the form of community activity that represents Chinese culture (Nur, Sunarti Darjosanjoto, and Soemarno 2017). Therefore, currently Chinatown is a city area with roads, and settlements of the majority of residents of Chinese descent who generally carry out activities and have regional characteristics as a representation of Chinese culture.

Not many written records and only a limited oral history of Peranakans Communities residing in Indonesia, Philippines, Malaysia, and Singapore. Commonly descendants of Chinese traders settling in Southeast Asia from at least the 17th century onwards and possibly earlier, marrying local women. Peranakan means anak or child, as ancestors from inter-marriages in the Malay archipelago. 'Straits Chinese' is often applied to Peranakans,; collectively these formed the Straits Settlements which was governed by the British for over 100 years (Henderson 2003).

Most are descendants of Chinese migrants from the southern provinces of Fujian and Guangdong. Upon arrival in Singapore, they initially lived in multi-storey houses and shophouses in the ethnic Chinatown enclave, the latter serving as both business premises and private accommodation. When their situation improved in the late 19th century, there was a movement to the outskirts of the city. Traditional Peranakan residences have much in common with southern China, but are much narrower and deeper and 'reflect a quite unique lifestyle in furnishings and decor'. Many became rich and influential and, in the twentieth century, colonial-style houses and Anglo-Indian villas with verandas were being built on the outskirts, alongside more modest middle-class residences. In Indonesia, most immigrants from Mainland China come from cultural backgrounds of Hokkien, Hakka, Hokchia, Tiociu, and Chinese Benteng (Batavia). However, generations of migrants' attitude towards ancestral hometown emotional experiences may vary in terms of place dependence, place identity, and affective attachment in ancestral hometown attachment (Zou, Meng, and Li 2021).

The houses comprised a series of halls and spaces with only family members and close friends allowed to penetrate the inner courts. Ancestor-worship was important and ancestral altars were an essential part of the Peranakan home, which was the setting where the 'most important social, cultural and religious values of the community were articulated. A striking type of architecture of the early 20th century associated with the Peranakans is the Straits Eclectic style, which unites Eastern and Western themes. It makes heavy use of decorative plasterwork and ceramics in wall and floor tiles in 'such a profusion of styles and abundance of decoration as almost to defy description'. During the colonial years, the Peranakans generally allied themselves with the ruling elite, sending their children to English-speaking schools and following European fashions in dress and entertainments as well as house design and interior decoration (Henderson 2003).

## 2. Methods

Literature review in relation to Architectural Characteristics, Origins of Chinese Architecture, Chinese Peranakan Architecture, and Chinese Peranakan in Yogyakarta in the scope of Architectural Science. This research is using narrative and descriptive qualitative methods involving literature reviews from relevant journals, statutes, and publications to be analyzed for case study of Yogyakarta (Ketandan, Pajeksan, and Kranggan). Narrative writing as for orderly time-based arrangement. Descriptive writing as for depicting contextual existing conditions in case study. Approach through the development of a systematic review of the literature in the field of heritage that addresses issues related to landscape management. Systematic learning from earlier works promotes greater knowledge in current research and synthesis efforts are also of paramount importance in promoting the transfer of knowledge in decision-making processes.

## 3. Results and Discussion

### 1.1. Architectural Characteristics

Table 1  
*Architectural Characteristics of Original Mainland Chinese House and Chinese Peranakan House*

Observative Scoop of Architectural Characteristics		Theoretical Framework	Original Mainland Chinese House	Chinese Peranakan House in Southeast Asia
Architectural form (individual buildings as well as to the site and the surrounding area)	Whole Building	Form	of Core, Peripheral, New Element (Rapoport, 1990)	Siheyuan (mortar house), Ganlan (wood house in rural area), Shophouse, Chinese-Western House
		Characteristics		Sturdy and durable building, front face towards the sunrise, site is larger in the back and narrow on the front
		Function	Cultural background, ideological thinking, philosophy of life, religion, social roles, community conditions (Mangunwijaya, Lang, and Asnir)	Success through Fengshui and blessings from Ancestors and Gods
	Enclosed	Form		At the Ganlan House; rectangular floor plans, double slope roof forms At Siheyuan house; Gate/Thick Outer Walls, Double Slope roof forms, natural elements
				Colonial-style Houses Anglo-Indian Villas Straits Eclectic style Modern Western Chinese House Multi-Storey Shophouse Multi-Storey Houses
				Located in Chinatown

Observative Scoop of Architectural Characteristics		Theoretical Framework	Original Mainland Chinese House	Chinese Peranakan House in Southeast Asia
		Characteristics		At the Ganlan House; Wooden Roof Structures, Board Wall Coverings, Bark Tiles, At Siheyuan house; Massive Gate, Mortar/Brick Walls. Ceramic/Teracotta Tiles, Double Slope roof forms, added natural elements of green and water
		Function	Living Area, Dining Area, Bedroom, Home Office, Kitchen, Laundry, Bathroom, Closets, Balcony/Terrace/Yard (Time Saver's Standards)	Front Room, Living Room, Bedroom+Closet/Study, Kitchen+Dining (Hearth), Storage, Altar, Court/Open Space
		Form		Siheyuan Style, Ganlan Style, Shophouse Style, Chinese-Western Style
	Perceived	Characteristics		
		Function		Providing enough space for generations of descendants to represent chinese culture
	<a href="#">Architectural System (Habraken 1978)</a>	Stylistic (building facade, non-technical)	Physical Property	
Activity and Function				profusion of styles and abundance of decoration influenced by europeans
Symbolic Meaning				Peranakans following the style of ruling elite having big influence on social, cultural and religious values of the community

Observative Scoop of Architectural Characteristics		Theoretical Framework	Original Mainland Chinese House	Chinese Peranakan House in Southeast Asia	
	Physical (building components, technical)	Physical Property		At the Ganlan House; Wooden Roof Structures, Board Wall Coverings, Bark Tiles, At Siheyuan house; Massive Gate, Mortar/Brick Walls. Ceramic/Teracotta Tiles, Double Slope roof forms, added natural elements of green and water	house design and interior decoration influenced by Europeans
		Activity and Function		Traditional Technic, Materials, and Craftmanship	Modern Technic, Materials, and Craftmanship
		Symbolic Meaning		-	-
	Spatial	Physical Property	Organizational Patterns, Relationships, Clarity (clarity), hierarchy (Ching, 2007)		Ancestor-worship was important and ancestral altars were an essential part
		Activity and Function	Living Area, Dining Area, Bedroom, Home Office, Kitchen, Laundry, Bathroom, Closets, Balcony/Terrace/Yard (Time Saver's Standards)	Front Room, Living Room, Bedroom+Closet/Study, Kitchen+Dining (Hearth), Storage, Altar, Court/Open Space	halls and spaces with only family members and close friends allowed to penetrate the inner courts
		Symbolic Meaning		Rites, Beliefs, Fengshui	sacred, private

In Mainland China, there is a geomancy principle “located in the shade but facing the sun” (Deqi 2004). So in China facing south, in Medan it is more optional to choose north and south, while for the cities of Semarang, Yogyakarta, and Palembang it is more likely to face north. In the northern areas (Medan City, North Kalimantan, Batam, West Sumatra, Aceh, East Sumatra, North Sumatra, East Kalimantan, West Kalimantan, Riau Islands, North Sulawesi, Central Sulawesi, Gorontalo, and North Maluku, the sun is in the north and south with balanced, so that the orientation of the main opening is flexible, while in the southern regions (West Sumatra, Jambi, Bengkulu, Lampung, South Sumatra, Bangka Belitung, South Sumatra, Java Island and its surroundings, Bali, South Kalimantan, Central Kalimantan, Ketapang, West Sulawesi, South Sulawesi, East Sulawesi, Southeast Sulawesi, Central Maluku, Papua, NTT and NTB) get less and more sun in the north, so they tend to face north.

The kitchen is generally located in the back (north), with the stove on the east side of the kitchen room facing southwest. The placement of the water source should not be next to the stove, and the kitchen should not be adjacent to or opposite the bedroom. The ancestral altar as the most important part, is placed in the center of the site, generally in the family room. The ancestral altar acts as a space for performing rituals. In an ordinary house, the living room and family room are a



unit (Zhou and Wei 2021). An altar is marked by a table to put incense, an ashes container, or a tablet bearing the name of an ancestor. There are also photos of ancestors from the 19th century. In general, the ancestral altar is located in the Family Room at the front of the house in Indonesia. Higher floors generally have bedrooms on either side for children and guests. The bedroom, which is near the entrance and veranda, is a bedroom for family members who are interested in monitoring things outside the house. The dining room today has a similar function to the banquet hall performed in the emperor's room, so it is elevated and placed inside (Steinhardt 2019)

A house with a garden is a response to conditions where more and more families are able to develop from generation to generation under one roof within the city walls. Small family houses are connected by a corridor of verandas, and are equipped with a garden surrounded by a house overlooking the garden (Zhu 1998). In Indonesia, most courtyards are only found in houses with relatively large sizes, according to a source, the use of courtyards must be accompanied by a separate roof so that it requires a large space, if forced to create voids on a roof, it will have a negative impact on energy flow (qi). So for a small house the garden is placed on the roof, or in the yard or terrace around the house. Warehouses for shop houses and residential houses in Indonesia are placed at the back, even though the men's area should be at the front. The entrance and public living room are in the south. This is in accordance with the placement of space in the palace complex.

#### 4. Conclusions

Architectural Characteristics can be viewed from Architectural Forms and Architectural Systems. Architectural form theory sees buildings based on viewing distance being; as whole building, enclosed (when approached), and perceived (when experienced). Architectural System theory is being able to observe building based on technical considerations and spatial. On technical considerations, components designed without technical considerations are stylistic, while components designed with technical considerations are physical. Spatial sees the building from its spatial organization and relation. With categorical thinking, benchmark to measure changes on Chinese Peranakan Housing in Yogyakarta can be conducted. Learning from previous studies on Original Chinese Mainland Architectural Characteristics and Peranakan Chinese Architectural Characteristics in Southeast Asia. For instance, Peranakan Chinese House is mainly occupied and built by Chinese Peranakan, occupants accustomed to Chinese Culture, and the house was occupied by at least two to three generations in relation to ancestral rites and the importance of family-based kinship. Therefore, further study can be done with actual study cases of Peranakan Chinese House in Indonesia. Further information regarding backgrounds and reasons behind changes can also be studied by categorical approach of internal and external factors.

This article lacks on detailed architectural characteristics of building components due to diverse variations of design from external factors, mainly European Architecture and Traditional Architecture of Southeast Asian-Indonesia. However, by knowing internal and external factors regarding builder or owner backgrounds, fusions of styles can be acknowledged and studied.

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