

2016

Can We Make Chinatown a More Sustainable Environment: Rethinking and Remaking Chinatown, San Francisco?

Zhen Wang

Louisiana State University and Agricultural and Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_theses



Part of the [Landscape Architecture Commons](#)

Recommended Citation

Wang, Zhen, "Can We Make Chinatown a More Sustainable Environment: Rethinking and Remaking Chinatown, San Francisco?" (2016). *LSU Master's Theses*. 1525.

https://digitalcommons.lsu.edu/gradschool_theses/1525

This Thesis is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Master's Theses by an authorized graduate school editor of LSU Digital Commons. For more information, please contact gradetd@lsu.edu.

CAN WE MAKE CHINATOWN A MORE SUSTAINABLE ENVIRONMENT:
RETHINKING AND REMAKING CHINATOWN, SAN FRANCISCO?

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Master of Landscape Architecture

in

The Robert Reich School of Landscape Architecture

by

Zhen Wang

B.E., Huazhong Agricultural University, 2014

May 2016

ACKNOWLEDGEMENTS

This project is greatly significant to me in the period of my Master's study in Landscape Architecture, because it started my interest in discovering how the field in landscape architecture was developed and transformed. Here I want to give great thanks to Professor Austin Allen, my thesis advisor, studio instructor, and supervisor of my graduate assistantship work, who opened my eye to think landscape research in a whole different way. His insight in landscape study, especially in minor group, has been greatly inspiring me. I also very appreciate my committee members, Professor Jun Zou and Professor Joyce Marie Jackson, who provided fascinating suggestions for my thesis and encouraged me all the time to pursue what I am really interested in. Besides, I want to thank Professor Diane Jones Allen and Professor Bruce Sharky, who were my studio's instructors, for their enthusiastic but patient guidance on my projects. I am grateful to my undergraduate classmate Jianwei Hou, and I really enjoyed our discussions on this project.

Finally, I want to thank my mother and all my friends for their understanding and encouragement.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
ABSTRACT	iv
CHAPTER 1 BRIEF HISORTY AND PROJECT BACKGROUND	1
1.1Gold Rush, Transcontinental Railroad, Agriculture Cultivation.....	1
1.2 Acts of Exclusion in 1882	2
1.3 Repealing of Exclusion in 1940s	3
1.4 Conclusion	3
CHAPTER 2 SITE ANALYSIS	5
2.1.The influences of Chinatown on Urban Design, San Francisco	5
2.2 Mapping the Distribution of Chinatown in the United States	19
2.3 The Timeline of Chinatown, San Francisco	20
CHAPTER 3 METHODOLOGY	22
3.1.Study Framework	22
3.2 Current Urban Problems in Chinatown and Design Question	22
3.3 Site Analysis: Quincy Street and St. Mary Square in Chinatown	24
3.4 Strategies	26
CHAPTER 4 SITE DESIGN	27
4.1 Concept	17
4.2 Site Design	28
CHAPTER 5 CONCLUSIONS.....	34
REFERENCES.....	35
VITA	37

ABSTRACT

Since nineteenth century, Chinese immigrants in the United States had a great contribution to the economy and transformation of landscape by gold mining, transcontinental railroad construction and agriculture cultivation, applying techniques that were learned from ancestors thousands years ago in China. And Chinatown as the first destination of continuing Chinese immigrants transformed from a ghetto to the top tourist attraction of the city in San Francisco with commercial-oriented development in more than a hundred years.

This paper will explore the transformation of the image and representation of Chinatown by analyzing Chinese culture influences, American confinement, and pop culture impact, to have a better understanding of culture identity, how places are planned and designed in a complex global economical and racial context, and immigrants' influences on urban design.

Combined with historic background and current urban problems, this study provides a great opportunity to rethink open space in Chinatown and recognize Chinese culture influences in the overall transformation of the city, with growing culture diversity and desire for a more sustainable and equitable environment.

To make Chinatown more than a tourist destination, the paper comes out specific design strategies to celebrate Chinese community in Chinatown, San Francisco, by

designing sustainable open space, reinforcing Chinese culture and culture influenced architecture design, and reaching community congregation.

CHAPTER 1 BRIEF HISTORY AND PROJECT BACKGROUND

1.1 Gold Rush, Transcontinental Railroad, Agriculture Cultivation

1.1.1 Gold Rush, 1849

In 1849, a small amount of Chinese began to arrive in California as the frontiers for placer mining. Due to the suffering situation both in economical and political environment in Southeast of China around 1850, a dramatic increasing number of Chinese poured into California and then other parts of America. In 1870s, the number of Chinese miners raised to 17,069, a quarter of all laborers in the West of America (Zhu 45). During that time, agricultural techniques on water management since ancient China was introduced by Chinese immigrants, and was transferred to mining (Zhu 53). Water management techniques such as ditching, damming, pumping, which were used to be practiced in rice paddy agriculture in Canton, China, was brought to U.S. for goldfields (Davis 138). The Chinese miners soon grew as the dominant group of placer mining in California as experienced and efficient laborers (Zhu 57).

1.1.2 Transcontinental Railroad, 1865

In 1865, the construction of Central Pacific Transcontinental Railroad started. Chinese laborers, who stayed in the US after the Gold Rush, were responsible for the west part of the work. With their excellent performance, more and more Chinese were delivered directly from Canton, Southeast of China to California. The construction lasted for four years and the building of the railroads contributed to the development of US's

economy by connecting the west to the east of the country and reforming the geographical and social territory of the United States (Zhang and Yang 102).

1.1.3 Agriculture Cultivation, Late 19 Century

The same technique that was used in China was not only applied to mining, but also applied to local agriculture. Holding a long history of farming culture, Chinese immigrants with rich agrarian experience also donated themselves into agriculture industry. For instance, in the late 19 century, Chinese who are professional on fishing from Canton moved to San Francisco for fishery (Kaplan-Levenson “The Little Company that Cloud”). Then they went to Louisiana to discover wetlands forced by Exclusion Act from 1882 to 1943, because those Chinese could go nowhere but to live and work in wetlands, which were isolated, and invisible for whites (Davis 142). In the Don Davis’s study, he claimed that dried shrimp was truly the first international market for a Louisiana product because of Chinese (142). The shrimp company operated by a Chinese man called Quong Song, who exported dried shrimp to New York Chinatown, started the global shrimp fishery trading in the world (Kaplan-Levenson “The Little Company that Cloud”).

1.2 Acts of Exclusion in 1882

In 1882, the Acts of Exclusion was published for prohibiting Chinese laborers entering into the US (Lee 121). Chinese immigrants who stayed in the country were not allowed to gain citizenship, and those who have no legal identification would be in the

face of deportation. Before the official restrictions came out, Chinese immigrants had been discriminated for housing, trading, educating, transporting and so on. The trigger for the law was the economy depression of white community, who regarded Chinese laborers as an extremely competitive threaten (Lee 25). Chinese Acts of Exclusion severely restricted immigration from Chinese and their contact to the outside.

1.3 Repealing of Exclusion in 1940s

In 1941, the political ice between the two countries were broken and the law of Chinese exclusion was repealed in 1943, due to the increasing social status of China, the urgency for Sino-Japanese War, infamous propagate of racism, and pressures from Chinese merchant elites, who were constantly seeking for social equality (Hong “The Repeal of Asian Exclusion”). The repealing of Acts of Exclusion stimulated a new wave of Chinese immigration, and the economic, educational and social awareness became eminent gradually. The “yellow peril” became “model minority” gradually (Hsu 198).

1.4 Conclusion

With a long advanced civilization of agriculture and metallurgy, Chinese performed as experienced and efficient cultivators and workers in the immigrants of the United States. Water management techniques that were applied to gold fields and railroad constructions, were also transferred into swampland reclamation, and help convert the underutilized land into productive farmland and global fishery area. The contribution that the Chinese immigrants made was not only the west’ suddenly appear on the horizon in

capital accumulation by gold trading, connecting to east of the United States, but also stimulated the transformation of landscape of the nation.

CHAPTER 2 SITE ANALYSIS

2.1.The influences of Chinatown on Urban Design, San Francisco

2.1.1 The Tactic Process of Occupying Open Space

Before the Gold Rush 1848, San Francisco was a sleepy trading port, which went through the Spanish Period (1776-1821), Mexican Period (1821-1848), and the American Period (1846-Present). The population by the end of 1849 boomed to 25,000 in different colors, countries and professions after the discovery of gold in California (Choy 23-29).

2.1.1.1 Growing from a Street, 1850s

By the mid of 1850s, Chinatown in San Francisco, started from Sacramento Street (Lee 16). Because of the relatively blight block compared with costal business district, Chinese laborers occupied this area in a very low price from landlord. The street directed straightly to wharfs, which was the concentrated area for global trading to Southeast China. Settled by Chinese laborers, the street became the place that provided Chinese goods, including shoes, furniture, and laundry to fulfill the need both for domestic citizens and laborers (Choy 35). Dupont Street (Figure 1), now Grant Avenue (Figure 2), was the following street that was occupied and flourished by Chinese laborers with distinct storefront appearance (Lee 25). The streets and blocks became a recognizable destination for the Chinese immigrants.

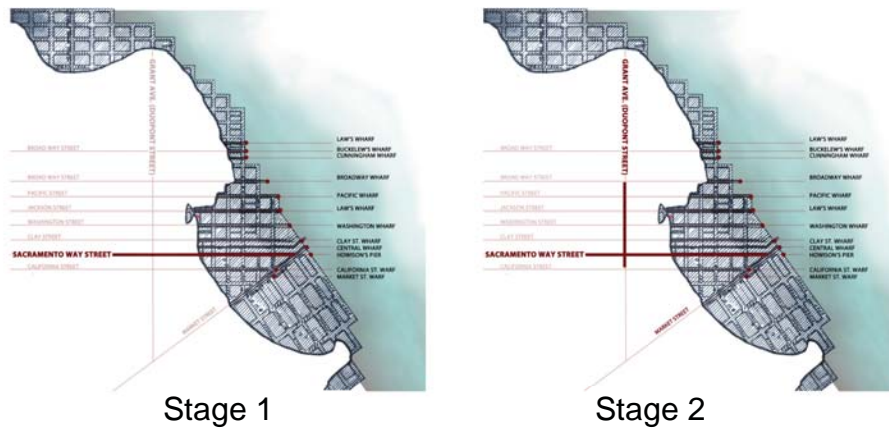
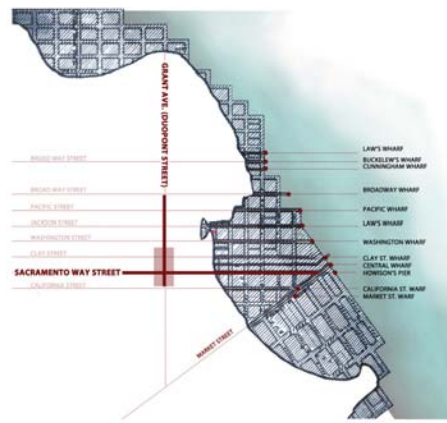


Figure 1 The Growing Pattern of Chinatown, San Francisco

2.1.1.2 Growing Intersection of the Two Streets



Stage 3

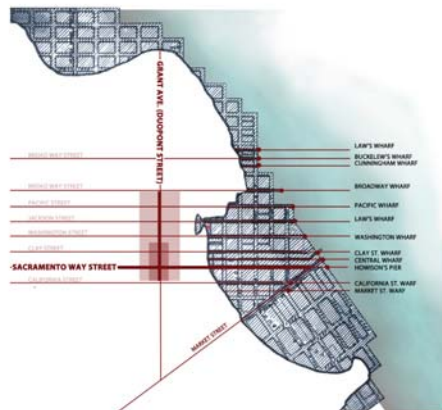
Figure 2 The Growing Pattern of Chinatown, San Francisco

The intersection of Sacramento Street and Dupont Street, which were the origin of Chinese concentrated area, grew immediately into a recognizable zone (Lee 24). The competitive Chinese laborers were able to “name the streets based on their preference and experience” (Lee 25). Moreover, different classes of laboring occupied distinct zones

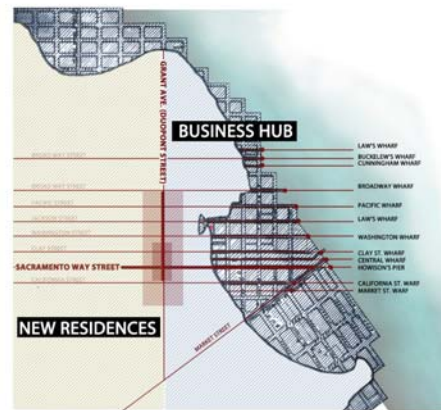
on behalf of each group's interest. This domination demonstrated a developing pattern that was organized by separate political and economical capacities (Lee 14).

2.1.1.3 Distinct Zone

With the expansion of costal business district with rising land value, many merchants of different ethnic groups moved to Nob Hill for new residential development (Lee 20). Chinatown, therefore, became a necessary passage for non-Chinese between overwrought docks and boosting residential houses on hills (Figure 3). The ambiguous zone that was occupied by Chinese in the central of the city, became the first stop for an unceasing pour of new seasonal residence from China laboring gold rush and transcontinental railroad in the late 1860s.



Stage 4



Stage 5

Figure 3 The Growing Pattern of Chinatown, San Francisco

2.1.1.4 The Transformation of Land Use

Chinese occupied the blight tenement housing during the gold rush, serving for seasonal laborers and domestics. Both Chinese goods and Chinese laborers were extreme popular by the city, so that the blocks, which were settled by Chinese, was turned into city's light industry center of manufactures (Choy 34). The first storefronts were opened for factories, schools, hospitals, laundries and retails (Choy 34). Blight tenements in the city became mixed-use buildings and the streets, as a result, were revitalized with life. With the increasing intensity of anti-Chinese act during that time, the storefronts along streets became spaces both for commercial activities and social interactions. After the repealing of exclusion, children and females were allowed to come back for union and demographic configuration transformed male prevalence to small families. Single rooms for male can no longer fulfill the need of growing families (Figure 4).

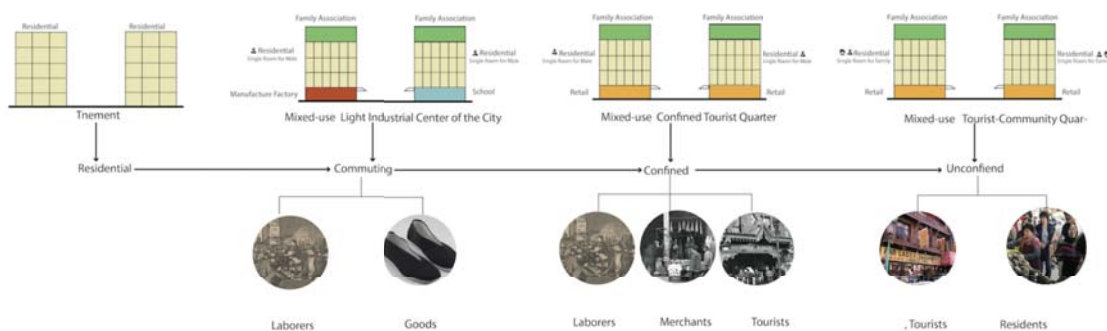


Figure 4 The Transformation of Land Use

2.1.1.5 The Expansion of Alley

Because of the exclusion act from 1882, Chinese immigrants had no choice but to be confined in Chinatown. With the growing density of population and limited live offerings, residents in Chinatown claimed the under utilized alleys and develop them into small and community business. The alleys that in Chinatown were transformed from passage only area to congested corridors, both for passing and social interacting (Figure 5).



Figure 5 The Expansion of Alley

Started from the Sacramento Street and built on the under desirable land at first since the Gold rush, Chinese immigrants occupied the blight single-used tenement district and transformed it to a mixed-use quarter. As the city's light industry center with highly recognizable streetscapes, Chinatown served for continuing Chinese immigrants and transient laborers, and separated the city into busy coastal business zone and new hill residential area. With the economic depression after Civil War and growing intensive

economic competition between different white and Chinese, Chinatown was confined in the boundary as a self-sufficient enclave and became more congested. Therefore, the characteristics of streets and alleys in Chinatown were enhanced to express the need for social setting both for commodity and community that was gathered in the restricted space. In the contested process of city's development, Chinatown continually occupied the very central area of the city, and the location that was originally regarded as abandoned, now is one of the most expensive lands, just near the financial district and downtown, San Francisco.

In the process of city's development, Chinatown as a minor community, compared to Fillmore district, which is the major African American community in San Francisco, demolished in 1990s, survived in the same location for more than a hundred year. The reason that why Chinatown could remain in this valuable space and the strategic location of Chinatown nowadays which would face an opportunity for transformation for a more friendly environment would be discussed in the next chapters.

2.1.2 American Pop Culture and Chinese Traditions

2.1.2.1 City Beautiful Movement and Daniel Burnham's Plans for the Redesign of San Francisco

Daniel Burnham (1846-1912), an architect and urban designer, who was well known for his project on World's Columbian Exposition in Chicago, was invited to redesign San Francisco in 1904 as branches of City Beautiful Movement (Figure 6). The plan conducted by Daniel Burnham followed the European style of urban design, with

characteristics of conquered grids, highways, and symmetrical pattern of buildings (Metcalf "The Imagined City"). The 1906 earthquake happened just after the delivery of the plan in 1905, but the plan was not implemented. The reason was that the rush of reconstruction made it no time and no money to execute the plan. Although the city was reconstructed by existing patterns, the idea of symmetrical representation of the city was reflected in the design of civic center afterwards. The idea of redesigning San Francisco revealed a colonial scene, which was most obviously represented on, was urban renewal projects on minority groups.



Figure 6 Daniel Burnham's "Plan for San Francisco" (Source: "The imagined city: Burnham's Vision")

The widened Dupont Street, now Grant Avenue, which represented high-rise buildings, was contradictory to Chinatown nowadays with low buildings and narrowly crowded passageways (Figure 7). The proposal, which showed an ambitious vision of an extreme concentration of capital and powerful city revealed the fact that Chinatown was considered as a blot of the city during that time.



Figure 7 A Plan for Remodeling Chinatown along Grant Avenue, CA. 1990.
 (Source: Li, Chuo. *Chinatown and Urban Redevelopment: A Spatial Narrative of Race, Identity, and Urban Politics, 1950-2000*. Diss. University of Illinois at Urbana-Champaign, 2011.

2.1.2.2 Relocation of Chinatown in Hunter's Point after 1906

After the 1906 earthquake, the city saw it was a great chance to cleanse Chinatown as a ghetto and relocate it outside the core of the city. In *Overland Monthly*, it said, "Fire has reclaimed to civilization and cleanliness the Chinese ghetto, and no Chinatown will be permitted in the borders of the city.... it seems as though a divine wisdom directed the range of the seismic horror and the range of the fire god." (Henn par.2).

The city's intention to relocate Chinatown was to eliminate Chinatown from the center of the city, but meanwhile, keep grasping tremendous poll taxes from Chinese merchants (Henn par.6). Hunter's point was located near the Presidio golf links, which

would result in little chance for Chinese immigrants to stay permanently on a segregated golf course. The way in using public open space for segregation was common in the history of urban development in the United States (Figure 8).



Figure 8 The Proposal for Oriental City at Hunter's Point (Source: Li, Chuo. *Chinatown and Urban Redevelopment: A Spatial Narrative of Race, Identity, and Urban Politics, 1950-2000*. Diss. University of Illinois at Urbana-Champaign, 2011).

However, Six Companies did not intent to leave their former site for insistency on commercial interest and tradition for living together as a union (Henn par.17). And the declaration of transferring Chinese coastal trading to Oakland and Seattle would cause a huge loss of profit in San Francisco (Henn par.12). More over, the Telegraph-protest to relocate Chinatown in Hunter's point by Telegraph Hill neighborhoods made Chinatown an unacceptable object to that area ("1906 Earthquake: Chinese Replacement"). Eventually, the economy consideration as well as neighborhood's protest failed the proposal. The " New Oriental City" proposal for Chinatown was offered by Chinese

prominent merchants to be a compromise to return to their original site and transform Chinatown into a tourist enclave, which would bring the city with much more money. This transformation is the product of negotiation between the initial proposal on demolition of Chinatown, to vision a perfect city and the dominant financial power of Chinese merchants for surviving. “This is the first time that the Chinese in San Francisco holding the chalk”, said Felicia Lowe (KQED “Chinatown”).

2.1.2.3 The Transformation from Ghetto to the Top Tourist Attraction

Before 1906, the pre-fabricated wooden structures were imported from Guangdong Province, China, to San Francisco for the dwelling place of labors in Chinatown (Choy 30). The granite imported from Hong Kong was used as important materials for municipal architecture in the city as well (Figure 9). From the study of Elizabeth Sinn's *Pacific Crossing* (Figure 10), she reported that HK exported “23 ships – 148,122 bricks, 1,158 maybe slabs, 12,059 planks of timber, 3,775 (roof) tiles, 312 window frames and wrought granite to San Francisco in 1849” (141-142). The first stone structure in San Francisco was Parrott Building built by Chinese masons in 1852, with granite blocks quarried in China (Choy 32).

After the rejection of Chinatown's relocation in Hunters' Point, the compromises that turned Chinatown into the tourist attraction was approved by both Chinese associations and city's planners.

A white architect Clarence R. Ward's, who had never been to China, was hired to design an "Oriental" style of architecture. He designed with the imagination upon ancient Chinese paintings, and used American construction techniques and local materials (Choy 44). However, the proposal was not implemented in the end.



Figure 9 Pre-fabricated Wooden Structure on Dupont Street (Source: Lee, Anthony W. *Picturing Chinatown: Art and Orientalism in San Francisco*. Univ of California Press, 2001.)



Figure10 Parrott Block, 1852 (Source: Courtesy of UC Berkeley, Bancroft Library)

Another way of building “oriental” style architecture was conducted (Figure 11). Buildings in San Francisco were allowed to cover the full lots so that there was no extra space for reforming, except facades and corners (Upton 109). The top corners were decorated with multi-storied curved eaves of pagoda towers, and facades were decorated with curved roofs and iron balconies in traditional Chinese patterns (Figure 12).

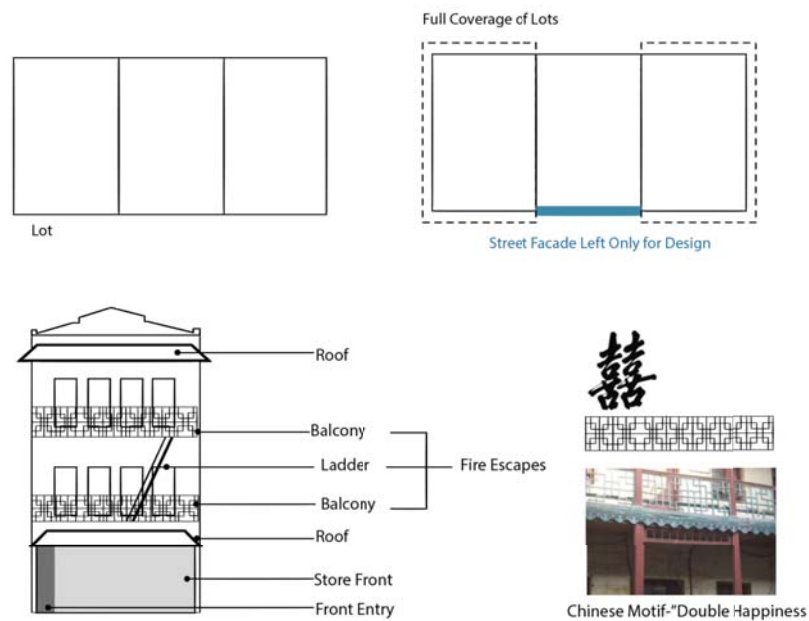


Figure 11 Parcel and Façade Design of Architecture in Chinatown



Figure 12 Combination with Corinthian Pattern and Chinese Pattern

The reformed “oriental” architecture was endorsed by Real Estate Board of San Francisco and was applied as a model introduced to the rest part of Chinatown (Choy 44). The remodeling architecture style was neither Chinese nor American but an exotic appearance as the production of tourism. This pseudo-Oriental style architecture was cost-efficient to build and fulfill the curiosity of visitors upon the imagination of Chinatown.

The representation of Chinatown, particularly in architecture, is the hybrid between traditional Chinese culture and American consumption culture. In the process of city’s development and renewal, to avoid replacement of Chinatown after the 1906 earthquake, Chinese merchant elite took pains to make Chinatown return to its original location and turn it into tourist destination for benefiting both White and Chinese business under the stress of national financial crisis after Civil War. To attract tourists of international middle class, the ornamental Chinese architecture was exaggerated to cater to “European expectation of exotic images” and the “stereotype of Oriental Culture” (Umbach 215). In this way, Chinatown was transformed to commercial space to survive and the kitschy Chinese architecture shaped a Disneyesque image of Chinatown streetscapes nationwide (Umbach 234). However, the representation of “Chinatown” was nothing about real Chinatown when taking daily life of Chinese community into consideration.

2.1.3 Sunlight Battle

2.1.3.1 The Culture and Living Philosophy

Sunlight is an extremely significant treasure and element in traditional design of Chinese settlements (Figure 13). Firstly, sunlight is regarded as an essential factor for both physical and mental health. Secondly, it is energy-efficient for warming and lighting. Thirdly, sunlight also plays an important role in microclimate modification.

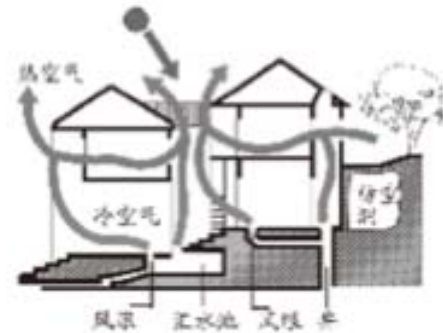


Figure13 Courtyard of Traditional Chinese Settlement in Applying Caiming Sunlight in Architecture Design (Source: Xue, Chen, Analysis of Hot-Humid Climate and Environment Adaptability, Journal of Huaqiao University)

2.1.3.2 The Battle for Claiming Sunlight of Open Space in Chinatown

In 1982, the Chinese community in Chinatown had a debate on the high-rise project for affordable housing and more employment and its shade impact on the nearby playground (Chin ch.12). The community eventually decided to give up the development and gain sunlight for children and community members. This is the first time that the

environmental and safety issues overweighed housing development (Chin ch.12). As a catalyst, the concern on sunlight issue attracted attention of environment quality citywide and in 1984, Proposition K., the Sunlight Ordinance restricting height of buildings was executed, acting as the first ordinance in San Francisco and the nation (Chin ch.12).

The consideration on the value of sunlight was emphasized by generations of Chinese since thousands years ago, and has a significant impact on physical and mental life. Hence, the sunlight battle can be concluded as the reflection of rooted and urgent need of livable environment and the conflict between high dense population and limited space for development. The triumph of reclaiming sunlight in Chinatown reveals the fact that the community in Chinatown is longing for a better and livable environment that beyond tourism and commerce. For the aspect of the city's development and urban design, the Sunlight Ordinance that regulates heights of buildings restricted the development intensity to some degree, and the urban form shaped by skyline is also affected. The most significant influence is that the awareness on the quality of open space was brought to the forefront.

2.2 Mapping the Distribution of Chinatown in the United States

The map (Figure 14) shows the distribution of Chinese immigrants that was influenced by the water management techniques of mining and agriculture.

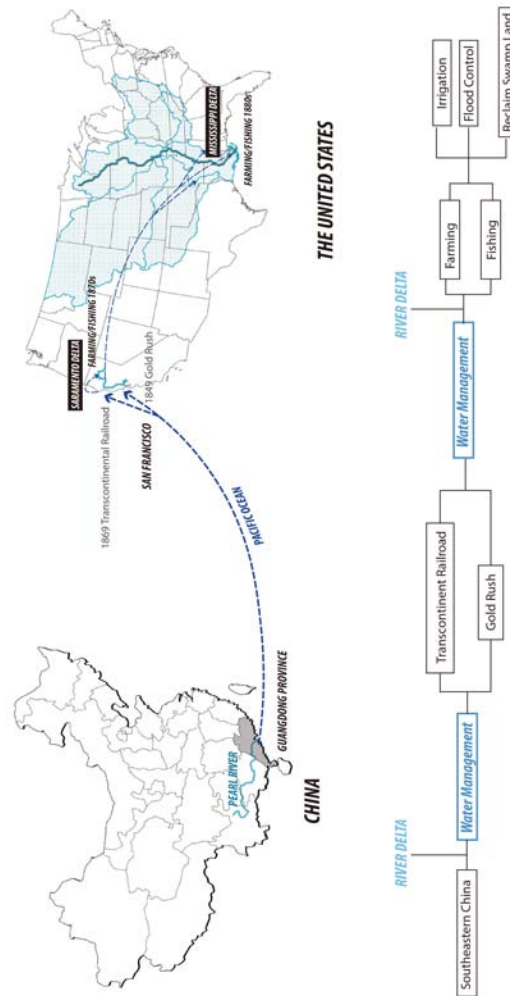


Figure14 The Distribution of Chinese Immigrants in the United States

2.3 The Timeline of Chinatown, San Francisco

Based on the exploration of timeline of the development of Chinatown in San Francisco (Figure 15), the study selected earthquake in 1906 as the key point to figure out the process of Chinatown's growing.

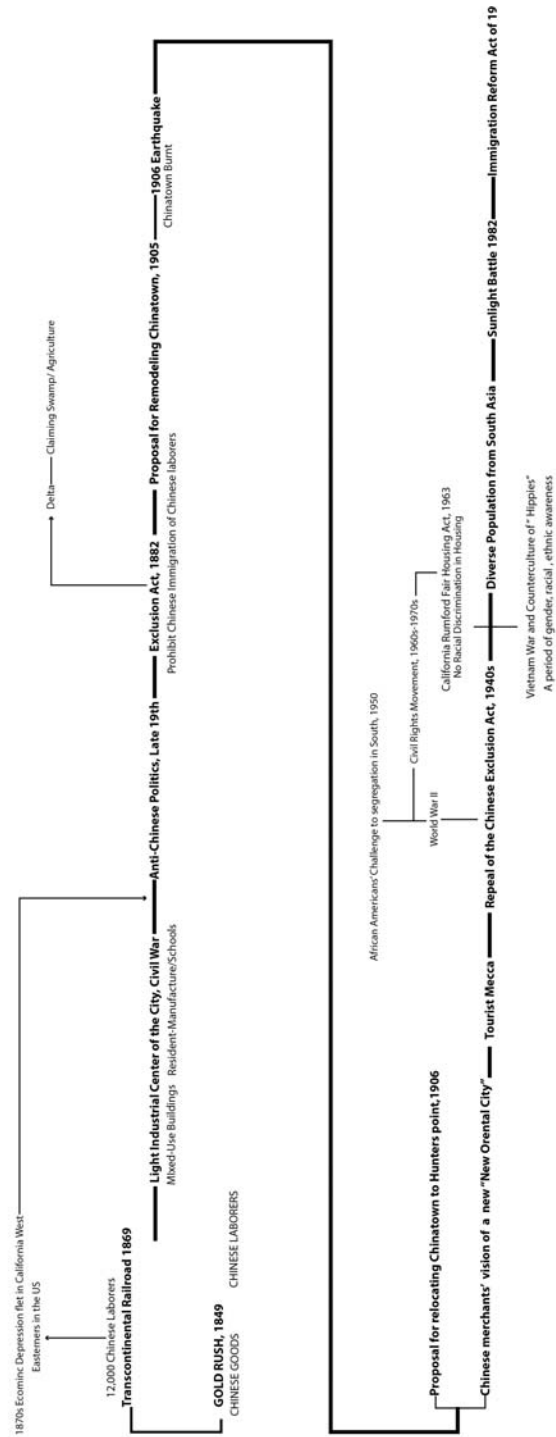


Figure15 The Timeline of Chinatown, San Francisco

CHAPTER 3 METHODOLOGY

3.1. Study Framework

The framework of the study will use sunlight battle as the turning point to rethink Chinatown (Figure 16).

I

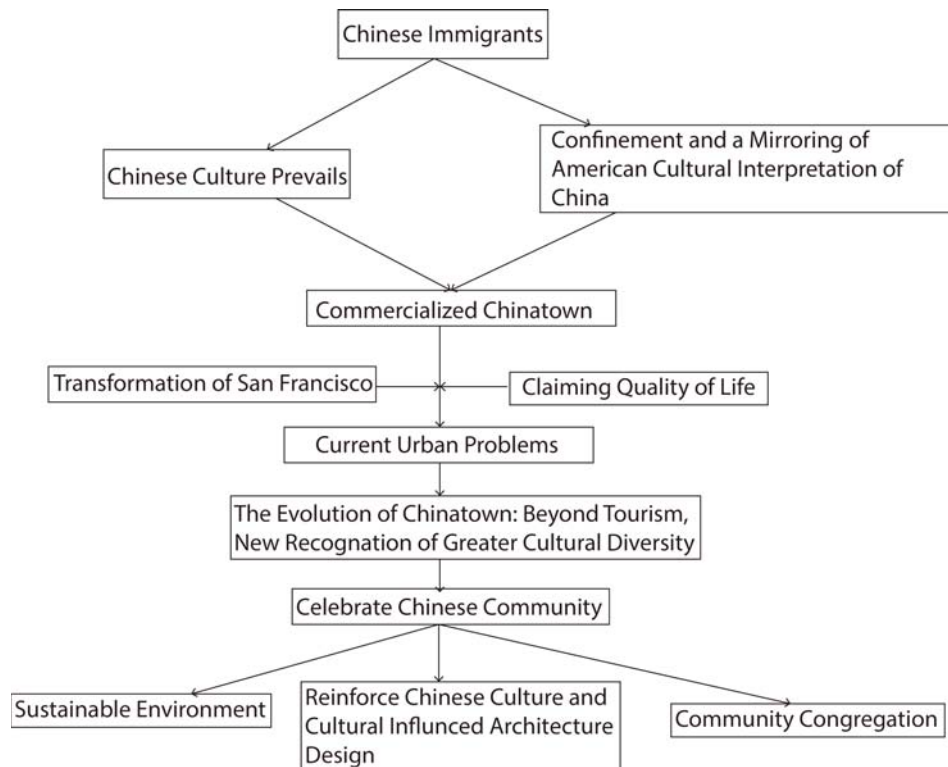


Figure16 Study Framework

3.2 Current Urban Problems in Chinatown and Design Question

After 1940s, the repealing of Exclusion Acts attracted huge Chinese immigrants poured into Chinatown to gain a stepping stone for the settlement and making livings. The configuration of population gradually transformed as a result, which shaped the

Chinatown as an vibrant family and small business community. And now, Chinatown is the most congested area in the city with nearly 15,000 people living in 20 square block (Chinatown Broadway Street Design 2011) . Nowadays, with large amount of Chinese who are gaining wealth and seeking for a better life gradually moving out, Chinatown is becoming a residential commercial community with low income, struggling with high density of population and congested building, and facing the lack of open space, sanitary and shade problems.

The tourism and commercial oriented Chinatown by analyzing is the outcome of the combination of prevailing of Chinese Culture, the history of confinement, a mirroring of American cultural interpretation of China. With the transformation of census configuration in Chinatown, increasing recognition of Chines historic contribution and cultural influences, equity of cultural diversity in the city, and the continuing desire for a livable and friendly environment, there is a great opportunity for Chinatown and Chinese community rethinking how to make it a more sustainable environment beyond tourism and commerce, through landscape design strategies to reach the goal of celebrating community, including creating a safe and clean open space, reinforcing Chinese culture and cultural influenced architecture, and congregating the community.

Based on the analysis of current issues existing on the site, the design will conduct in an absolutely new way.

3.3 Site Analysis: Quincy Street and St. Mary Square Chinatown

3.3.1 Location

Quincy Street is located at the east side of Gant Avenue, back of the retail and commercial building, near the southeast edge of core Chinatown and busy Financial District (Figure 17).



Figure17 Site Location

Setting in the very central of the city and occupying the most expensive land in San Francisco, the site should be utilized efficiently and diversely for different groups of people. After the demolishment of Embarcadero Freeway along the coastline in 1991, the increment of recreational green space replaced the freeway and is attracting rising numbers of visitors. Within the ten-minute walkability from the bay to Chinatown, Quincy Street and St. Mary Square, which are at the border of Chinatown and Financial District, is in great potential to be redesigned and revitalized as a catalyst to stimulate visitors recognition of a greater Chinese culture

3.3.2 Existing Conditions

The Quincy Street is now an abandoned passageway only street at back of the building, and has the issues of sanitary, shadow and underutilization. Because the Quincy Street is near the most vibrant Grant Avenue featured on visitor retail, and St. Mary Square which is one of the most valuable green space in dense Chinatown but less known and used by visitors for its enclosed space, there is a great opportunity for it to claim this under utilized street combined with the redesign of St. Mary Square, to create an attractive open space both for residents and visitors.

3.3.3 Shade Study

The site is surround by high-rise buildings and is completed shaded in early morning (Figure 18). The best morning sunlight area is at the northern and western part

of the site, so the street will be suitable to open toward the sun in southeast create a more active open space, and to celebrate sun-culture for the Chinese community.

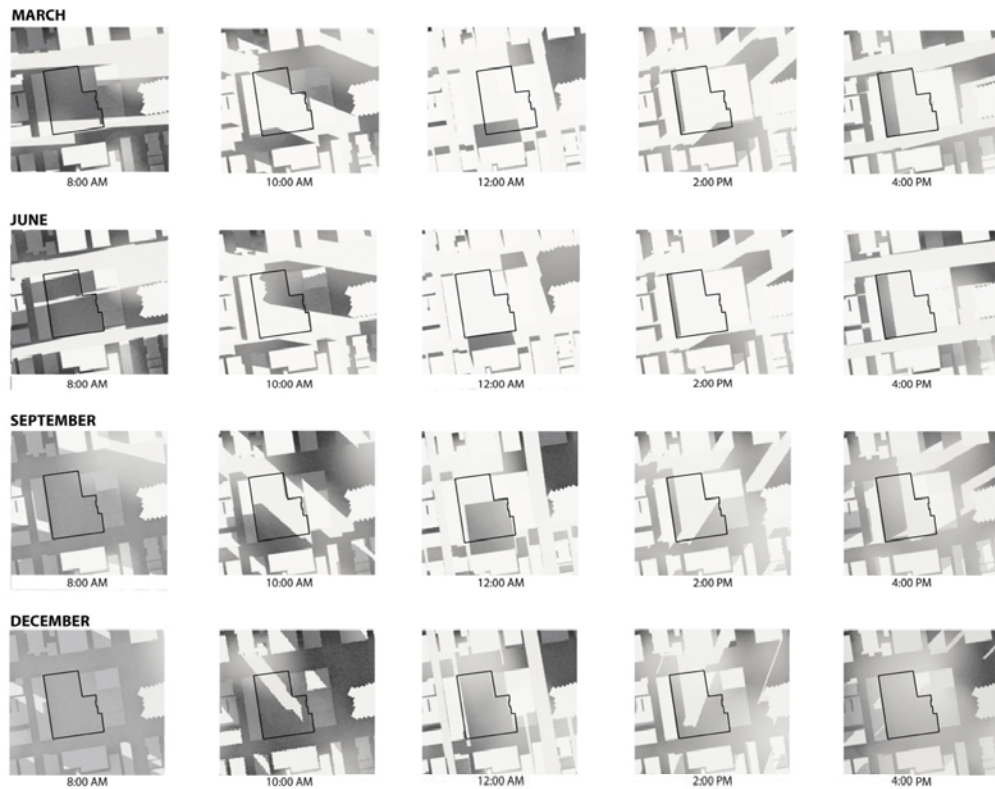


Figure 18 Shade Study

3.4 Strategies

The strategies includes the occupation of under utilized open space, growing Chinese influences on the street and in housing, the incorporation of more sunlight, and the utilization of green infrastructure

CHAPTER 4 SITE DESIGN

4.1 Concept

The concept of the design is to open the first floor of the east side of the buildings based on the morning sunlight orientation, and cut northern part of the retail building to shape a courtyard. The street space and park space will be integrated into the varied façade space of the front door. The designed storefront will introduce visitors and residents to the back of the buildings and make the street as a new attraction to people (Figure 19).

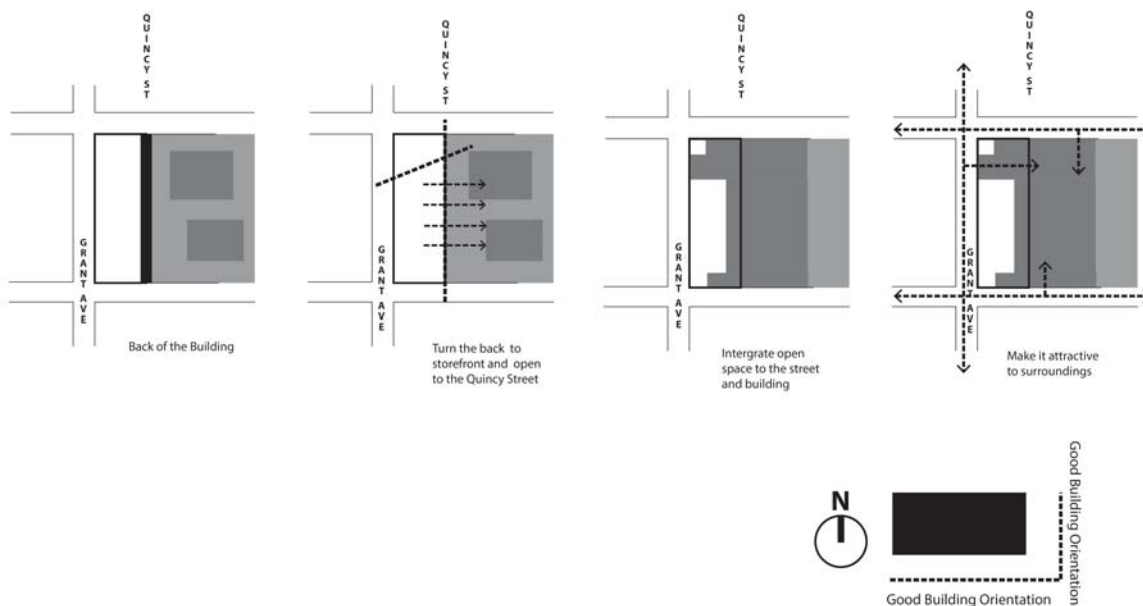


Figure19 Design Concept

4.2 Site Design

The image shows the plan based on celebrating sunlight in the morning (Figure 20).

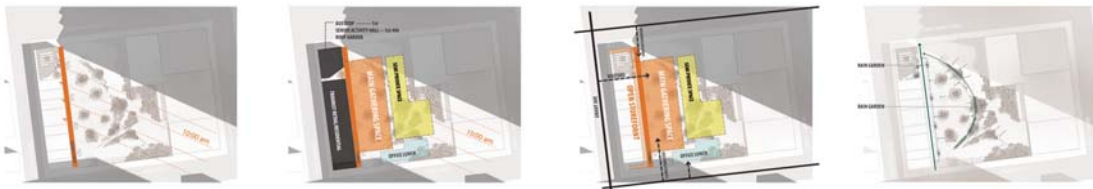
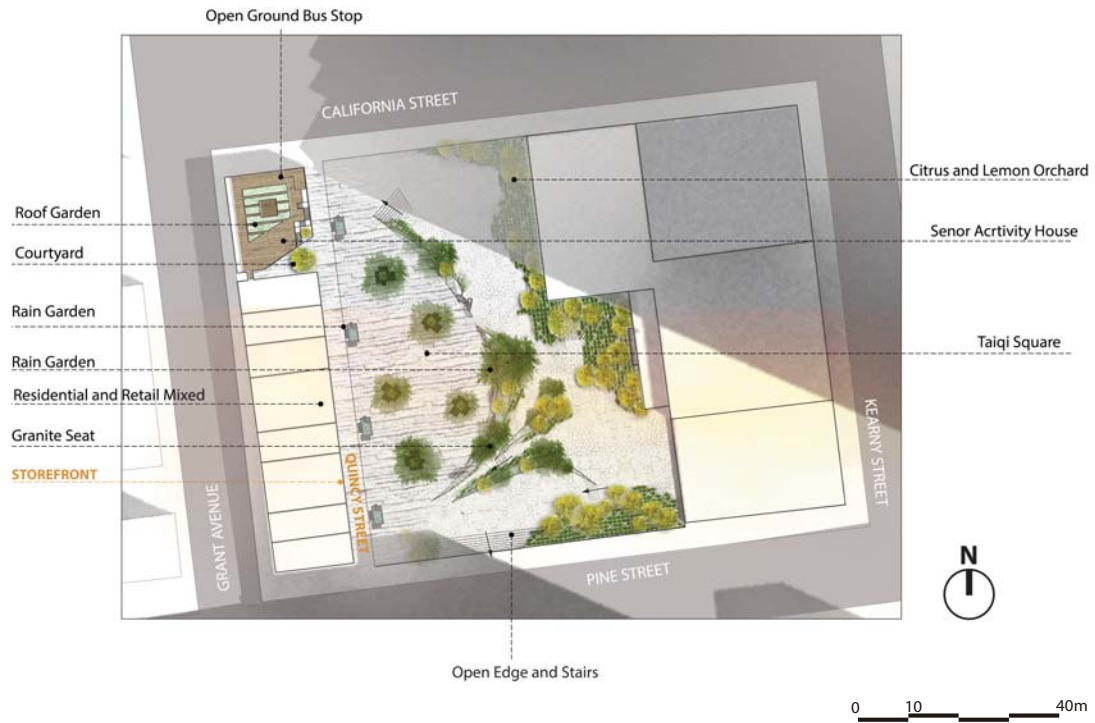


Figure 20 Site Plan and Design Analysis of Function and Drainage

The varied façades of storefront are designed for creating different experience of pocket space and providing intimate social interaction opportunity for the community by using Chinese traditional public space design elements, such as stone seating and wooden corridors. The flexible open floors can also provide temporary events, such as small vendors, culture exhibition, bus waiting and family gathering. What is more, the corner open space provides fluent and transparent viewing to the surroundings, making sightseeing connections (Figure 21).

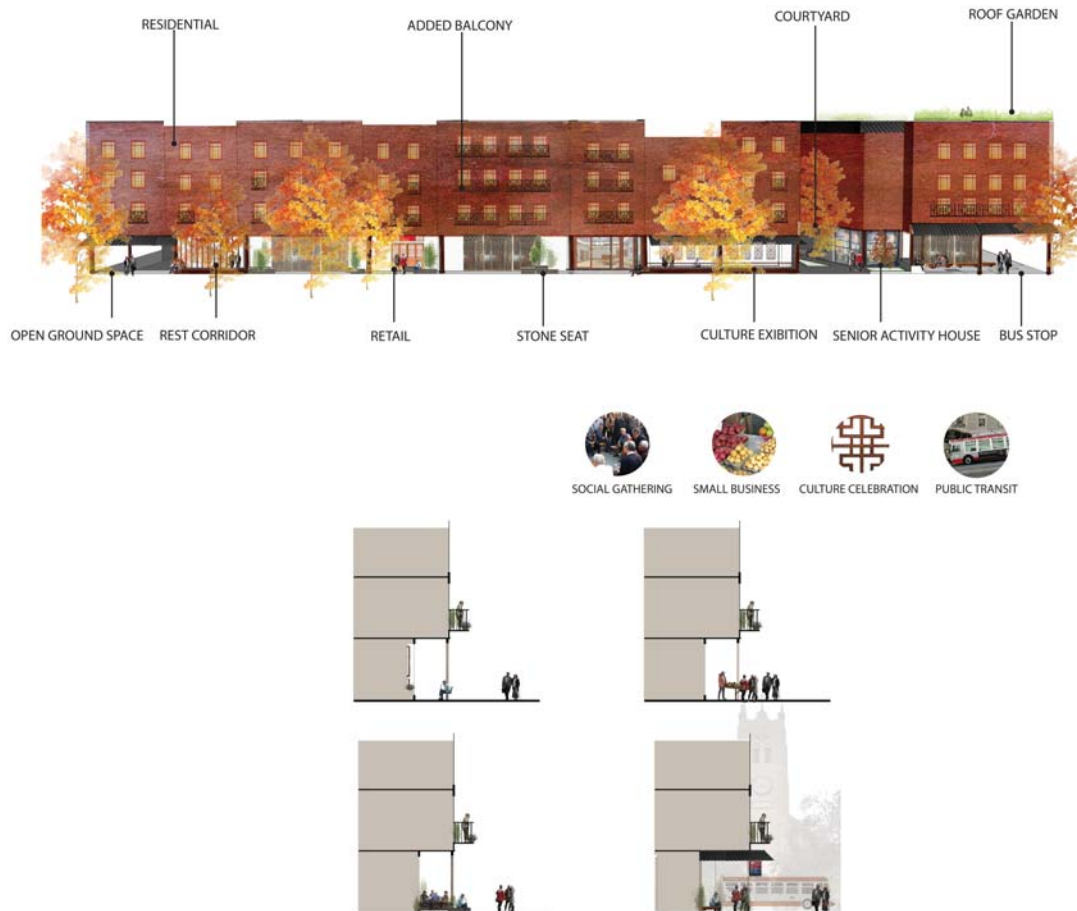


Figure21 Facade Design

By the shade study at the Quincy Street and St. Mary Square, the east side of the building is an ideal morning sunlight area, which is suitable to be opened as the first floor (Figure 22). And the new sunlight orientation to the sunlight is also conforming the traditional Chinese habitat practice for residential location: gain more sunlight to improve air condition, modify microclimate and respect traditional cultural hierarchy (Figure 23). The narrow corridor also helps to introduce visitors from bustling Grant Avenue to the opposite space.

The roof garden built on the roof of the proposed senior activity house was an alternative to claim morning sunlight. Herbs and vegetation serve to therapy.

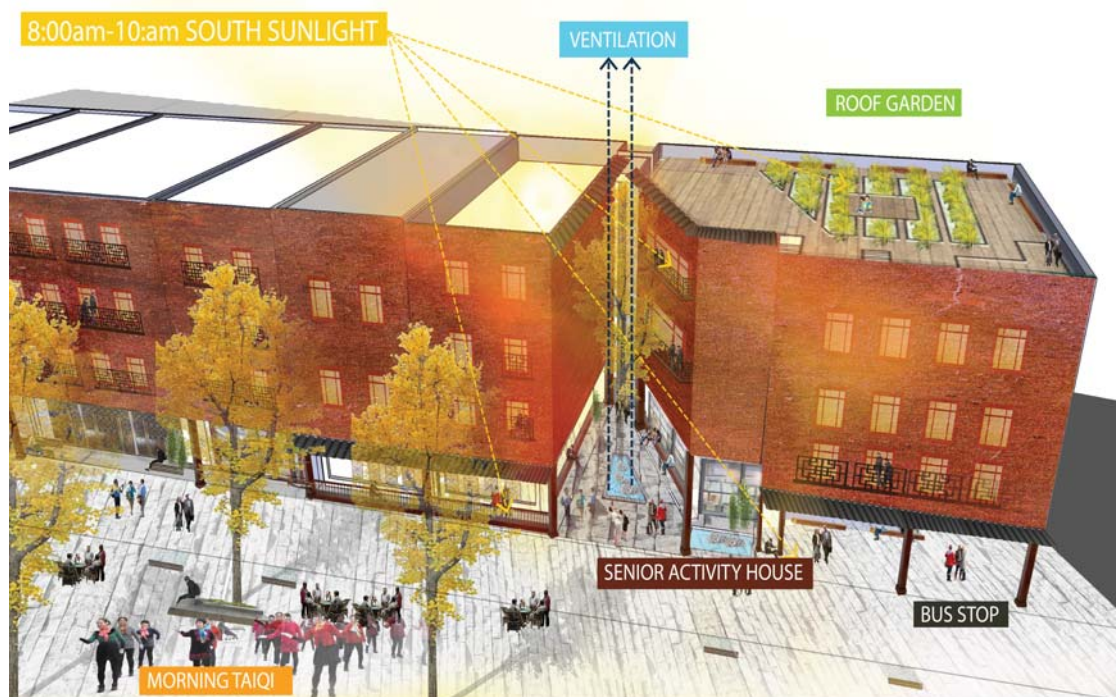


Figure 22 Courtyard Design

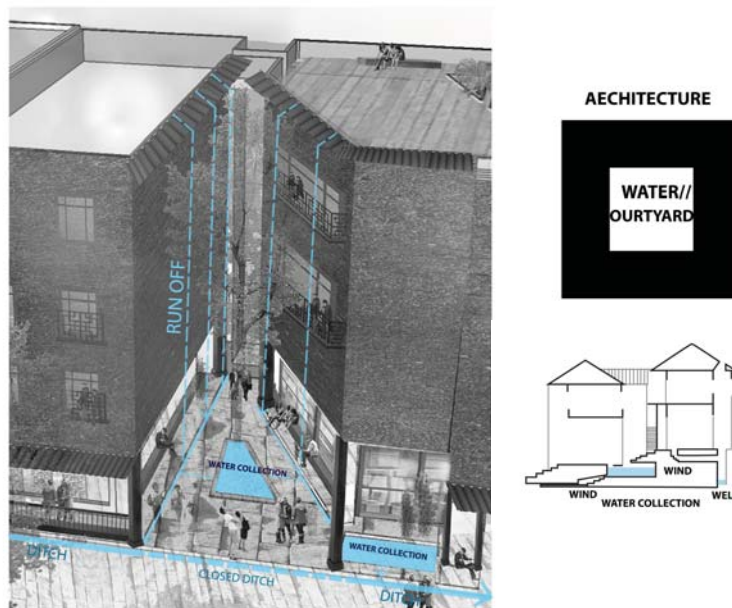


Figure23 Courtyard Rainwater Collection

When considering the water in traditional Chinese Architecture, roofs are built for collecting the rainwater into courtyard for both living and culture concerns. The courtyard, ditches, water collection pool show the visitor how the architecture functions with water beyond ornament. The right figure shows the basic layout of residential architecture built by major Chinese settlements (Figure 24).



Figure24 Rain Garden

As for selection of materials and plants, the design aims to recall the memory of the relationship between Chinese immigrants' production on California's land and their influences on the transformation of landscape in the state. The Chinese granites that was once imported from Southeast China during the Gold Rush for city's construction are designed as seating facility in un-artificial forms, and the scattered granites are also designed as mount-like background of St. Mary Square, shaping a memorial and naturalized atmosphere (Figure 25).

Citrus and lemons that were once developed as industry cultivated by Chinese immigrants since nineteen century are planted as orchard for children and community attraction (Figure 26).

Deciduous ginkgoes planted on the square help gain more sunlight in winter, and the yellow color enhances "Chinese" authentic atmosphere (Figure 27).

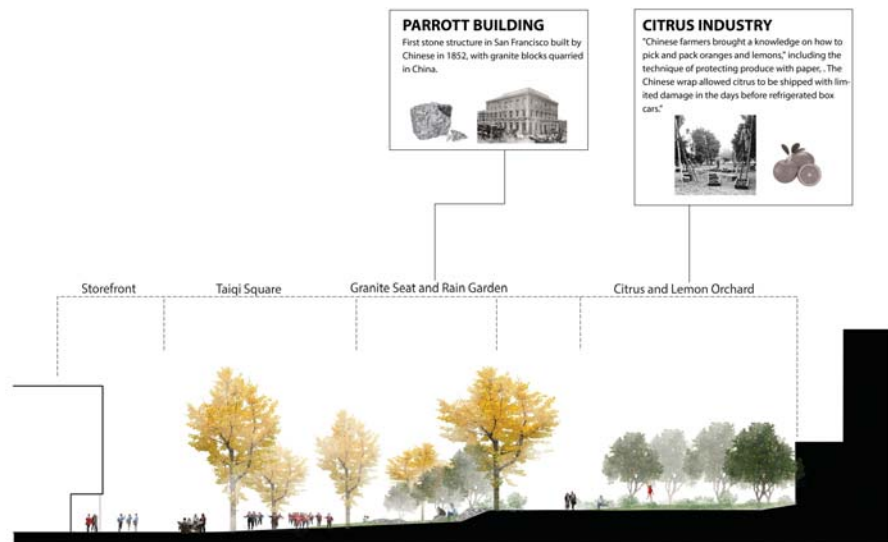


Figure 25 Section



Figure 26 Perspective from the Orchard



Figure 27 Perspective from the Street Corner

CHAPTER 5 CONCLUSIONS

By exploring the history of Chinese immigrants in the United States and its influences on the transformation of landscape, as well as studying the transformation of the image and representation of Chinatown in San Francisco since 1848, this study helps to provide a better understanding of how places are planned and designed in the global economic and racial context, and immigrants' influences on urban design.

The commercialized space and architecture in Chinatown, which grew in confinement strategically intending for survival as a vulnerable group, is the production of negotiation in culture, politics and economy with the dominant population. And rethinking Chinatown in San Francisco based on the current context provides a different vision in a transformative era.

Living in an increasingly diverse environment, where people's awareness of occupying a more cultural and environmental sustainable space is growing broadly, landscape architects should avoid a stereotyped designing and hold insights into how the space should be shaped under the different cultural contexts. The study in this thesis reclaims the influences of Chinese culture on city's urban design and develops the way to celebrate Chinese culture and culture-influenced architecture through gaining more sunlight, implementing green infrastructure and congregating community to make Chinatown a more sustainable space, both physically and culturally.

REFERENCES

- Chin, Gordon. (2015). Building Community, Chinatown Style: A Half Century of Leadership in San Francisco Chinatown, Friends of Chinatown Community Development Center.
- Choy, Philip. (2012). San Francisco Chinatown: A Guide to Its History and Architecture. City Lights Publishers.
- Davis, Chelsea. (2015). "Pagodas and Dragon Gates." 99% Invisible. N.d. Radio.
- Davis, Donald Wayne. (2010). Washed Away: The Invisible Peoples of Louisiana's Wetlands. University of Louisiana at Lafayette Press.
- Henn, Ralph. (2016). "Chinatown in Hunters Point?" San Francisco Magazine 1970: Web. <<http://familyhenn.com/RWHenn/quake.htm>>.
- Hong, Jane H. (2016). "Repeal of Asian Exclusion - American History: Oxford Research Encyclopedias." Oxford University Press.
<<http://americanhistory.oxfordre.com/view/10.1093/acrefore/9780199329175.001.0001/acrefore-9780199329175-e-16>>.
- Hsu, Madeline Y. (2015). The good immigrants: How the yellow peril became the model minority. Princeton University Press.
- Kaplan-Lvenson, Laine. (2015). "The Little Company That Could: How A New Orleans Immigrant Created A Global Dried Shrimp Business." New Orleans Public Radio. Web.
<<http://wno.org/post/little-company-could-how-new-orleans-immigrant-created-global-dried-shrimp-business>>.
- Lee, Anthony W. (2011). Picturing Chinatown: Art and Orientalism in San Francisco. Univ of California Press.
- Metcalf, Gabriel.(2012). "The Imagined City: Burnham's Vision." SPUR. E. Web.
<<http://www.spur.org/publications/urbanist-article/2006-07-01/imagined-city-burnhams-vision>>.

- Sinn, Elizabeth. (2012). *Pacific crossing: California gold, Chinese migration, and the making of Hong Kong*. Vol. 1. Hong Kong University Press.
- Umbach, Greg Fritz, and Dan Wishnoff. (2008). "Strategic Self-Orientalism: urban planning policies and the shaping of New York City's Chinatown, 1950-2005." *Journal of Planning History*.
- Upton, Dell. (1986). *America's architectural roots: ethnic groups that built America*. Preservation Press.
- US. City and County of San Francisco. Planning Department. (2014). *Chinatown Broadway Street Design*. Web.
<<http://sf-planning.org/chinatown-broadway-street-design>>.
- Zhang, Min, and Fei Yang. (2015). "The Construction of Traverse - Continent Railroad in America and the Contribution of Chinese Labore." *Journal of Suihua University* 25.2,100-02.
- Zhu, Liping. (1999). "No need to rush: The Chinese, placer mining, and the Western environment." *Montana: The Magazine of Western History* 49.3, 42-57.

VITA

Zhen Wang was born in Qingdao, China. She gained Bachelor of Engineering in Landscape Architecture at Huazhong Agricultural University in 2014, China. She attended Robert Reich School of Landscape Architecture at Louisiana State University in 2014, and she is a candidate to graduate in May 2016.