


The Influences of Chinese Culture on Historical Buildings in Surabaya

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Abstract: Surabaya is the second largest city in Indonesia that is vast and rich in history, proven by a large number of traditional and historical architecture. One of the most prominent influences came from the Chinese culture, which came with the Chinese people who migrated to Surabaya seeking to expand their trade. Despite the mix of Javanese and European Indische cultures, the building still shows distinctive Chinese architectural features. This research aims to identify the characteristics of Chinese-influenced buildings. Qualitative and analytic approaches are used to summarize various historical data and reveal patterns in the building distribution. The results show that the influence of Chinese culture is concentrated in the northern part of Surabaya, as proven by the number of Chinese building forms. These buildings serve as evidence of history that is preserved in Surabaya, along with their diverse people and cultures that have undergone cultural developments as time progresses. It is expected that this cultural influence can be well-documented and utilized as valuable resources for historical studies and cultural preservation and function as a basis for research, building design influence, and the development of tourism.

1 INTRODUCTION

In the early 16th century, Surabaya was one of the trade centers in Indonesia with various people and cultures. Until this day, Surabaya has grown into a metropolitan city with various traders from around the world. The traders who entered through the coastal areas of Surabaya included the Chinese in the 13th - 14th century, the Arabs in the 15th - 16th century, and the Dutch in the 16th - 19th century. (Sudikno & Salura, 2012).


The arrival of traders in Surabaya brought a variety of cultures. One of the cultures that has a big influence is the Chinese culture. In the past, Chinese people came to trade with the locals, but then they settled near the Red Bridge and Kalimas. The settlement that has been created then suppressed the movement of Chinese people because of a *Wijkenstelsel* enactment created by the Dutch Colonial government. The limitations of activities created a culture in these areas that were very attached and well represented.


In 1867, the distribution of Chinese community was concentrated in *Chinese Voorstraat* (now known as Karet Street) which is located near Tanjung Perak Harbour today. Therefore, the residential area and trade activity in Chinatown has grown rapidly as illustrated in Figure 1.




Figure 1: Surabaya map 1867 enlarged (Cronenberg et al., 1867).

The Chinese community started to grow and spread to the central parts of Surabaya. Evidently, the Chinese buildings can be found in the south of Chinatown. The buildings are located along the

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Kalimas river and were built in a row. As shown in Figure 2.

Legenda:

- A: Kampung pecinan Kapasan Dalam
- B: Klenteng Boen Bio
- C: Rumah Abu Han
- D: Rumah Sembahyang The Goan Tjing
- E: Klenteng Hok An Kiong
- F: Kembang Jepun Kya Kya
- G: Klenteng Hong San Ko Tee

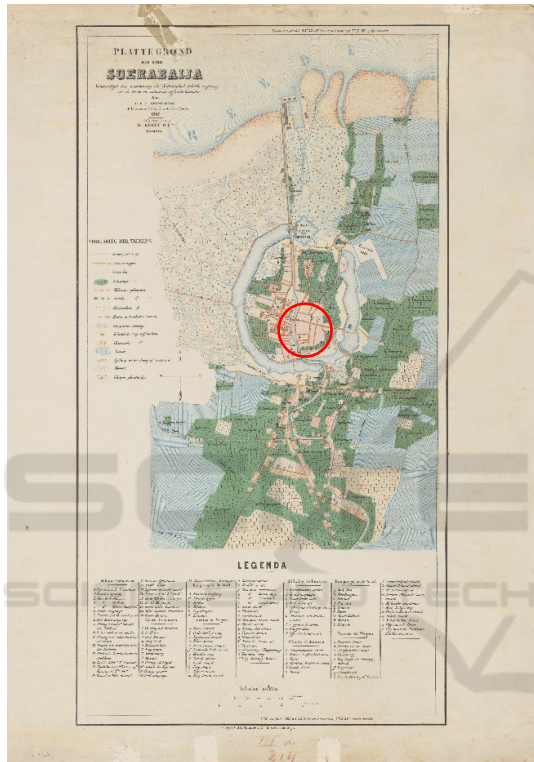


Figure 2: Surabaya map 1867 (Cronenberg et al., 1867).



Figure 3: Surabaya map 1883-1884 enlarged (Topographische Inrichting ('s-Gravenhage), 1907).

The buildings with Chinese influences are found in the Chinatown area. The six buildings studied in this research are in northern Surabaya area and the

other are newer ones that can be seen spreading to the South area away from the coast. The buildings with Chinese ethnic style have decreased and are starting to disappear.

Today, the influence of Chinese culture is indicated by the architectural form, notably on the roof, and the interior of several buildings in certain areas in Surabaya. However, the buildings are in poor condition and most of them have undergone some form of modifications. This resulted in the loss of their original characteristics in some of the buildings while some has also been mixed with the local culture (Indrani & Prasodjo, 2005). Therefore, this research was conducted to find buildings with Chinese characteristics. It is expected that this cultural influence can be well documented and utilized as a valuable resource in historical studies and cultural preservation as a basis for research, building design influence and development of tourism.

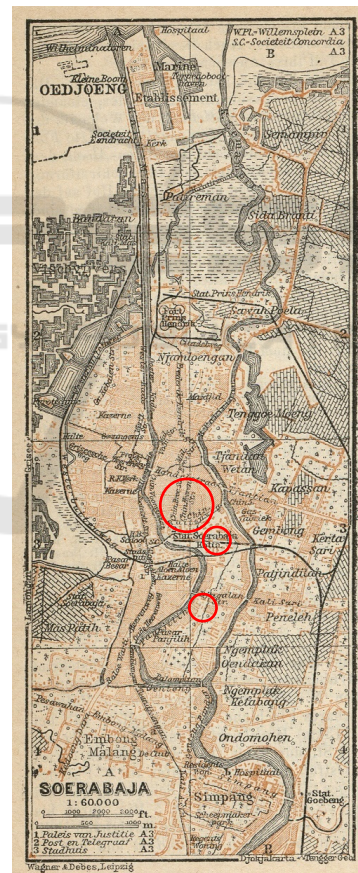


Figure 4: Surabaya map 1914. (Baedeker Indien 1914 Maps - Perry-Castañeda Map Collection - UT Library Online, 1914).



Figure 5: Surabaya Chinatown map 2021.

2 METHODS

This research uses qualitative methods through triangulation analysis between literature data, field observations, and contextual inquiry with the following details:

2.1 Literature Study

According to Sugiyono (2012), a literature study is a theoretical inquiry of references and other scientific literature related to culture, values, and norms that

develop in the social situation to be being analyzed. This method supports and strengthens the results of the observations and the analysis based on previous researches. In addition, this is adopted to better understand the architectural and interior characteristics of Chinese buildings that have undergone the process of acculturation with the local culture, such as Javanese and Dutch Colonial culture.

2.2 Observation

This method was conducted through the observation and documentation of architectural forms in Chinatown Surabaya. Determination of the data source and object was done through purposive sampling technique. Purposive sampling is a technique to determine data source while taking into account certain considerations and criteria (Sugiyono, 2009, p. 216). The considerations and criteria above exhibit the following indicators:

- The building has been occupied or managed by a Chinese descent.
- The building was built before 1967. The year was chosen on the basis of *Instruksi President* or government policy that prohibit the Chinese descent to celebrate any religious or cultural event.
- The building has distinct Chinese cultural features.

The buildings that meet these criteria are Klenteng Hong San Ko Tee, Shophouse at Kembang Jepun, Chinatown at Kapasan Dalam, Kya-kya, Roemah Sembajang Kaloearga Han Bwee Koo (Rumah Abu Han) and The Goan Tjing family house at Karet street.

2.3 Interview: Contextual Inquiry

Interview contextual inquiry is a method to deepen the understanding towards the topics that are currently researched. This method is a combination from interview and observation. In addition, to obtaining information directly through the source, the result of the interview can be directly identified through the facts in the field (Nyström & Sjögren, 2012).

The Contextual Inquiry interview was conducted through an interview process with one of the administrators of Boen Bio Temple and Hong San Koo Tee Temple as well as the owner of Roemah Sembajang Kaloearga Han Bwee Koo to gather information that has never been known and has never been reviewed before. The information obtained were

descriptions of history, symbols, and meanings of all the architectural and interior elements of the building.

2.4 Descriptive Analysis

This research uses qualitative methodology with a descriptive type of analysis. The data collected were descriptions, and images, which were obtained in their natural settings (Moleong, 2007). Literature theory was obtained from books, journals, internet sources, videos, and several informants in the observation and interview stages. The step produces data that becomes a benchmark to strengthen the results of analysis to address the hypotheses.

3 RESULTS AND DISCUSSION

3.1 Pecinan

Pecinan is a term for China town in Indonesia during the Dutch Colonial Era; that is, an area with a community of a Chinese ethnicity in a certain part of the city. This area generally has typical characteristics of Chinese architectural forms, decorations and elements. The existence of retail or business trade activities such as restaurants, shops, and temples are also one of the characteristics of a *Pecinan* (Salim, 2012). According to (Handinoto, 2008), the *Pecinan* area is relatively narrow consisting of several buildings such as: *Klenteng* or temples, Shophouse, Residential, that have the following characteristics:

- a spacious courtyard
- a distinctive roof shape
- an open structural element (usually also accompanied by decorative ornaments)
- distinctive colors (Red, Yellow/Gold).

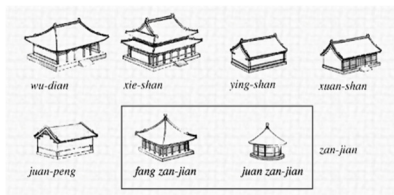


Figure 6: Types of Chinese Roofs (Chiou et al., 1996).

3.1.1 Concept of Order

According to (Kartono, 2012), the basic concept of the Chinese building plans was influenced by Taoism, such as:

- North-South axis: considered as a provider of the good energy of *chi* flowing from north to south, according to *fengshui*.
- Outer Wall: has an inner opening to protect the inhabitant from danger from the outside. This wall also symbolizes the unity of a family.
- Courtyard: A space where the air circulate that also symbolizes the relationship between human (horizontally) and between human to God (vertically)
- Main Gate: As a territorial mark and also as an entry into the area.
- Spatial Hierarchy: In a Chinese building, the location of a room determines the importance and values of the space. The deeper the location of a room within the building, the more important it is and the higher the privacy of the area. The activity around the altar was to remind people to respect their ancestors.
- Symmetry: The symmetrical layout symbolizes the *Yin* and *Yang* that balances one and the other.

According to (Bai, 2007) and (Ma, 1999), the gate decoration and design in a house is an important element, which is as a symbol of rank or wealth of the owner. Even though there is a difference in the decoration splendor on a house door, the gate must still have double doors because it fulfills the symmetrical principle or balance of *Yin* and *Yang*.

3.1.2 Building Typology

The Chinese building typology according to (Adhiwignyo & Handoko, 2015) are as follows:

- Vertical Rectangular Type

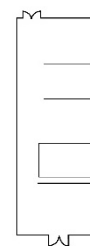


Figure 7: Vertical rectangular layout.

This type is a simple building with an airwell or air hole in the middle. It is called a vertical rectangle because the distance between the main wall and the back wall is longer than the distance between the right and left walls. This type is the most common form in narrow urban cities with a shophouse on the front.

- Horizontal Rectangular Type

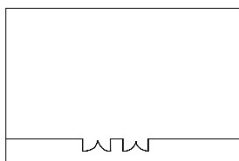


Figure 8: Horizontal rectangular layout.

This type of building that is widely used by people in rural areas. This building type is based on one main building with three covering walls and a barrier wall, where the wall of the front door is longer than the distance between the front door and the wall behind it.

3.1.3 Types of Courtyard

In northern China, courtyards are enlarged in the north and south to receive winter light.

- *Siheyuan* Type

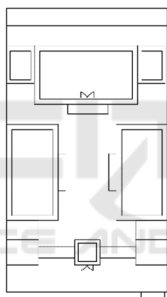


Figure 9: Type of Siheyuan layout.

Siheyuan consists of three buildings with the basics of Sanheyuan and the addition of a courtyard at the front, marked by the addition of the main gate on the right side, while in the Sanheyuan, the fence is in the middle. The concept of symmetrical and angular planning is used in the presence of a north-south orientation and a covering wall. Siheyuan is widely used in courtyard-type dwellings in the South China area.

- *Sanheyuan* Type

Sanheyuan type consists of three buildings positioned opposite the main building and two flanking doors on the left and right sides. The middle part is usually left open as a courtyard for gathering and other daily socio-economic activities. Its main feature lies in the symmetrical concept and angular axial design but does not follow the north-south axis and there is no covering wall.

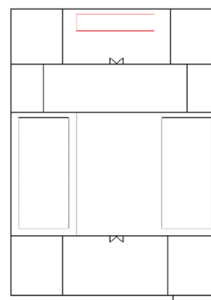


Figure 10: Type of Sanheyuan layout.

- Combination or Mixed Type

This type is a combination of *Sanheyuan* and *Siheyuan* types which expand at the front yard. Three buildings were added with the same composition as Sanheyuan and the gate is located in the middle. In the center of the main building complex is the ancestral altar. This type of house is usually found in the wealthy areas of South China, in which they can add and expand the left and right sides and the back with new building complexes with large complex corridors.

3.2 Acculturation

Acculturation is a process of cultural and psychological change that occurs between cultural and individual group members (Berry, 2017). Acculturation usually occurs because of the migration process in a culturally pluralistic society among ethnocultural communities (ethnic groups that have different cultures). In addition, according to (Koentjaraningrat, 1996), acculturation is a social process that occurs in a society with a different cultural background after establishing communication, so that the cultures' distinctive characteristics of each group become new cultural elements but still do not leave the original culture.

3.3 *Pecinan* at Kapasan Dalam Street

The small *Pecinan* is located at Kapasan Dalam Steeet. To get to this Chinatown, you need to enter a small alley across the Kapasan Market. The condition around the Chinatown Village is very crowded with trading activities and there are lots of shophouses. The function of the gate shape is for the entrance to the Chinatown village and it has the *xiē shān* (歇山) saddle roof form with an arch. This kind of roof is often found in Chinese buildings in Indonesia.



Figure 11: Kapasan Dalam Gate.



Figure 15: Kindergarten at Kapasan Dalam.



Figure 12: Xie-shan roof (Source: Chiou, 1996).



Figure 16: Xuan-shan roof (Chiou et al., 1996).



Figure 13: Detail Kapasan Dalam Gate.

Inside the Kapasan Dalam Chinatown, there is a building that currently functions as a kindergarten. This building has a Chinese style roof with the Xuán Shān (懸山) type.

3.4 Boen Bio Temple



Figure 14: Front house at Kapasan Dalam.



Figure 17: Klenteng Boen Bio exterior.



Figure 18: Xie-shan roof (Chiou et al., 1996).

The use of the distinctive red color in Chinese-patterned buildings has a philosophical meaning which means luck and prosperity. Red also symbolizes Fire or South. Meanwhile golden yellow is associated with the element of Earth or center, which is regarded as the royal or imperial color. Both color in Feng Shui suggest that the use of colors can change the mood and balance of the Chi (Yin and Yang) or brings harmony (Lee, 2012).

The layout type used in Boen Bio temple is a vertical rectangular extending backward with the courtyard Sanheyuan type.

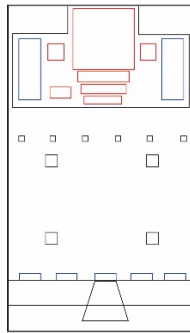


Figure 19: Klenteng Boen Bio layout.



Figure 20: Klenteng Boen Bio interior.



Figure 21: Side view of Klenteng Boen Bio.

Boen Bio Temple is located at Kapasan Street Number 131, Surabaya. It is a special pagoda for the Confucian religion, the only one in Southeast Asia. Red is the dominant color in this building. The building has a roof in the shape of Xiē Shān (歇山). It has 4 main pillars on the outside of the main building and 5 large doors as a symbol of the 5 earth elements, namely water, fire, metal, earth, and wood. The middle entrance is deliberately made steep and not stepped because it has a philosophical meaning which means humans who want to achieve a holy life will not be easy. The construction of the Boen Bio temple was built on the initiative of the people in Kapasan Dalam, namely Go Tik Lie and Lo Toen Siong in 1883 because the Kapasan Dalam area did not have a worship place. After this temple was built,

it received the blessing of the Qing Dynasty emperor by being given a tablet with the emperor's stamp read Sen Diao Nan Cing.



Figure 22: Altar Klenteng Boen Bio.



Figure 23: Klenteng Boen Bio pillar.

The Boen Bio temple has interior elements that are very distinctive to Chinese ethnic buildings can be seen from the shape of the pillars which have dragon carvings. The ceiling support form (Tao Kung) shows the constructive details of the joints between columns and beams. The room is also dominated by red and yellow. The floor on the Boen Bio temple on the terrace has an Art Nouveau-style floor pattern, namely the Encaustic style which was then popularized by the Dutch Colonial in Indonesia.

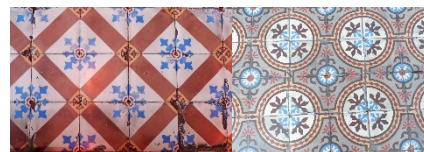


Figure 24: Floor of Klenteng Boen Bio.

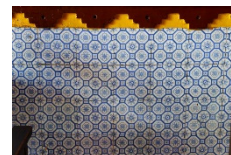


Figure 25: Under wall in Klenteng Boen Bio.

3.5 Roemah Sembajang Kaloearga Han Bwee Koo



Figure 26: Front view of Roemah Sembajang Kaloearga Han Bwee Koo.



Figure 27: Roemah Sembajang Kaloearga Han Bwee Koo layout.

Roemah Sembajang Kaloearga Han Bwee Koo is an altar house located at Karet street 72, Bongkaran. Following the results of an interview with Mr. Richard Han (personal communication, April 19, 2021), this house was built by a captain from China named Han Bwee Koo in 1800 as an administrative office for immigrants from China and a place of worship for the Han family. This building currently functions as a place of prayer or to hold a ceremony to honor the ancestors and currently inhabited. The layout of the building uses a rectangular vertical layout that extends backward and uses a mixed type with the courtyard type *Sanheyuan* and *Siheyuan*. The shape of the building has been adapted to the climatic conditions in Indonesia so that the house is made with a large front porch, protected from the sun by a wide hanging roof, which expands to all angles. This shape is similar to the characteristics of the Joglo roof in traditional Javanese houses. However, the shape of the roof with a pointed arch that rises upwards is included in the *Xiē Shān* (歇山) roof type which is commonly used in Chinese houses in Indonesia.



Figure 28: Front Pillar of Roemah Sembajang Kaloearga Han Bwee Koo.

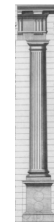


Figure 29: Doric Style (Perrault & McEwen, 1993).

The structures of the building in the form of two pillars uses The Empire Style, influenced by the Dutch colonial style, which adopted the Greek style column, namely the Doric style. Doric style is characterized by its simple shape with a square capital and tubular shaft.

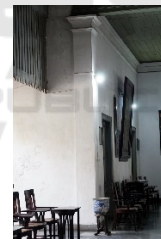


Figure 30: Courtyard pillar of Roemah Sembajang Kaloearga Han Bwee Koo.



Figure 31: Tuscan Style (Perrault & McEwen, 1993).

The support form in the Rumah Abu Han is in the form of a column of The Empire Style which got an influence from the Dutch colonial style and adopted the style of the Greek column, namely the Tuscan style. The Tuscan style is characterized by a simple shape with a square capital and a tubular shaft.

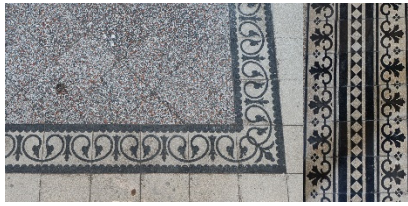


Figure 32: Front porch floor.

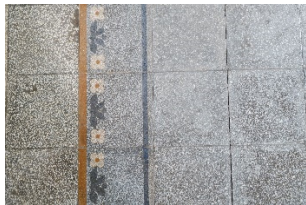


Figure 33: Side porch floor.

The floor pattern on the porch of the Abu Han house is characterized by Dutch colonial culture which can be seen by the use of tiles with Encaustic motifs.



Figure 34: Table in courtyard.



Figure 35: Altar ceiling



Figure 36: Robyong lamp in porch.

The high ceiling in the altar room shows the influence of Dutch culture as well as plant vine motifs and a medallion circle.



Figure 37: Robyong in Keraton (Jogjakini, 2009).

In each courtyard of the Abu Han House, there is a Javanese robong lamp which has a branching feature, and a pair functions as decorative lights which have a meaning for life.



Figure 38: Front courtyard.



Figure 39: Back courtyard.

There are three doors in the courtyard and prayer area. The number three in Chinese culture has a philosophical meaning of three realms, the first is the "non-polar realm" (無極界), the second is the "supreme realm" (太極界), and the third is the "desire realm" (現世界). Taoism defines "three doors" with the assumption that the gods come from three realms, where the last realm is the human realm. The entrance to the prayer area is adopted from the Dutch colonial form which is an elevated rectangle with two single-layer doors. The influence of the Dutch colonial culture can also be seen in the shape of the door ventilation which is in the shape of a semicircle (*bovenlicht*) with wood finishing and dark blue paint.

3.6 Rumah Sembahyang Keluarga the Goan Tjing



Figure 40: Front view of Rumah Sembahyang Keluarga the Goan Tjing.



Figure 44: Xuán Shān Roof form of Rumah Sembahyang Keluarga the Goan Tjing.

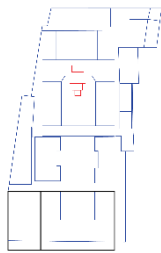


Figure 41: Rumah Sembahyang Keluarga the Goan Tjing layout.

The floor in the courtyard uses an Art Nouveau style with an enchanted pattern taken from the shape of a flower.



Figure 45: Courtyard floor.



xuan-shan

Figure 42: Xuan-shan roof (Source: Chiou, 1996).

3.7 Klenteng Hok An Kiong



Figure 43: House signage.



Figure 46: Front view of Klenteng Hok An Kiong.

Rumah Sembahyang Keluarga The Goan Tjing is an altar house located on Karet Street Number 50, Bongkaran. This prayer house was built by The Goan Tjing's descendants during the Dutch colonial era. The layout form of The Goan Tjing's House adopts a vertical rectangular type with a mixed courtyard type between the *Siheyuan* and *Sanheyuan* types. The roof of the prayer house The Goan Tjing is of Xuán Shān (懸山) type which is in the form of a gable with an arch parallel to the gavel.

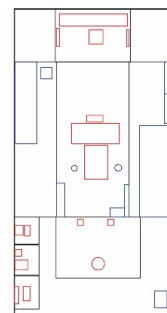


Figure 47: Klenteng Hok An Kiong layout.



Figure 48: Front porch of Klenteng Hok An Kiong.

Hok An Kiong Temple is located at Coklat Street Number 2, Bongkaran. This temple has a roof shape of the Xiē Shān (歇山) type. The ceiling is left exposed to the open showing a column-to-beam connection system. The colors used are dominated by two distinctive colors: red and yellow. The other colors on wall dioramas are green, blue, and white. Each color represents values that will be explained in Table 1.

Table 1: Color meaning based on Feng Shui. (Lee, 2012).

Color	Meaning	Symbolize
Black / Blue	Profundity	Water
Green	Advancement	Wood
Red	Luck, Happiness	Fire
Yellow	Prosperity	Earth
White	Purity	Metal

All the colors have a meaning to balance each other (Yin and Yang). The layout on the Hok An Kiong Temple adopted the vertical rectangle layout with Siheyuan courtyard type.

3.8 Kembang Jepun



Figure 49: Kembang Jepun Kya-Kya Gate.



Figure 50: Xie-shan roof. (Source: Chiou, 1996).

Kya-Kya Kembang Jepun Gate is a road gate that marks the *Chinese Voorstraat* and the Chinatown area in Surabaya. The gate has a Xiē Shān (歇山) roof shape with a dragon ornament as decoration on the roof. The gate has 3 colors, namely red, gold, and green. Each color represents values that will be explained in the Table 2.

Table 2: Color meaning based on Feng Shui. (Lee, 2012).

Color	Meaning	Symbolize
Green	Advancement	Wood
Red	Luck, Happiness	Fire
Yellow	Prosperity	Earth



Figure 51: Front view of shophouse at Kembang Jepun.



Figure 52: Front view of shophouse at Kembang Jepun.

The shophouses in the Kembang Jepun area are built in a row and met with a characteristic form of decoration on the 2nd floor with a facade shape like the characteristics of a shophouse in Penang Malaysia.

3.9 Klenteng Hong San Ko Tee



Figure 53: Front gate of Klenteng Hong San Ko Tee.

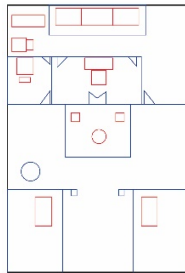


Figure 54: Klenteng Hong San Ko Tee layout.



Figure 55: Xie-shan roof (Chiou et al., 1996).

Hong Sang Ko Tee Temple is located at Cokroaminoto Street. This temple is a Tridharma temple that is used for 3 religions: Confucianism, Buddhism, and Taoism. Both the shape of the main gate and the entrance to the temple both have 3 doors following the characteristics of the temple building which means 3 realms. The use of red, green, and yellow colors remains the dominant color. The entrance gate has a roof in the form of Xiē Shān (歇山) and the shape of the building layout is a vertical rectangular type. The courtyard type at Hong San Ko Tee Temple is a mixed type, which is a combination of *Sanheyuan* and *Siheyuan* types.



Figure 56: Floor pattern on front altar.



Figure 57: Roof of Siti Moyo.

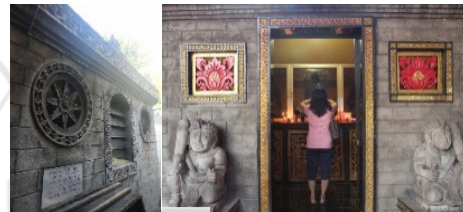


Figure 58: Wall and decoration.



Figure 59: Table ornament on altar.



Figure 60: Siti Moyo front view.

On the inside of the pagoda, there is an additional space with features like as a temple with a description

in writing on several altars using Javanese script which is modified using Latin letters. The ornaments around it use floral motifs and leaf tendrils in gold.

3.10 the Similarities to Chinese Buildings Characteristics

Through the analysis conducted, the overall characteristics of buildings observed at Pecinan Surabaya that are influenced by the Chinese ethnic culture are the roof shape, followed by three doors. These three doors contain the philosophical meaning from Buddhism and Taoism. According to Cangianto, the first is the door of Emptiness (空門 sunyata), the second is the "door without form" (無相門 animitta), and the third is the "door without desire" (無願門 apranihita). Meanwhile, in the teachings of Taoism, it has the meaning of three realms, the first is the "non-polar realm" (無極界), the second is the "supreme realm" (太極界), and the third is the "desire realm" (現世界). Taoism defines "three doors" with the assumption that the gods come from three realms, where the last realm is the human realm. In addition, the philosophical meaning of the number three can also mean the three teachings of Buddha, Tao, and Confucius. Three doors form a balance (yin-yang), with the middle door as the main point and usually larger than the two doors on the left and right (Hetyorini, 2014).

4 CONCLUSIONS

Chinese architectural style buildings are mostly found in the northern part of Surabaya, by the presence of Chinese-style buildings which have a few mixtures with Javanese and European elements. Each building has influences from Chinese culture and is characterized by a Xuan Shan roof form and has a dominant building colour of red. Meanwhile, the influence of Dutch Colonialism was widely applied to the floor, using encaustic motifs. Local culture is also reflected in several forms of carving and spatial organization.

- The Chinese architectural style buildings and Chinatowns in Surabaya generally can still be found in the northern part of Surabaya because it is close to Tanjung Perak Port which was the only access for Chinese traders to enter Surabaya via the waterway. In addition, it was also caused by the *wijkenstelsel* law which did not allow ethnic Chinese to leave the area. The buildings have similar characteristics of Chinese influence,

especially in their roof forms, which are dominated by the Xiē Shān (歇山) type as seen in Boen Bio Temple, Roemah Sembajang Kaloearga Han Bwee Koo, Hok An Kiong Temple, Kya-kya Gate, and Hong San Ko Tee Temple Gate.

- The use of red, green, and yellow in buildings is also one of the elements that show Chinese architectural characteristics.
- The majority of Chinese buildings in North Surabaya uses an arrangement of three parallel doors at the entrance which has a divine philosophy that comes from the three realms where the last realm is the human realm.
- There was an acculturation process by Javanese and European cultures in several Chinese buildings in Surabaya, especially in the northern parts. Cultural acculturation is not only found in the physical building, both exterior, and interior, but also in the circulation of space.
- Some of the buildings are in poor condition. Therefore, through the results of this study, it is hoped that government agencies, the private sector, and the Chinese community can make efforts to preserve these valuable old Chinese buildings in a sustainable way, especially in the northern parts of Surabaya.

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