

# LANDSCAPES IN MOTION:

ACTIVE AGING IN CHINA

by  
Si Yuan Linda Liu

A thesis  
presented to the University of Waterloo  
in fulfilment of the  
thesis requirement for the degree of  
Master of Architecture

Waterloo, Ontario, Canada, 2018

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## AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

## ABSTRACT

Aging in China does not mean slowing down or losing flexibility. On the contrary, aging in China is about regaining youth and becoming a younger replica of oneself. Seniors are becoming more mobile and agile through various activities. The practice of calligraphy for many seniors has become a daily exercise routine motivated by improvement of one's health rather than the traditional desire for creativity or communication. Calligraphy is ultimately an extension of the calligrapher itself. The art of calligraphy writing appears stationary, but the acts of writing exhibit a vast array of internal dynamics and motion that channels energy throughout the body. This dual combination of seemingly opposite forces creates a complementary and interconnected formation creating a natural unity. The composition of strokes, rhythm of movement, and release and withholding of vital energy creates the poetic choreography of calligraphy. The practice of calligraphy is an activity that not only expresses artistic expression yet also cultivates mental dexterity and spiritual tranquility.

In the fifth century, poet Tao Yuanming initiated the appreciation of pastoral lifestyle as the poetic retreat from the chaotic society. The Daoist idea of natural beauty and search for immortality has heavily influenced traditional landscape painting as a means of expressing the ideal dwelling in the spiritual world of literati. The landscape painting stimulates the viewer's imagination to a surreal level creating a feeling of wonderment rather than viewing from a still and distant point. The shifted perspectives in the painting are used to focus or withhold various elements upon different scales in the landscape. The control of external versus internal views depicts a spatial journey in landscape painting that can be discovered within a Chinese garden that is suitable for dwelling and exploring.

This thesis explores the changing demographics of Shanghai and shift in populous and landscape where the concepts of calligraphy and Chinese garden are used to create an ideal retreat for seniors in the urban environment.

## ACKNOWLEDGEMENTS

I am very grateful for my supervisor Adrian Blackwell, for his encouragement, insights and constant patience throughout my thesis. I want to thank Jane Hutton for all her insight and support. Lastly, I would also like to thank Ali Fard and Maya Przybylski for their direction and advice in the early stages of my work.

## DEDICATION

This thesis is dedicated to my grandparents

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INTRODUCTION

Handwritten Chinese characters in cursive script on a tiled floor. The characters are arranged in several vertical columns, including characters like 德, 誠, 敬, 勤, 勇, 智, 仁, 義, 禮, 智, 信, 忠, 孝, 悌, 廉, 恥, 勇, 毅, 誠, 實, 謙, 虛, 溫, 良, 恭, 儉, 讓, 忠, 孝, 悌, 廉, 恥, 勇, 毅, 誠, 實, 謙, 虛, 溫, 良, 恭, 儉, 讓.



The senior demographic has been shifting drastically in China. By 2050, China will become the world's most aged society. China's physical landscape has progressed extensively with economic shifts, rapid urbanization and migration patterns. These effects combined with population reduction policies have changed the intergenerational familial structure and social dependence of seniors.

While aging is generally seen as a decline in health and movement, seniors in China are adapting a more active lifestyle. This seemingly contradictory combination between aging deterioration and maintaining a healthy well-being has formed a new natural equilibrium. Rather than viewing a decline in health with the aging process as inevitable, seniors have sought to age in a healthier manner. They are inclined to be more mobile, agile and have encompassed a wide range of activities to suit their lifestyle needs. These activities are an essential part to their daily livelihood and social network where it will be used as a core design principle in my proposed intervention.

The first chapter will illustrate the rapid growth of the senior populous, their current daily livelihood and changes in their community environment as well as the problems they face. The second chapter will introduce calligraphy, a seemingly stillness practice of art yet full of dynamics and movement. This chapter will also use calligraphy as a basis to illustrate concepts of the traditional Chinese landscape paintings and its relation to gardens as a form inspiration and beauty. The third chapter will analyze the urban metropolis of Shanghai which has seen considerable waves of residential redevelopment, migration flow and urban commercialization over the past several decades and how these trends will forecast senior concentrations in the city.

Finally, the thesis will focus on two different sites on opposite spectrums of the shift in housing development and its affected inhabitants. The first site will be an old lilong scheme residential area still intact within the city center core. The second site will be recently developed xiaoqu (gated community) residential area in one of the outer urban cores as part of the One City, Nine Towns development plan. Both of these sites will use a similar design philosophy to create senior centric community and living area.

# CHAPTER 1: AGING IN CHINA

INTRODUCTION OF AGING ISSUE IN CHINA





The current pace of population aging in China is substantially faster than that of developed countries in the past. China must adapt more quickly to an aging population and with much lower levels of national income compared to countries that developed much earlier. From 2015 to 2030, the population of people aged 60 years and older is projected to grow more than 50%.<sup>1</sup> By 2050, people aged 80 years or older would have tripled since 2015.<sup>2</sup> China after decades of urbanization is currently experiencing an unparalleled shift in its demographic population; it will become the world's most aged society by 2050.<sup>3</sup> Only 36 years ago, China in fear of the high birthrate, implemented the one child policy. As of 2015, it began formally phasing out the original policy and allowing 2 children per parent to combat this aging problem.

China's aging issue is further compounded heavily with its rural urban migration patterns. The large outbound migration of the work force is commonly driven by economic means. This results in a large population of seniors living in isolation back in their home province, more commonly known as the "empty nest" phenomenon. This "empty nest" scenario consists of the senior living alone while the children leave home for work thus breaking intergenerational support for elderly.<sup>4</sup> Traditionally, having a fulfilling life in old age is defined as "filial care from children and grandchildren in a multi-generational household".<sup>5</sup> A traditional family household will usually consist of as many as three generations or more all living under the same roof where there is great value placed upon the role of the elders in society. These traditional arrangements are shifting with new educational advancement, internal migration and technological development.

In today's Chinese society, older people are less likely to live with younger generations. All of this has direct consequences to older people's access to social care and financial security, and may even affect their quality of life and mental health. As a result, China's family structure is changing significantly. Ever since the implementation of the one child policy, this dropped the fertility rate drastically leading to a growing influx of senior populations today. With the advancements in medical technologies, senior longevity is at its peak. The life expectancy in China has risen from 45 years in 1950 to over 75 in 2015.<sup>6</sup> By 2050, life expectancy in China is estimated to be almost 80 years.<sup>7</sup> Based on the current trends, there will be more than four older family members for every single couple creating a highly dependent senior population on the working class.<sup>8</sup> This increasing ratio of seniors to the rest of the population has forced the elderly to adapt to a changing society.

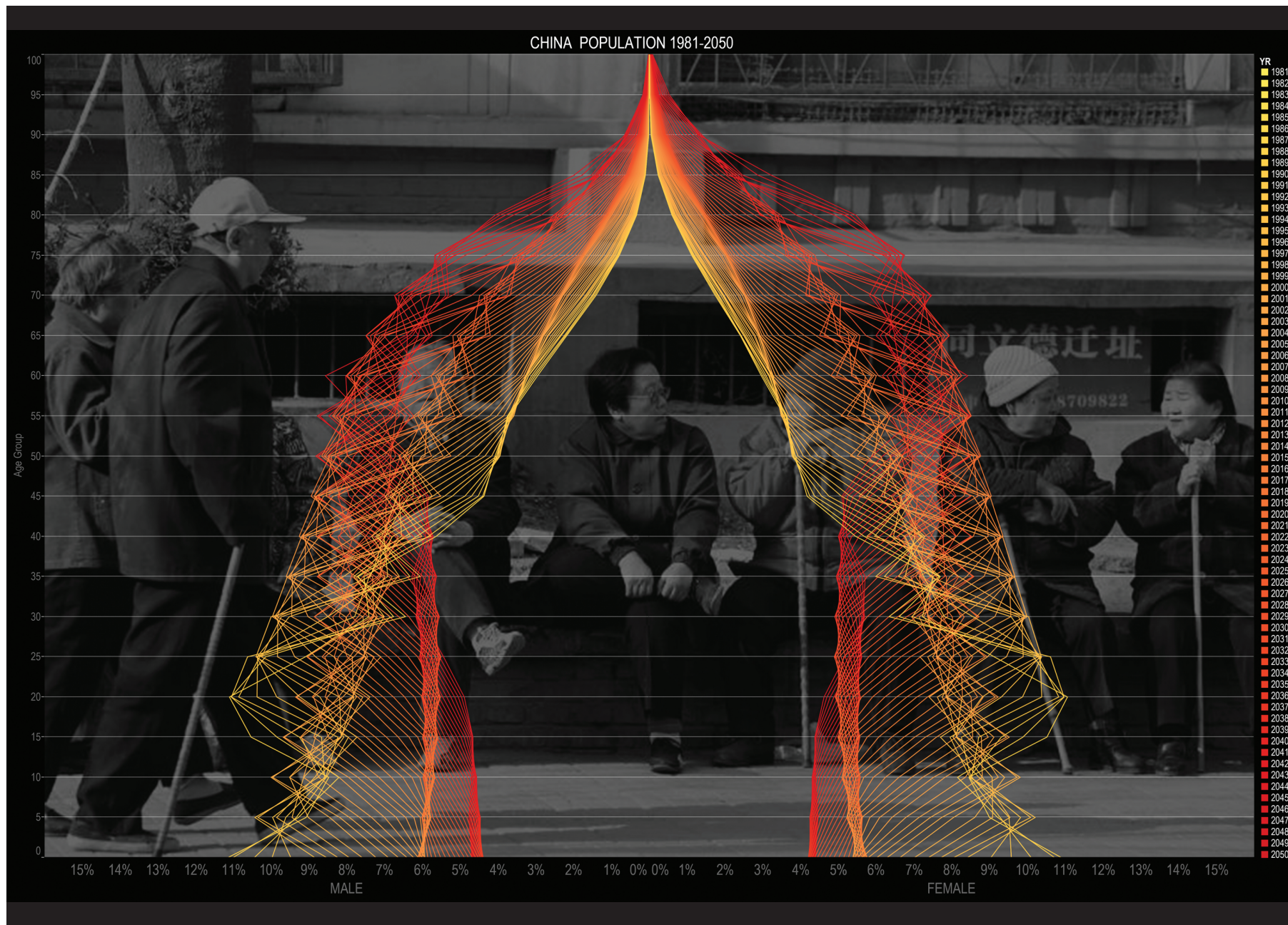


Figure 1 Age Pyramid: Chinese Population from 1981 – 2050 (Projected)





Cultural Park in China  
"I want to grow old in China"

Sameer Farooq

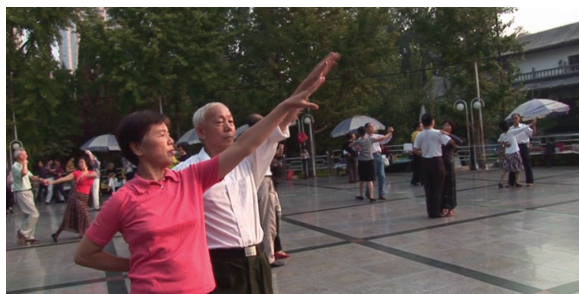
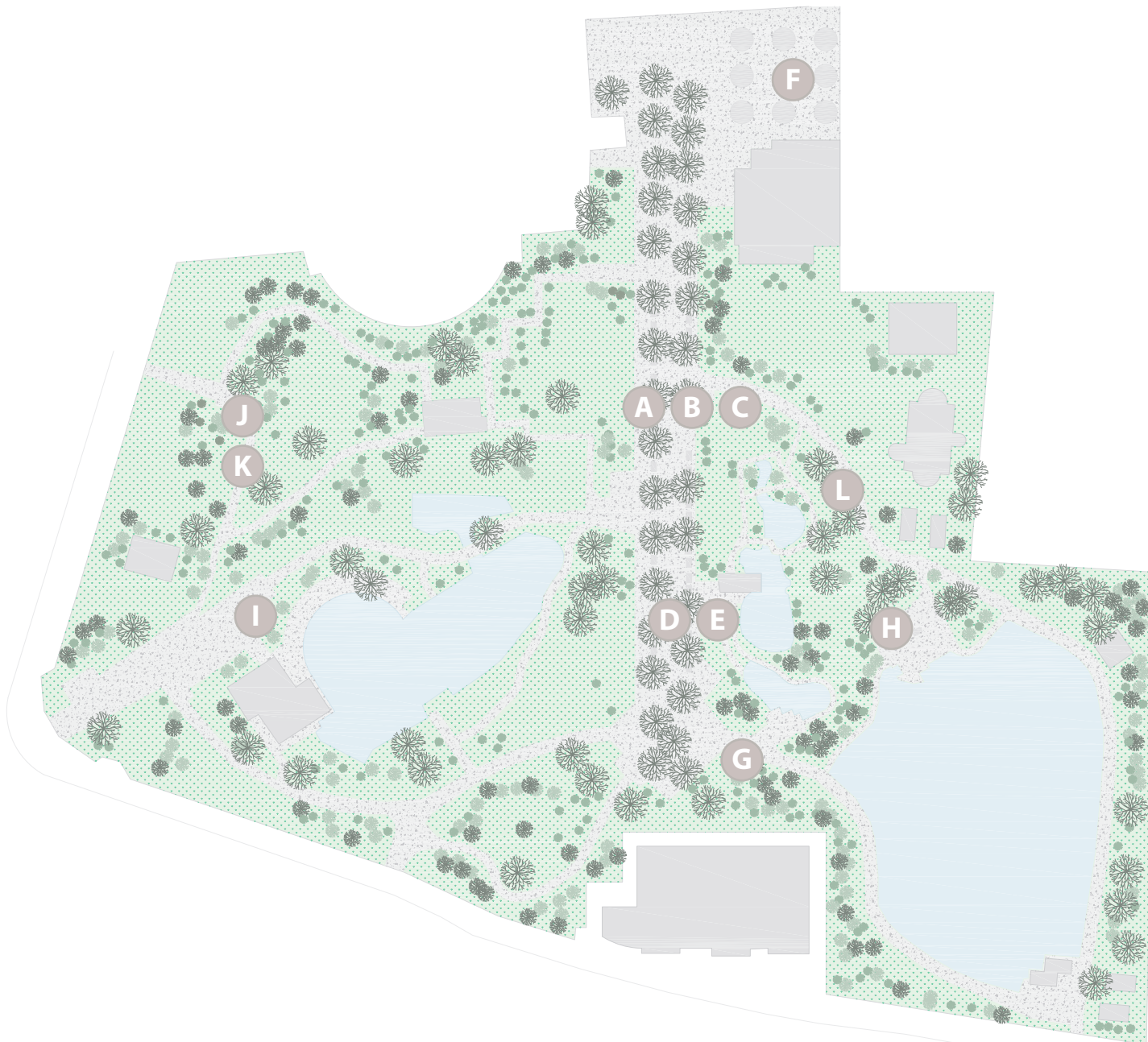


Figure 2 Clips from Documentary "I want to grow old in China" by Sameer Farooq

As senior life expectancy increased, aging in China has evolved as well over the past several decades. Rather than the stereotypical decline in motion or losing flexibility; on the contrary, aging in China is about becoming younger. Not younger in the physical sense of reversing time but in that sense that seniors are rejoicing and reshaping to be a youthful replica of oneself. Gone are the long work days and in their place are now activities promoting a healthier and social lifestyle. In today's society, much of the elderly living urban environments are redefining their old age and retirement life through a more active lifestyle. As shown in Figure 2, seniors are engaged in numerous activities of all variety. These range from more dynamic activities such as dancing, singing and taichi in the public parks, or slower pace events like practicing calligraphy, playing chess, to enrolling in study sessions at the local community centers or senior universities.

In Jing'an Park in Shanghai, the park is encompassed by senior usage throughout the entirety of the day. Senior activities begin as early as 6:00am with morning exercise routines and tai chi. By mid day, the game tables will begin to fill up and calligraphy activities will begin to take place. The afternoon will bring for the more dynamic and noisier activities in line dancing, ball room dancing and choir singing and these will stretch into the evening. Many seniors embrace their retirement by using their free time to enrich their own lives and forming new social networks.





**Figure 3** Mapping of Senior Activities in Jing'an Park Shanghai

A



B



C



D



E



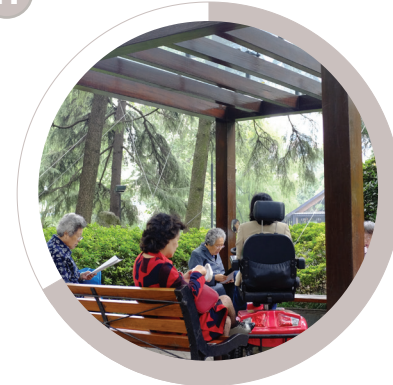
F



G



H



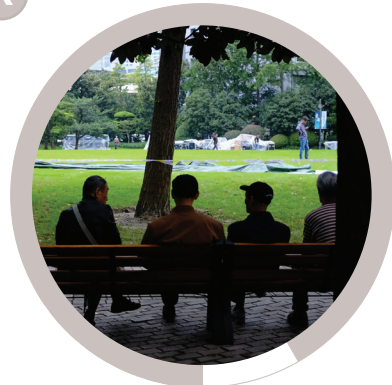
I



J



K



L



ENDNOTES

- 1 "World Population Ageing 2015." United Nations, Department of Economic and Social Affairs, Population Division. 2015
- 2 Ibid.
- 3 Ibid.
- 4 Liu, Li-Juan and Guo, Qiang. "Loneliness and health-related quality of life for the empty nest elderly in the rural area of a mountainous county in China." *Quality of Life Research*. 2007. 16(8):1275-80
- 5 Ibid.
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- 7 Ibid.
- 8 Ibid.





## CHAPTER 2: DYNAMICS AND MOTION

CALLIGRAPHY AND TRADITIONAL CHINESE GARDEN







**Figure 4** Senior Calligraphy Body-Motion Diagram

#### The Kinetic aspect of calligraphy

“For each posture, there is a mobilization of the whole body. First of all, the two feet have to be planted solidly on the ground to ensure the stability of the lower half of the body, which acts as a hinge for the movement of the upper body. Similarly, the left half of the body forms the pivot for the movement of the right half where most of the apparent activity is located. Streams of movement surge from the shoulder, to the elbow, then to the wrist, fingers, and finally reaches the brush, thus the force used to manipulate the brush runs through the entire body of the calligrapher.”<sup>19</sup>

Traditionally, there have been two main influences of Chinese philosophy towards aging. The first influence, the socially oriented Confucian emphasis on heightened respect for the elderly led to a form of gerontocracy at all levels of society, from government to family. This attitude can be represented by the concept of Filial Piety, one of the five cardinal virtues of Confucianism.<sup>10</sup> Filiality has broadly molded Chinese values and behavior in all things, from education to art. For the ruler, behavior towards the elderly served as a measure of his good conduct, while for the ordinary one's duty to aging parents being set above obligations to the state.

The second influence, Daoism is concerned with the individual attainment of longevity or an extension of old age immortality through the physical form.<sup>11</sup> This pursuit is often performed through meditation and self-reflective activities like calligraphy and Taichi. This desire for long life and the delaying of death is recorded in Chinese literature as early as the eighth or ninth century B.C.

Each of these influences can be viewed through the following pictorial grams of how these two words are generated.



Confucian

Socially Oriented  
"Filial"

*Figure 5 "Filial" in Calligraphy Form*



Daoism

Individual Attainment  
"Longevity"

*Figure 6 "Longevity" in Calligraphy Form*



Confucian

Socially Oriented  
"Filial"



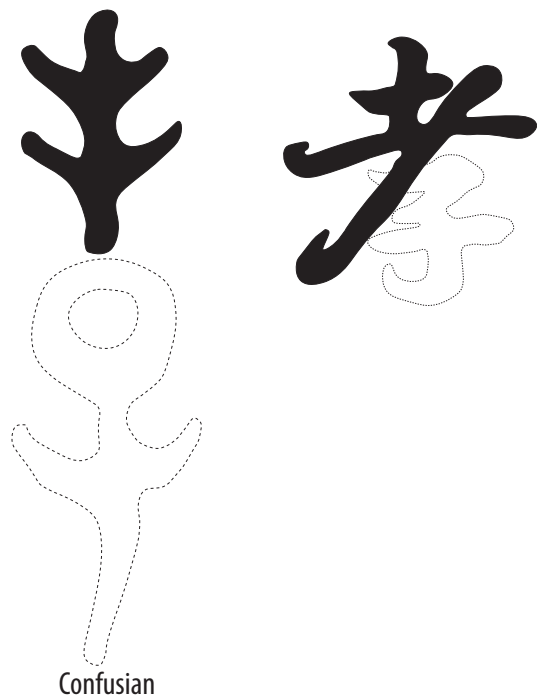
Daoism

Individual Attainment  
"Longevity"

*Figure 7 "Filial" in Pictogram showing origin of word*

*Figure 8 "Longevity" in Pictogram showing origin of word*

ELDERLY



Socially Oriented  
"Filial"

Figure 9 "Filial" – top portion explanation

BODY



Individual Attainment  
"Longevity"

Figure 10 "Longevity" – top portion explanation

OFFSPRING



Confucian

Socially Oriented

"Filial"

Figure 11 "Filial" – bottom portion explanation

INFINITY



Daoism

Individual Attainment

"Longevity"

Figure 12 "Longevity" – bottom portion explanation

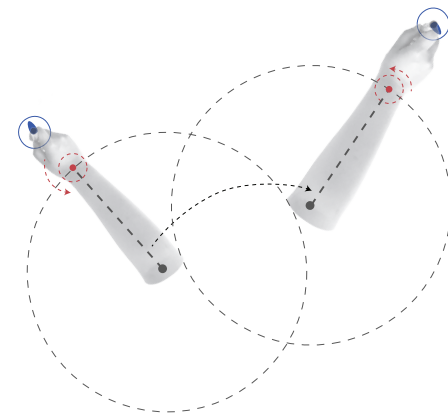
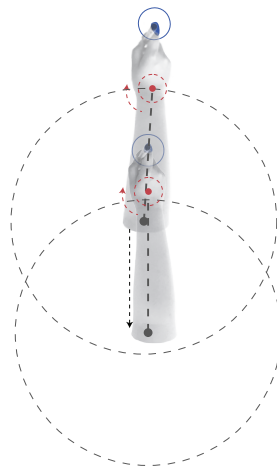
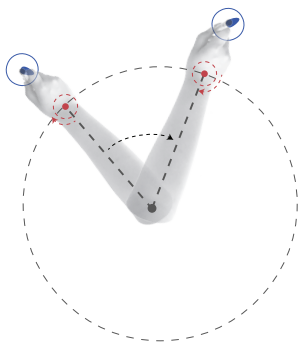
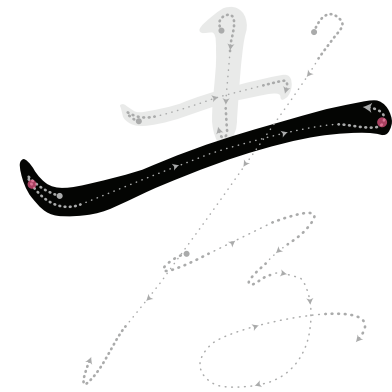
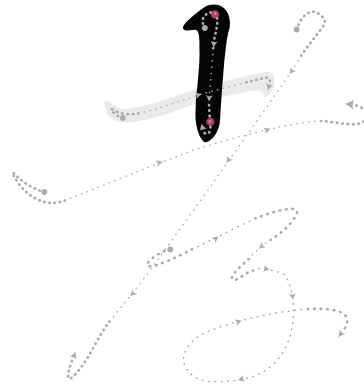
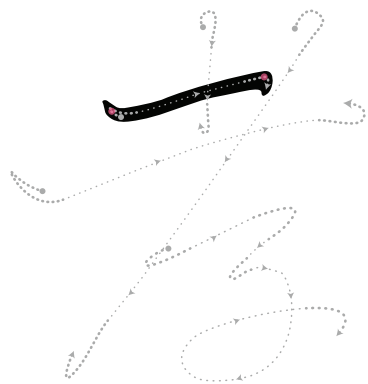
Today, about 54 million seniors engage in some form of physical activity to enliven their golden years.<sup>12</sup> Seniors are constantly in motion even in activities that appear stationary like the practice of calligraphy. The practice of calligraphy for many seniors has become a daily exercise routine motivated by improvement of one's health rather than the traditional desire for creativity or communication.

Calligraphy is an expression of the calligrapher itself. The artistry of calligraphy brings forth a poetic rhythm of movements and energy through one's body. Similarly, Taichi offers the same array of body dynamics and transfusion of energy throughout the body. While calligraphy leaves a lasting imprint of one's work, Taichi does not. The practice of these activities not only expresses an artistic display yet also cultivates one's mental dexterity and spiritual tranquility.

Aside from the artistry elements, there are many other similarities between Chinese calligraphy and Taichi. Both share the same foundation of channeling qi within the body.<sup>13</sup> Following Daoist's practice, meditation or energy channeling of Qi can be circulated along specific paths within the body whether it is through brush strokes or hand formations. Breathing techniques are used when one practices calligraphy where the strength can reach the brush tip when proper qi is circulated to various parts of the body.<sup>14</sup> The harmonious balance between proper breathing and body formation leads to the optimal state of mind and body when practicing calligraphy.

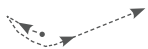
The use of force in calligraphy writing can be categorized into 3 different approaches: Inversion, Lingering, and Withholding.<sup>15</sup>





**INVERSION 逆**

In order to write a stroke in accordance with the general direction of movement, one has to hold the brush in a way that it seems to go in the opposite direction. This deliberate pursuit of technical inversion creates extra weight and substance to the brush strokes.<sup>16</sup>

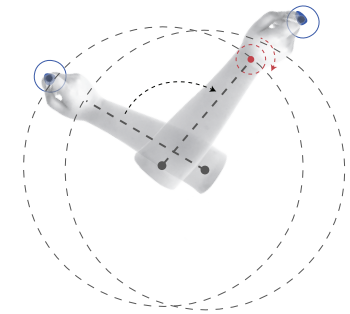
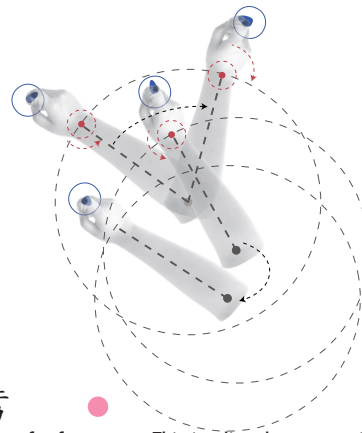
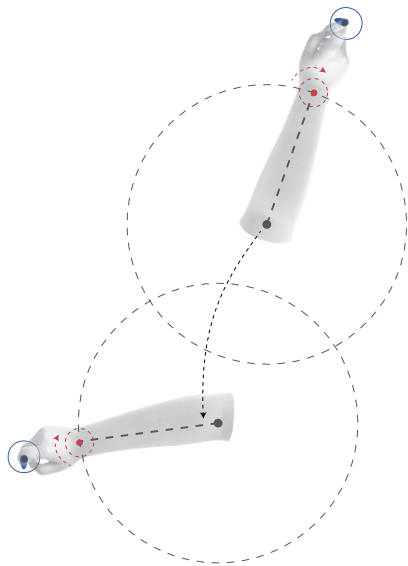
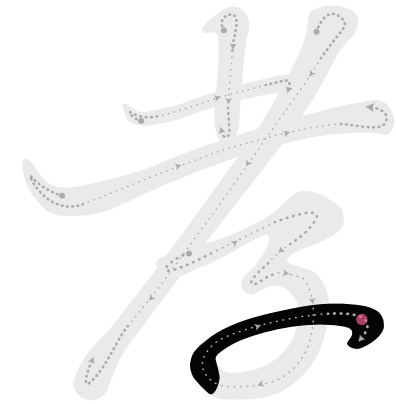
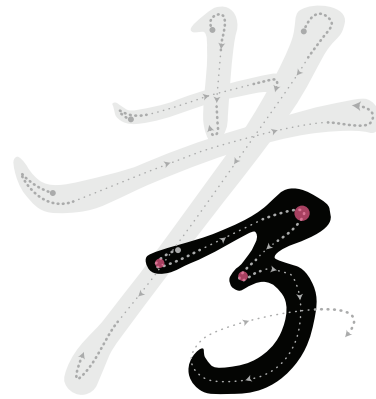
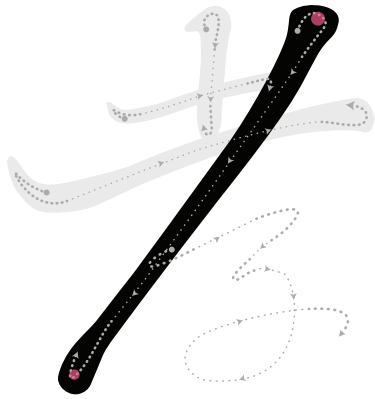


**LINGERING 留**

Lingering means staying or being kept at the same place. This implies constant checking as the brush moves along, almost a reluctance to move forward. This technique ensures a balanced distribution of strength of every part of the stroke. Thought hesitant to move forward too smoothly, the brush has to move forward ultimately in order to write.<sup>17</sup>



Figure 13 Stroke sequence of "Filial" showing 3 characteristics of calligraphy brush face



### WITHHOLDING 蓄

Withholding is to reserve for future use. This implies that no vertical lines should be left with an abrupt ending without collecting the momentum and twisting it upwards again. In this manner, composure is regained and another discharge of energy can be directed to the brush tip without showing the slightest sign of haste. In other words, the relatively abrupt halts in calligraphy forms predict an extension of energy.<sup>18</sup>



**ORDER WITH LOCAL VARIATION**

Characters to be arranged in an orderly but not rigid fashion. In calligraphy, the spaces between elements are evenly distributed so that no part appears to be overcrowded or drifting astray without sacrificing the liveliness of each stroke.<sup>19</sup>

**MODIFICATION OF INTEGRATION**

Each character element is to be modified in shape, size and solidity, in order to be integrated into an organic whole. The formation of these bonded modifications creates an integrated and unified entity that adapts to each other for the sake of the overall balance.<sup>20</sup>

**EXTENSION OF ENERGY**

Each component element has to be modified in size, shape and density in order to be integrated into an organic whole. These elements are bonded together to form a unity and are obliged to adapt to and accommodate each other for the sake of the overall balance.<sup>21</sup>

*Figure 14 3 Spatial organization for calligraphy explained using “Longevity”*

The combination of these different approaches creates various spatial compositions and derivations. In calligraphy, there are 3 main spatial organizations approaches between black and white, between what was written and what is left on paper.<sup>22</sup> The combination of force and counter-forces are dedicated towards a single goal – to instill inked brushstrokes with a poetic rhythm and a virtue of life.

In fifth century, poet Tao Yuanming introduced the ideation of a pastoral lifestyle being the poetic retreat from the chaotic society.<sup>23</sup> This led the way of a new class of scholars indulging the virtues of self-cultivation, often in response to personal and political setbacks where they began expressing one's values as literati through art such as calligraphy, poetry, and landscape paintings. These landscape paintings of retirement retreats, plantation, and rocks became the manifestation of their character and belief. The progression of landscape paintings slowly evolved into Chinese gardens.

The first written record of Chinese garden started in the Qin dynasty as Shangling Garden constructed by Qin Shi Huangdi.<sup>24</sup> Similarly, Chinese gardens have evolved through the centuries from dynasty to dynasty to imitate and appreciate the different forms of divine and belief. Each dynasty took on different approaches to compose the garden elements and its partnership with nearby surroundings.





去來兮請息交以絕遊世與我而相遺後駕  
焉求悅親戚之情話樂琴書以消憂農人生  
以暮春將有事乎西疇

Figure 15 Painting—Tao Yuanming Returning to Seclusion





園日涉以成趣，  
門雖設而常關，  
策扶老以流憩，  
時矯首而遐觀。  
雲無心而出岫，  
鳥倦飛而知還，  
景翳翳以將入，  
撫孤松而盤桓。

I pass my days in the garden doing what I please,  
And though I set a gate there, it is always shut;  
An old man leaning on his cane, I stroll and rest,  
Lifting my head at times to gaze into the distance.  
As clouds aimlessly emerge from the peaks,  
Birds weary of flying know it is time to return;  
But until the sun is covered and almost gone,  
I stroke the bark of a lonely pine and linger on.

Li Gonglin 李公麟 (ca. 1049–1106)

Tao Yuanming

Returning to Seclusion

FORM 形 (B.C. 202 to 386)	Emperors of the Qin and Han dynasties worshipped the heavens and as a result their palace gardens take the form from those divine texts. Chinese gardens during these eras are built to imitate the forms of divine; where the elements inside the garden are composed mainly for representation, imitation, and miniatures of the natural landscape. <sup>25</sup>
SENTIMENT 情 (386 to 907)	During the late Han Dynasty, Chinese society was in a state of great turbulence and disintegration. Buddhism and Taoist thoughts have flourished, where Literati began to seek spiritual shelters because of the turbulent society, as a result the language of gardens have begun to transition from realistic to expressive. The garden at this stage uses nature as the carrier of emotions, conforming to nature in order to seek sustenance and pleasure. Elements in the gardens are designed to fuse, create empathy, and uncover natural beauty. <sup>26</sup>
REASON 理 (907 to 1127)	Chinese literati at this time was immersed in the play of gardening techniques and focused on the pursuit of formal beauty. Reason became the formal or rationalism of gardening techniques. Poet Bai Juyi put forward the theory of garden as “middle ground for solitude” <sup>27</sup> , as this is a way to find compromise between two strong oppositions, living in the city vs living in the wilderness. In general, during this period, nature was used as the object of exploration inside Literati Garden, where the objective is strengthen the garden’s natural beauty through a well-organized sequence.
PROPENSITY 势 (1127 to 1500)	When the Chinese literati discovered the “potential” in nature, Chinese gardens began to deviate from an imitation of nature to “borrowing” the propensity of nature. After discovery of “Shi” in gardens, each framed view has a specific propensity associated to it. The walkways were no longer followed by the designer’s ruler, but rather bend according to the natural propensity of the site. <sup>28</sup>
CONSCIOUSNESS 意 (1500 – 1911)	In the late Ming Dynasty, there was a trend of thought that elevated individuality and human desire. People’s self-awareness in gardens was further enhanced. During the Ming and Qing Dynasties, the gardens have decreased in size while achieving greater human pleasure. The architectural focus of the literati gardens in the Qing Dynasty became more obvious, where the wild nature interest was weakened, and people’s aesthetic interests became more diverse. <sup>29</sup>

See Appendix A for full timeline

Painters often retreated from the chaotic society through these Chinese landscape artworks defined with mountains and hills, deep gorges and waterfalls. These works of art would often be several meters long and composed upon a canvas which would be hung for display. Often, these works are formed into a scroll format. The application of the scroll format creates a continuous narrative to experience the Chinese landscape in a progressive and structured nature. This sequential methodology of reading prevents one from viewing the entire piece all at once but rather unveils section by section through the unscrolling process. Similarly, the artists will complete the painting in stages and often paint each section separately where in the end, all the works are pieced together into a final composition. The narration of these paintings consists of a continuous flow with no visual breaks. Often the first viewing establishes an overall narrative of the art piece and subsequent viewings dives into the finer points and hidden passages.<sup>30</sup> These patterns and experiences are incorporated into the classical Chinese Garden where one must venture through a carefully crafted path to experience what the garden has to offer.

Throughout the narration, these spatial elements whether it be a pattern of rock formation or a section of the garden, are given traditional poetic names to enhance the cultural citations between the manmade landscape and nature. These names generally express the artist's bond to nature, intention of the design and their ambitions to society. To critically bring out the effects of the paintings and the curate the beautiful scenery, there are several principles utilized. These different elements changes the "ups and downs, depths and layers, conceal and reveal, guide and hint"<sup>31</sup> of the scenery to create an impact imagery.

Borrowed Views - Incorporates background landscape into the composition of a garden

Depth of the Field - Utilizes paint strokes to add illusory layers of distance

Spatial Layers - Encompasses layer upon layer to create spatial effects between the background and foreground.

Calligraphy Brush stroke principles of dynamic and force can be seen in the landscape painting and Chinese garden. Inversion is displayed through the emphasis on the opposition's force; big in small, real in unreal, apparent and hidden, to depth and shallow. Lingering is shown through the control of flow and movement creating a feeling of wonderment rather than viewing from a still and distant point. Withholding is built through shifted perspectives which are used to focus or withhold various elements upon different layers in the landscape. The control of external versus internal views depicts a spatial journey in landscape painting that can be discovered within a Chinese garden that is suitable for dwelling and exploring.

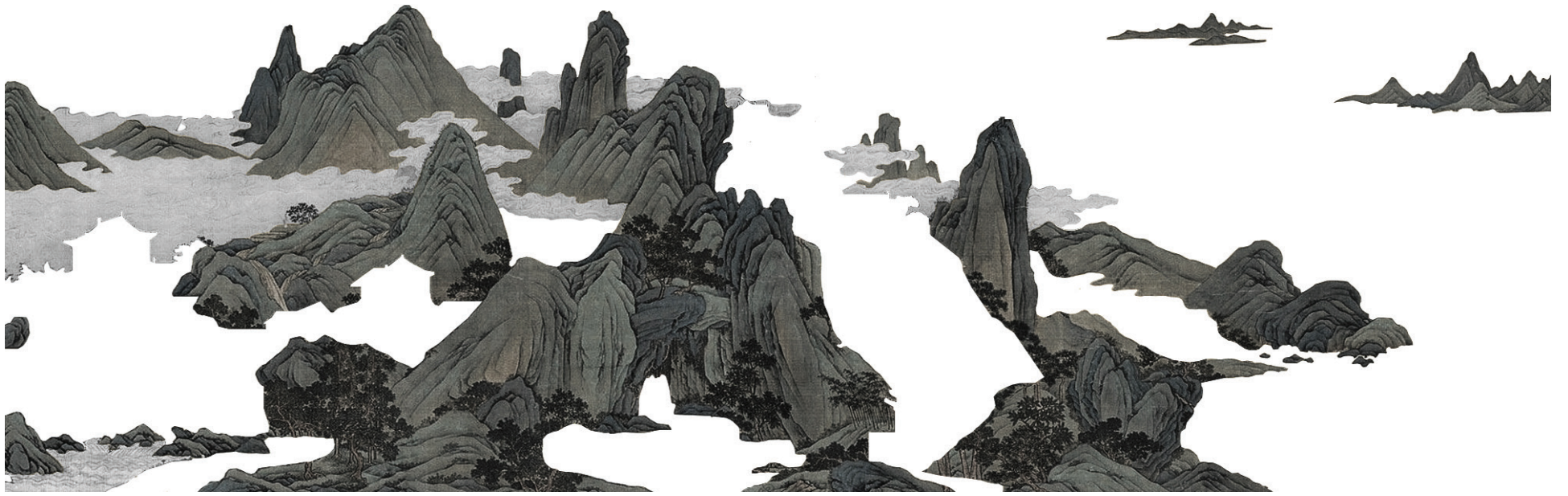


## INVERSION



**Figure 16** "Inversion" in Chinese Painting. Painting by Qui Ying, "Wonderland of Penglai"







# INVERSION



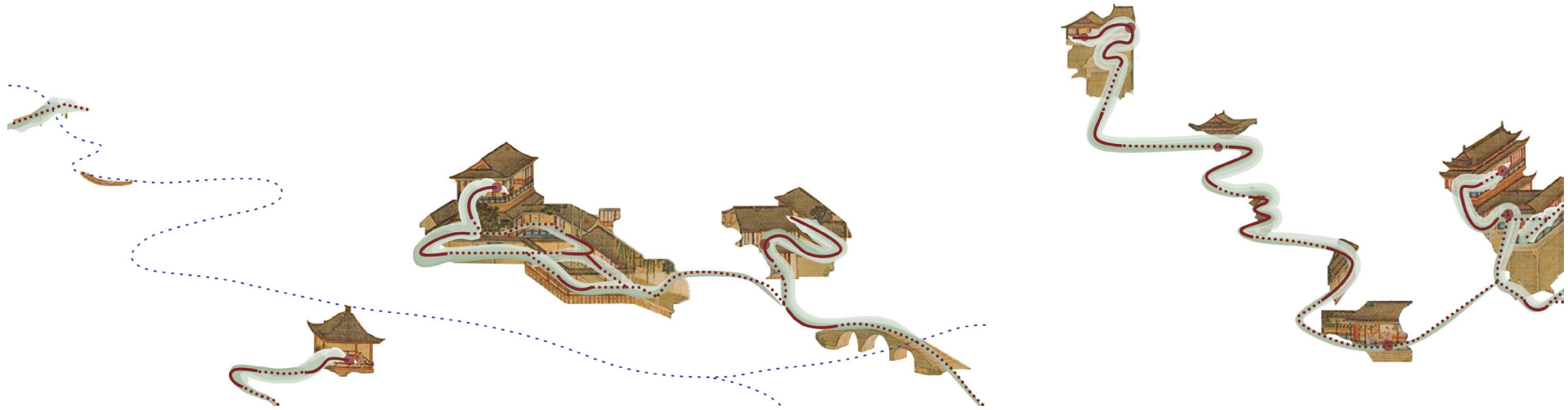
Inversion is expressed in the opposition between the fixed elements of the manmade structures versus the nature elements of the water. An outline is created in the reflection of the water surface as an impression between the inverting elements.

Figure 17 "Inversion" in Chinese Garden





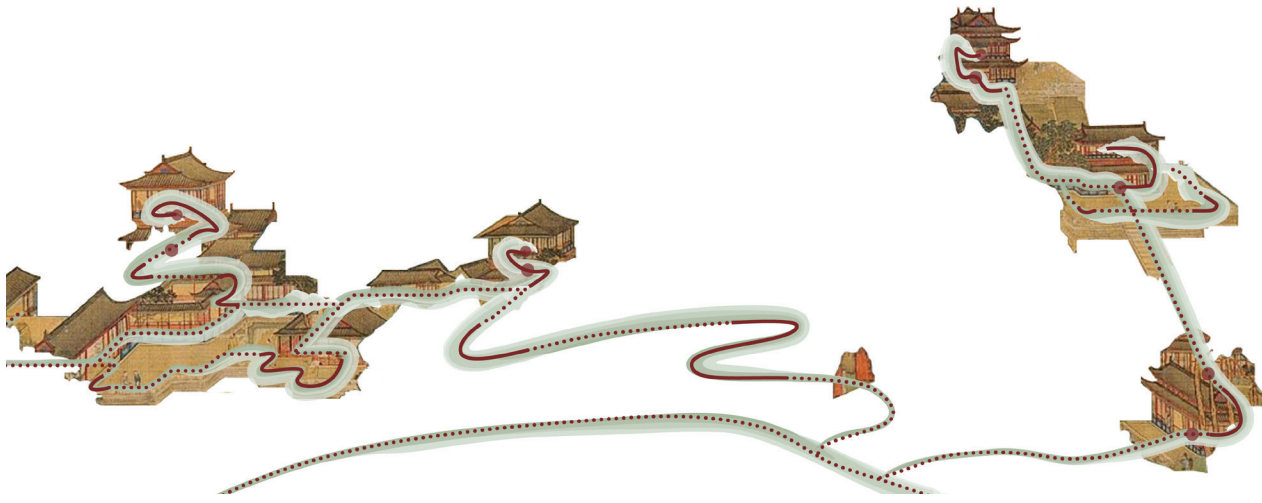
# LINGERING



Lingering is illustrated as the pathways whether it be manmade or through nature. The pathways are crafted as brush strokes with impact emphasis at focal and turning points.

Figure 18 "Lingering" in Chinese Painting. Painting by Qui Ying, "Wonderland of Penglai"

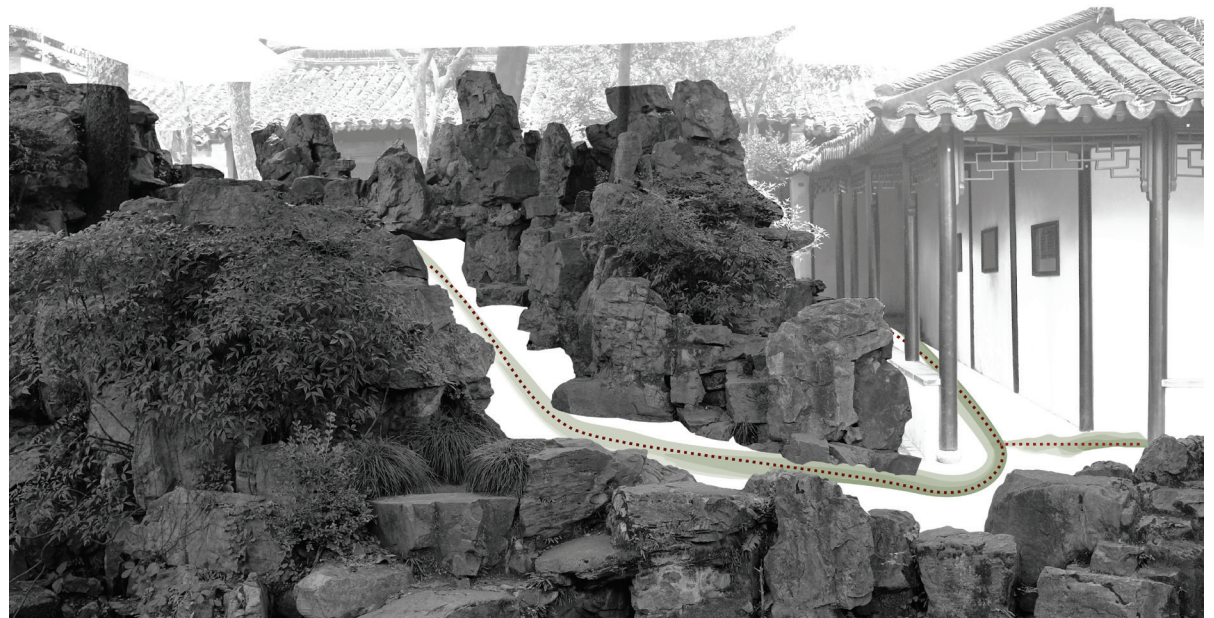
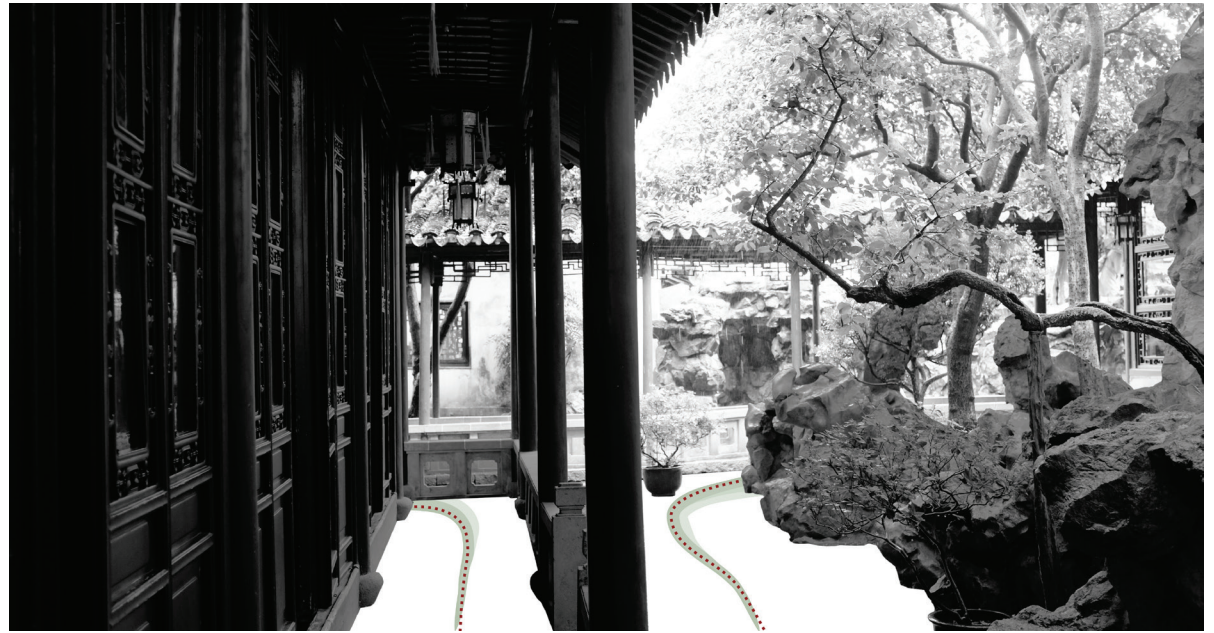






# LINGERING

留夹 DIVERGENCE



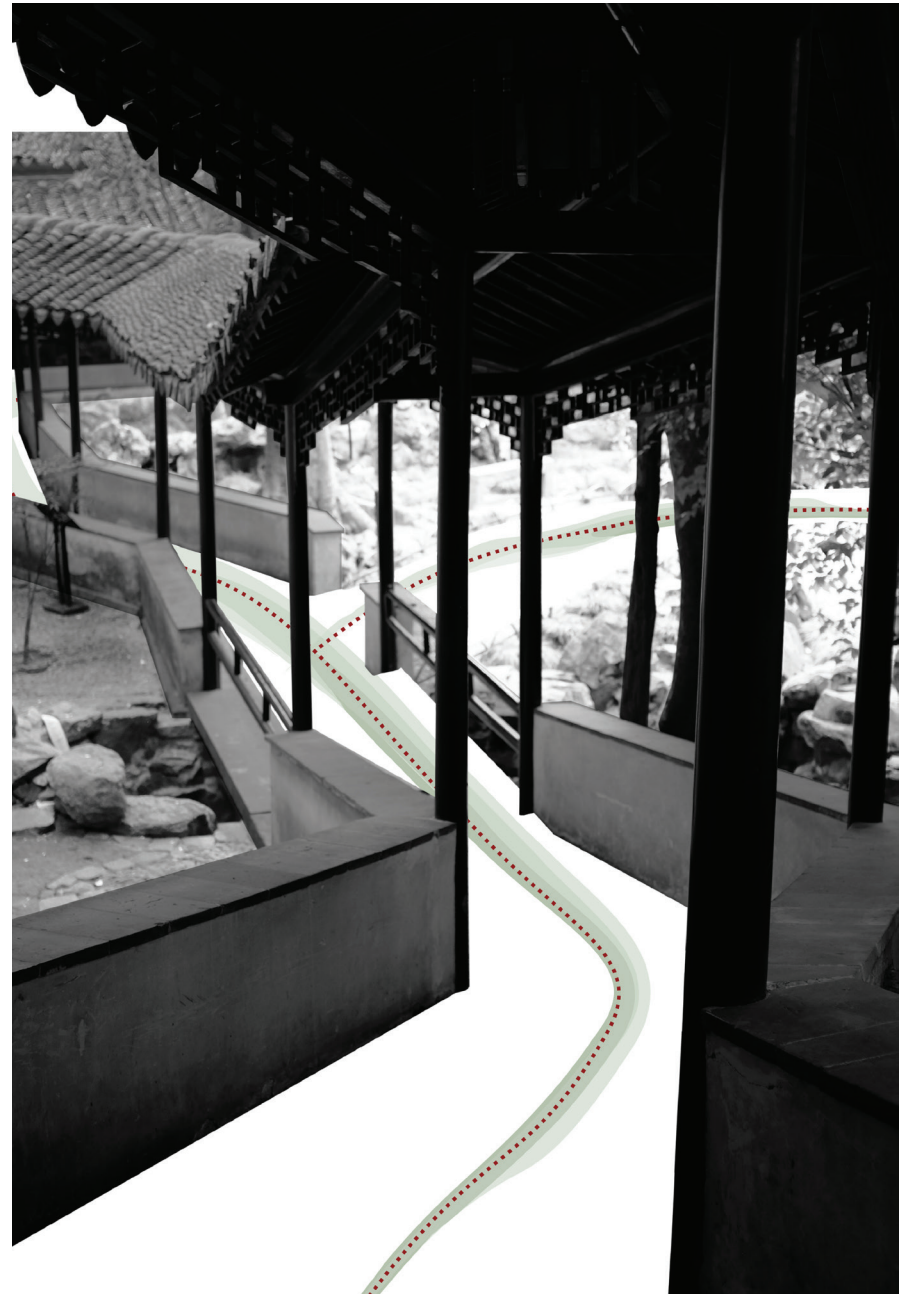
Lingering is illustrated with the path shown through the Chinese garden. Divergence is shown as a split in the path junction as each branch leads to a different direction.

*Figure 19 "Lingering" in Chinese Garden - Divergence*

# LINGERING

斜刺 DIAGONAL

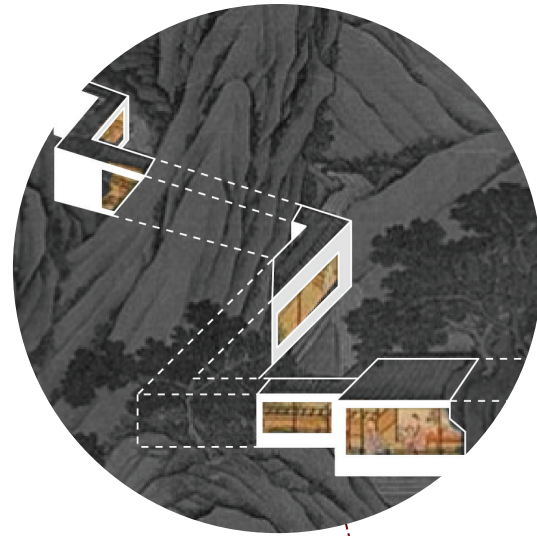
Lingering is illustrated with the path shown through the Chinese garden. The diagonal aspect is shown through an indirect path which intersects with the main pathway shown.



*Figure 20 "Lingering" in Chinese Garden - Diagonal*



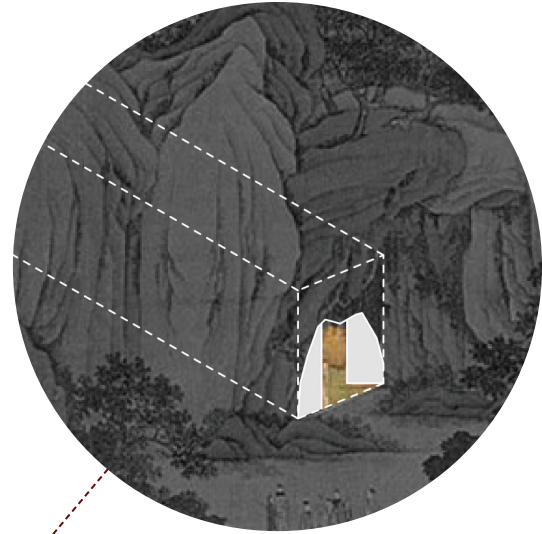
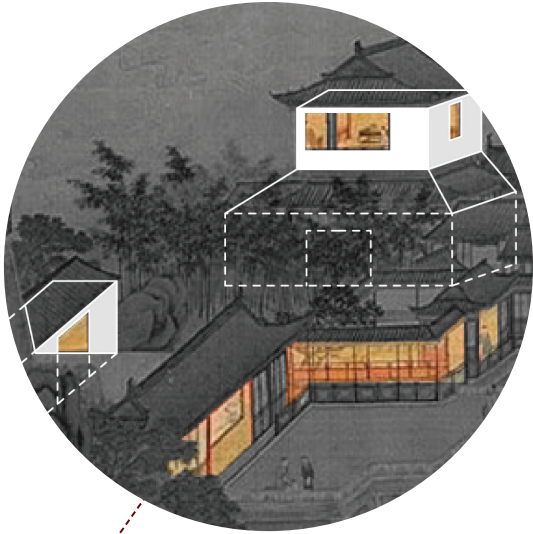
## WITHHOLDING



Withholding is shown in the reveals in the main painting while highlighting the sight path from each window and door. In the zoomed up views, withholding is illustrated in the manmade paths are that shown versus hidden portions behind rocks and mountains.

Figure 21 "Withholding" in Chinese Painting. Painting by Qui Ying, "Wonderland of Penglai"







# WITHHOLDING

透视 PERSPECTIVE



Withholding is expressed in the reveal of the door ways and sequent views. The perspective aspect is shown via the multiple layers of withholding elements of reveal upon reveal. However, these layers shown without depth.

*Figure 22 "Withholding" in Chinese Garden - Perspective*

# WITHHOLDING

递进 PROGRESSIVE

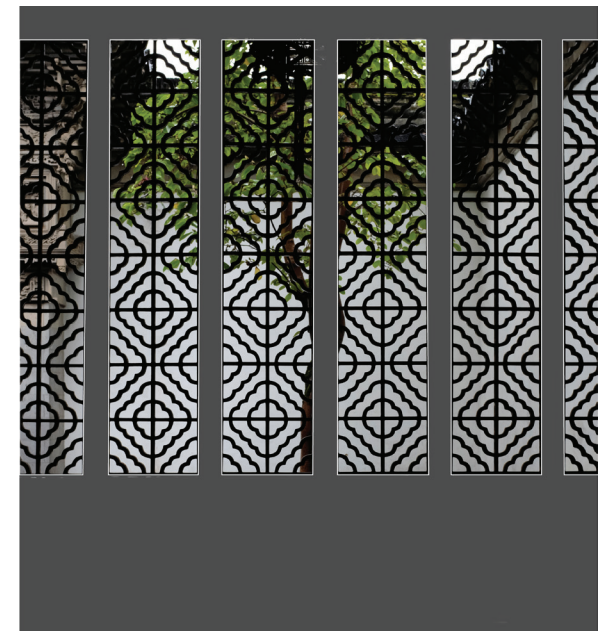
Withholding is expressed in the reveal of the various openings and windowed views. The progressive nature is shown via the multiple layers of withholding elements where a sense of depth is illustrated.



*Figure 23 "Withholding" in Chinese Garden - Progressive*

# WITHHOLDING

障景 Glimpse/ Concealment & Reveal



Withholding is expressed as the reveal of the various openings and windowed views. In the glimpse and concealment variation, the reveal is a mere small window to a larger outside view.

Figure 24 "Withholding" in Chinese Garden - Glimpse/ Concealment & Review



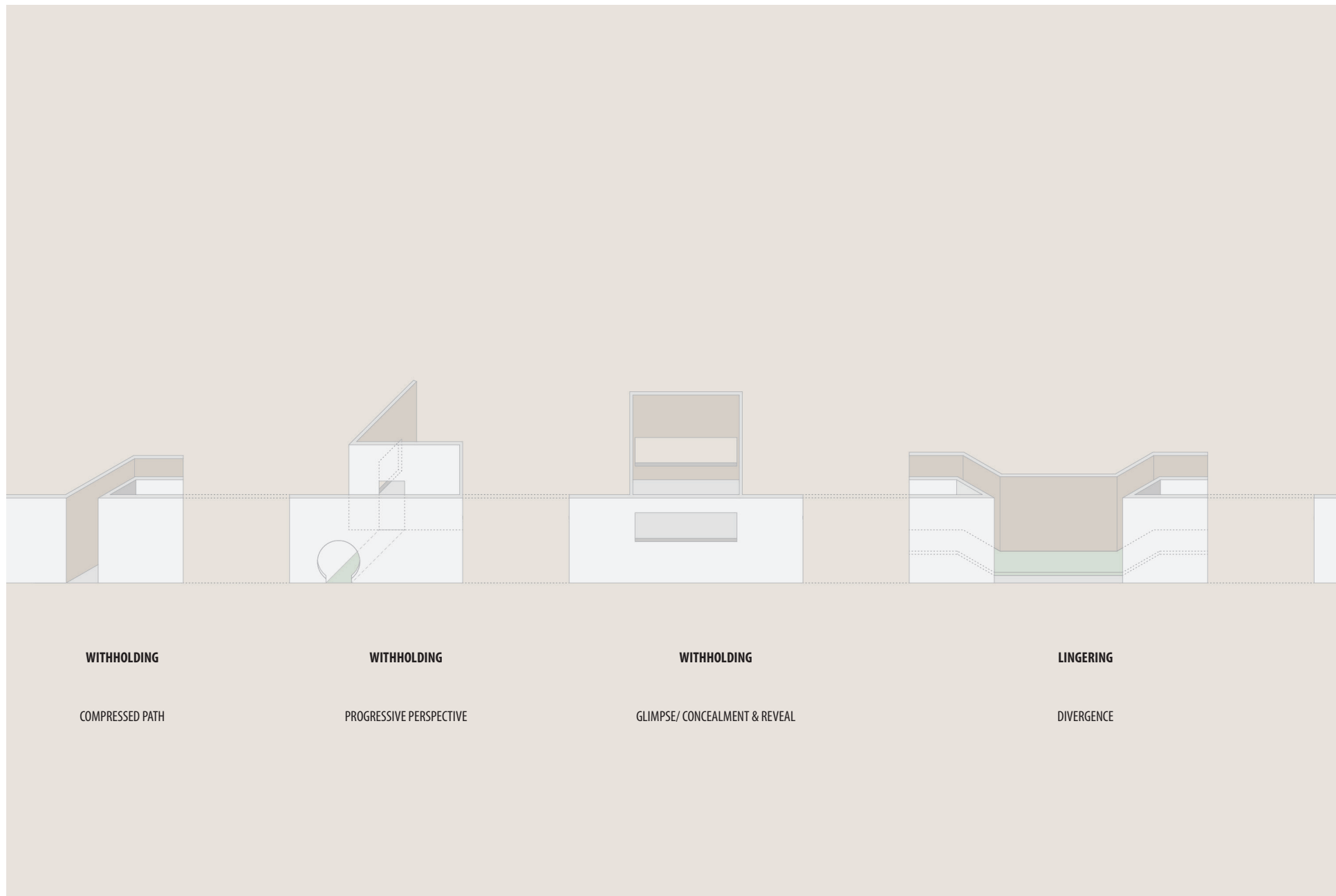
# WITHHOLDING

Directed View



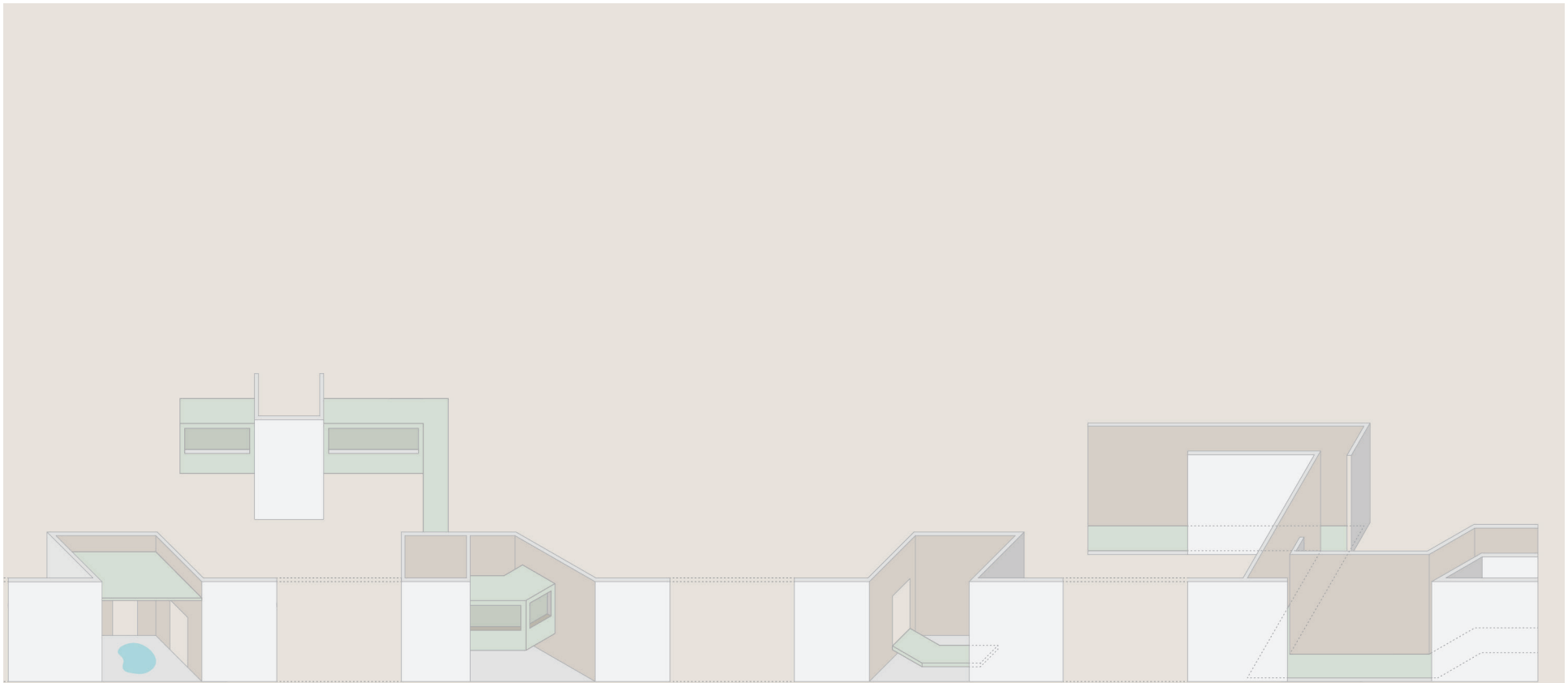
Withholding within the directed view scenario highlights a notion to direct the eyesight of the viewer towards a focal point. In the examples on the right, the withholding aspect highlights the manmade structures within the garden environment.

*Figure 25 "Withholding" in Chinese Garden - Directed View*



**Figure 26** Architecture representation of different calligraphy principles applied in Garden design





**INVERSION**

STATIC & DYNAMIC ELEMENTS

**WITHHOLDING**

DYNAMIC PERSPECTIVES

**LINGERING**

DIAGONAL VIEW  
COMPRESSED MOVEMENT

**LINGERING**

MEANDERING PATHS

The Daoist idea of natural beauty and search for immortality has heavily influenced traditional landscape painting as a means of expressing the ideal dwelling in the spiritual world of literati. These factors that have influenced the art and perception of the ideal retreat combined with the principles of calligraphy artistry sets the foundation in my design proposal.

ENDNOTES

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- 15 Ibid.
- 16 Ibid.
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- 26 Ibid.
- 27 Ibid.
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- 29 Ibid.
- 30 Peng, Yigang. "Analysis of the Traditional Chinese Garden" 1986.
- 31 Ibid.

## CHAPTER 3: NEO LIBERAL URBANIZATION IN SHANGHAI

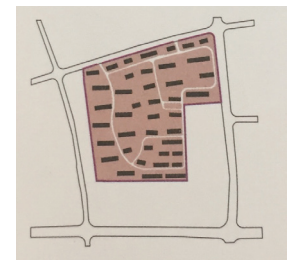
OLD AND NEW: AGING IN LILONG AND NEW TOWN



Shanghai being a central core to the Yangtze River Delta (YRD), is one of the densest regions in the world where over 140 million inhabitants currently reside in the YRD.<sup>32</sup> As a result, Shanghai has gone through multiple phases of rapid industrialization creating an overpopulation crisis at its city center core and urban fringes. According to 2010 National Census data, despite the large rural-urban migration into Shanghai, it still boasts one of the highest concentrations of senior population, both in the county and the district regions in the city. On a district level, over 11% of the metropolitan population of Shanghai is over the age of 65 while the national average is just under 9%.<sup>33</sup> Districts like Xuhui and Jing'an have over 30% senior residency, where both neighborhoods are located in the densest areas of Shanghai inner city center.<sup>34</sup> Large amount of the working class resides in the urban fringe; by 2050, this working class will reach retirement age, therefore shifting the concentration of senior population from the city center to surrounding areas.<sup>35</sup> A year by year urban development layout from 1843 to 2020 can be seen in Appendix B.

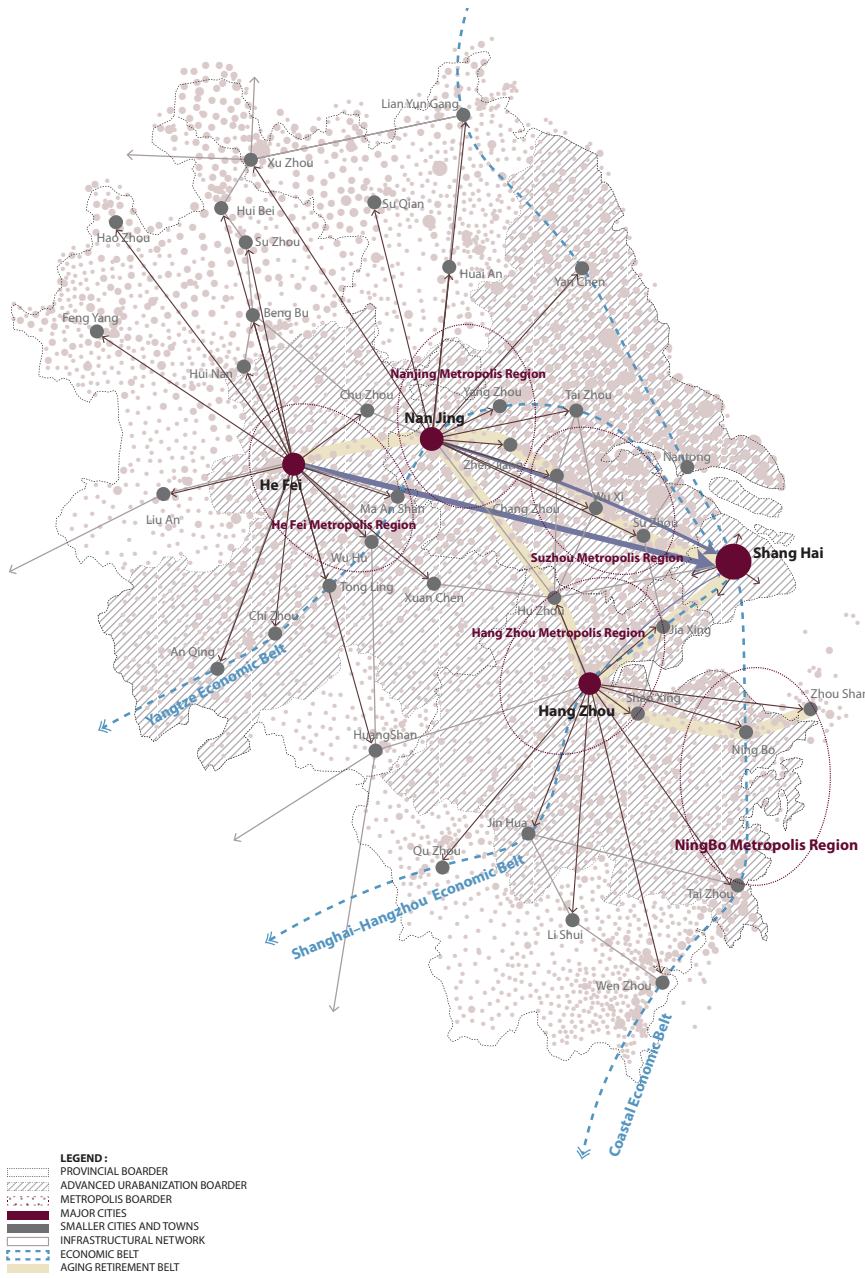
Prior to 1949, majority of Shanghai's residential landscapes takes the form of laneway housing. From 1840s to 1949 lilong settlements comprised the majority of housing within the city center today.<sup>36</sup> Li means neighborhoods, long means lanes. The lanes served as an extension of one's living room or workshop which created more additional social interaction and sense of community. From 1949 to 1978, Shanghai's urban landscape evolved into danwei compounds (work units) where its citizens lived in a highly structured format.<sup>35</sup> Danwei compounds were state-run own enterprises whose members lived and worked communally and became the basic building block that defined Chinese livelihood. "The danwei acted as a source of collective identity and attachment"<sup>38</sup> for all its inhabitants and would provide all basic necessities of life for its inhabitants from housing and employment to general welfare and social community. These compounds brought centralized order and security to its inhabitants and were the primarily living quarters of over 90% of the Chinese population in 1978.<sup>39</sup>

With the danwei system slowly receding away, the formations of xiaoqus or micro districts were being erected to take their place. Xiaoqus were typically comprised of a neighborhood with high-rise ensembles, row housing and villas commonly within a gated community.<sup>40</sup> These new modern gated commodity housing were similar to that of the danwei units but aimed for high land use efficiency while stimulating community participation and self-governance from within. Unlike the danwei compounds, these gated commodity housing offered more housing choices and increased flexibility in living arrangements however lacking the general welfare social services offered previously.<sup>41</sup> China's neoliberalizing process has redefined the public-private divisions where social welfare programs that were once guaranteed by the government were now relinquished to the market, making private capital increasingly important and active in the socioeconomic development.<sup>42</sup> As a result, xiaoqus were even encouraged to be more resourceful and develop program establishments for management and maintenance from within. The key difference is commodity housing is now sold through the housing market and managed commercially and this new model of privatization and ownership generated fluctuations in housing pricing and as a result, boosted housing demand. With the new rising consumption culture, the wealthier classes were able to choose homes that met their needs and preferences.



**Figure 27** Typical xiaoqu layout





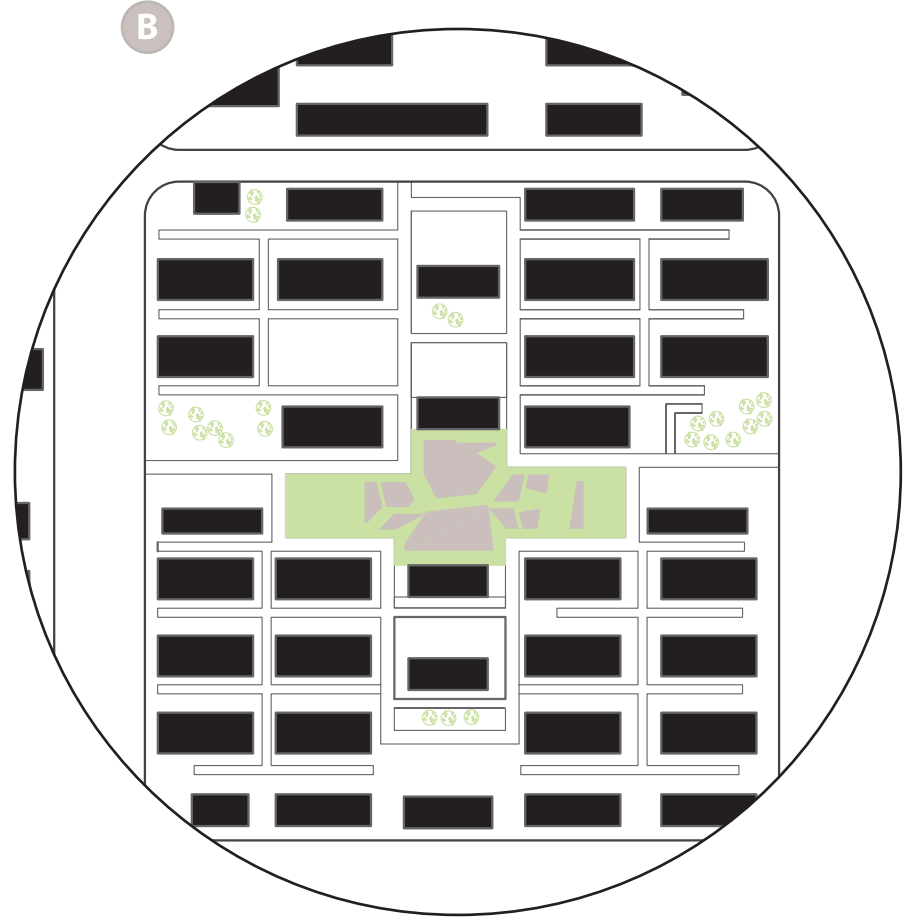
**Figure 28** Typological Diagram of Yangtze River Delta Urbanization



**Figure 29** Historic Timeline of Urban development in Shanghai from 1843-2020



*Figure 30 1st site intervention in Shanghai*



*Figure 31 2nd site intervention in Shanghai*

In the post reform era, China's land, housing and public service markets which were once regulated are now open to market forces. This new approach to urban development is characterized heavily through private investments; it has created an effective means to bring capital and wealth to the city. In 2006, over 127.6 billion yuan (12.3% of Shanghai's GDP) was derived from the real estate market.<sup>43</sup> Since the implementation of land leasing in 1992; over 710 million m<sup>2</sup> of buildings have been demolished and redeveloped.<sup>44</sup> Due to the massive redevelopment initiatives, over 925,000 households in Shanghai were evicted and relocated between 1992 and 2006.<sup>45</sup> These forced evictions for expediting development primarily targeted the low-middle income classes of Shanghai while the rich and wealthy remained intact. These off-site relocations were led by intentions to develop much higher value-added properties on the original sites to generate greater profits.<sup>46</sup>

As the urban expansion became more erratic, the formal process of land transfer to hand over control of the prospective land started venturing into a grey area of business.<sup>47</sup> As a result, a lot of tension is generated from the lower tier income classes and those evicted as they were often pushed outside the inner city boundary. Through various appeals and confrontations, the affected residents eventually fought for social equality to obtain higher quality homes.<sup>48</sup> However, once the new redevelopments on the sites of their original homes were complete; the value of new home has risen so much that these new estates are now unaffordable, segregating those whom once lived there to remain in the outer urban fringes.<sup>49</sup>

The prevalence of gated commodity housing also became a method of social differentiation. With the rise in xiaoqus, these new gated communities became the popular residential enclave of the new middle class which now provided a new sense of exclusivity and privilege for its inhabitants.<sup>50</sup> With waves of migrant workers entering the city, these gated communities with restricted access also served as a means of increased privacy and safety between locals and foreigners.<sup>51</sup> The presence of walls surrounding these gated communities provided another means of security against the growing hostility between the rich and poor. This formed a barrier against the noisy, crowded and polluted streets channeling throughout the city.<sup>52</sup> These physical barriers created social disorder and fragmented the community network in the streets that once traditionally acted as an addition to one's home now creates a clear division between social classes and the urban configuration.

*In Chinese society, "housing is more than just a commodity. The symbolic meaning of housing in terms of identity and prestige"<sup>53</sup> creates a new form of demand that was once only affordable for the powerful and wealthy.*

These diverging social changes in Shanghai leaves the mobile migrant class whom often was from out of province stranded and out casted. Unable to afford living within the city center, the migrant class has no choice but to seek cheaper accommodations outside formal rental markets. Migrant workers would usually end up residing in nearby areas along the urban and rural fringes or in compounds built around industrial areas creating the emergence of migrant enclaves.<sup>54</sup> "In many senses, rural migrants' right to the city, especially the right to inhabit the city, are suppressed"<sup>55</sup>. As the urban borders of Shanghai are constantly gentrified, these enclaves are frequently subject to removal and relocation continuing the eviction of the migrant class.

With the housing reform, three different types of market based housing accommodations were established to provide some form of stability to a new market economy.<sup>56</sup> Subsidized rental housing for the urban poor, affordable housing for low-middle income and commercial housing for middle-high income groups were initiated to provide support and needs at all levels.<sup>57</sup> Of these three groups, commercial housing coveted by the rich and wealthy, generates more local revenue and is favored by local bureaus for construction.<sup>58</sup> However, the notion of corruption in the system is very significant which leads to a mismatch of housing supply versus actual demand. This creates a surplus of commercial housing purchased primarily by the wealthy while the general public could not simply afford these new developments.<sup>59</sup> As the housing market continues to boom, local residents are buying additional homes as investments throughout the urban fringe regions creating a long forecast of scarcity of affordable homes in the foreseeable future to come. Since these new developments become the secondary and tertiary residences that are commonly dormant, the housing market continues to rise due to growing demand. With a lack of inhabitants, this leaves a drought of commercial activity for the surrounding businesses to function properly. This gap between the rich and the poor widens separating the rich from the migrant and low tier income classes.



**Figure 32** Traditional street layout of Shanghai (left) and street life in Shanghai during danwei era (right)



The One City, Nine Towns development plan was implemented in 2001 by former Shanghai Communist Party Secretary Huang Ju as means to celebrate Shanghai's history as a global city.<sup>60</sup> The formal purpose of the plan was to develop nine new suburban towns throughout the farmland outskirts of Shanghai as a means to save the city from inevitable overpopulation.<sup>61</sup> The implementation of satellite cities uses using a multi-nodal approach for urban development built around concentrated urban cores using Ebenezer Howard's Garden City Movement.<sup>62</sup> This formation establishes an interlinking web connecting up and coming regions to Shanghai's inner city core by building extensive networks of public transportation paths. The master plan was conceived as an urban experiment to create new pockets with cosmopolitan qualities that would help bridge the gap between the city and countryside.

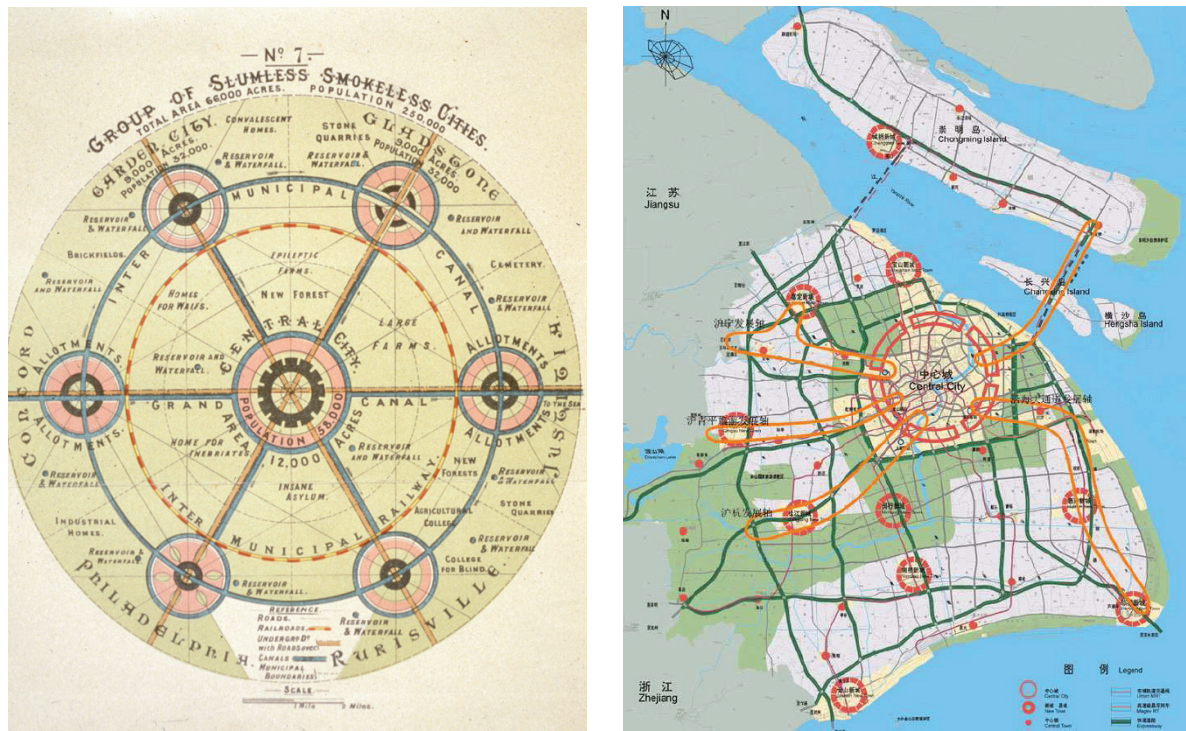


Figure 33 Ebenezer Howard's Garden City Movement (left) and One City, Nine Towns development plan (right)

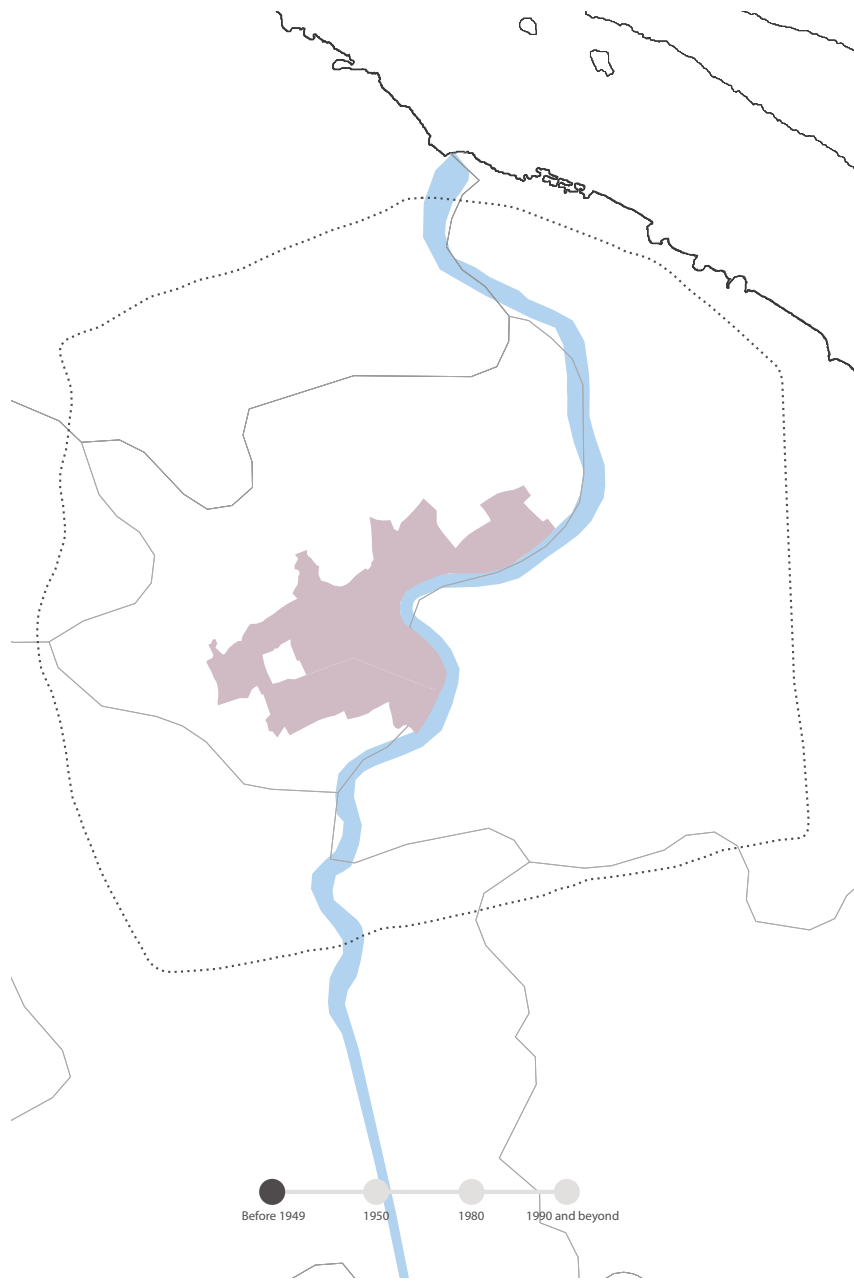
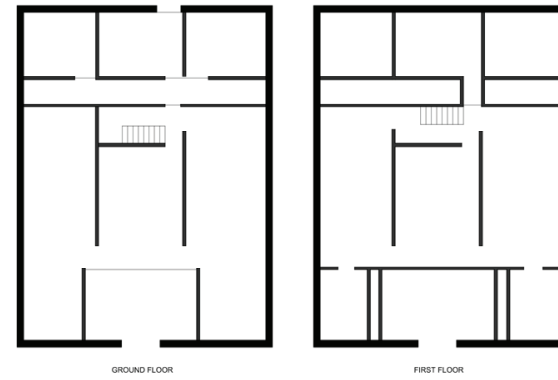
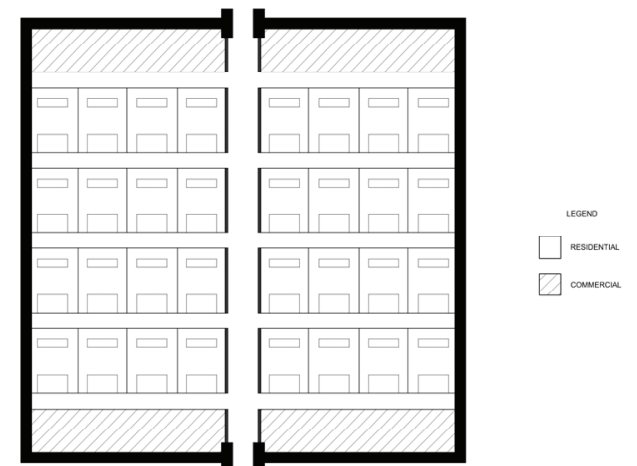


Figure 34 Residential typology of Shanghai Timeline (Before 1949)

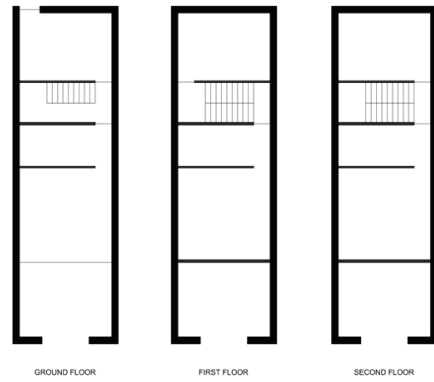


OLD LILONG PLAN

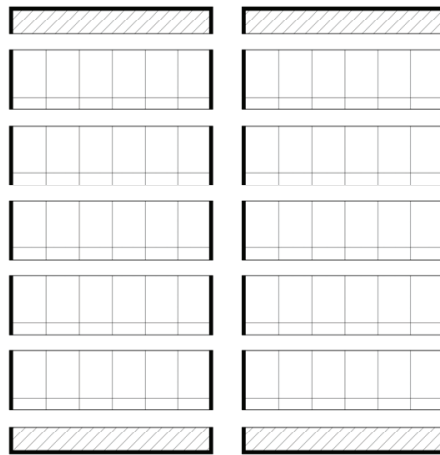


OLD LILONG SITE PLAN

Figure 35 Old Lilong Plan (top) and Site Plan (bottom)



NEW LILONG PLAN



NEW LILONG SITE PLAN

Figure 36 New Lilong Plan (top) and Site Plan (bottom)

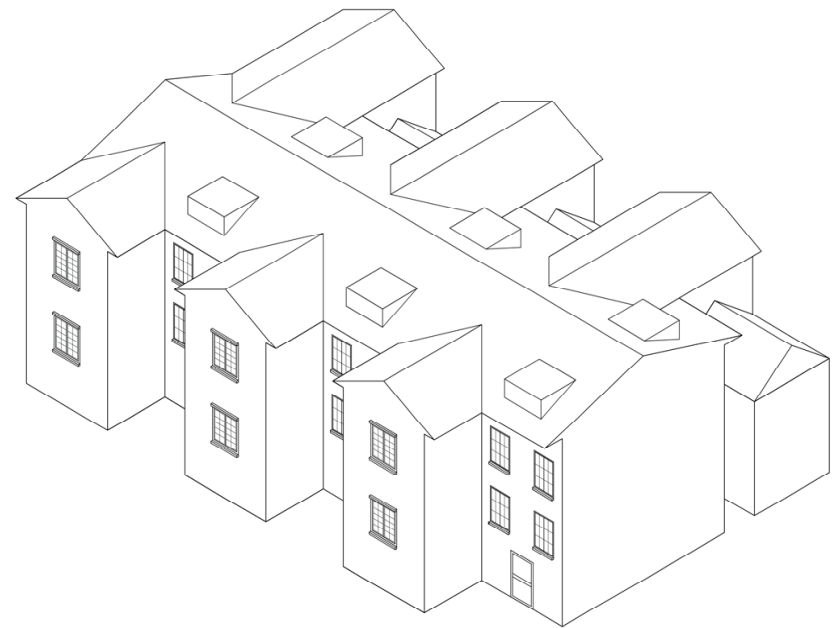
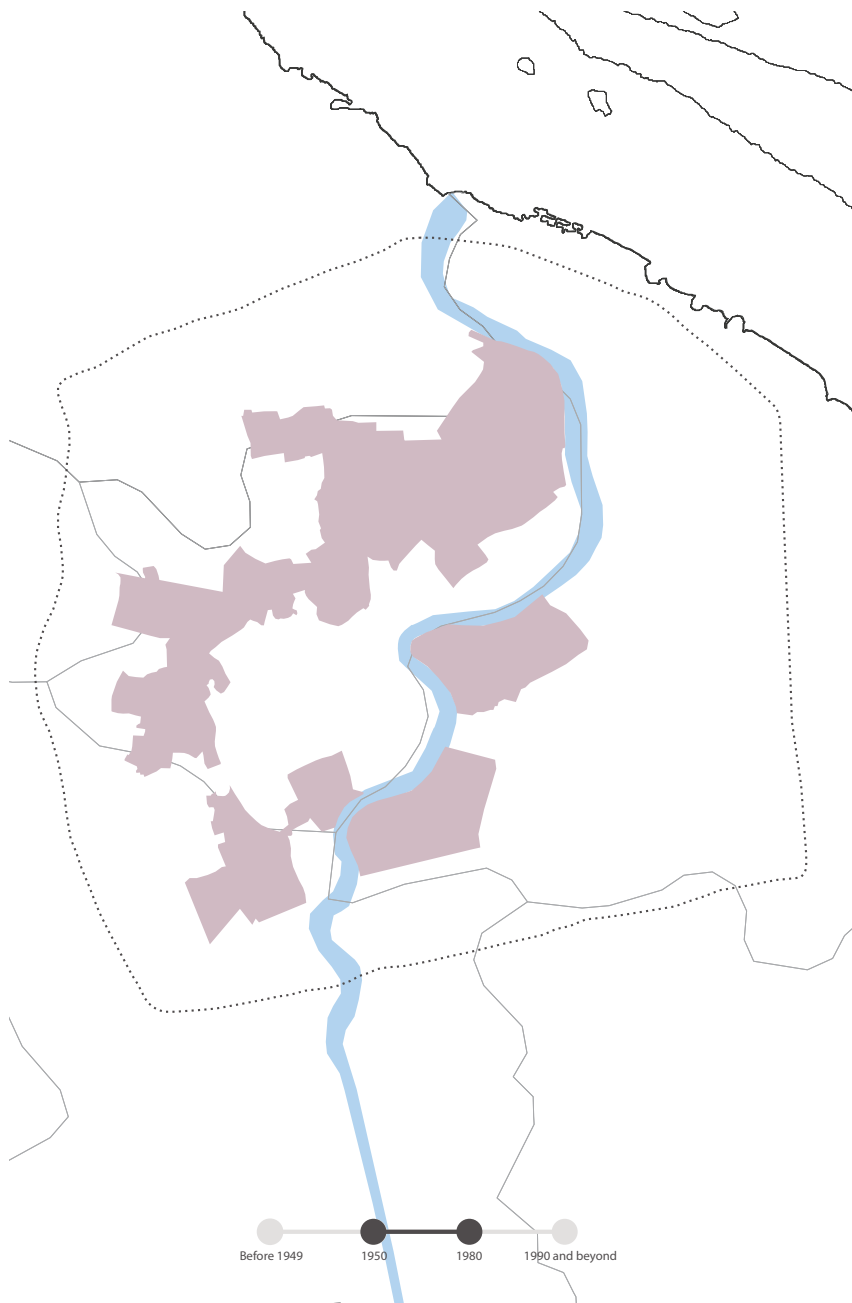
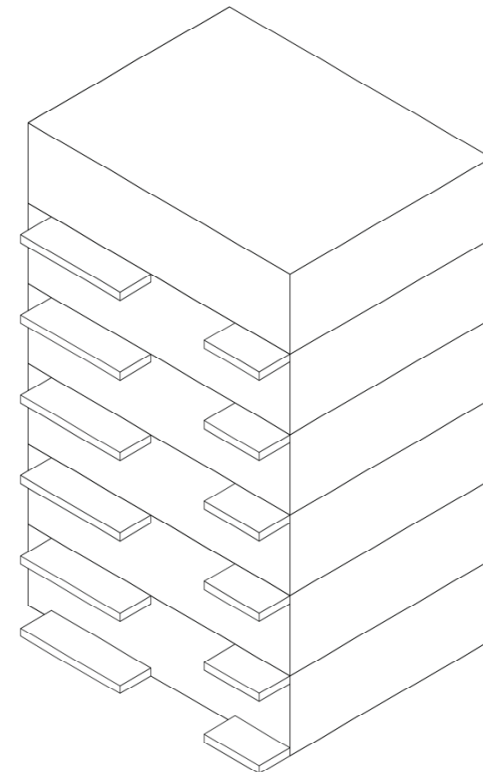


Figure 37 New Lilong Type Axometric

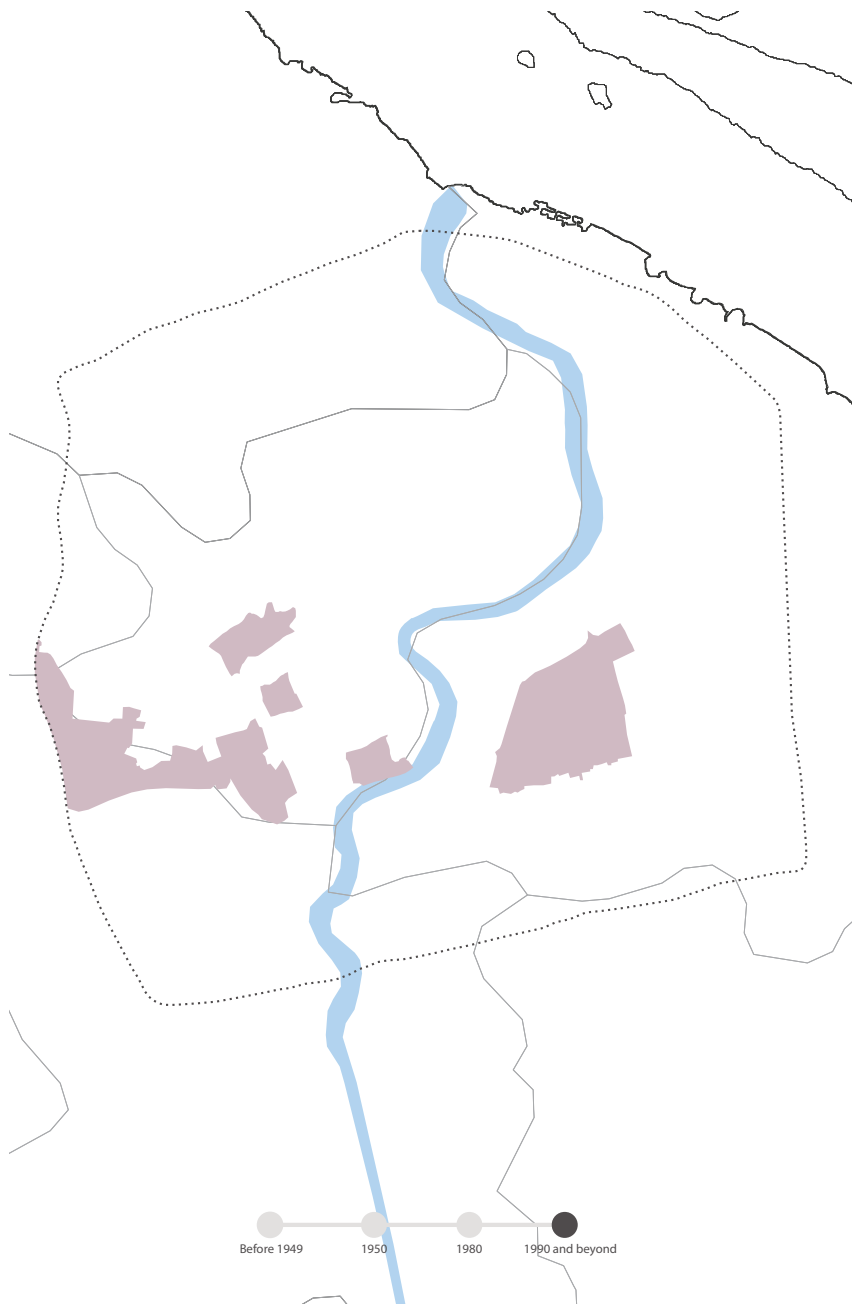


**Figure 38** Residential Typology of Shanghai (1950-1980)

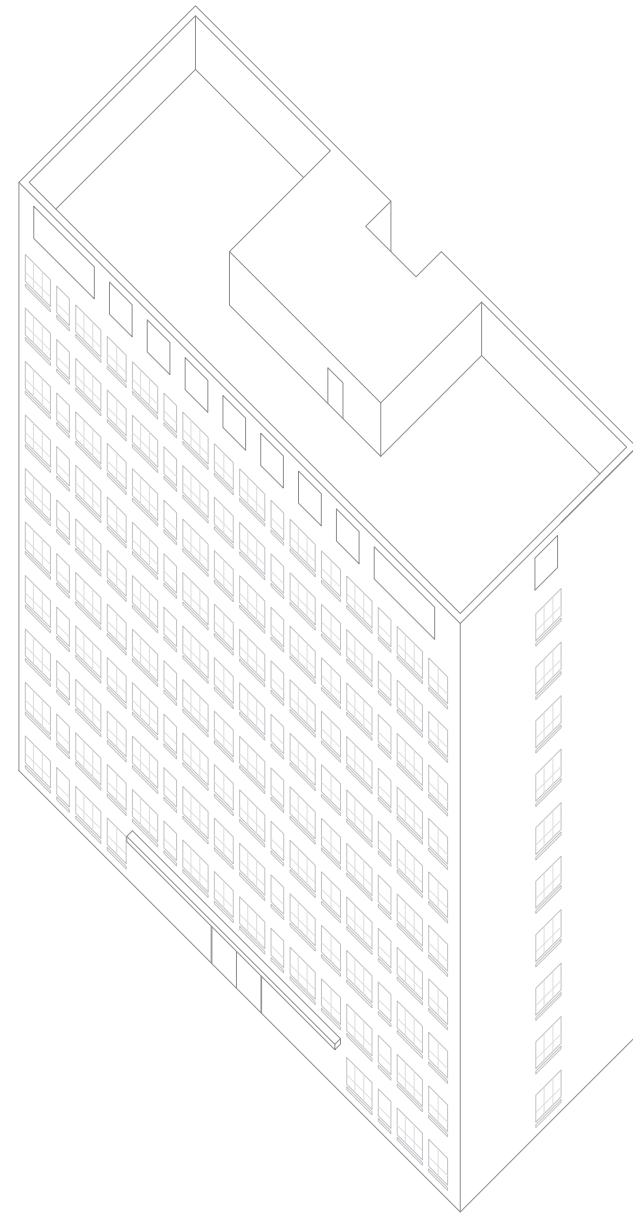


**Figure 39** Apartment/Work Unit Typology Axometric





**Figure 40** Residential Typology of Shanghai (1990 and beyond)



**Figure 41** Axometric of Residential Tower in Shanghai

This thesis will focus on two different sites on opposite spectrums of this shift in housing development and its affected inhabitants.

The first site will be a lilong style residential area still intact within the city center core. The goal of the first site will be to revitalize the remnants of the community and surge a new sense of belonging towards the area of interest. As the rapid urbanization of Shanghai continues, important steps must be taken place to ensure the community and social ecosystem that existed is not shattered nor forgotten.

The second site will be a recently developed xiaoqu residential area in one of the urban cores as part of the One City, Nine Towns development plan. The goal for the second site will be to form a new sense of community and belonging for its inhabitants. As this site is predominantly occupied by the working and migrant class, a foundation must be built in order to foster a strong community from within as the residents continue to age. This would be the first step to defining the necessities towards a healthy social ecosystem that will pave way for the future.

Both of these sites will use a similar design philosophy to create senior centric community and living area.

## ENDNOTES

- 32 Ibid.
- 33 Ibid.
- 34 Ibid.
- 35 Ibid.
- 36 Knapp, Ronald. "China's Old Dwellings" University of Hawaii Press. 2000
- 37 Ibid.
- 38 Yip, Ngai Ming. "Walled without Gates: Gated Communities in Shanghai." *Urban Geography*. 2012. pp 223-236
- 39 den Hartog, Harry. "Shanghai as Urban Experiment" in *Shanghai New Towns: Searching for community and identity in a sprawling metropolis*. 010 Publishers, Rotterdam. 2010. pp 63-80.
- 40 Ibid.
- 41 Ibid.
- 42 Li, Lingyue. "Contesting China's engagement with neoliberal urbanism: an overview of the evolving policy and mismatches in urban china." *Asian Education and Development Studies*. 2017. Vol. 6, No. 1. pp 44-56
- 43 He, Shinjing and Wu, Fulong. "China's Emerging Neoliberal Urbanism: Perspectives form Urban Redevelopment." *Antipode*. 2009. Vol. 41, No. 2 pp 282-304
- 44 Ibid.
- 45 Ibid.
- 46 Ibid.
- 47 Friedmann, John. "China's Urban Transition." University of Minnesota Press. 2005
- 48 Ibid.
- 49 You-Tien Hsing. "Land and Urban Politics" in *The Great Urban Transformation*. (Oxford: Oxford University Press, 2010), pp 5-29.
- 50 Ibid.
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- 53      **ibid.**
- 54      **ibid.**
- 55      **ibid.**
- 56      **ibid.**
- 57      **ibid.**
- 58      **ibid.**
- 59      **ibid.**
- 60      den Hartog, Harry. "Pilot Cities and Towns" in *Shanghai New Towns: Searching for community and identity in a sprawling metropolis*. 010 Publishers, Rotterdam. 2010. pp 81-192..
- 61      **ibid.**
- 62      **ibid.**



## CHAPTER 4: DESIGN PROPOSAL

OLD AND NEW: AGING IN LILONG AND NEW TOWN



The following design proposals aim to incorporate the chronological and artistic flow of the traditional Chinese garden into the modern urban environment. Each design will formulate a sequential journey through various senior centric programs from activity spaces, theatre, courtyards and tea room creating the ideal retreat for the elderly. These programs are retrieved from the daily lifestyles of current seniors and molded to fit the urban design.

The path design is designed with flexibility in mind while integrating calligraphy principles of Lingering, Withholding, and Sluggishness. These features will form a winding and dynamic passageway featuring various traditional Chinese garden elements from reveals, forking paths and concealed entry ways to create a constantly evolving scenic path. The path infrastructure will also expand through multiple levels and utilizing ramping features to reach from one level to another to maximize senior accessibility.

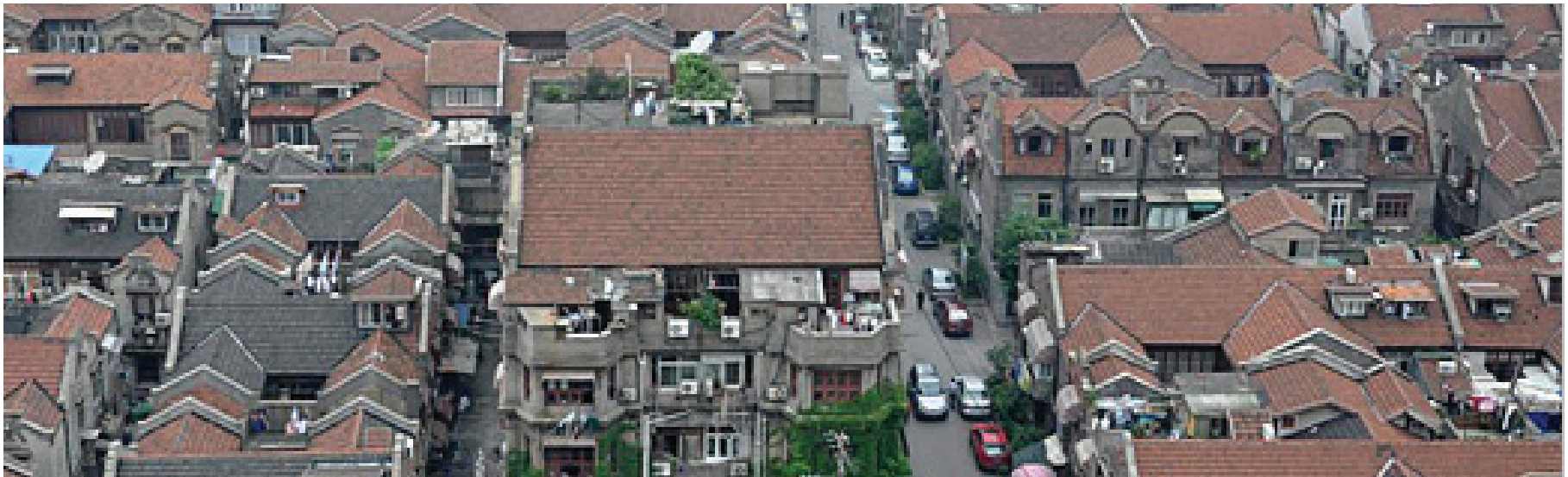
The following designs will evaluate two different areas of Shanghai; an old heritage area in the busy metropolis of the city core and a rapidly growing residential zone on the outskirts of Shanghai.

Program/Activity	Objective
Tea Room	The team room is dedicated towards a calming and slower pace environment to create senior interaction. These rooms feature a limited amount of seating options to create a more intimate gathering experience.
Theatre	The theatre is one of the entertainment options serving the senior community ranging from plays to concerts. These rooms will also be utilized for choirs and other musical events.
Library	The library will serve as another location for seniors to gather that seek a quiet and calm environment. The library spaces will provide a more private location to seniors for more personal activities. The location of library will be located in a more secluded area with less human traffic.
Activity/Leisure room	The activity room will serve for more dynamic activities from tai chi and exercise routines to ball and line dancing. These rooms will range in size as the different activities will draw in crowds of various sizes. Smaller leisure rooms will also serve as game rooms for table games and other activities that prefer an indoor environment.
Courtyard	These interior courtyards will provide a green space element to an otherwise urban environment. The courtyard will feature a surplus of plant life coupled with activities such as calligraphy, table games and bird watching. These courtyard rooms will often be linked to an adjacent viewing area for those that want to observe the beautiful green space in the urban jungle.
Dining Hall/Restaurant	The dining hall will feature various restaurants that will accommodate those attending the various programs and vicinity. These locations will serve the entire community offering interaction for seniors with the rest of society and will commonly located in more high traffic areas.

## SITE1: ZHANG YUAN

Zhang Yuan is located near Jing An Temple. It was originally a villa for foreigners named Ge Long.<sup>64</sup> In 1882, the villa was bought by Zhang Honglu of Wuxi and renamed: Wei Chun Garden.<sup>64</sup> It was one of the most famous public places in Shanghai in the late Qing Dynasty. Zhang Yuan is one of the few lane way residential areas remaining in Shanghai city core while the rest of the city is a modern metropolis.

The specific site of Zhang Yuan is between Jing'an Temple Road (Nanjing West Road), Road (Maoming North Road), and Meitehshi Road (Taixing Road). When it was first built, it occupies an area of more than 20 acres and later expanded to more than 70 acres.<sup>65</sup> The park is also home to Arcadia Hall, the tallest building in Shanghai at the time, which has a ballroom and a restaurant that can accommodate over a thousand people.<sup>66</sup> In 1903, Zhang Yuan was completely opened to public serving as a major center for entertainment and offered magic shows, pleasure palaces, and Chinese-western restaurants.<sup>67</sup> However, soon after the completion of amusement parks like Harbin Garden and the Great World, Zhang Yuan gradually declined and closed down in the Eighth Year of the Republic of China (1919).<sup>68</sup> The garden owner sold the garden to Wang Kemin, and the original building was demolished and redesign the site to a residential Shumen Lane housing.<sup>69</sup>



**Figure 42** Aerial Photo of Zhang Yuan (current day)





Figure 43 Drawing of Historical Zhang Yuan



Chan-su-ho Garden Shanghai.



Figure 44 Old Arcadia Hall of Zhang Yuan





Figure 45 Assorted photos of Zhang Yuan (current day)





Figure 46 Proposed Rendering of Zhang Yuan Commercialization





Figure 47 Proposed Rendering of Zhang Yuan Commercialization

My design proposal for Zhang Yuan will revitalize the area into a senior centric public space creating a dynamic environment utilizing the current alleyway housing infrastructure and integrating it into the proposed commercialization strategy. The current residential landscape of Zhang Yuan is located in one of the prime real estate areas of Shanghai and is one of few lilong style urban vernacular housing units still in existence. Zhang Yuan is in close proximity to 3 different subway lines offering an ideal hub for transportation and a primary target for gentrification. Zhang Yuan currently also has a senior living center within serving its dense senior community.

*“the emotional power of alley houses lies in the sights and sounds of everyday life. . . it is not the power of the heroic epic, but that of the accumulation of ordinary life. Flowing among those lines of houses is nothing grand, but as minute as grains of sand, which can build a tower when brought together.”<sup>71</sup>*

As I mentioned earlier, housing is much more than a commodity to the Chinese society. It is a sense of community and prestige. “Cities are not buildings and streets. Cities are people and their networks of interaction: social, familial and commercial.”<sup>72</sup> Other areas of Shanghai have faced redevelopment while keeping the façade of the old age architecture. The neighborhood of Xintiandi, was redeveloped into a fully commercial district with restaurants and shops yet keeping the old shikumen style buildings driving it to become one of the most expensive areas of all of Shanghai.<sup>73</sup> Despite the appearance of a historical site, all previous sense of community from its previous inhabitants are all but gone. To transform and commercialize Zhang Yuan would be to eliminate the community and livelihood that was once there.

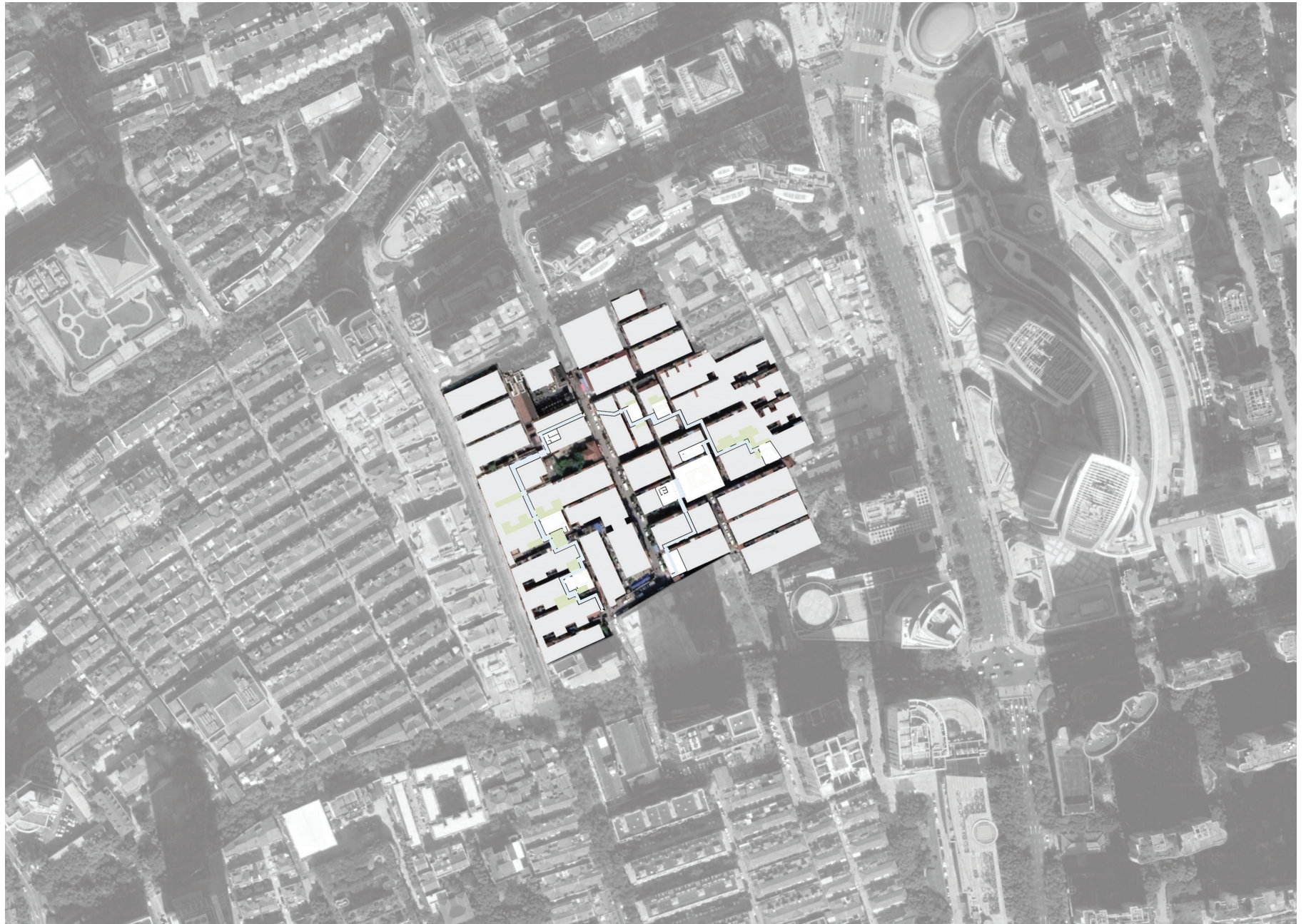
My design intervention will preserve the public space for senior community and provide former residents and future visitors a retreat within this space even as Zhang Yuan commercializes. This will be done through modulating the infrastructure to simulate a Chinese garden retreat within the urban metropolis. The goal is not to remove but to infuse the current livelihood of its residents. Similar to that of the Chinese garden, a pathway network will snake through the layout of existing buildings. The pathway will create access to the various new senior friendly programs and create more interaction through carving through the middle of lesser used commercial space thus not interfering with the inevitable future commercialization developments. This is done through avoiding high traffic areas and contact with the main road. Likewise to the Chinese garden design, the passageway will be partially hidden and can only be discovered as one venture through the path. The intention of the pathway is to ultimately not only provide a scenic route of travel but also serve complimentary to current and future retail programs.

The path network will expand from one corner of the Zhang Yuan boundary to the opposite corner while establishing multiple entry points along the path. The defined passageway will span across three separate levels and access nine different programs. Throughout the passage way will consist of various eyesight level reveals looking out upon to outdoor green space areas. All passage areas along external building walls and exterior bridging paths will feature a skylight illuminating the length of the path. The additional ceiling reveal will concave down towards path networks at lower levels.

The site design carefully allocates the position of the various programs to adjust for noise and human traffic. Zhang Yuan consists of two halves which are divided by a main road separating an eastern versus western half. All entry points to the passageway and accessibility to the dining and activity rooms are conveniently located along the main road. Less noise friendly rooms such as the library and tea rooms are located throughout the passageway and are more secluded locations which usually require a detour to reach. The restaurant located along the main road has a foldout feature which allows for extra seating and table arrangements. This fold-able portion stretches out on the main road creating another layer of interaction within the community.

The design intervention will feature two interior courtyards of varying sizes. The first courtyard on the western side of the site will be a smaller courtyard spanning three levels in height while directly connected to a nearby viewing area at the second level. The second courtyard on the eastern side of the site will have a large footprint area design spanning three levels of full access. The courtyard can viewed from external view points from the west and north faces where the northern face can be viewed from an external balcony space. Both courtyards are distanced from the main road behind one layer of buildings.

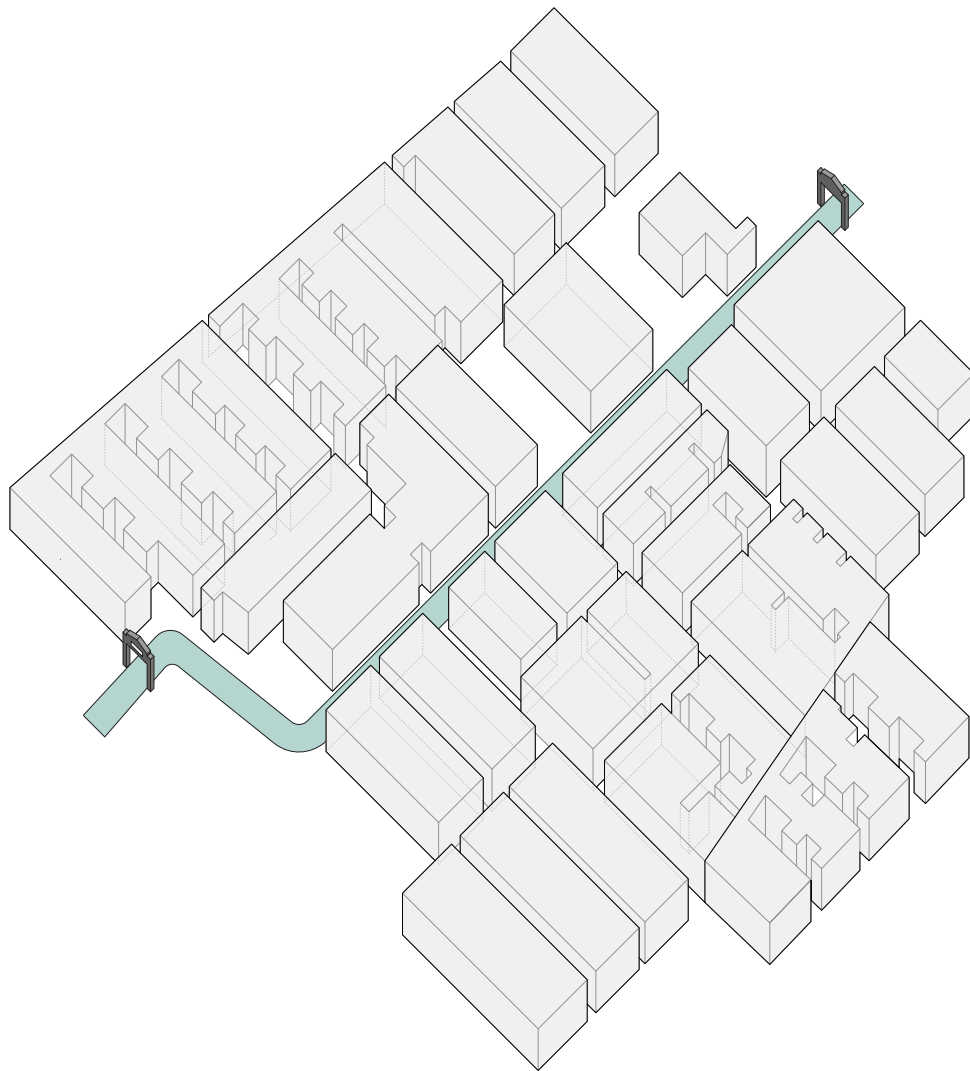




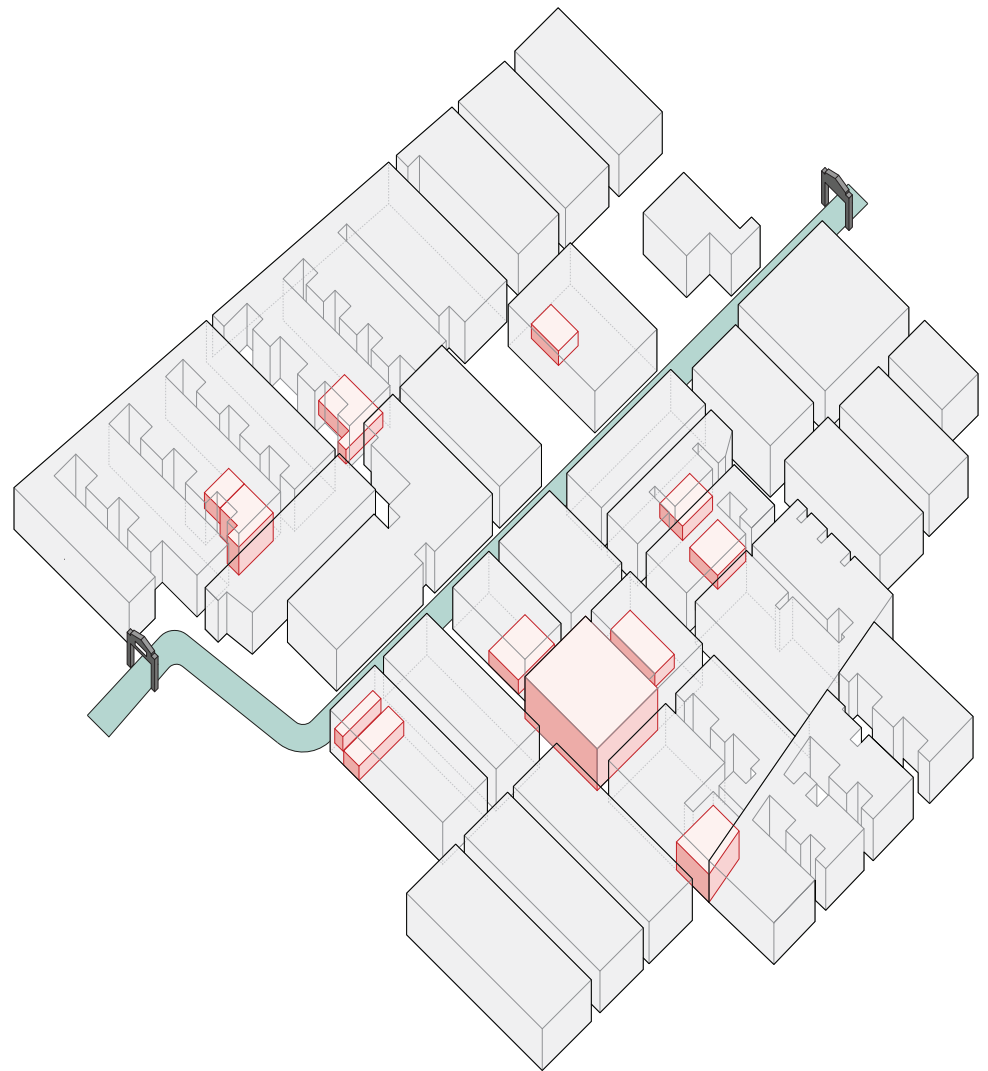
*Figure 48 Zhang Yuan site and design intervention*



EXISTING BUILDINGS    PROGRAMS    PATHWAY    MAIN ROAD

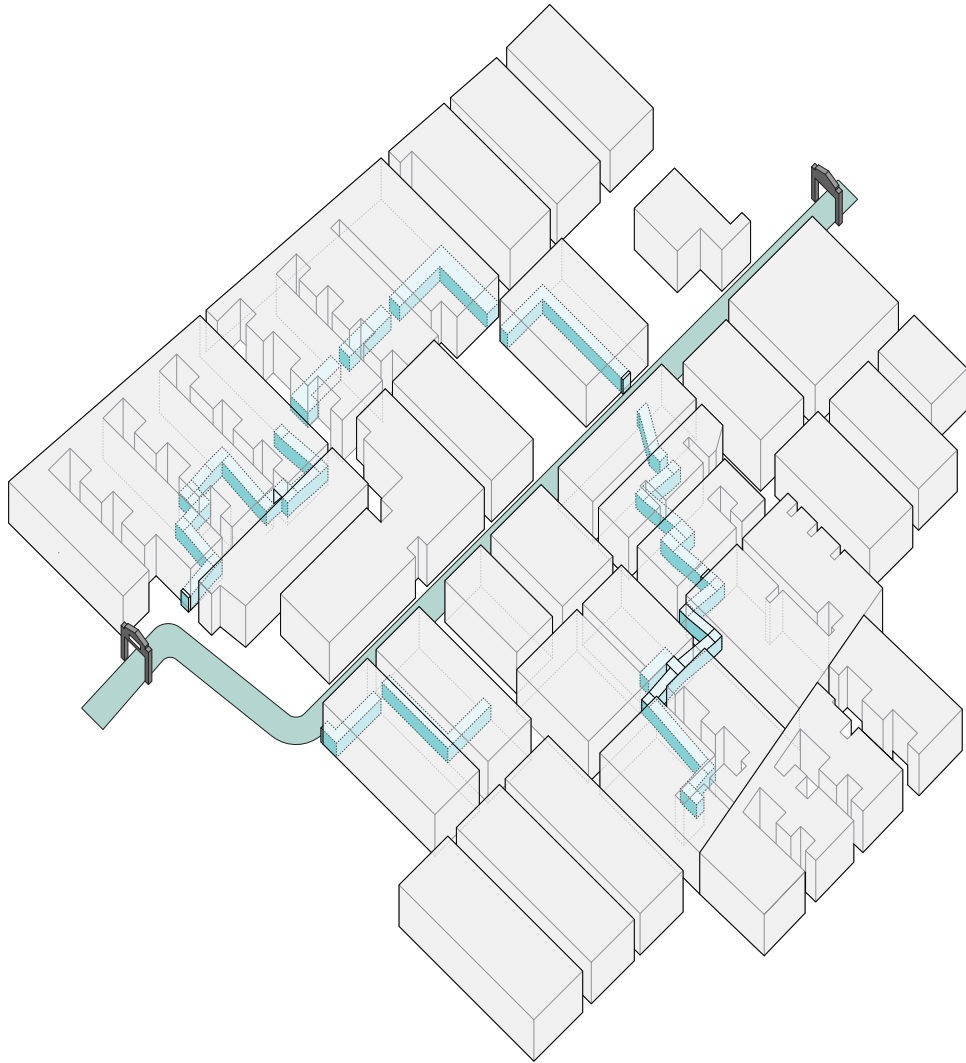


CURRENT BUILDING LAYOUT OF ZHANG YUAN

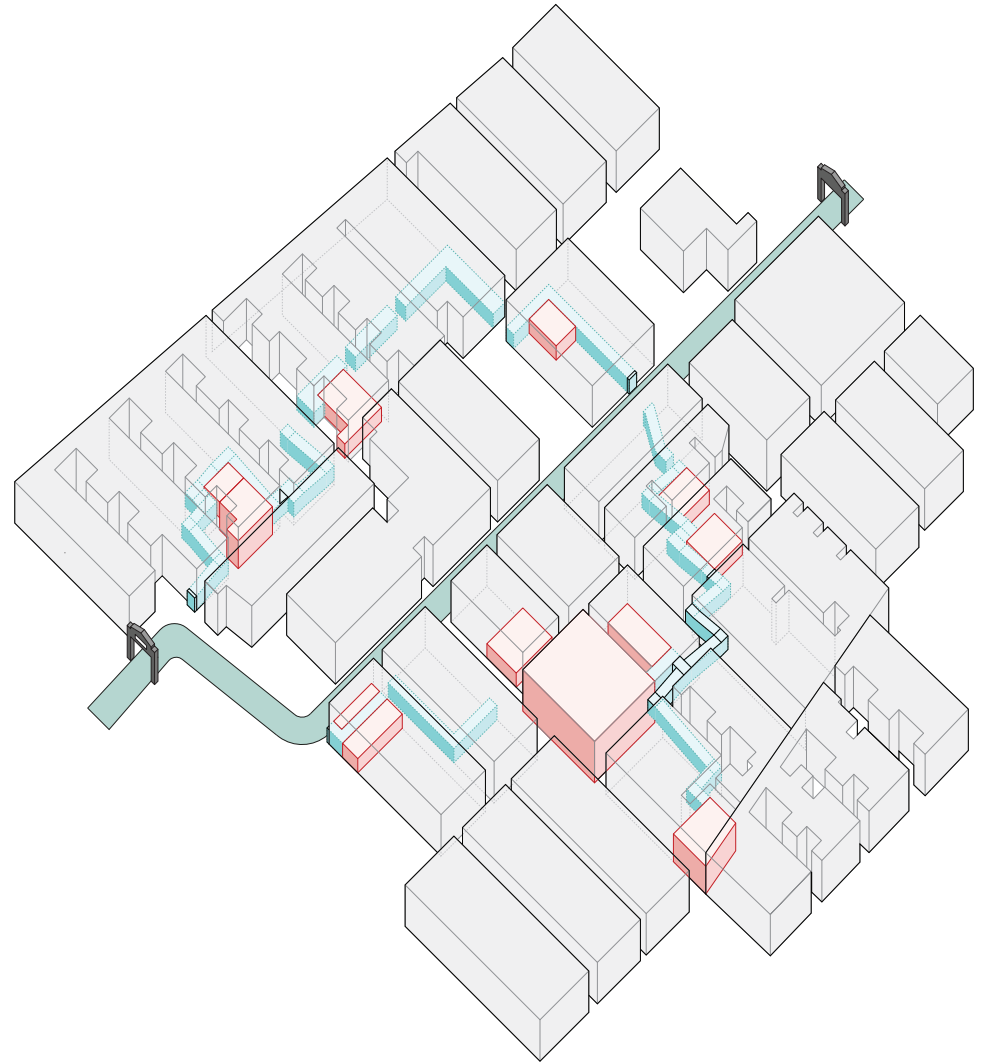


PROPOSED PROGRAM LAYOUT

Figure 49 Design Strategies for Zhang Yuan Intervention



PROPOSED PASSAGeway LAYOUT

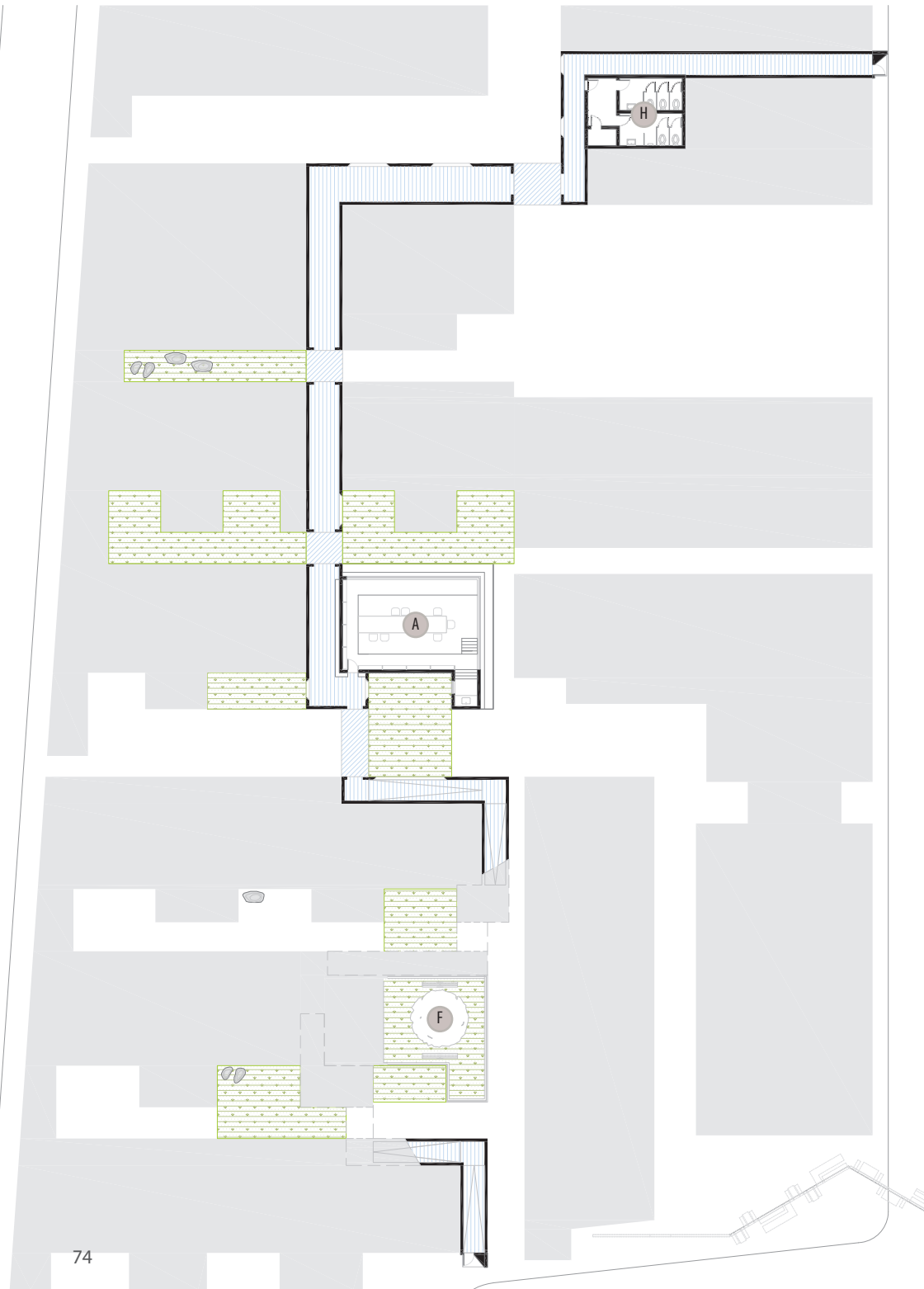


PROPOSED PROGRAM & PASSAGeway LAYOUT

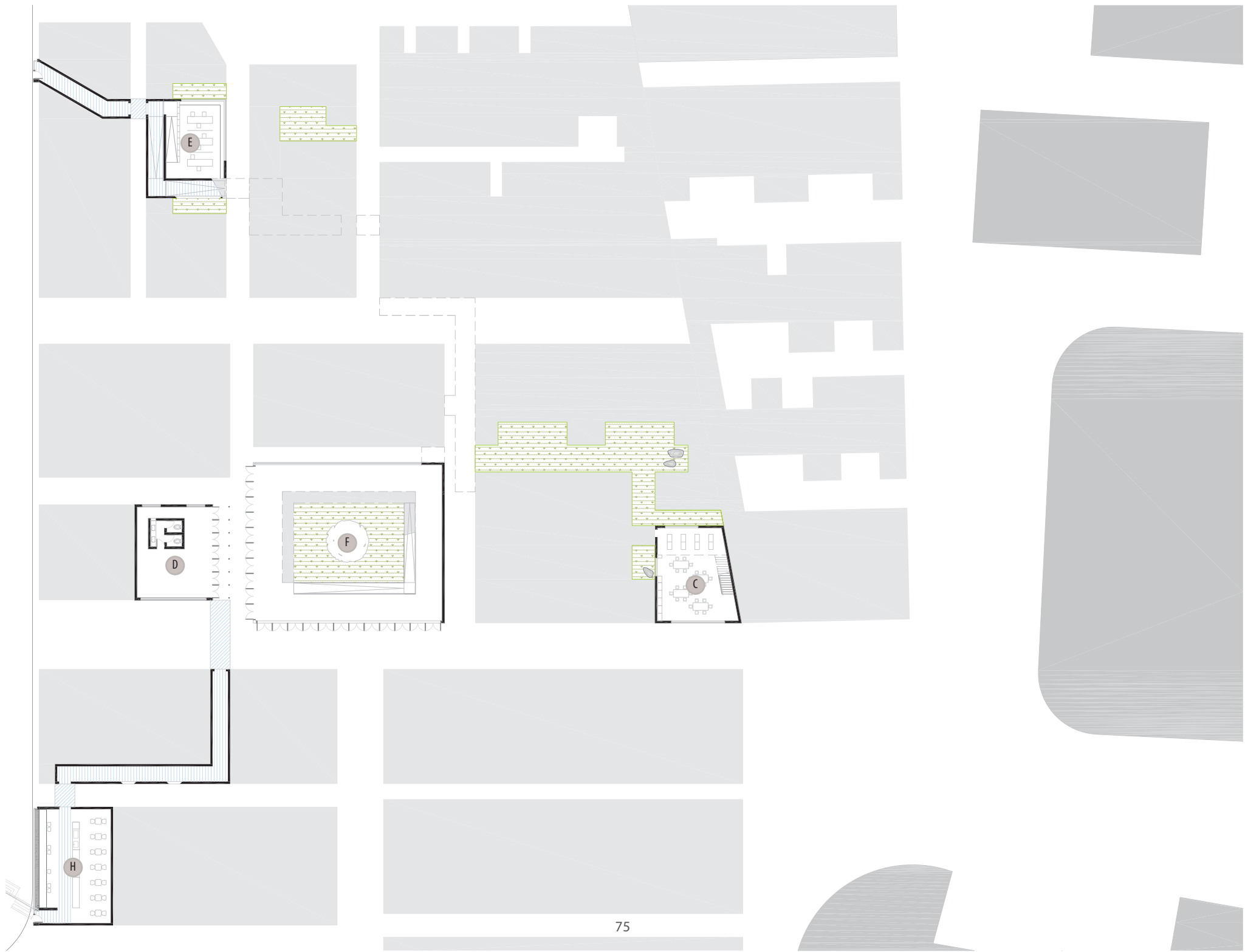
The first level features all entry points to the passageway. In total, there are 20 access points to the passageway and to various amenity programs. The first level programs include the dining restaurants, tea room, restroom, and activity/leisure rooms. Multi-level rooms that have a first level include both courtyards and the library.

- A Tea room
- B Theatre
- C Library
- D Physical Activity room
- E Leisure/Game room
- F Courtyard
- G Restaurant
- H Restroom
- I Viewing deck

Figure 50 1st Level Floor Plan of Zhang Yuan Intervention (1:600)



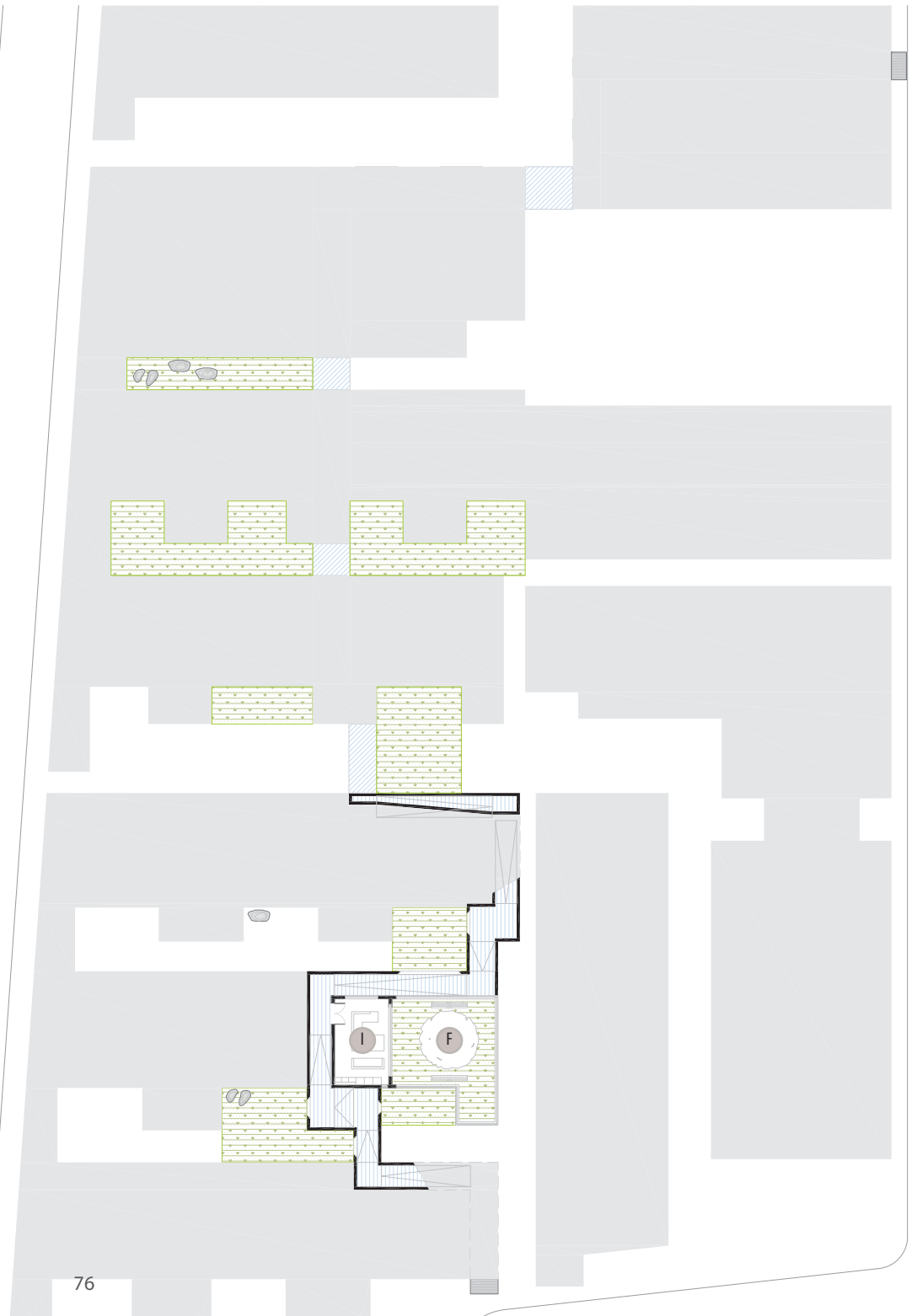


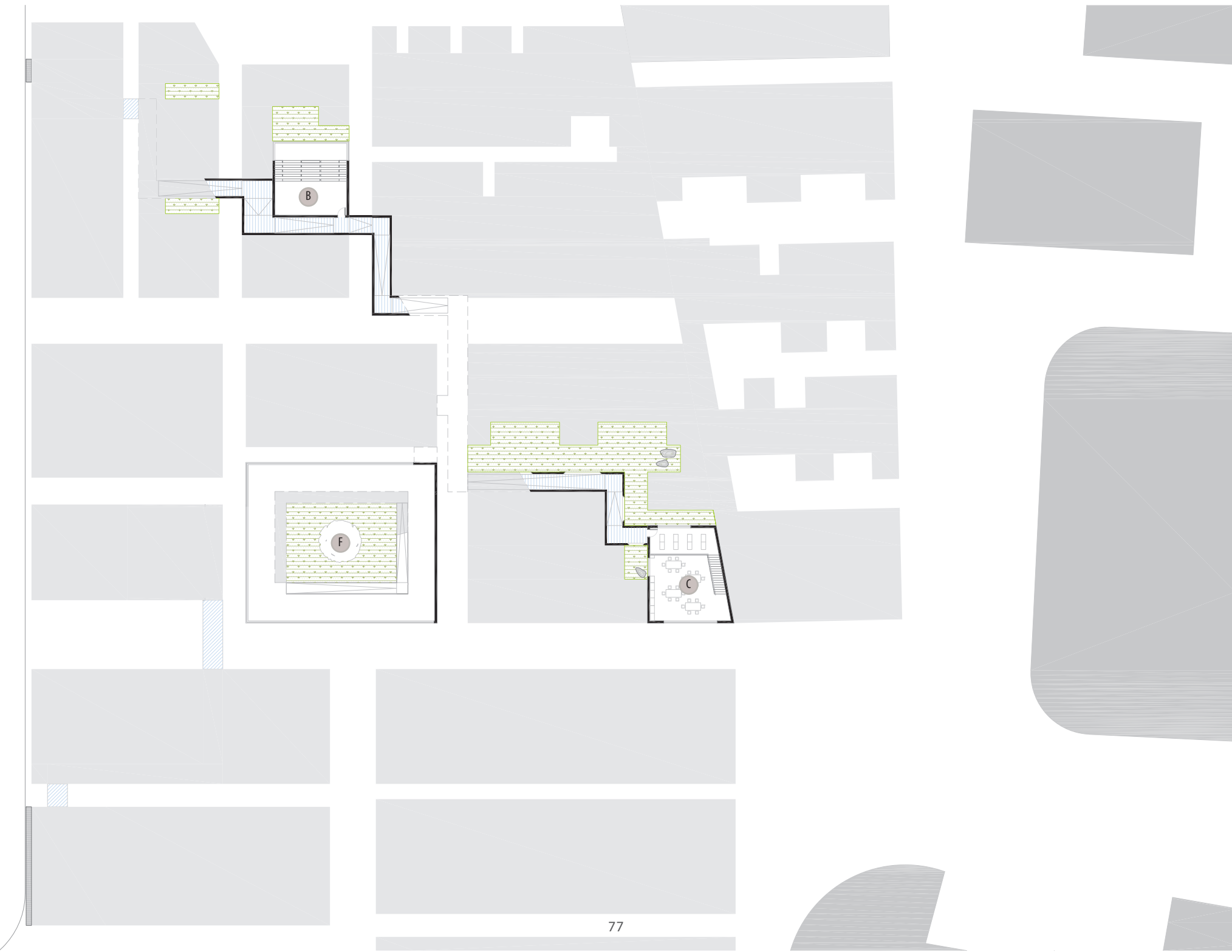


The second level features a viewing area on the eastern side for the associated courtyard. While the eastern courtyard reaches the second level in height, there is no associated second level floor play. The western courtyard continues to ramp to the second level from the first level. The library also ramps to the second level where the access point to the passageway is connected. At the northern region, there is a theatre room which is accessible via the passageway.

- A Tea room
- B Theatre
- C Library
- D Physical Activity room
- E Leisure/Game room
- F Courtyard
- G Restaurant
- H Restroom
- I Viewing deck

Figure 51 2nd Level Floor Plan of Zhang Yuan Intervention (1:600)

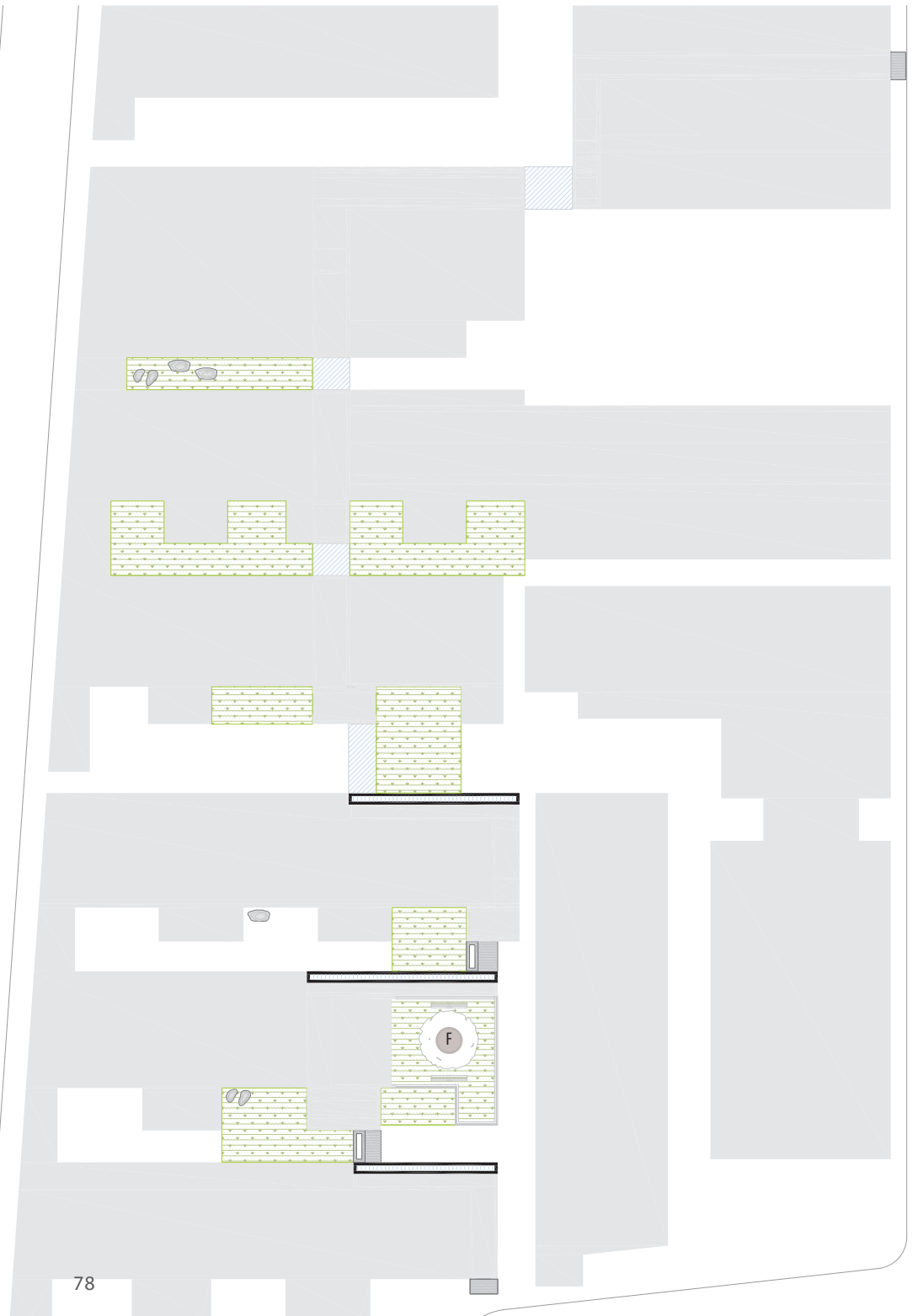




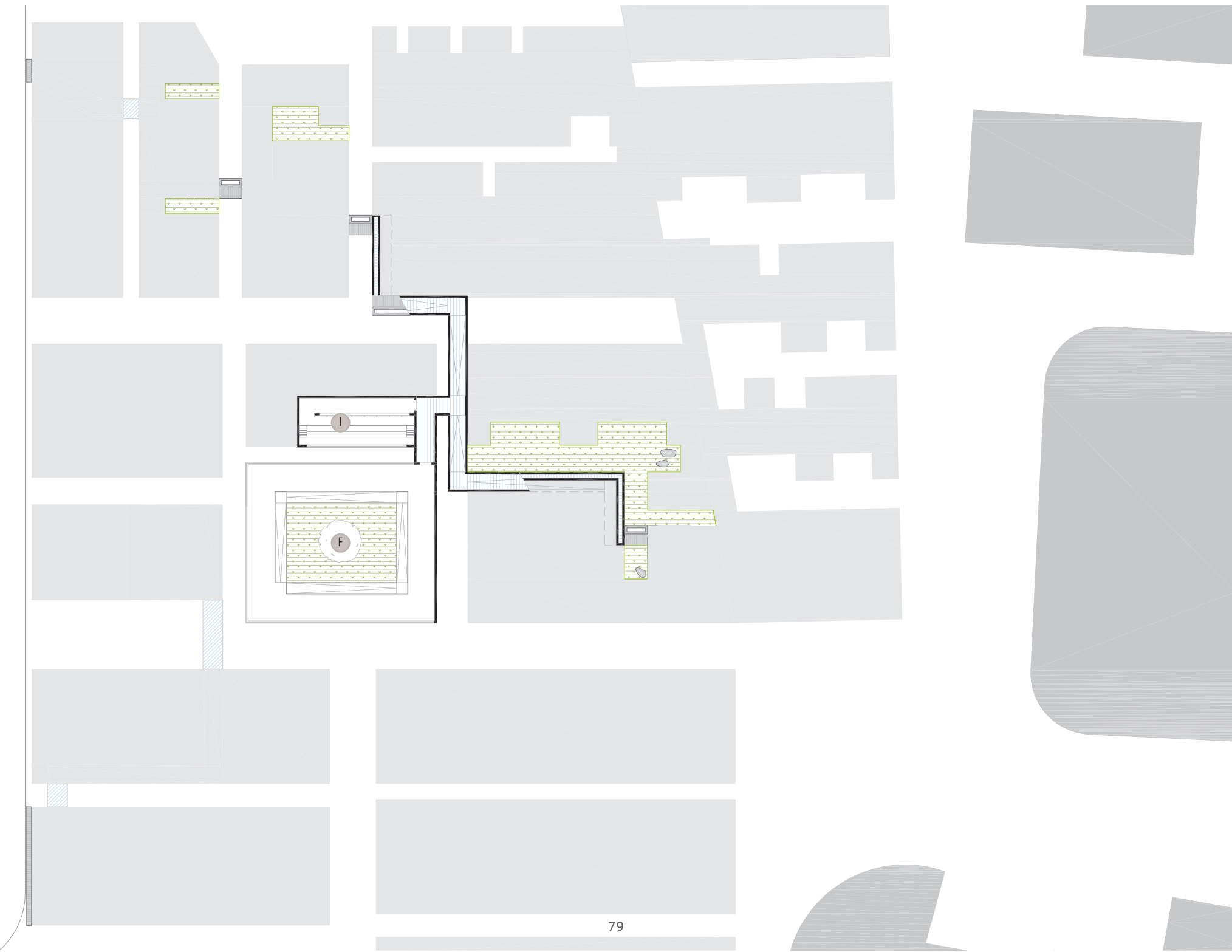
The third level only features the final and highest level of the western courtyard which is accessible to connected passageway. Opposite from the courtyard on its northern face, is a viewing platform which observes onto the courtyard. This viewing platform is accessible from the adjacent passageway also located on the third level.

- A Tea room
- B Theatre
- C Library
- D Physical Activity room
- E Leisure/Game room
- F Courtyard
- G Restaurant
- H Restroom
- I Viewing deck

Figure 52 3rd Level Floor Plan of Zhang Yuan Intervention (1:600)



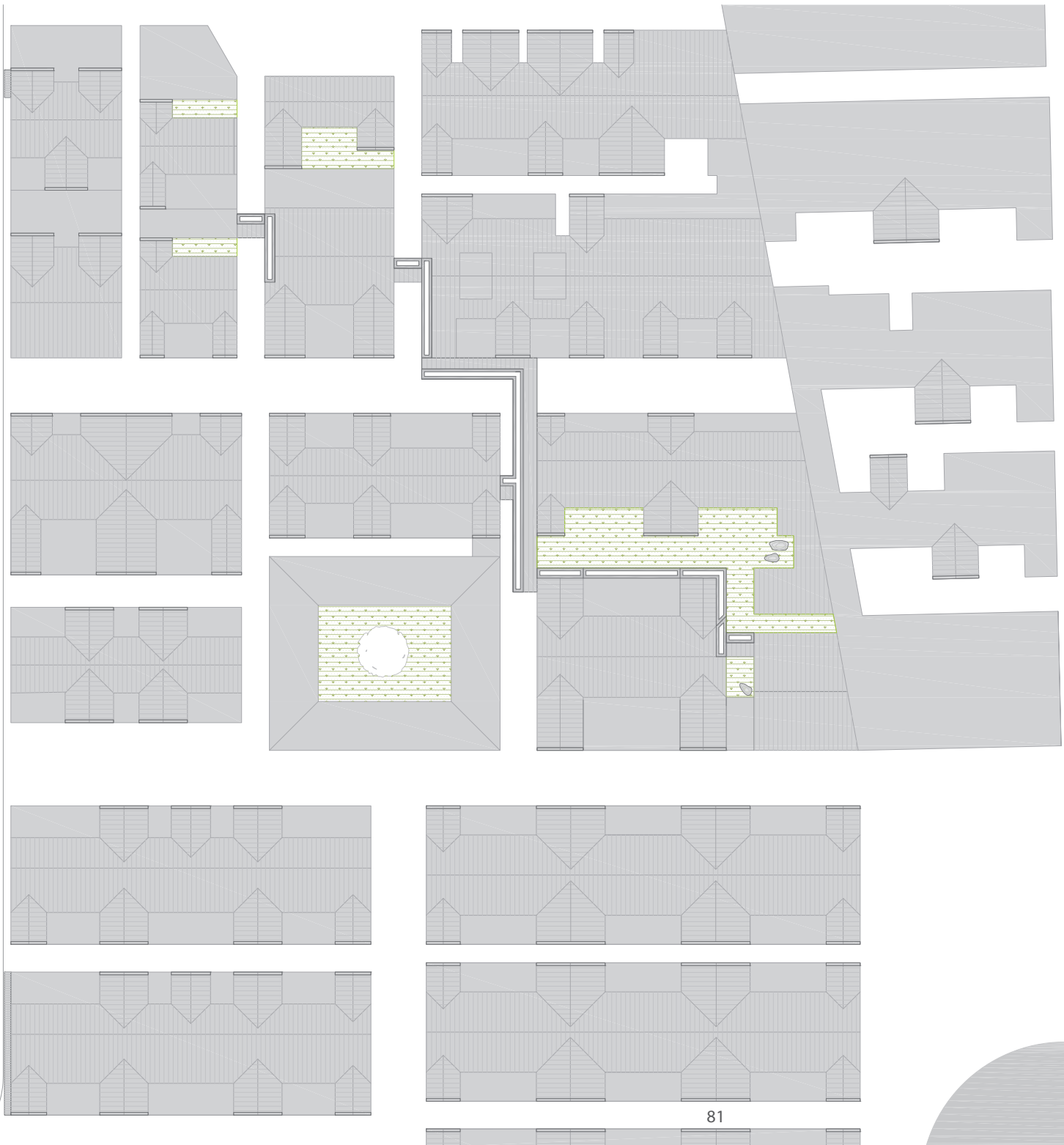


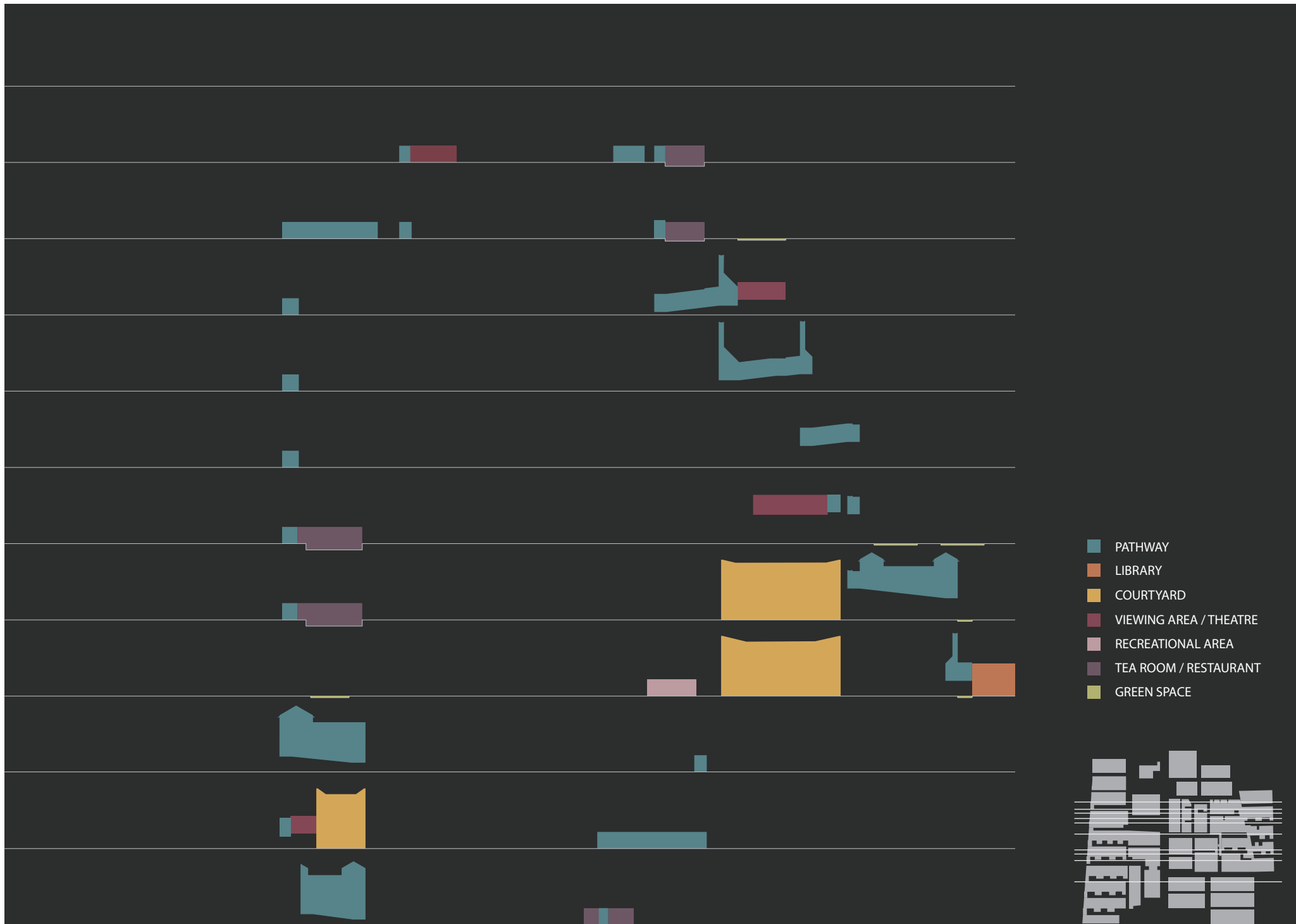


The roof plan shows the exterior reveals along the passageway which highlights small glimpses of the path. This roof top reveal along the passageway only exist along pathways that touch exterior building surfaces only. The roof plan also shows the concaved sloped roofs of both courtyard buildings which slope towards the center reveal.



**Figure 53** Roof Plan of Zhang Yuan Intervention (1:600)





- PATHWAY
- LIBRARY
- COURTYARD
- VIEWING AREA / THEATRE
- RECREATIONAL AREA
- TEA ROOM / RESTAURANT
- GREEN SPACE

Figure 54 Program Layout of Zhang Yuan Intervention shown through a sequence of sections





Figure 55 Axonometric layout of Zhang Yuan Intervention (1:800)

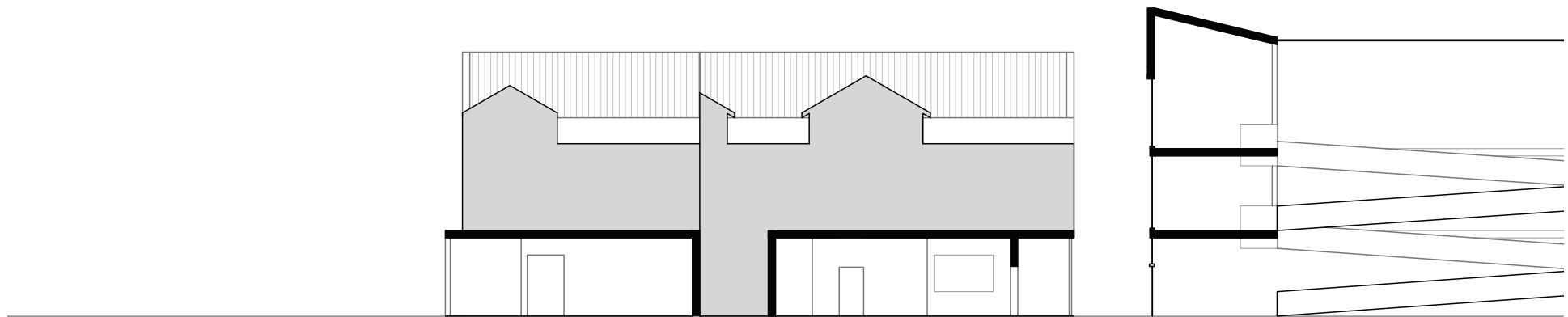
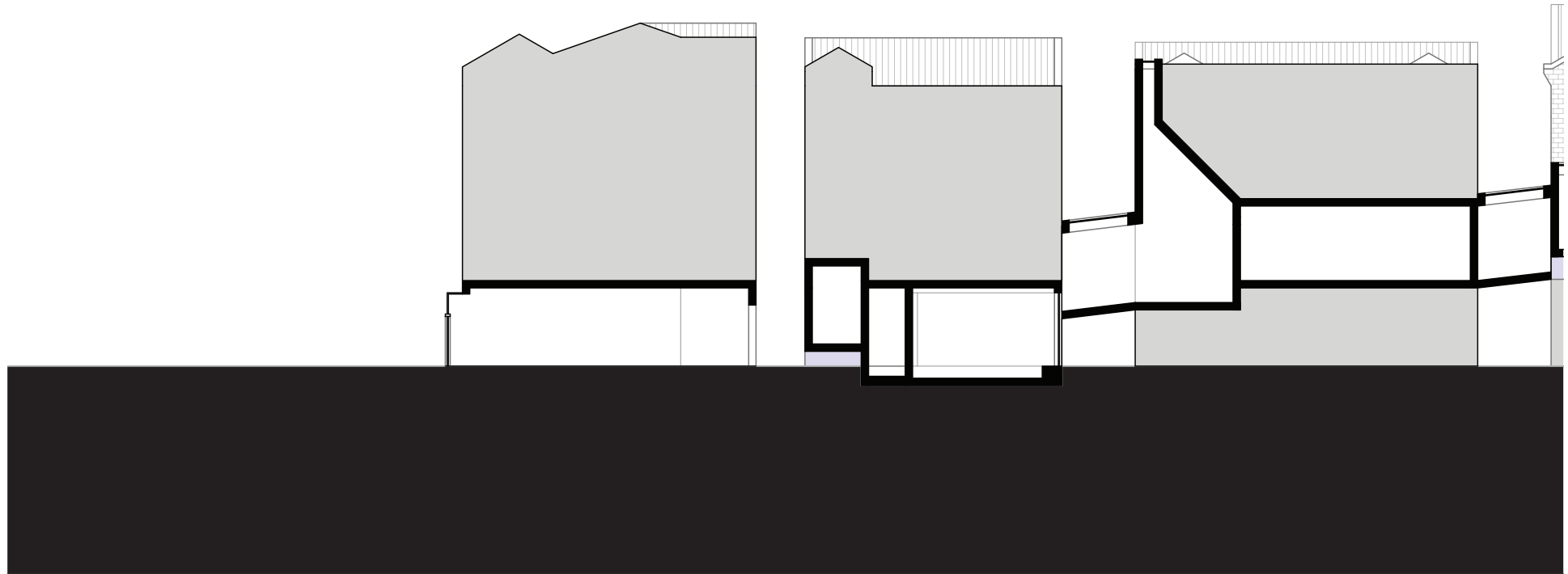
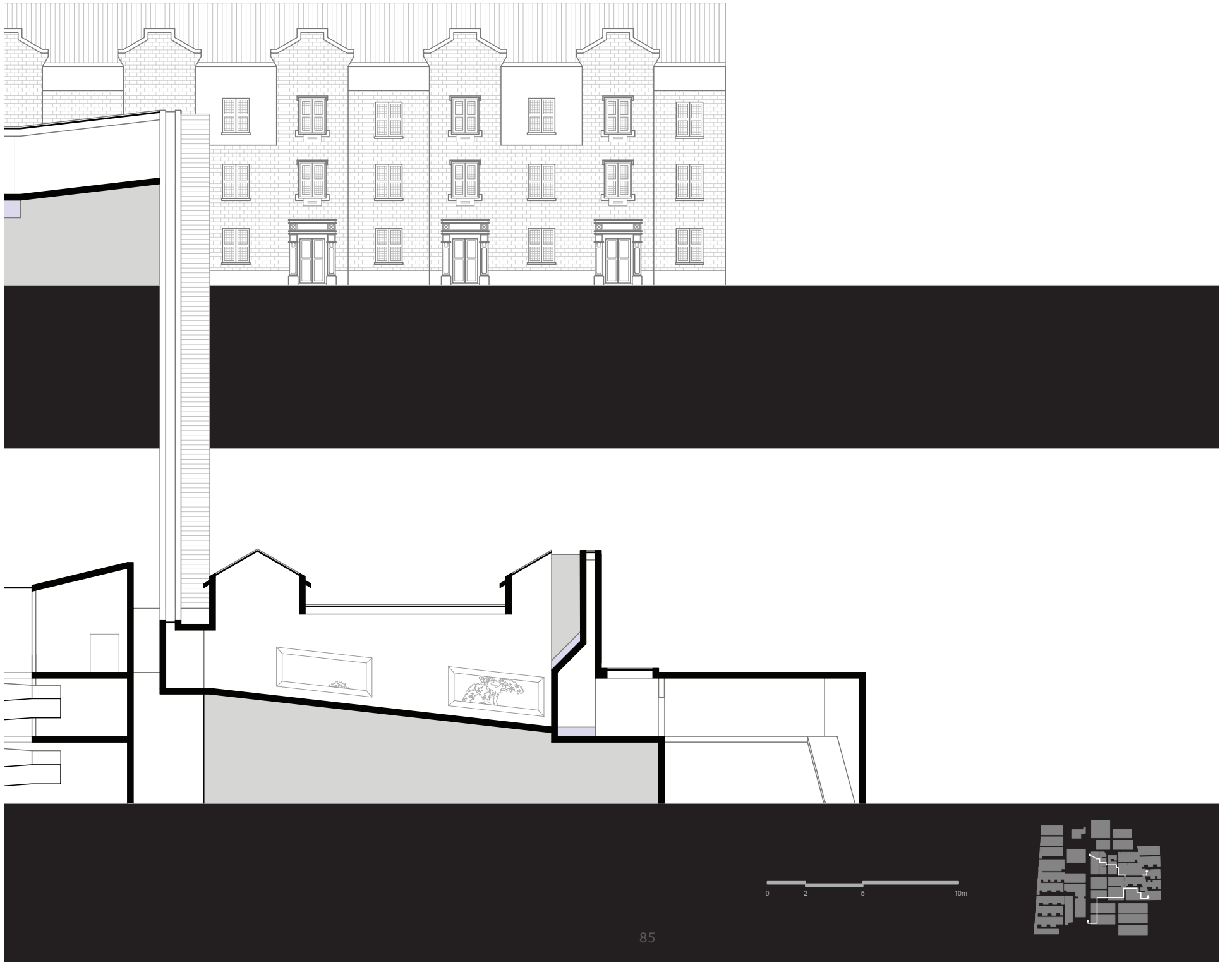


Figure 56 Section 1 of Zhang Yuan Intervention (1:250)



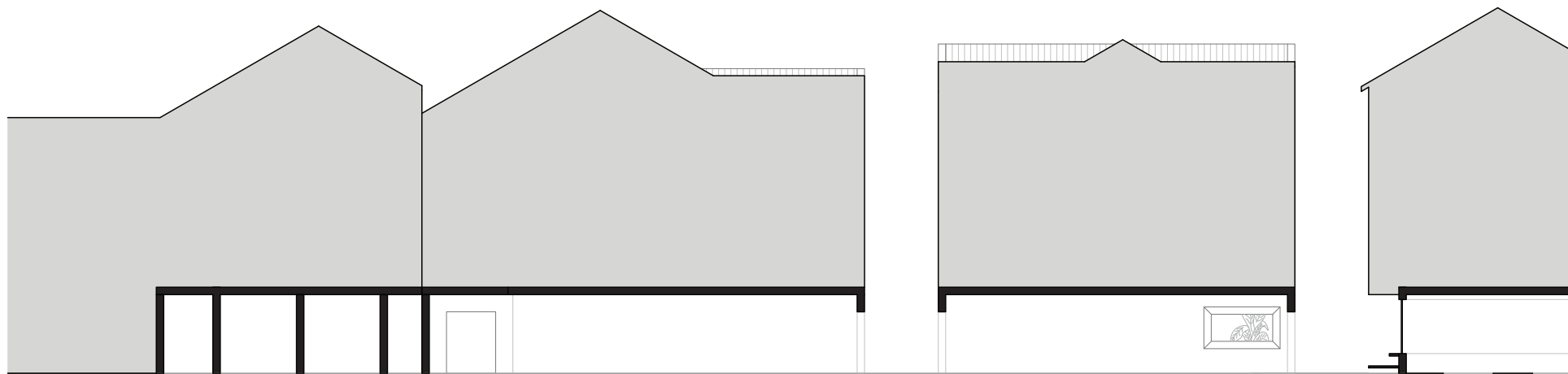


Figure 57 Section 2 of Zhang Yuan Intervention (1:250)



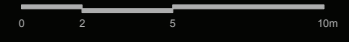
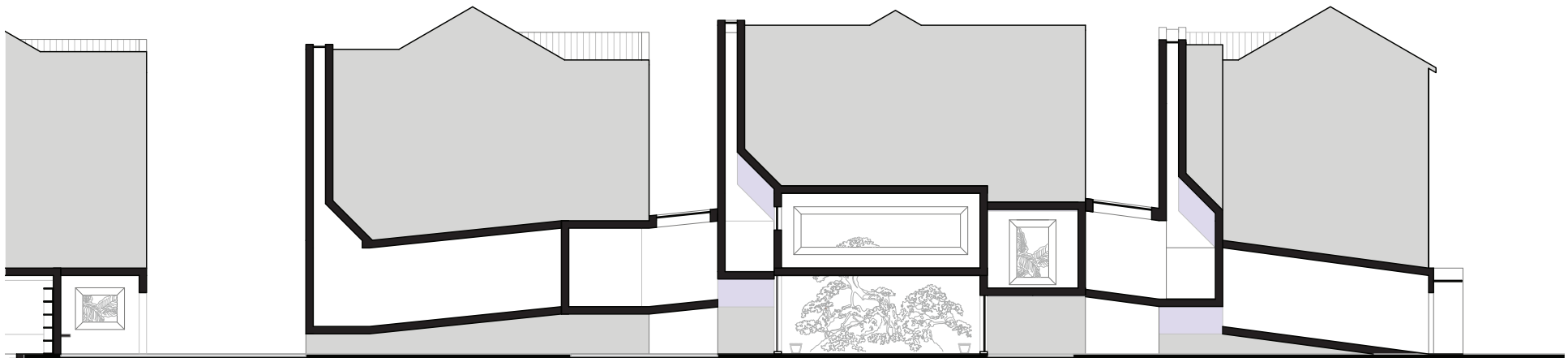
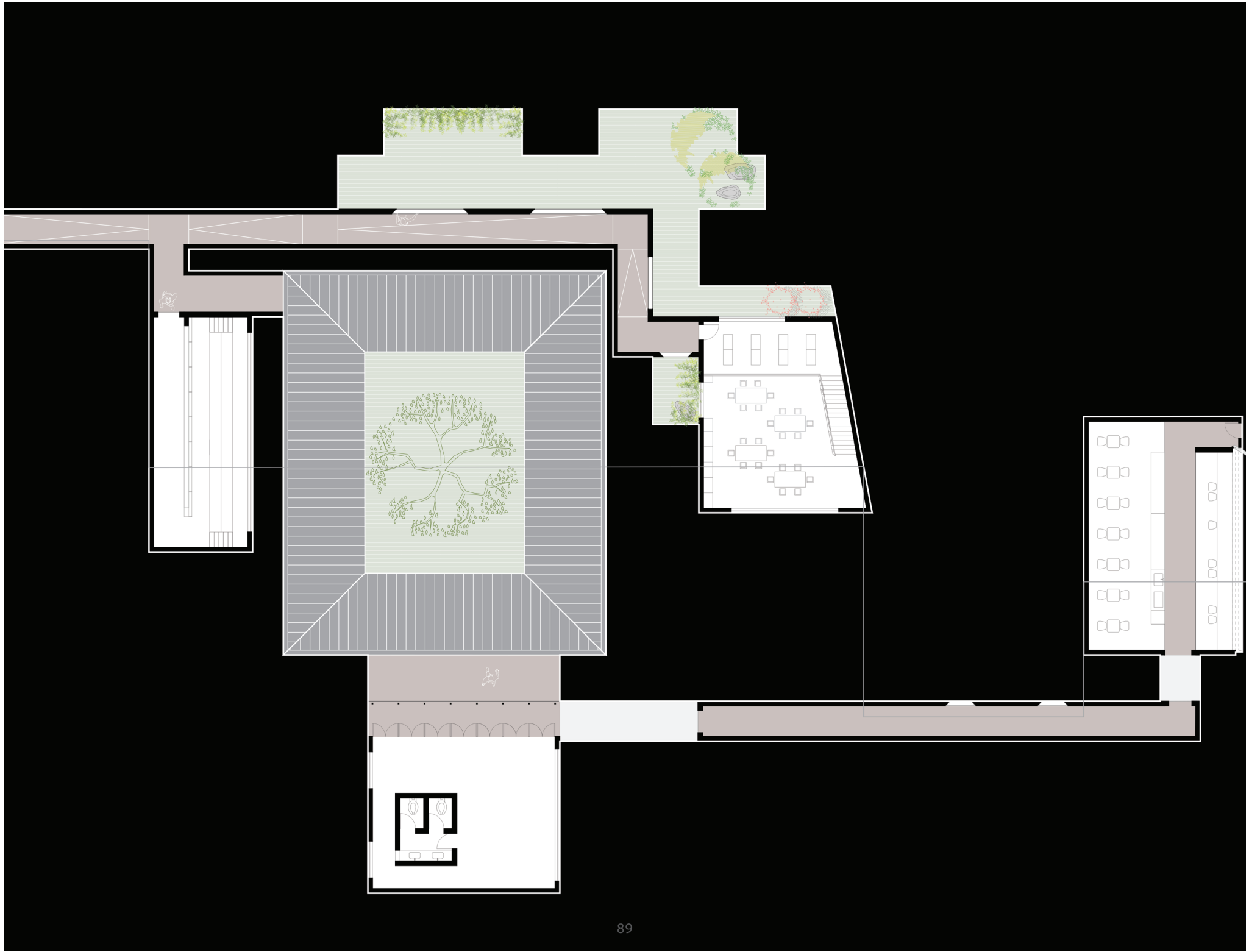
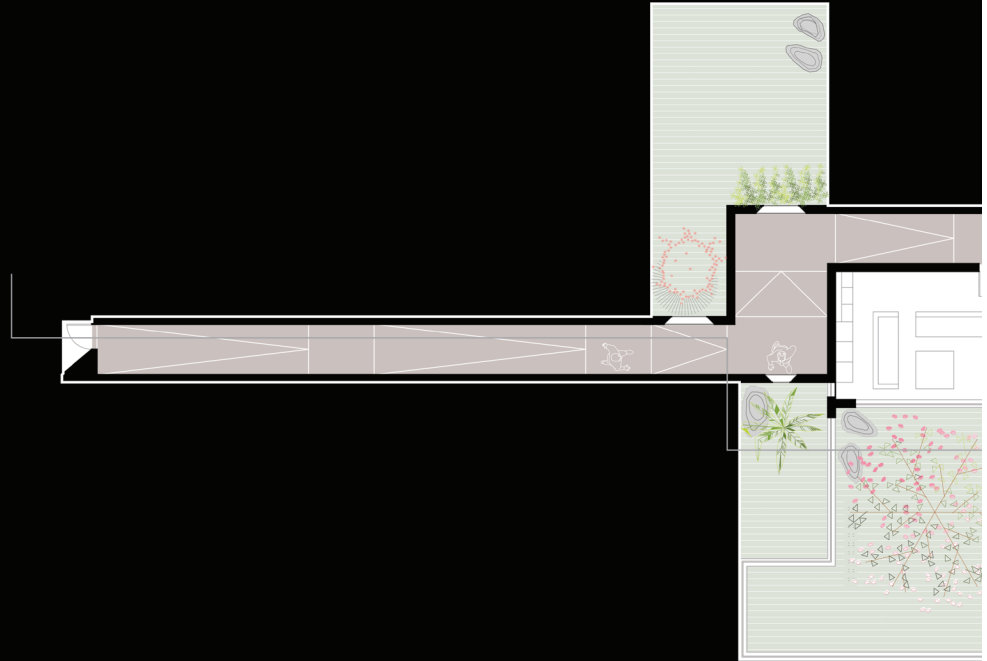
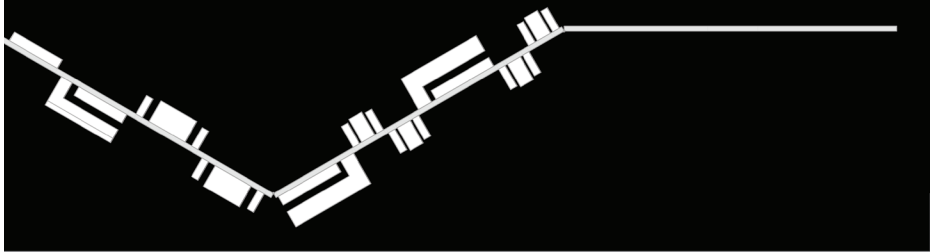


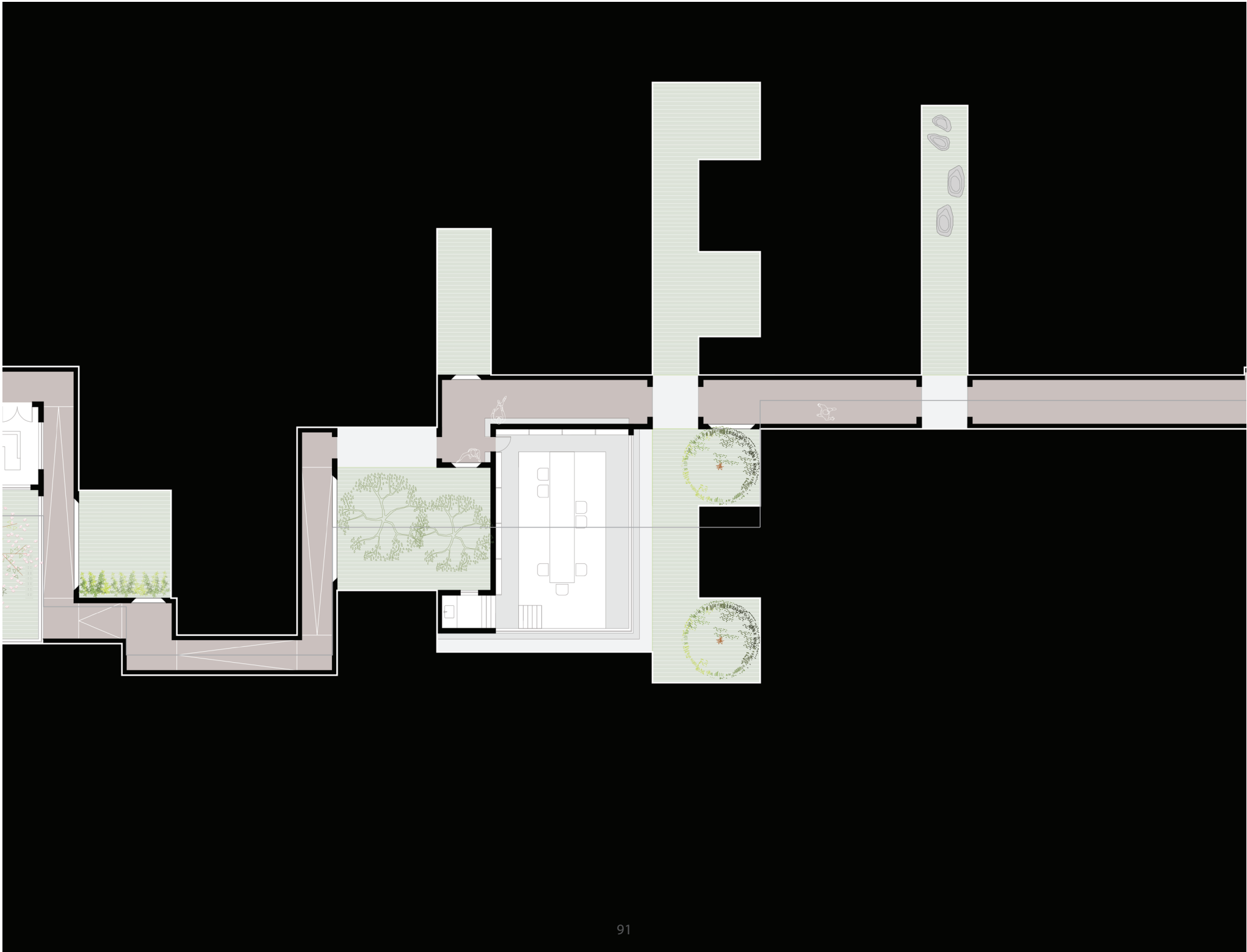


Figure 58 Site Rollout Plan of Zhang Yuan Intervention (1:300)









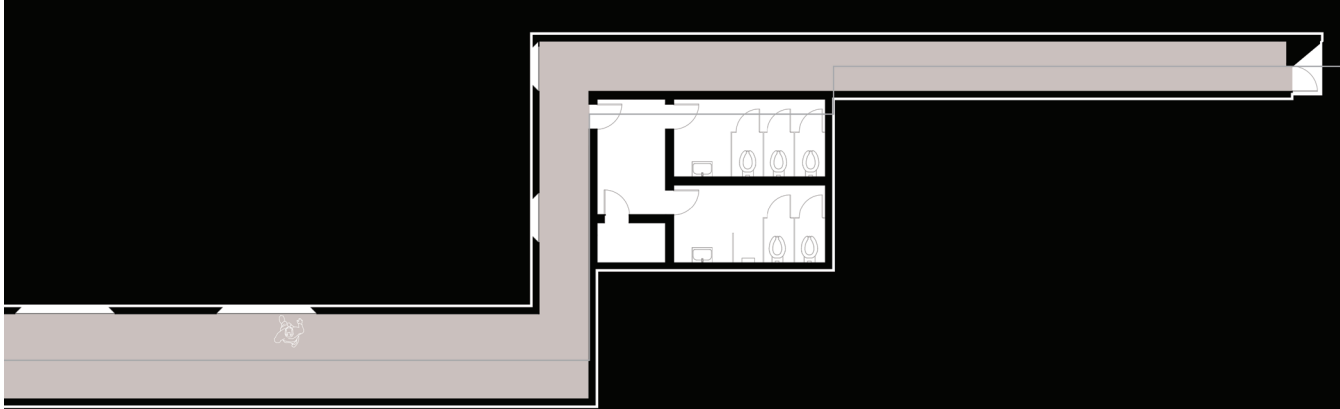


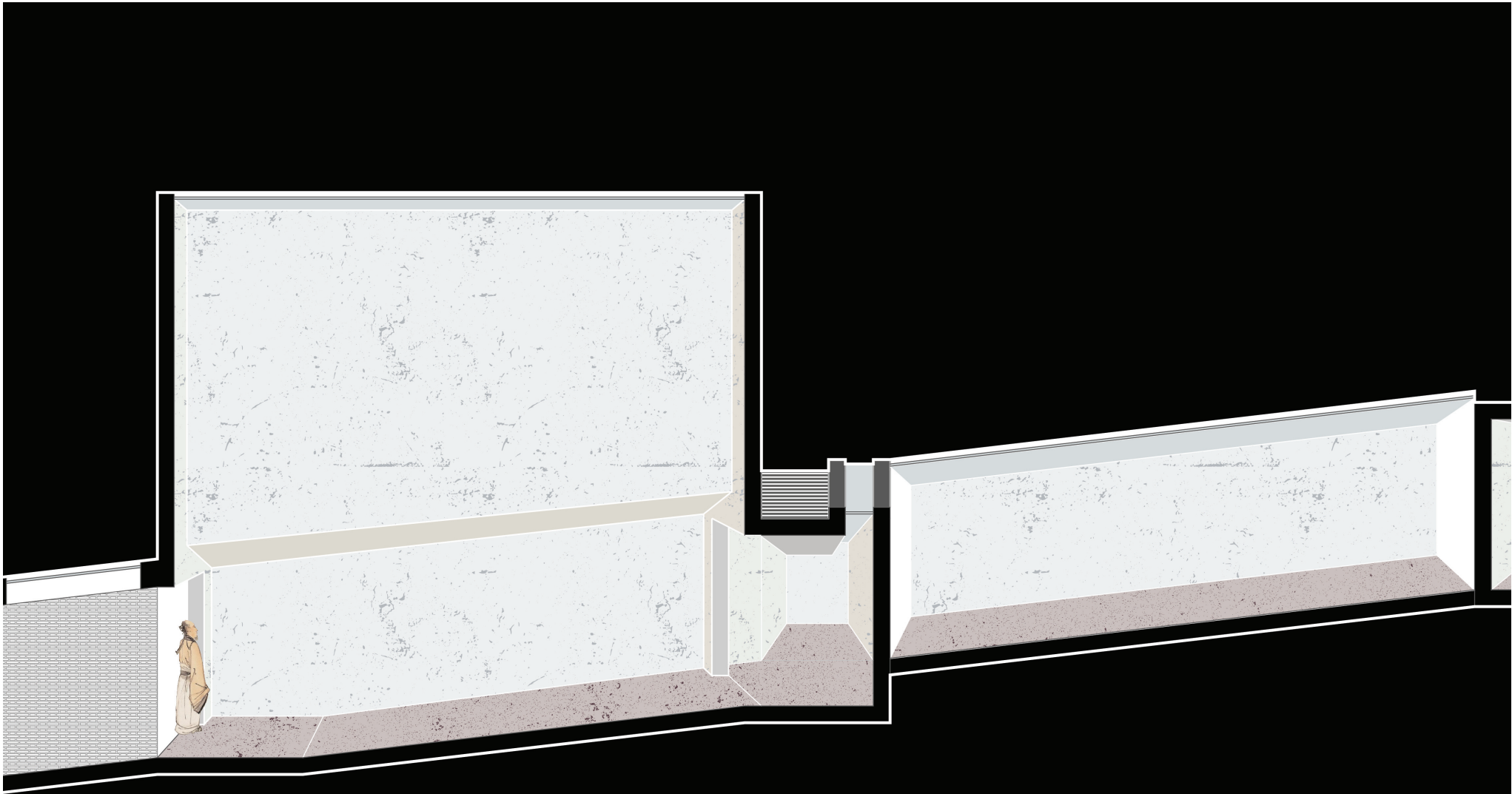


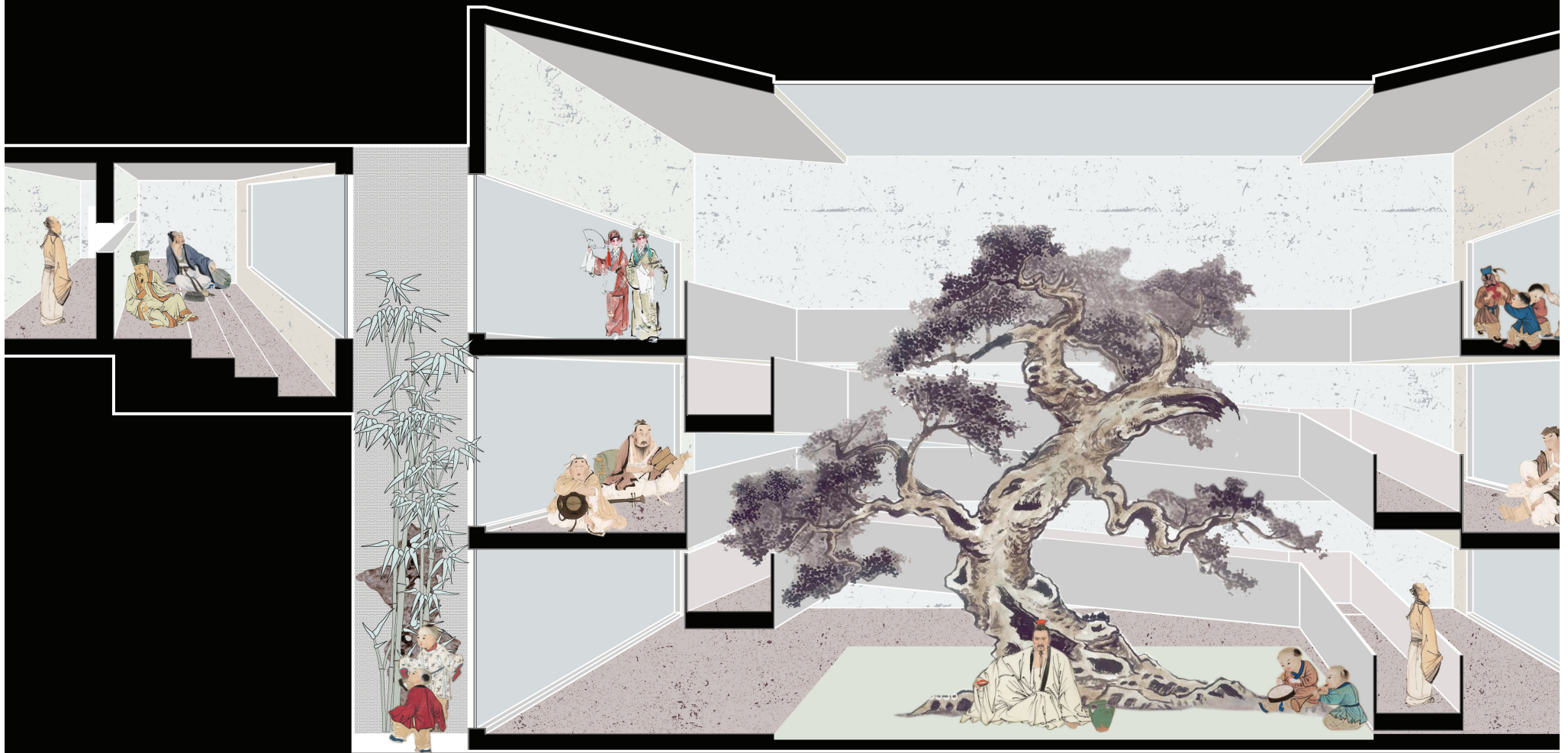


Figure 57 Section Rollout Plan of Zhang Garden Intervention (1:100)



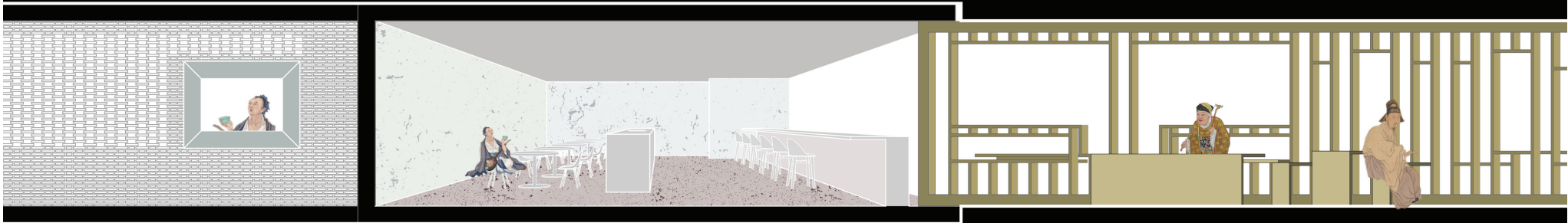


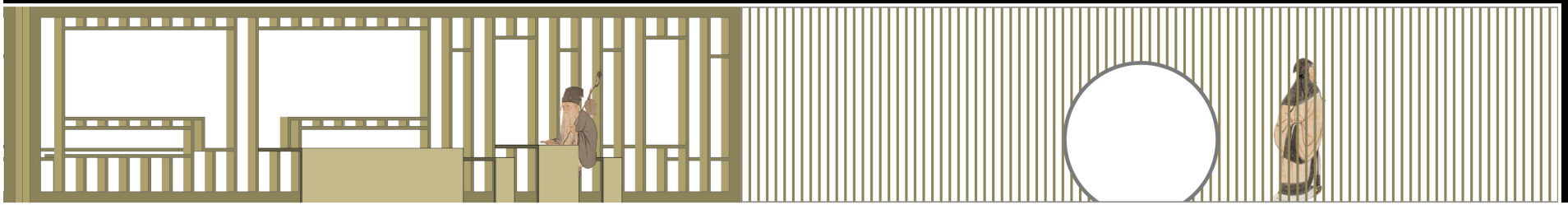


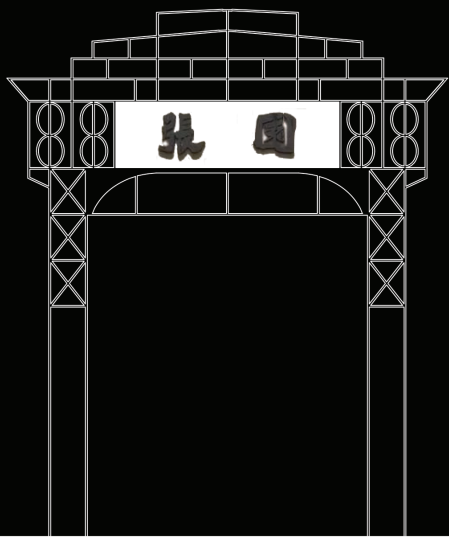










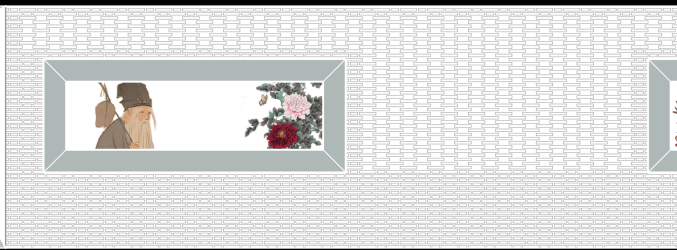


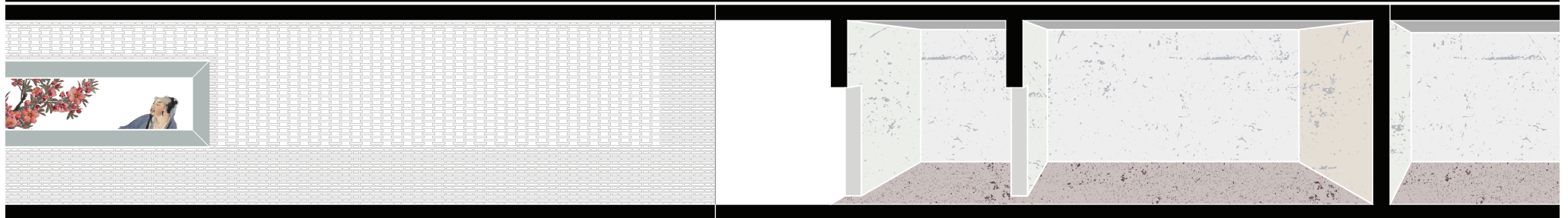
















## SITE 2: PUJIANG NEW TOWN

While the goal of the Zhang Yuan site was about preservation and keeping the community structure intact, the design intent for Pujiang New Town is about build anew. As part of The One City, Nine Towns initiative, a majority of inhabitants in the district of Pujiang New Town are residents that use to live within the city core or migrants with no familial ties to that of Shanghai.<sup>74</sup> In this district, the sense of community has yet to be built and fostered like that was once created through the lane way housing societies. With the Pujiang New Town site, the design intent would be to design a new footprint to build and enrich the values of community and social interaction for the many generations to come.

Pujiang New Town in the Minhang District of Shanghai is set on a flat landscape that featured a rectangular canal system. Gregotti Associati International (from Italy) devised the master plan and the project was executed directly by Shanghai's central municipal government since 2001 as part of The One City, Nine Towns development plan.<sup>75</sup> Pujiang New Town covers a vast area however is organized in a very structured format. The town is structured with broad roads, varying in width from 26m to 60m and partnered with a canal system forming a basis for the new grid layout.<sup>76</sup> The master plan is divided into 300m by 300m large blocks that form xiaoqus. Each such area forms a residential block that equates to "an organic unit of about 1000 people".<sup>77</sup>

For this design, the xiaoqu block is used as the template to create the senior dedicated retreat. Each xiaoqu block is constructed in a similar fashion where the residential buildings within are orientated in a grid like layout. Distance between each building is very similar from one to the next and all of these compounds surround a communal green space located in the center of the block. This green space will serve as the footprint and focal point of the design creating an all equal access from all residential homes in the vicinity.

The inspiration of shape of the buildings is derived from the exterior outline of the green space. This outline forms the overall exterior shape of the sum of the buildings of which is then divided up into the various program arrangements. These individual programs are then spaced apart and connected via a shared path offering more accessibility to these programs. The end result of the layout is a dense collection of buildings all located within the communal green space at the center of each xiaoqu.

The shape of each building is erratically shaped to create a diverse set of interaction points between buildings and activity programs. Each building features a unique concaved and sloped roof at various heights. The overall silhouette of the buildings slopes upward from east and west ends towards the center creating a mountain-like outline. The division in spaces creates sloped internal surfaces for all interior walls that connect to the communal passageway. The large sloped surface of the southern building serves as a seating area towards the opposite balcony and theatre areas. Activity center program rooms feature a concaved sun roof from all sides to amplify the interior lighting.

All interior wall surfaces are sloped at different angles and equipped with reveal cutouts at different heights towards the passageway and connecting green spaces. Lower reveals offer a seating area along the outside wall while higher reveals offer a vivid view towards the exterior space.

The entire area is enclosed within an additional exterior wall establishing a barrier between residential and program space. This extra barrier creates another level of privacy for those within the residential vicinity. As the overall center area within the xiaoqu still serves as a communal green space, this barrier separates the park-like space versus the retail and commercialize programs in my proposal. Throughout in between buildings will feature small patches of green space to add more life to the area. On the far eastern wing, will be a shallow pool area which divides the far eastern building and east entrance to the rest of the collection of buildings. A manmade sunken pathway cuts across the pool area to the other side which also leads a sunken seating area for leisure and relaxation.



Figure 59 Aerial Photo of Pujiang New Town

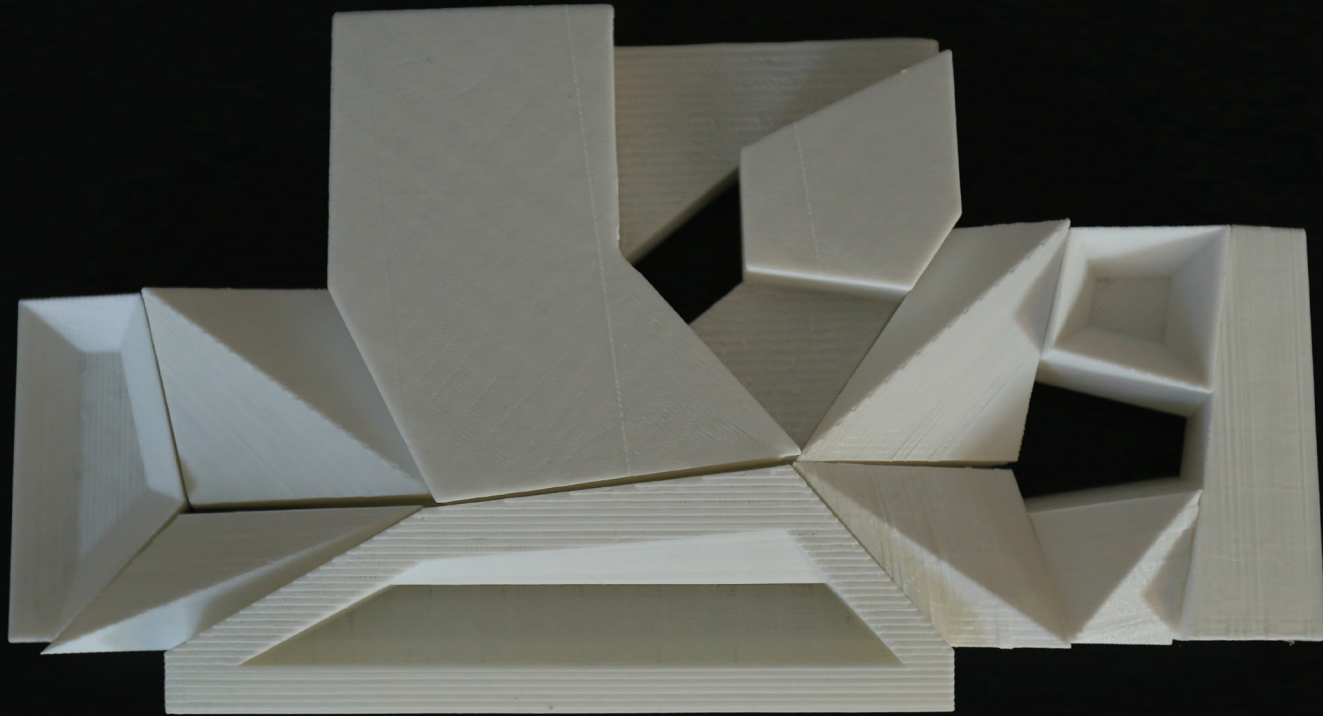




**Figure 60** Pujiang New Town Overall Site Plan



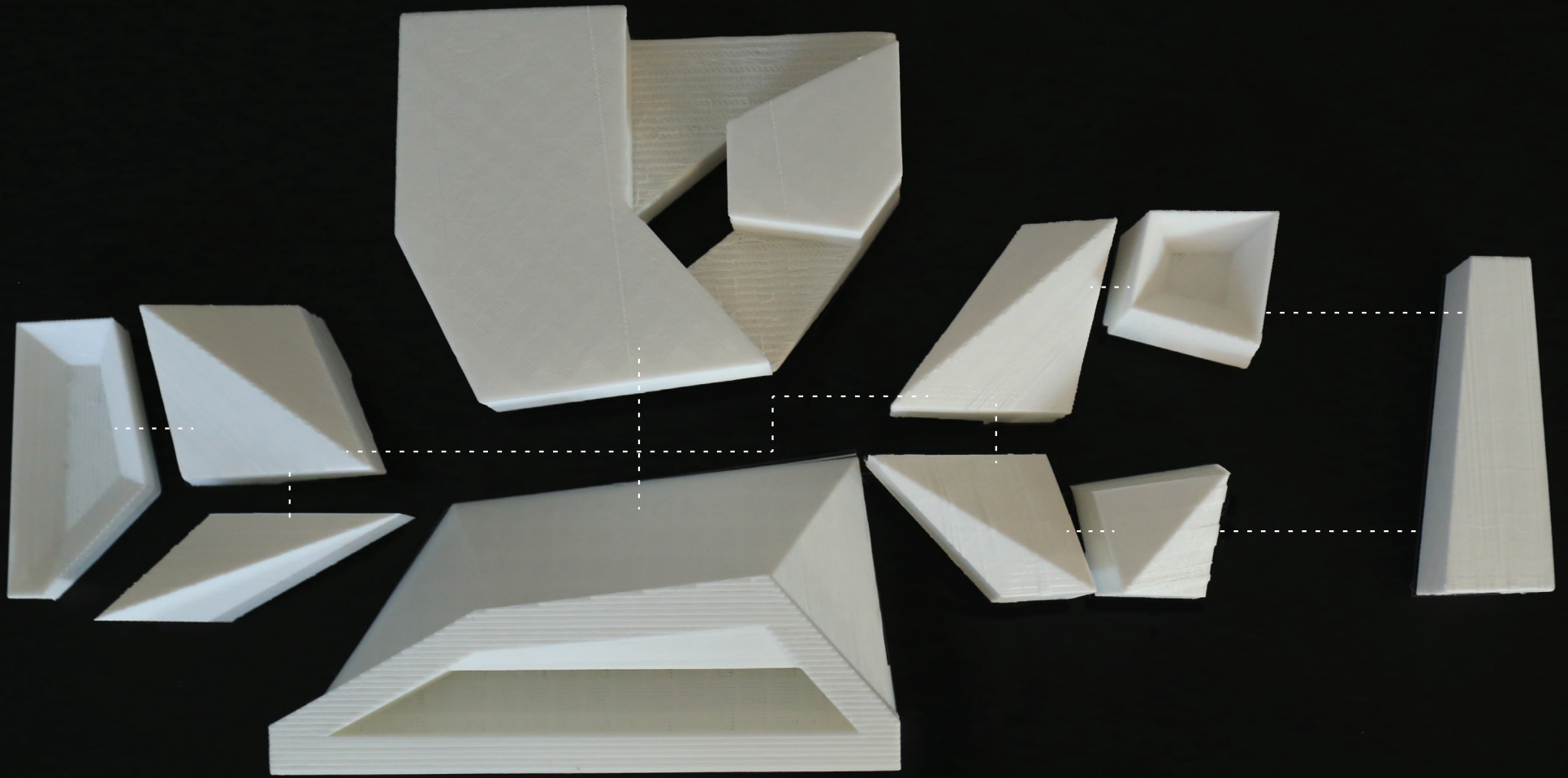
**Figure 61** Pujiang New Town site and design intervention



The collection of buildings can be derived from the unified shape (left) and shown in a cascaded format (right) which is how the proposed layout is determined. The cascaded format also shows how the buildings are intertwined and the pathways created as a result of the separation process.

*Figure 62 Pujiang Design Strategies for Pujiang New Town Residential Block Intervention*





The first level accesses all main activity and leisure areas on both east and west wing buildings. On the western wing, the first level gains access to a small activity area and begins to ramp towards other a small tea room half way between the first and second levels. On the eastern wing, all buildings have first level access only and these buildings include a work area and several activity/leisure rooms. Within the lake area, there is a sunken seating area for a calm relaxation experience. In the northern building, there is the restaurant and restroom as well as an access ramp to the second level. On the southern building, the interior of the building features the first level of the library. On the exterior of the building, there is a ramped seating area adjacent to the theater balcony areas of the northern building.

- A Tea room
- B Stage seating area
- C Library/Office
- D Physical Activity
- E Leisure/Game
- F Courtyard
- G Restaurant
- H Restroom
- I Viewing Deck

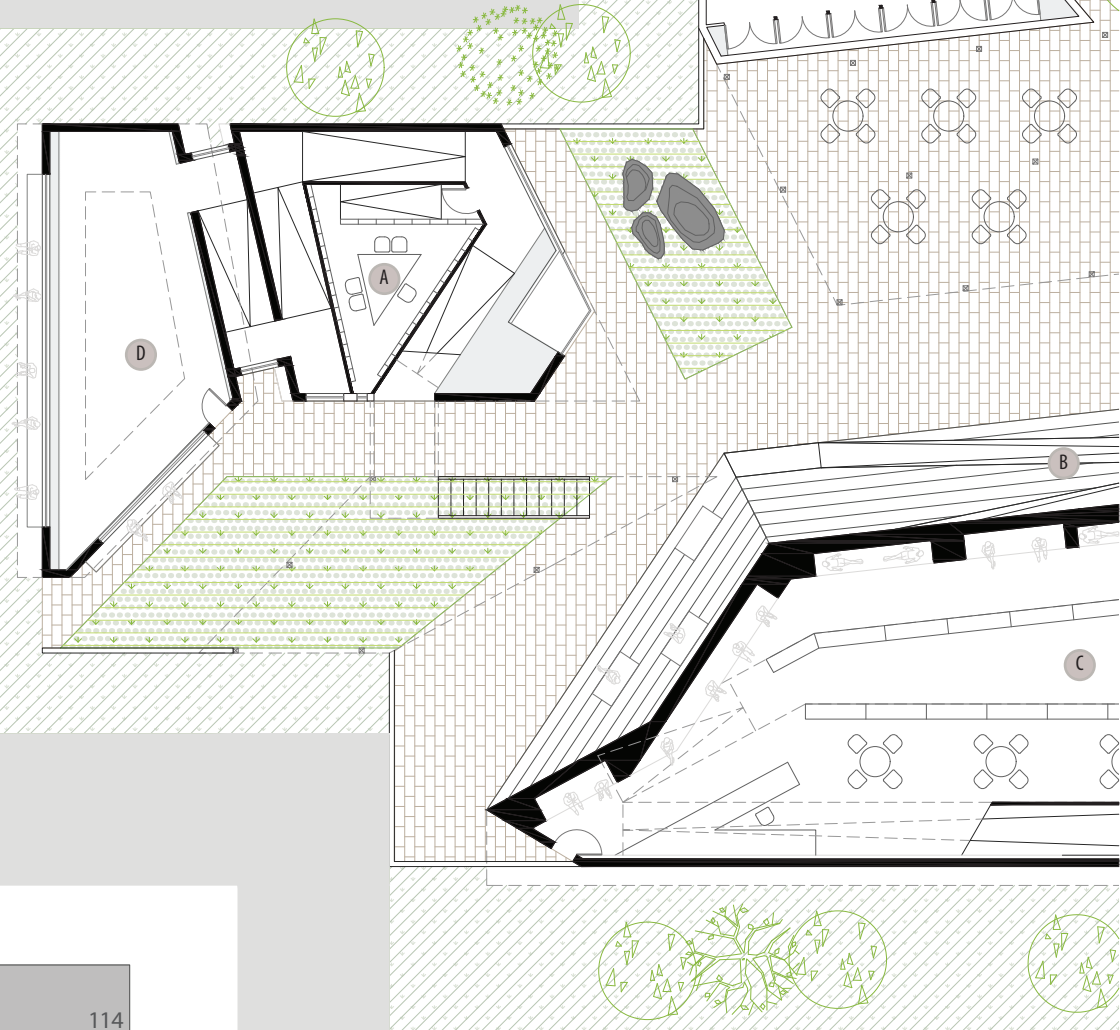
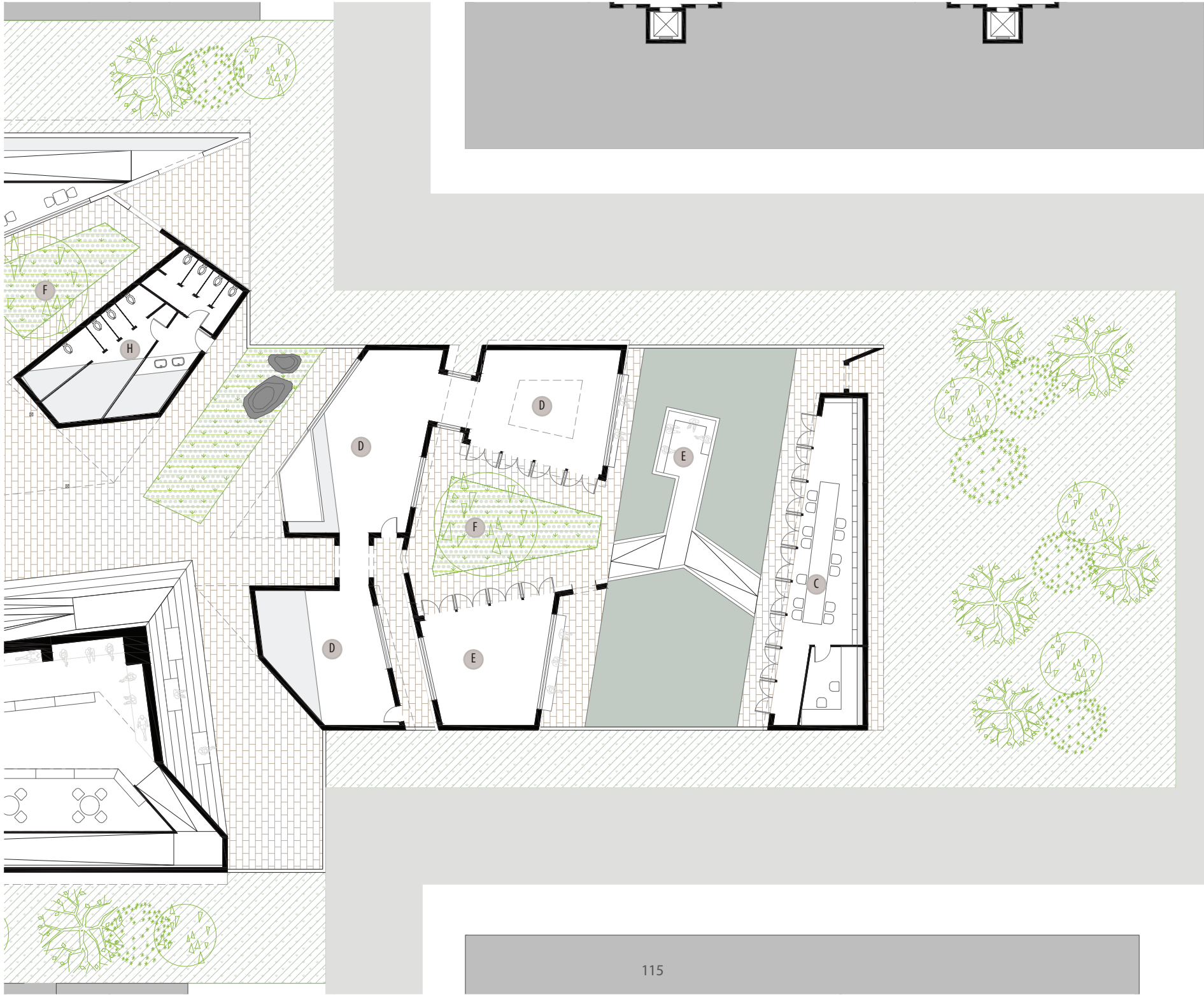


Figure 63 1st Level Floor Plan of Pujiang New Town Residential Block Intervention (1:300)





The second level features a pillared platform area on the western side. This platform area is accessible via a set of stairs from the first level or through a bridged path from the adjacent building. In the northern building, the ramp from the first level leads to a wide open room with a large window facing directly across the audience seating of the opposite building. The room leads to another balcony area facing the buildings in the eastern region before entering into a separate room. In the southern building, the ramp leads to the second level of the library area which is encompassed by surrounding reveals all facing towards the northern building. The second level of the library is open below to the first floor.

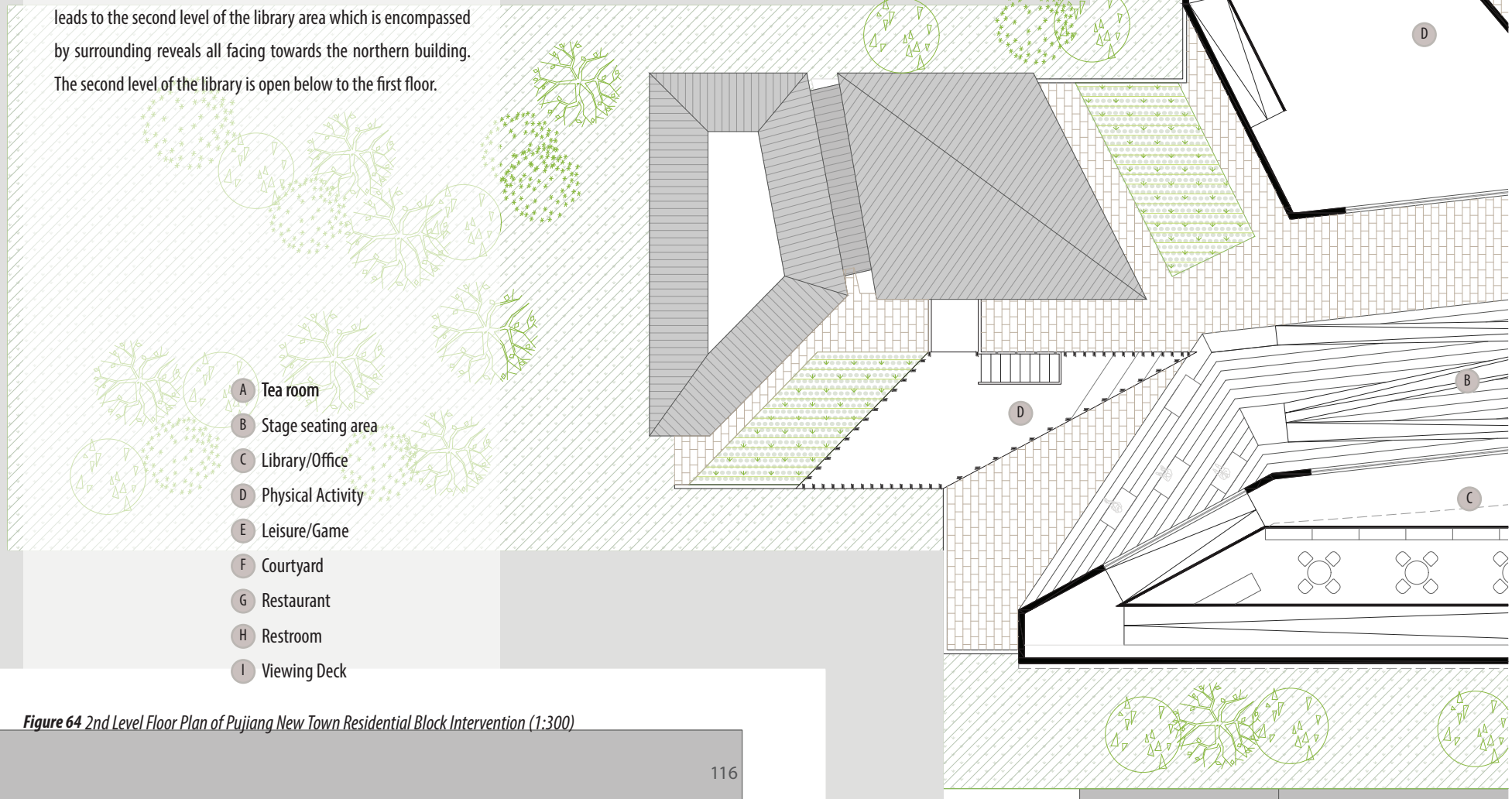
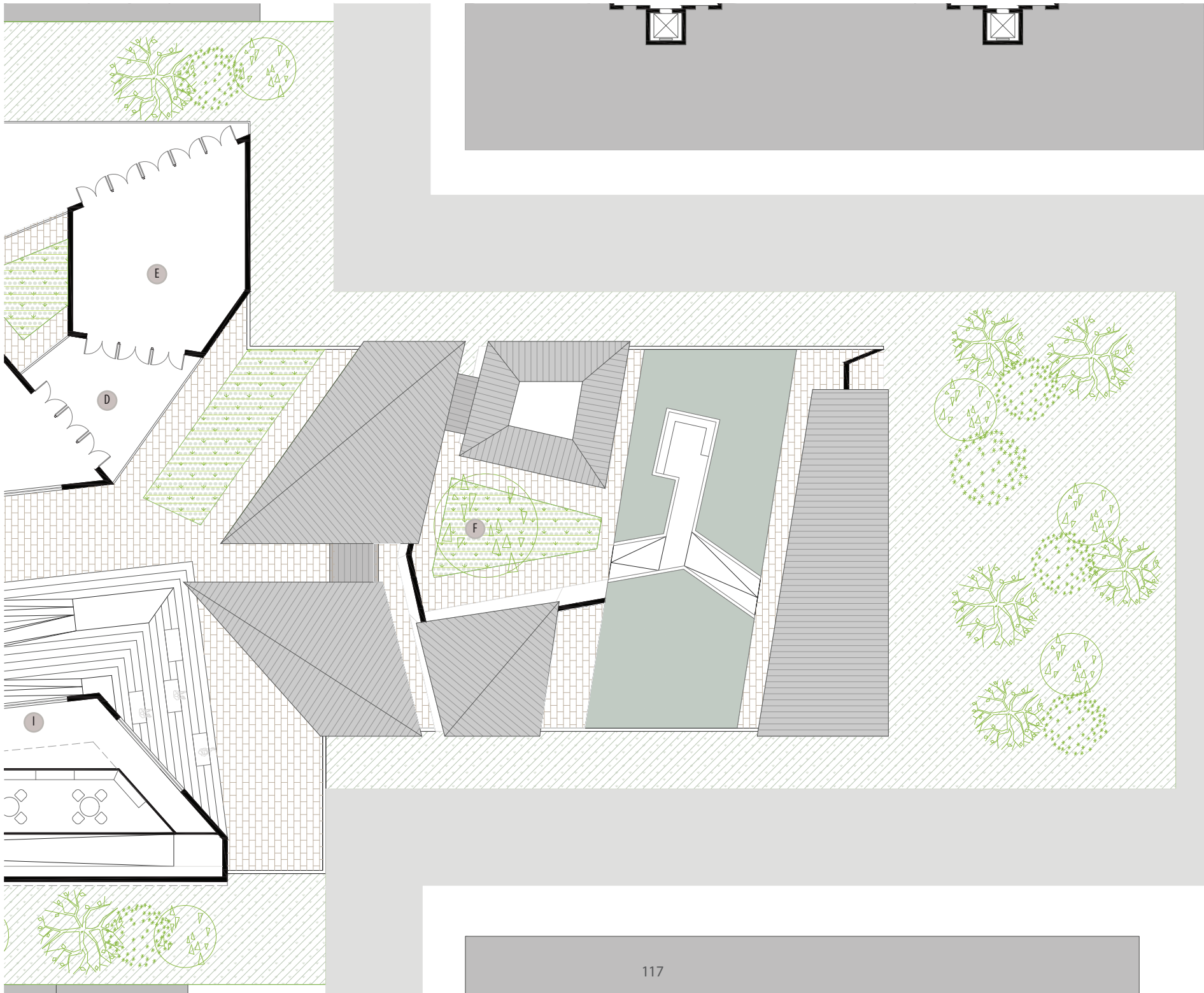
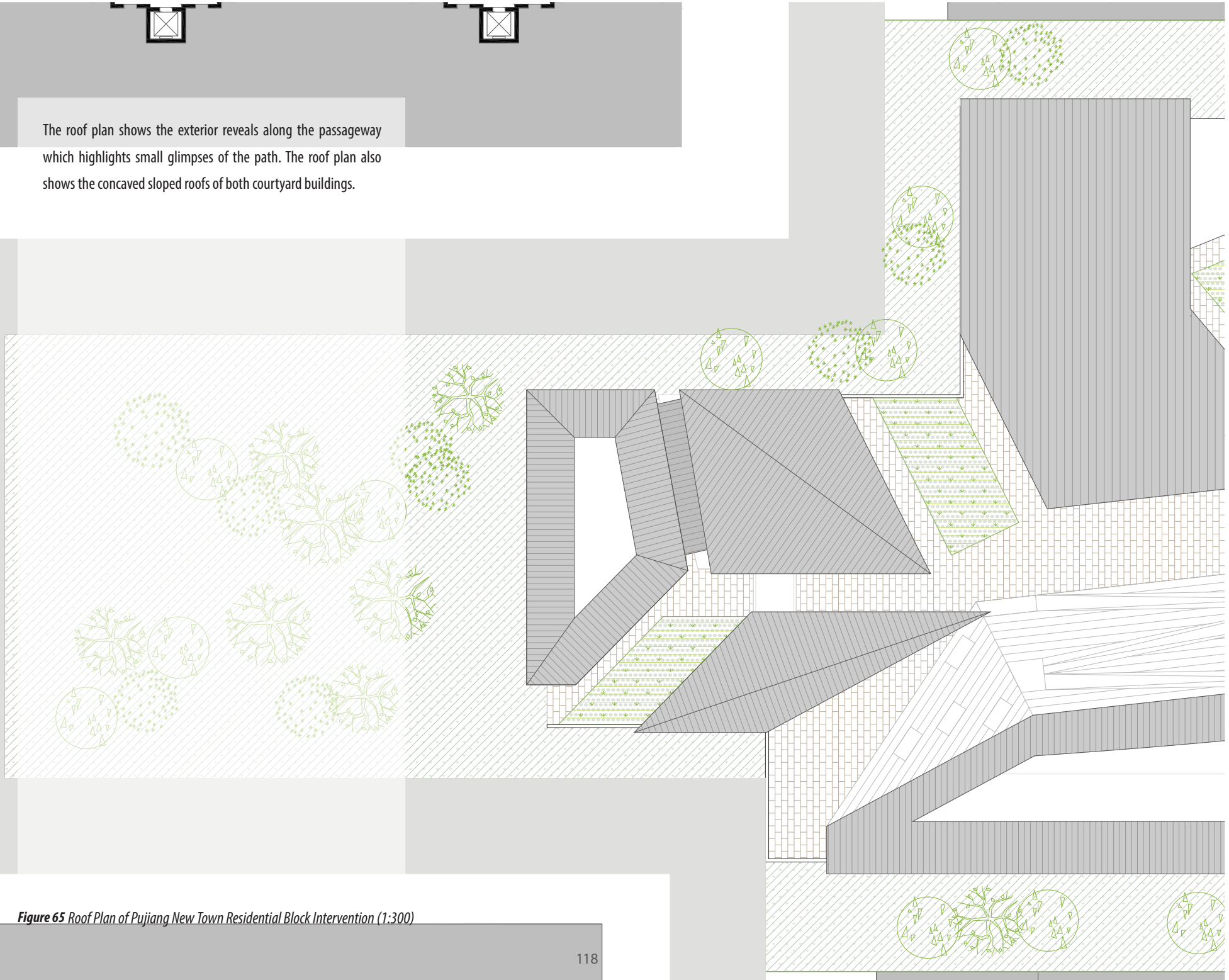


Figure 64 2nd Level Floor Plan of Pujiang New Town Residential Block Intervention (1:300)

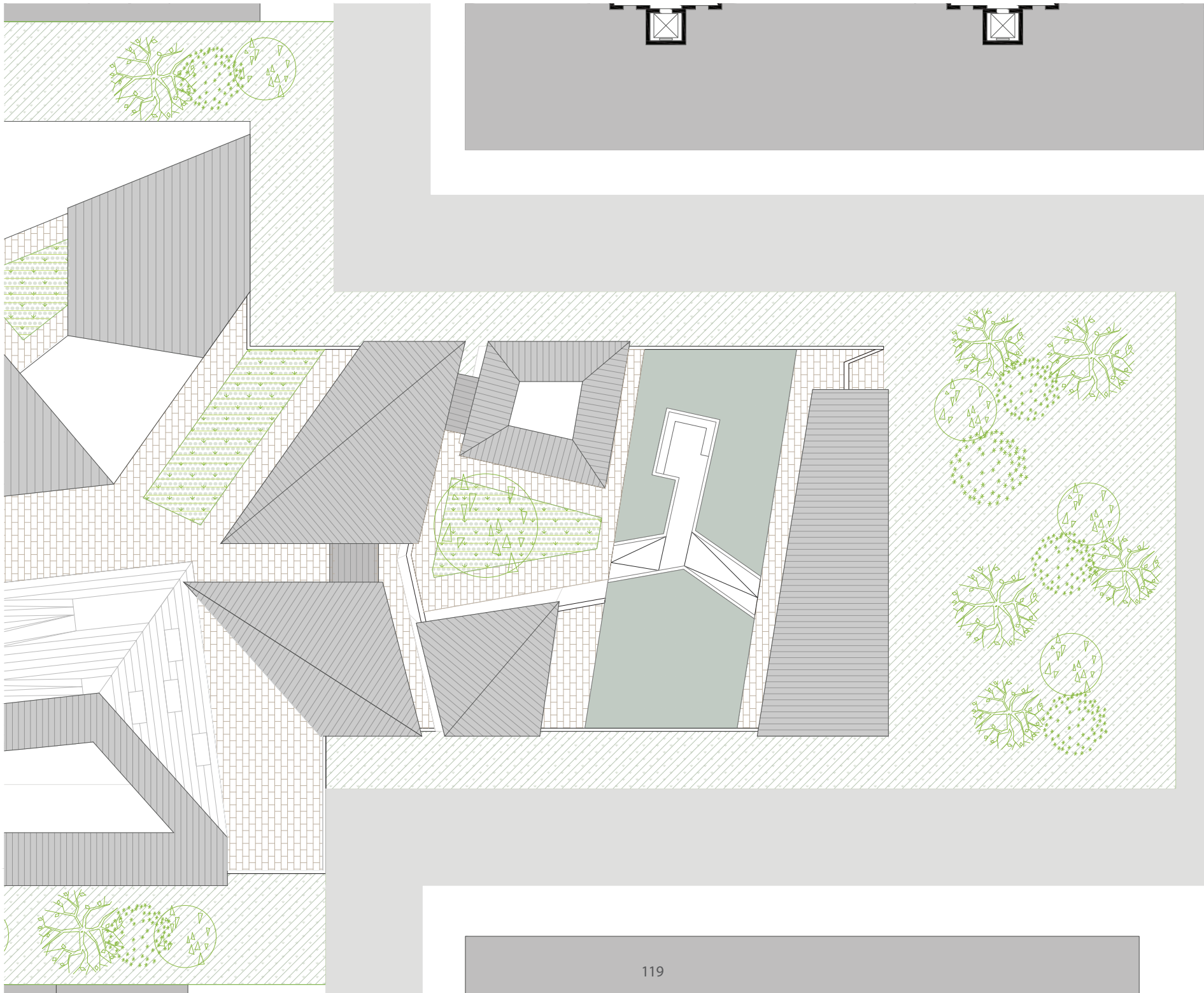


The roof plan shows the exterior reveals along the passageway which highlights small glimpses of the path. The roof plan also shows the concaved sloped roofs of both courtyard buildings.



**Figure 65** Roof Plan of Pujiang New Town Residential Block Intervention (1:300)

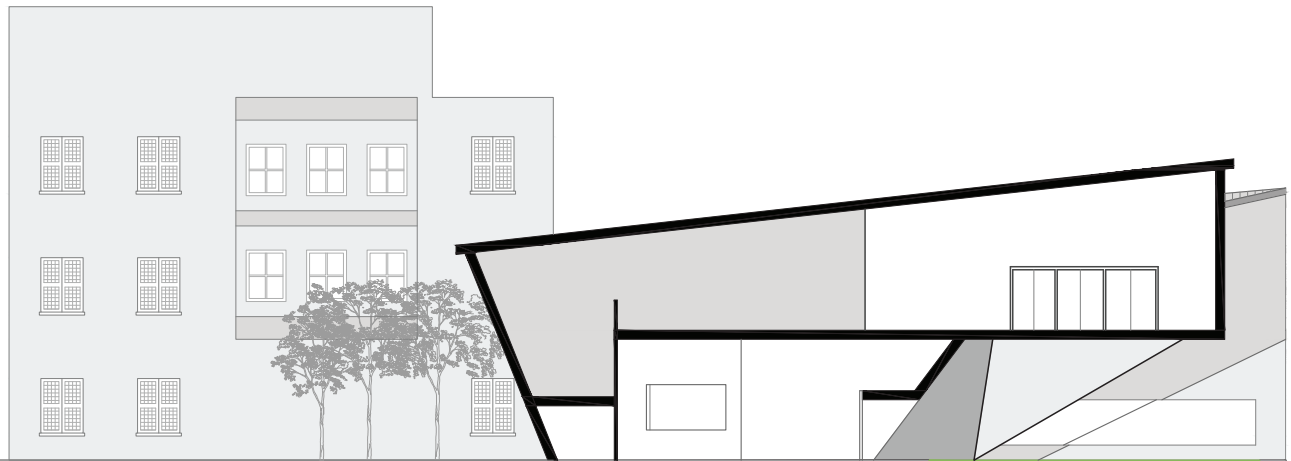






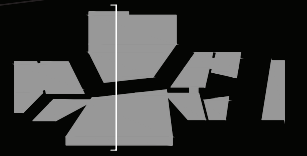
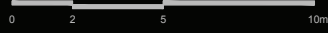
*Figure 66 Section 1 of Pujiang New Town Residential Block Intervention (1:250)*

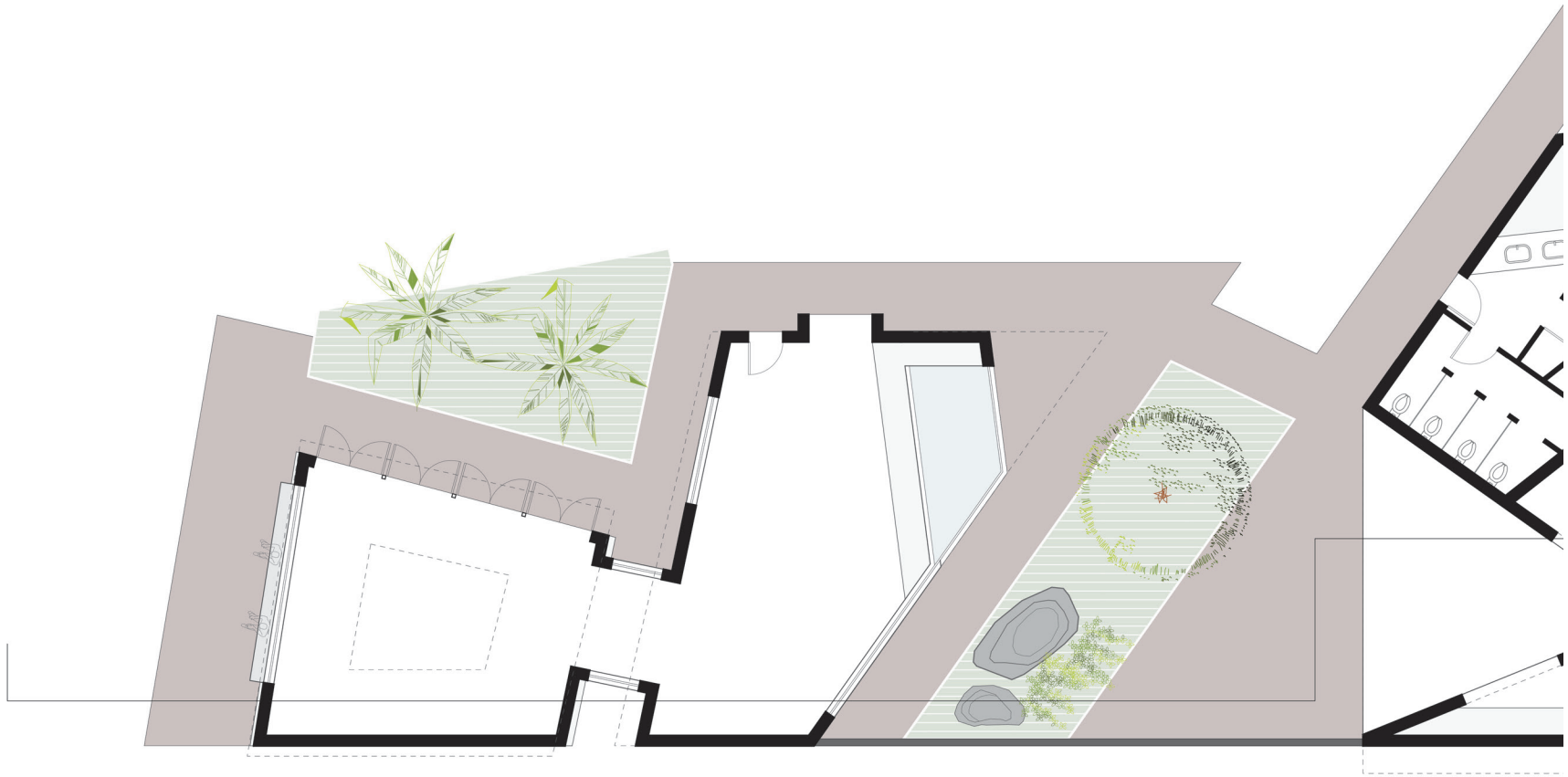




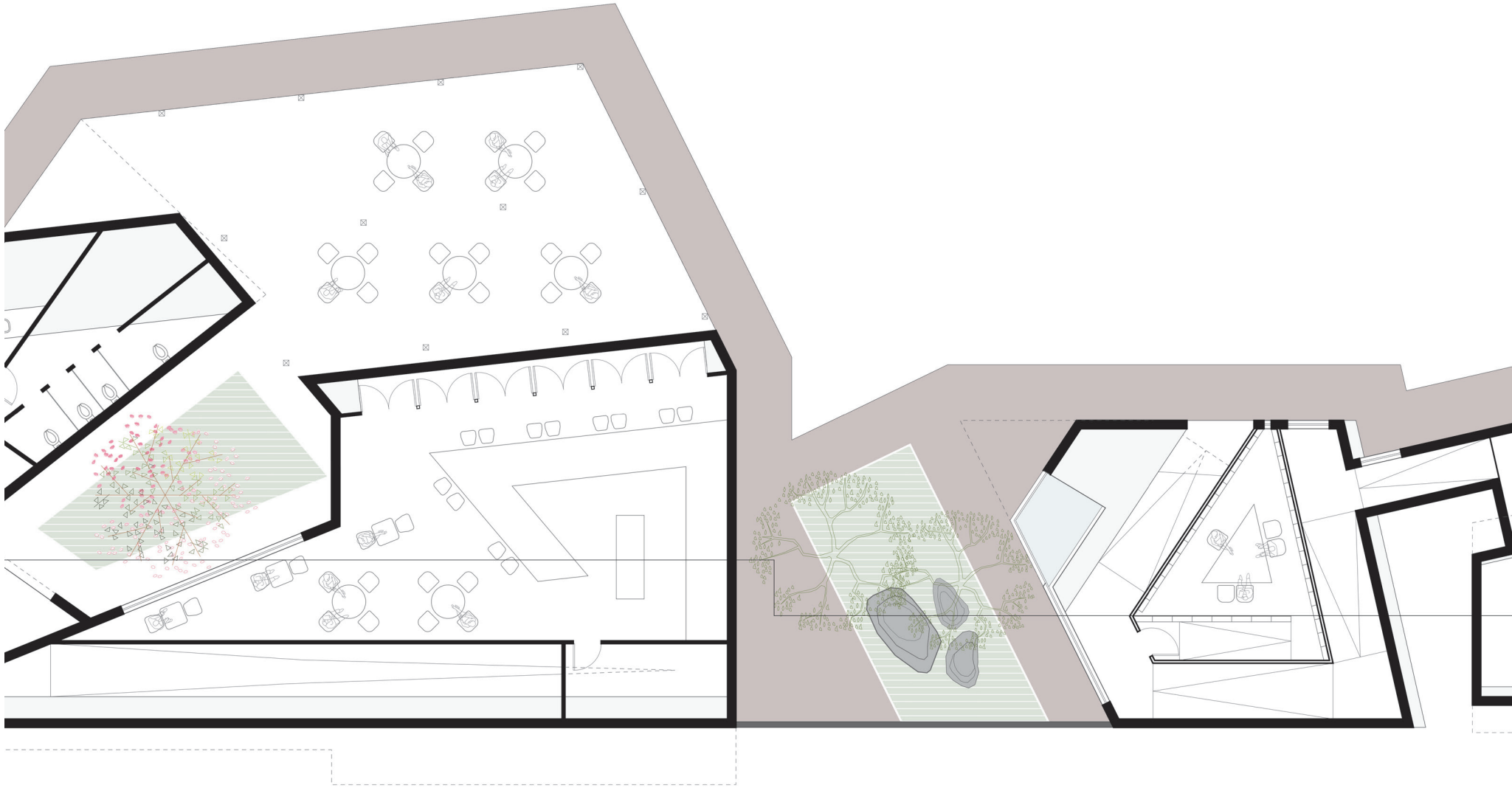
*Figure 67 Section 2 of Pujiang New Town Residential Block Intervention (1:250)*

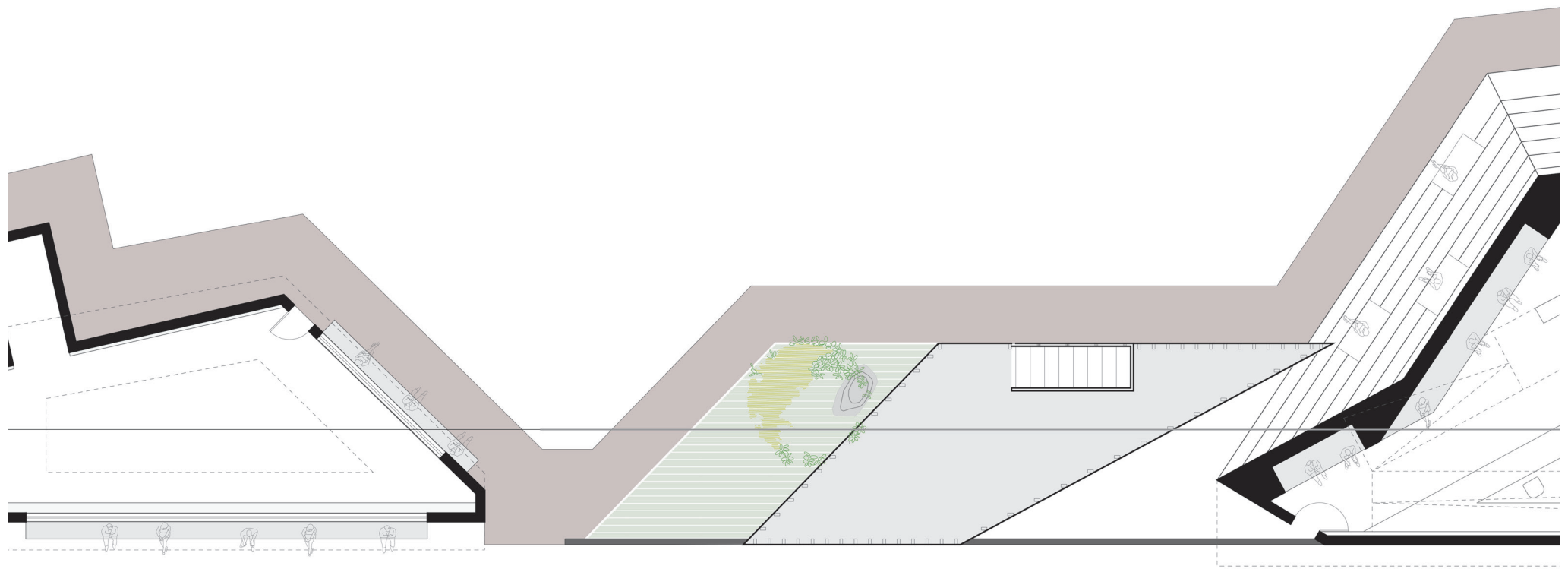




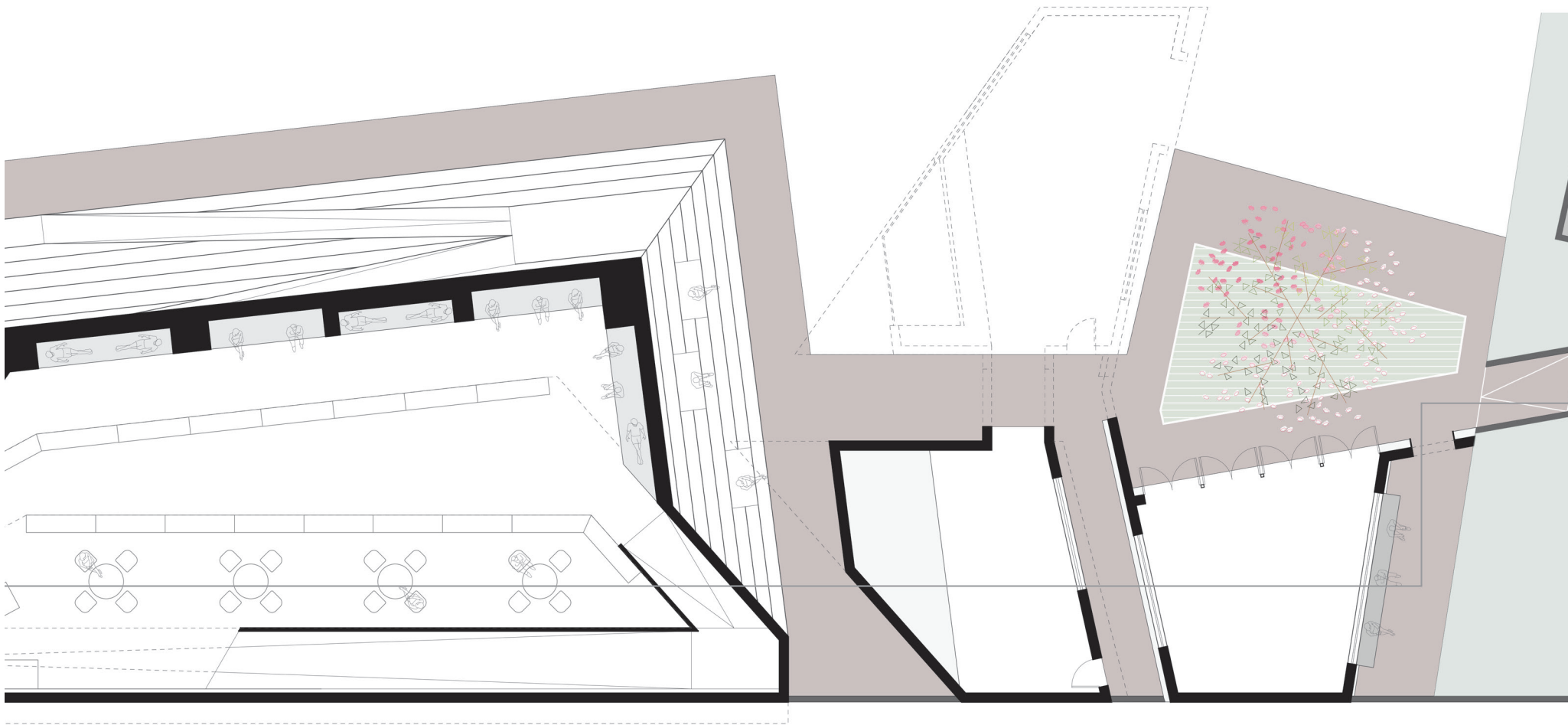


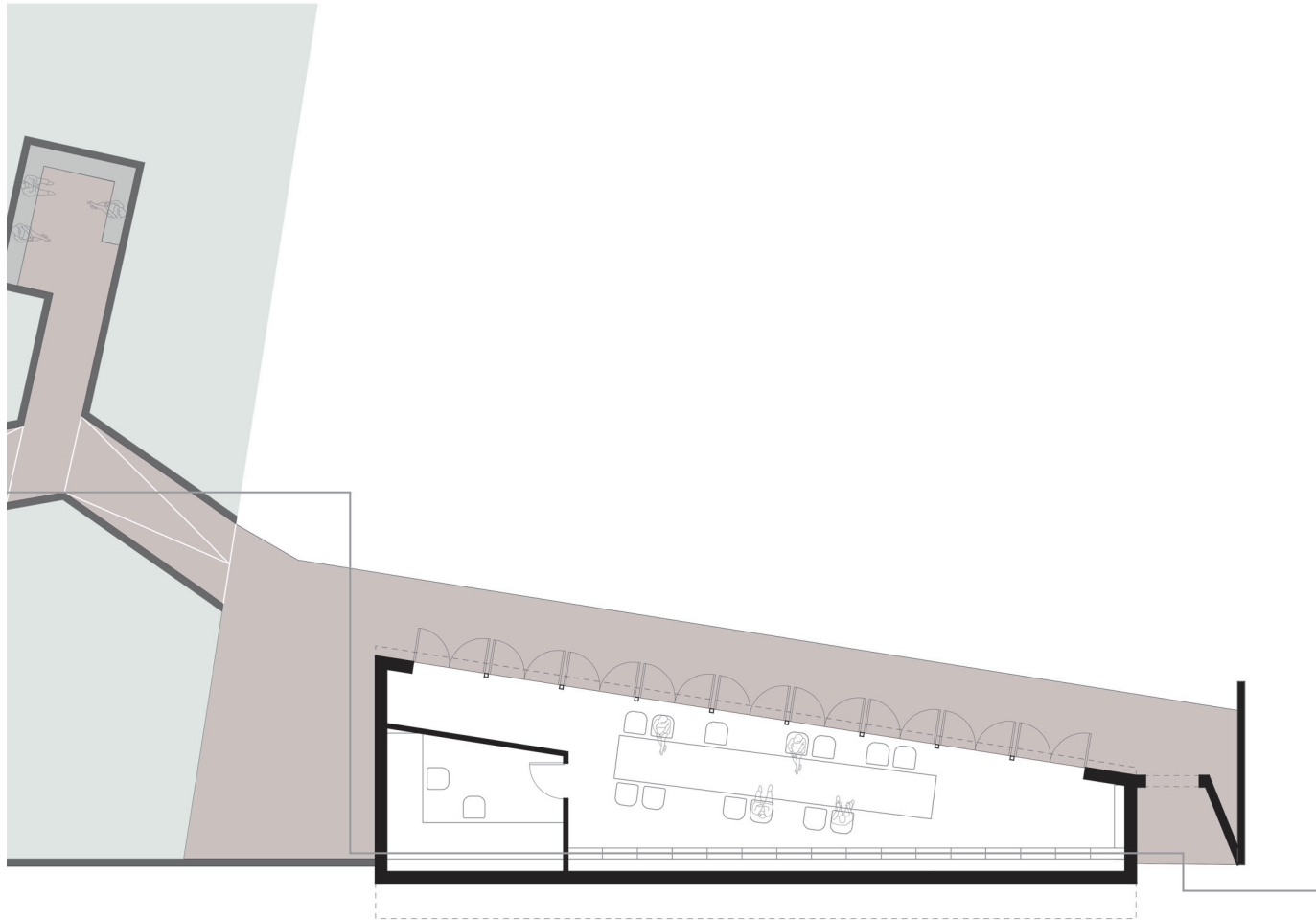
**Figure 68** Site Rollout Plan of Pujiang New Town Residential Block Intervention (1:200)









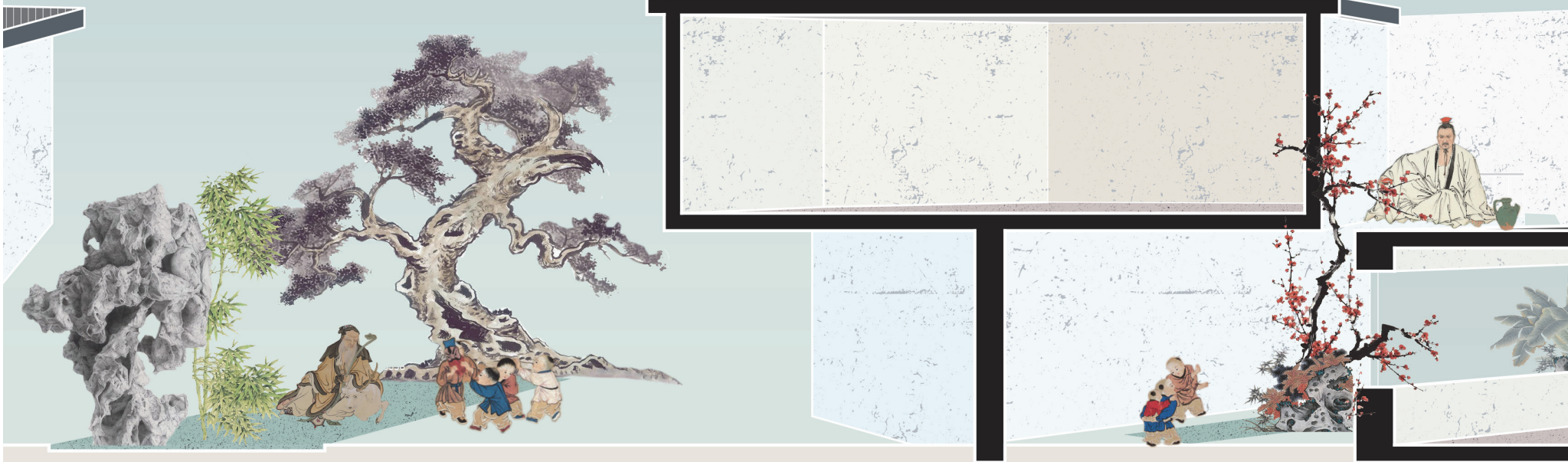


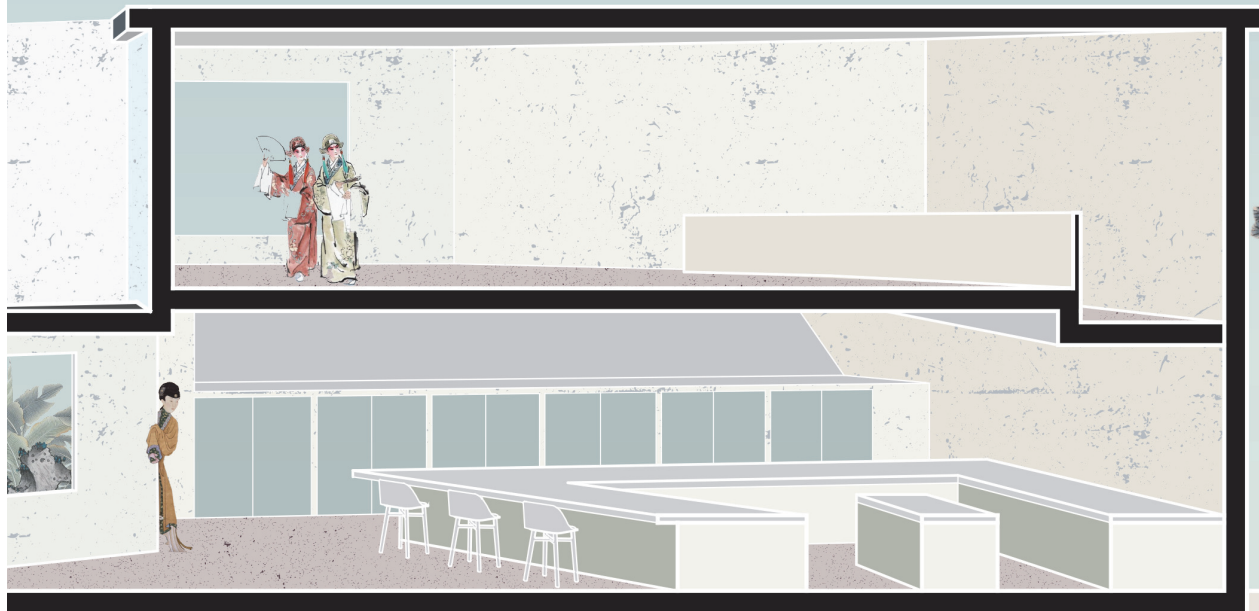


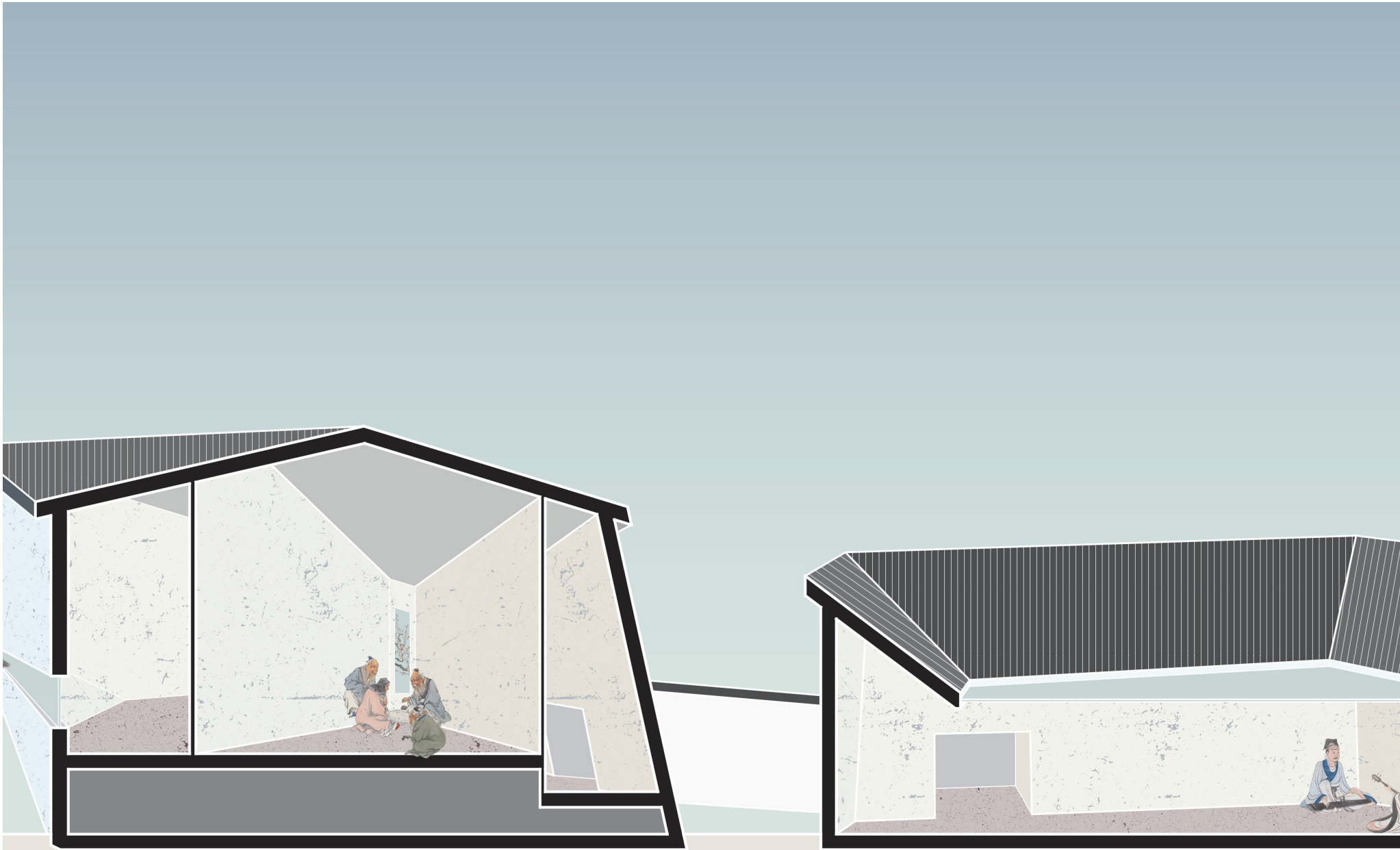


*Figure 69* Section Rollout Plan of Pujiang New Town Residential Block Intervention (1:100)



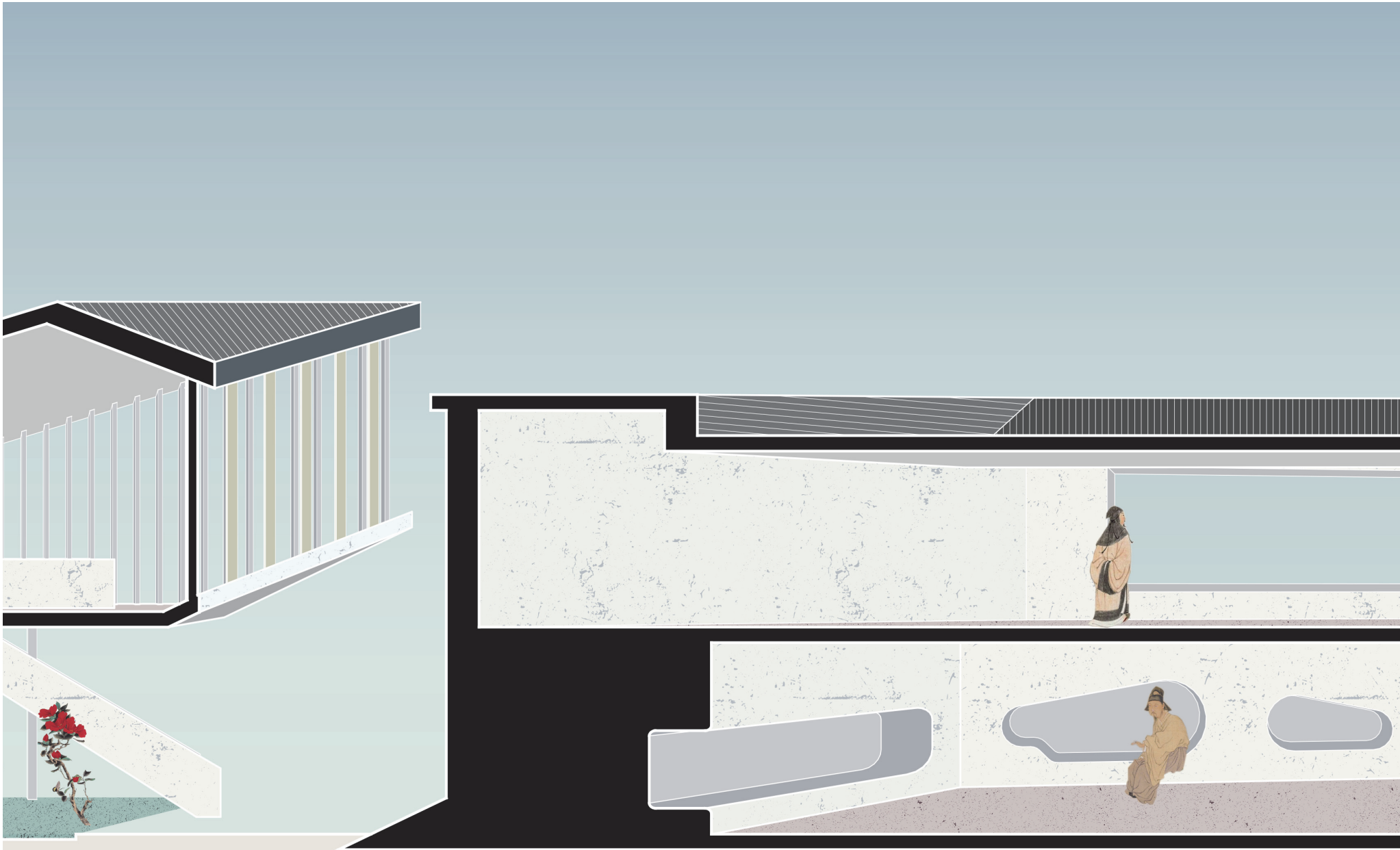


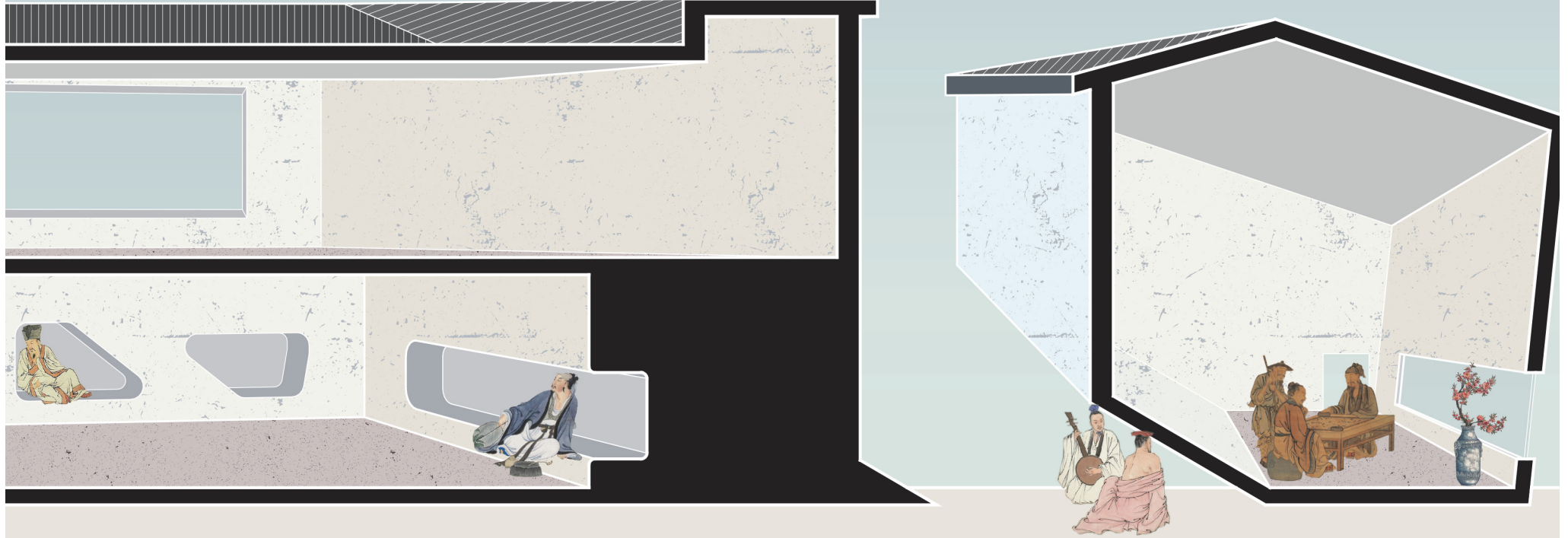




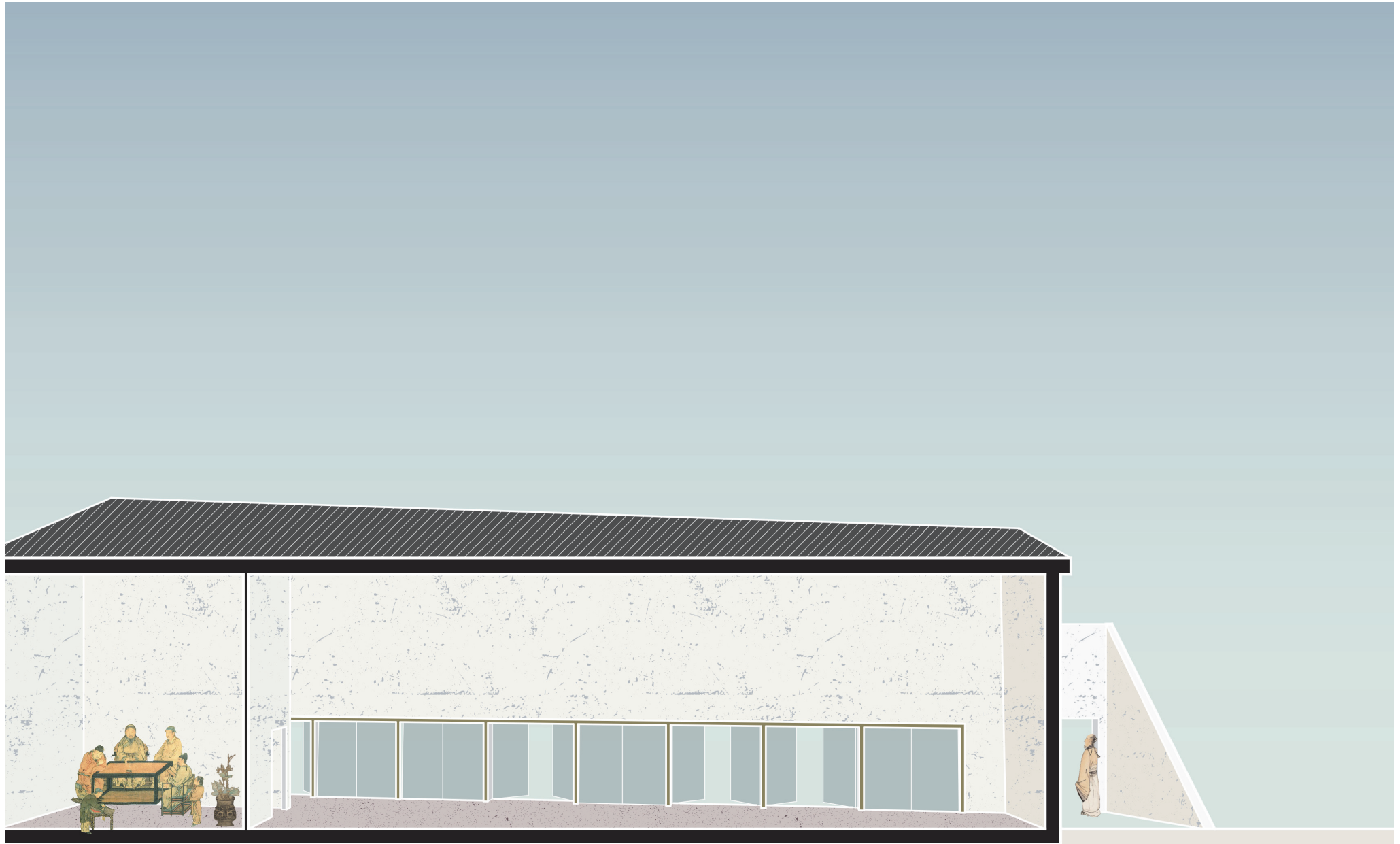
















ENDNOTES

63 Wei, Zhang, et al. "Zhang Yuan." Tongi Press. 2013

64 Ibid.

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66 Ibid.

67 Ibid.

68 Ibid.

69 Ibid.

70 Ibid.

71 Huang, T.M. "Walking Between Slums and Skyscrapers: Illusions of Open Space in Hong Kong, Tokyo, and Shanghai" Hong Kong University Press. 2004.

72 Bracken, Gregory. "The Shanghai Alleyway House: A Vanishing Urban Vernacular" Routledge. 2013

73 Ibid.

74 Ibid.

75 Ibid.

76 Ibid.

77 Ibid.

## CHAPTER 5: CONCLUSION



The shift towards an older and more urbanized society is worldwide trend and China is no different. As the population density of seniors continually increases, society must adapt to support change in social order and diversity. Aging in China has generated a trend of an active aging lifestyle bringing forth a sense of livelihood and youthfulness. This new equilibrium have seniors now more engaged than ever for the next stage of life.

Gentrification and disruption of the old to make way for the new is not always the correct method for a city to flourish. As shown multiple times throughout this thesis, the people and the community is what defines the livelihood and diversity of the city. People create the social impact, people feel the familial attachments and this collection of people is what gives the city strength. People of all age groups and diversity gives the city life.

How does a city urbanize without destroying a community? How does a city rebuild a community that once was? Shanghai is experiencing both of these issues to different degrees through its many years of urbanization and expansion all while creating a defining barrier between the old versus the young, the rich versus poor and the local versus the foreign.

This thesis is intended to show the necessity of the presence of older people in cities and how to rebuild the new. The ideal retreat was illustrated centuries ago and the beauty aspects of the garden have never faded. Similarly, old Chinese homes and intergenerational communities have been entrenched into the woven fabric of society. To destroy and rebuild what's remaining is to create disorder against society. While Shanghai continues to urbanization, it's truly important to understand that people is what defines the city and the community.



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# APPENDIX A - HISTORY OF CHINESE GARDEN

## WESTERN HAN

### FORM 形

Composition : Lake and Groups of buildings

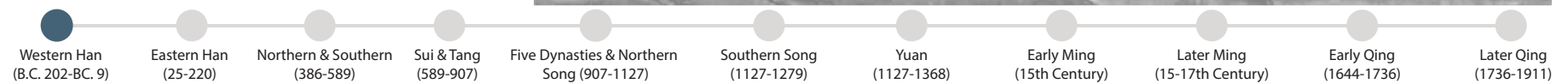
LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Painting by Ying, Qui. "The Shanglin Park: Imperial Hunt" Ink and color on silk, handscroll.

Image from <https://www.freersackler.si.edu/object/F1913.47/>











# EASTERN HAN

## FORM 形

Composition: Plants and Groups of buildings

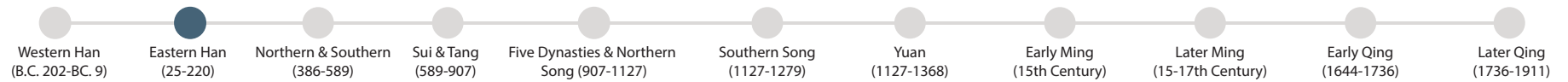
LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Map of Wei Yang Palace, Constructed B.C. 200 in Chang An, China

Image from Zhou, Wei Quan. "History of Chinese Classical Gardens (中國古典園林史)" Tsinghua University Press Ltd. 1999. pp 84











# NORTHERN AND SOUTHERN

## SENTIMENT 情

Composition : Scenery derived from Nature

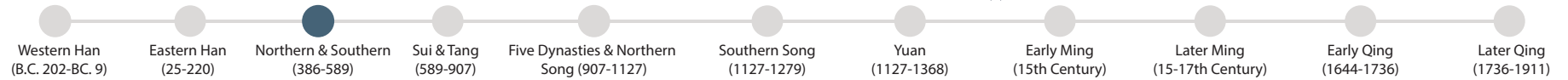
### LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Map of Jian Ye Palace and Garden, Constructed in 267 in Nanjing, China

Image from Zhou, Wei Quan. "History of Chinese Classical Gardens (中國古典園林史)" Tsinghua University Press Ltd. 1999. pp 133











# SUI AND TANG

## SENTIMENT 情

Composition : Spatial Sequence

LEGEND:

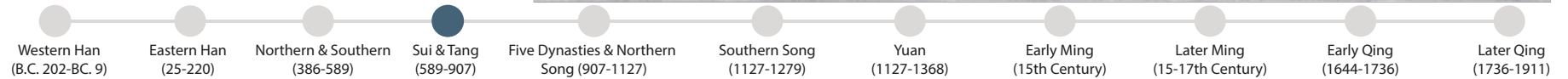
- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Painting of Taipei National Palace Museum

Painting by Guo Zhang Nu. Replica of Tong Painting "Wang Chuan Tu" by Wang Wei. Ink and color on silk, handscroll.

Image from <http://theme.npm.edu.tw/exh104/form10401/ch/photo03.html>













# FIVE DYNASTIES AND TEN KINGDOMS AND NORTHERN SONG

## REASON 理

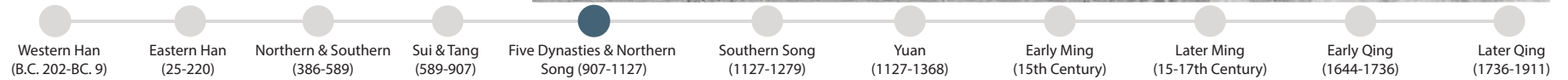
Composition: Multiple layers of scenery

LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 

Painting by Wang, Xi Meng. "A Thousand Miles of Rivers and Mountains". Ink & color on silk, handscroll. 1113

Image from <http://www.dpm.org.cn/collection/paint/228354.html>











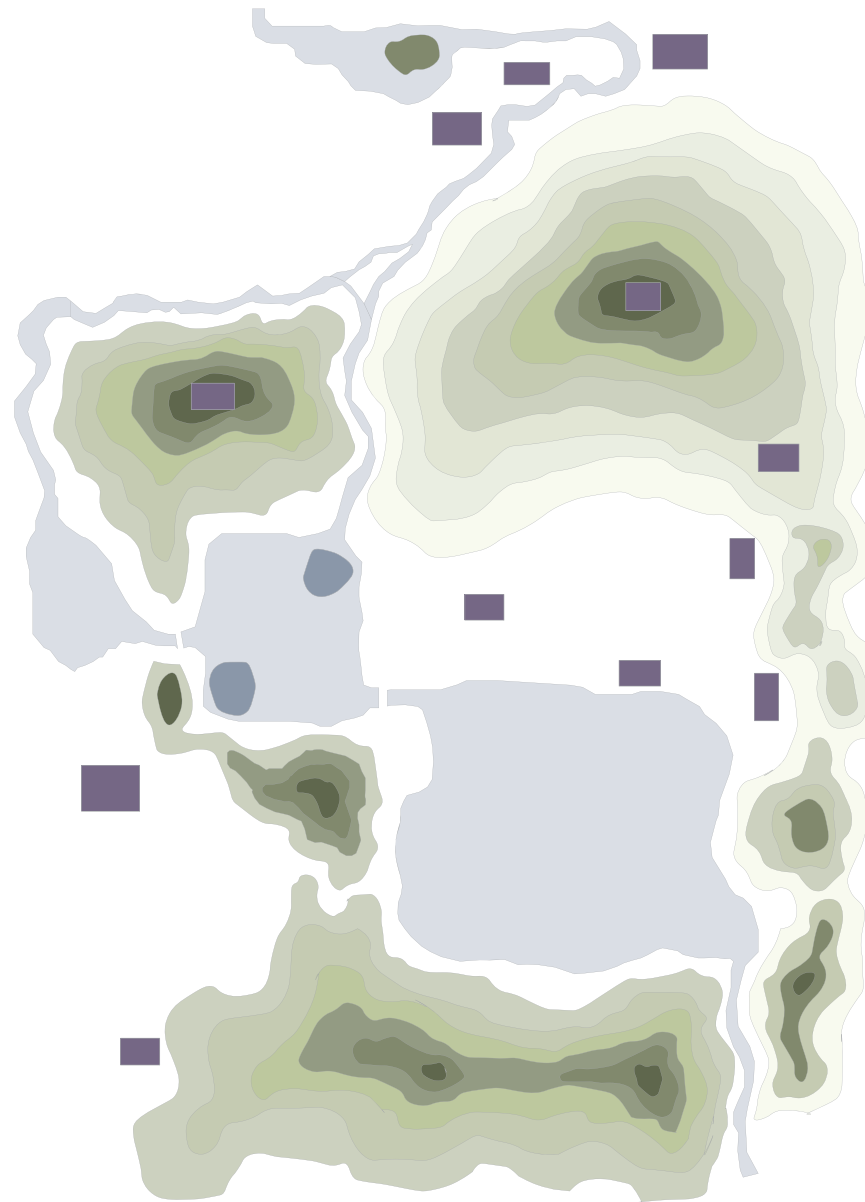
# SOUTHERN SONG

## PROPENSITY 势

Composition: Buildings constructed along the perimeter of water

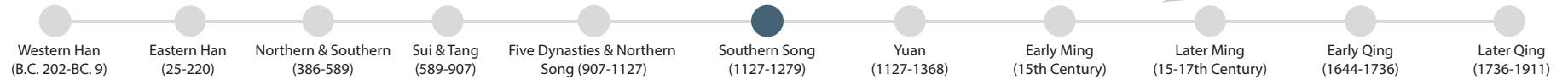
### LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Map of Gen Yue Pleasure Palace by Hui Zong, Constructed in 1122 in Kai Feng, China

Image from Zhou, Wei Quan. "History of Chinese Classical Gardens (中國古典園林史)" Tsinghua University Press Ltd. 1999. pp 280











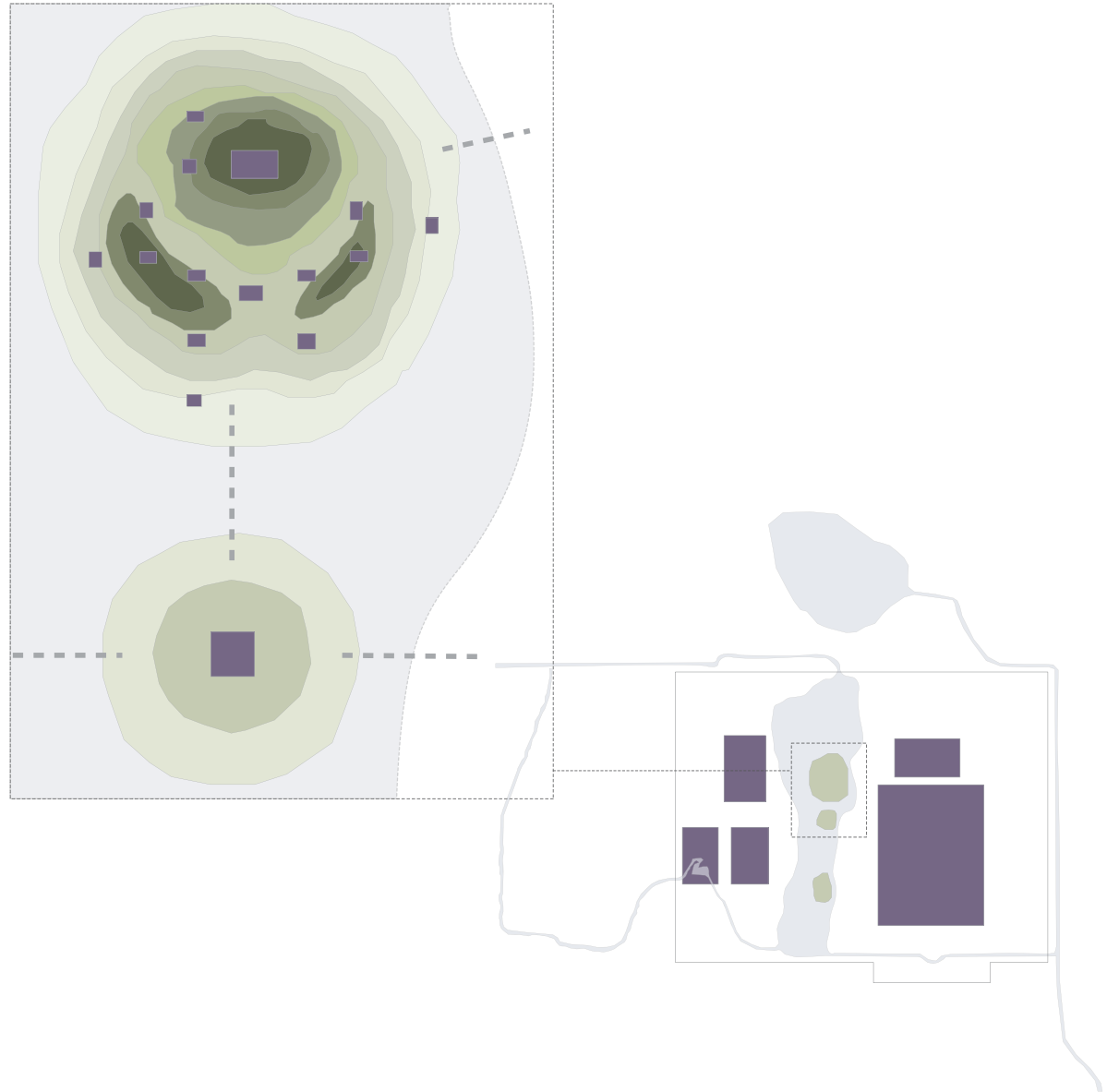
# YUAN

## PROPENSITY 势

Composition: Artificial Hill used as central scenery

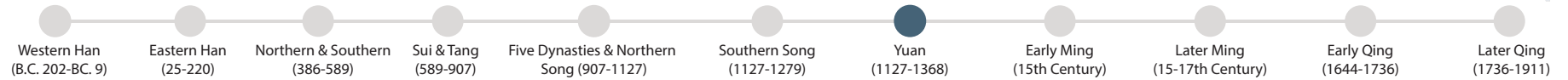
### LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Map of Palace and Garden for Yuan Dynasty, Current dat Jing Shan Park in Beijing, China

Image from Zhou, Wei Quan. "History of Chinese Classical Gardens (中國古典園林史)" Tsinghua University Press Ltd. 1999. pp 360











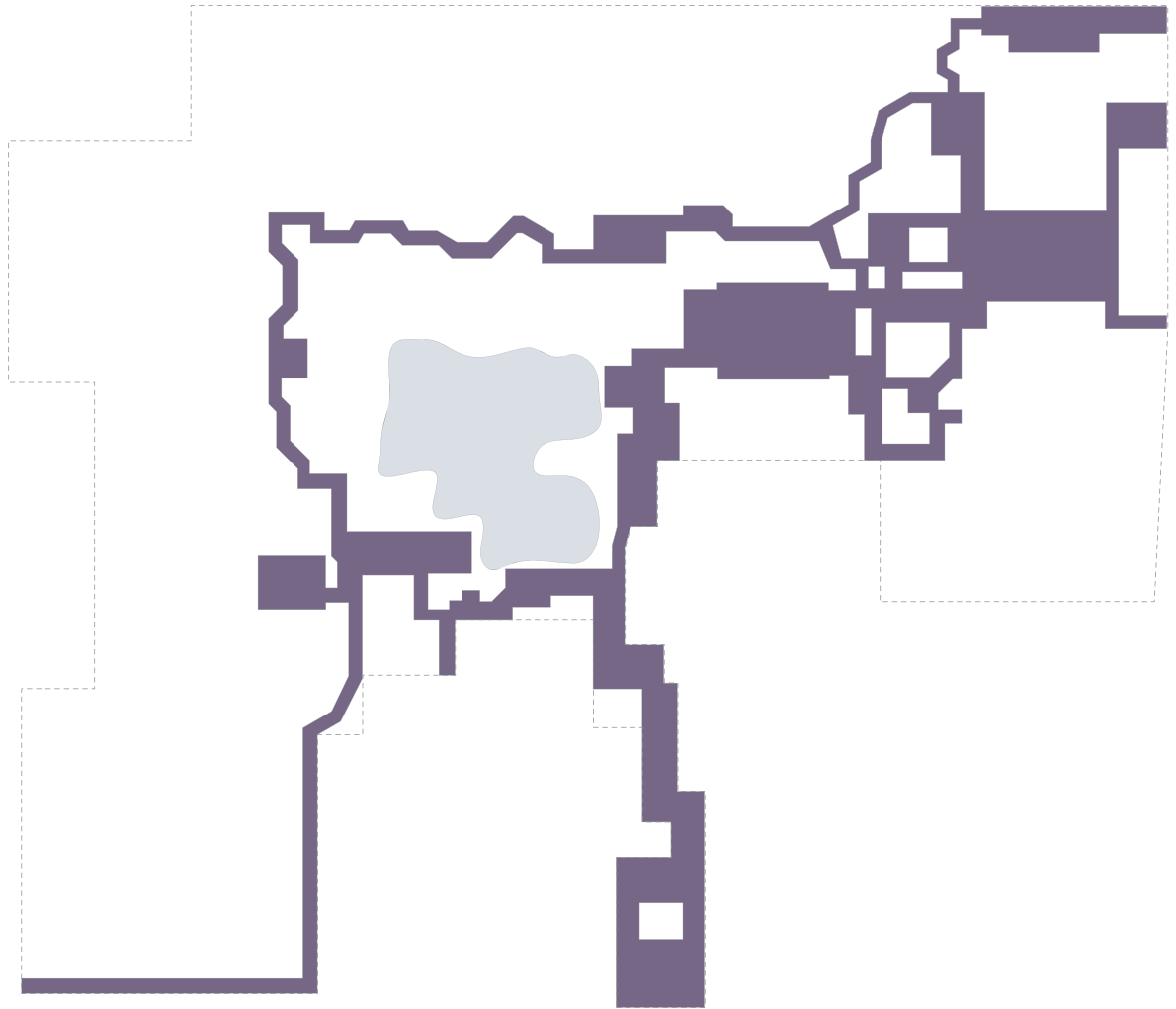
## EARLY MING

### CONCIOUSNESS 意

Composition: Bridges are used to connect spatial nodes  
Artificial Rocks used to create multiple layers

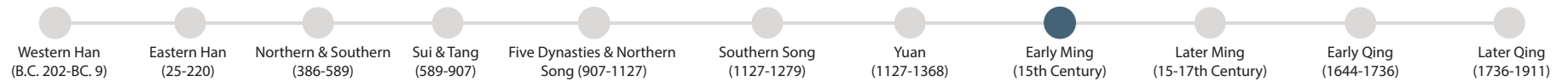
#### LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Map of Linger Garden, Constructed in 1593 BC in Suzhou, China

Image from Peng, Yigang. "Analysis of the Traditional Chinese Garden" 1986. pp 70













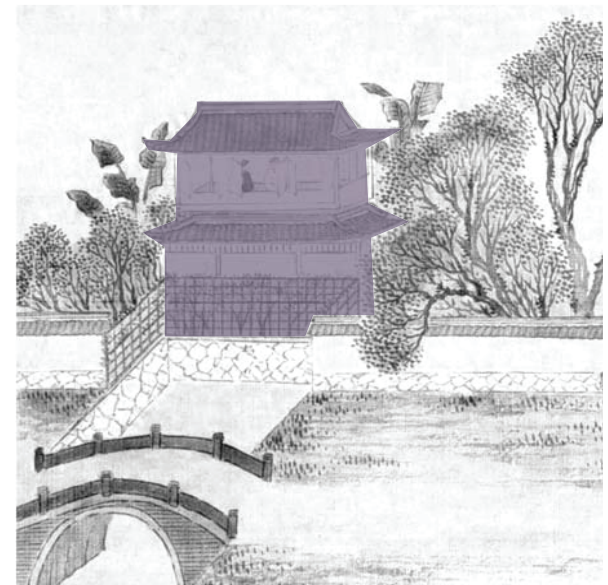
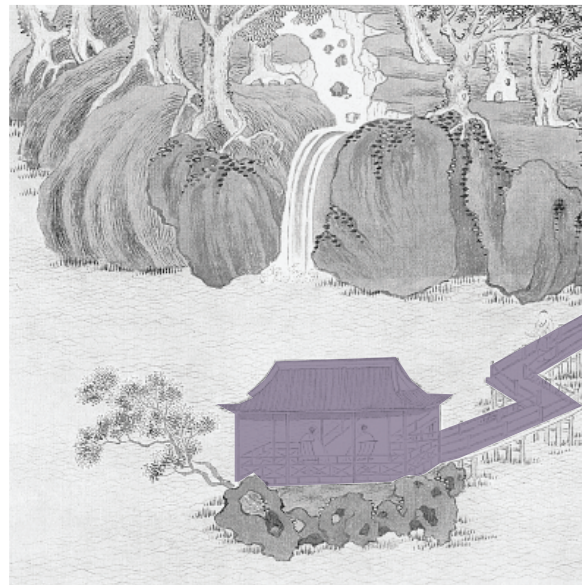
# LATER MING

## CONCIOUSNESS 意

Composition: Complex Artificial Lakes

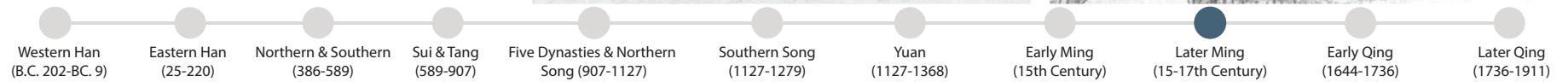
LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Painting by Song, Maojin. "Jichang Garden - 50 Scenes" Ink & color on silk, handscroll.

Image from <https://kknews.cc/culture/e8n9evq.html>













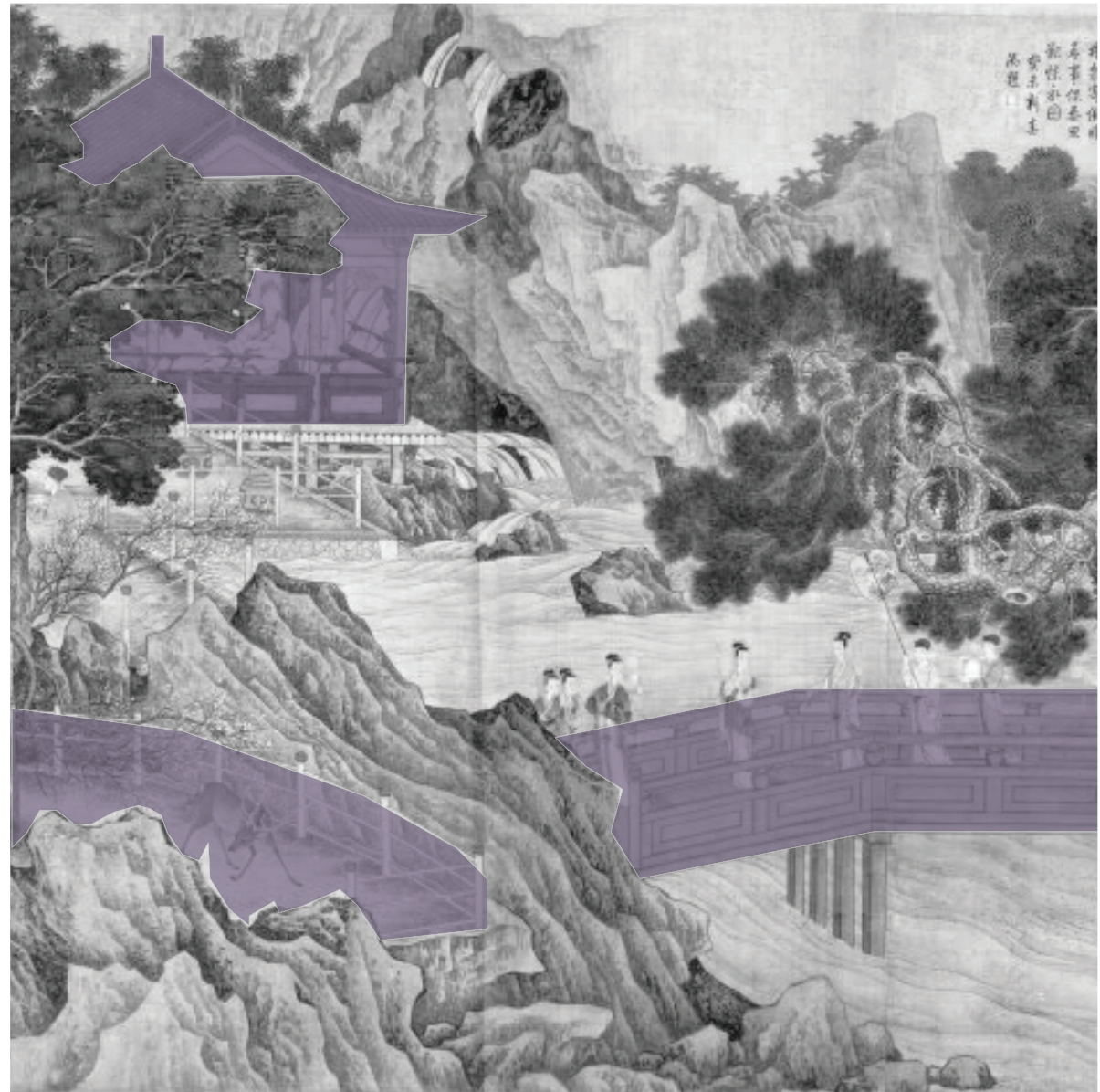
# EARLY QING

## CONCIOUSNESS 意

Composition: Bridges connect the entire site

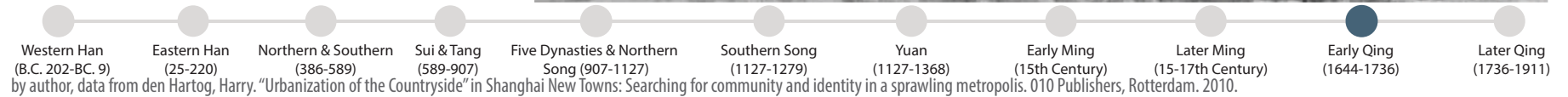
### LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



Painting by Jin Ting Biao. "Pleasure Garden for Qian Long Emperor" Ink & color on silk, handscroll.

Image from <http://en.dpm.org.cn/dyx.html?path=/tilegenerator/dest/files/image/8831/2010/1044/img0008.xml>











# LATER QING

## CONCIOUSNESS 意

Composition: Artificial Lakes and Buildings are core elements of the garden scenery

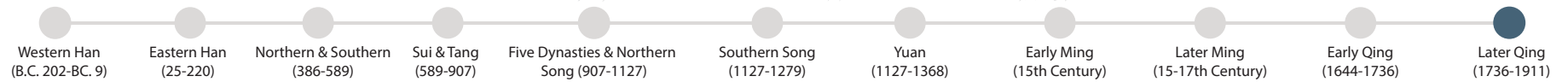
LEGEND:

- MOUNTAIN/HILL 
- NATURE ELEMENTS 
- ARTIFICIAL ROCKS 
- WATER 
- PLANTS 
- BUILDINGS 
- PATHWAY 
- BRIDGES 



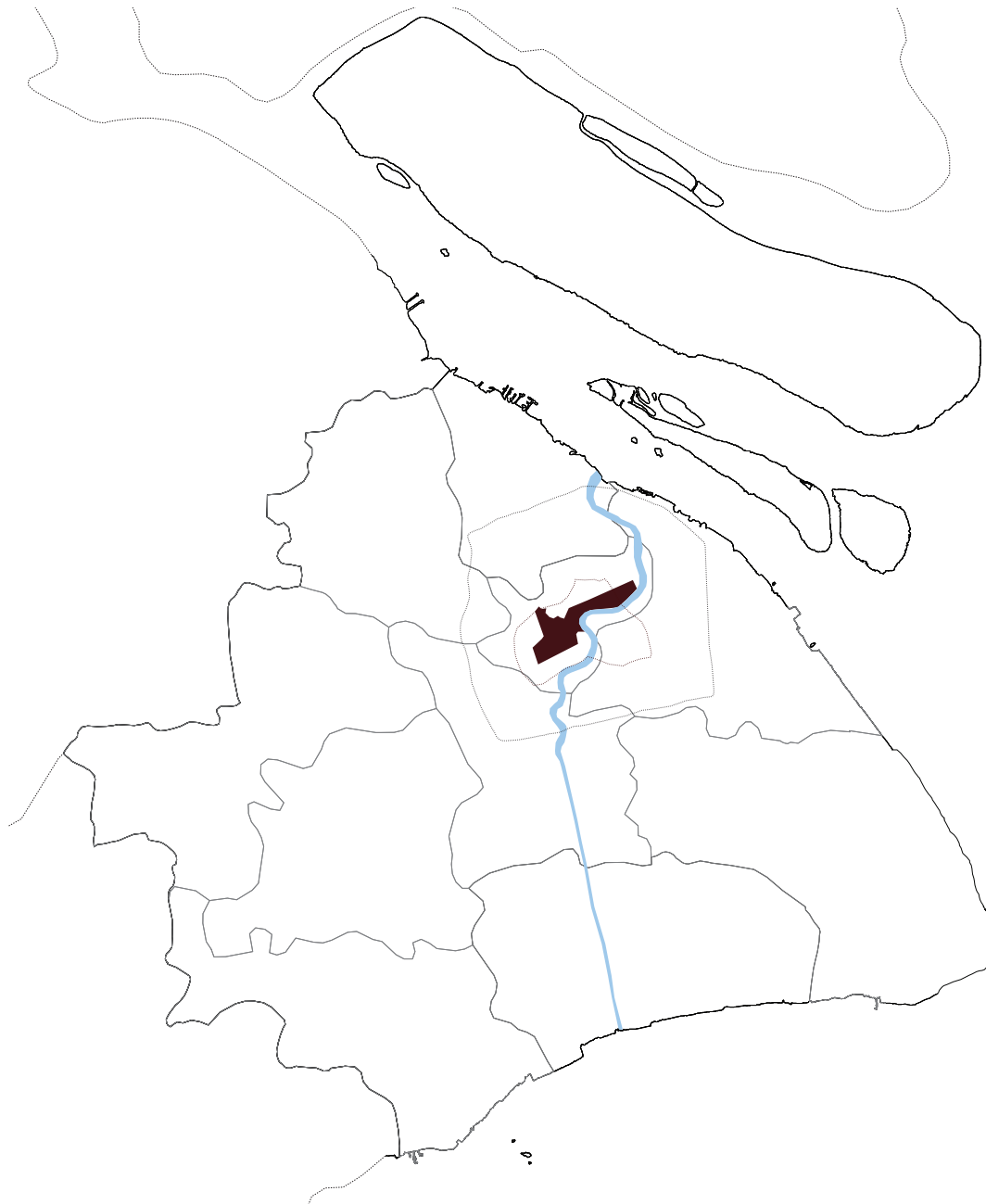
Map of Xie Qu Garden, Constructed in 1888 in Beijing, China

Image from Zhou, Wei Quan. "History of Chinese Classical Gardens (中國古典園林史)" Tsinghua University Press Ltd. 1999. pp 576



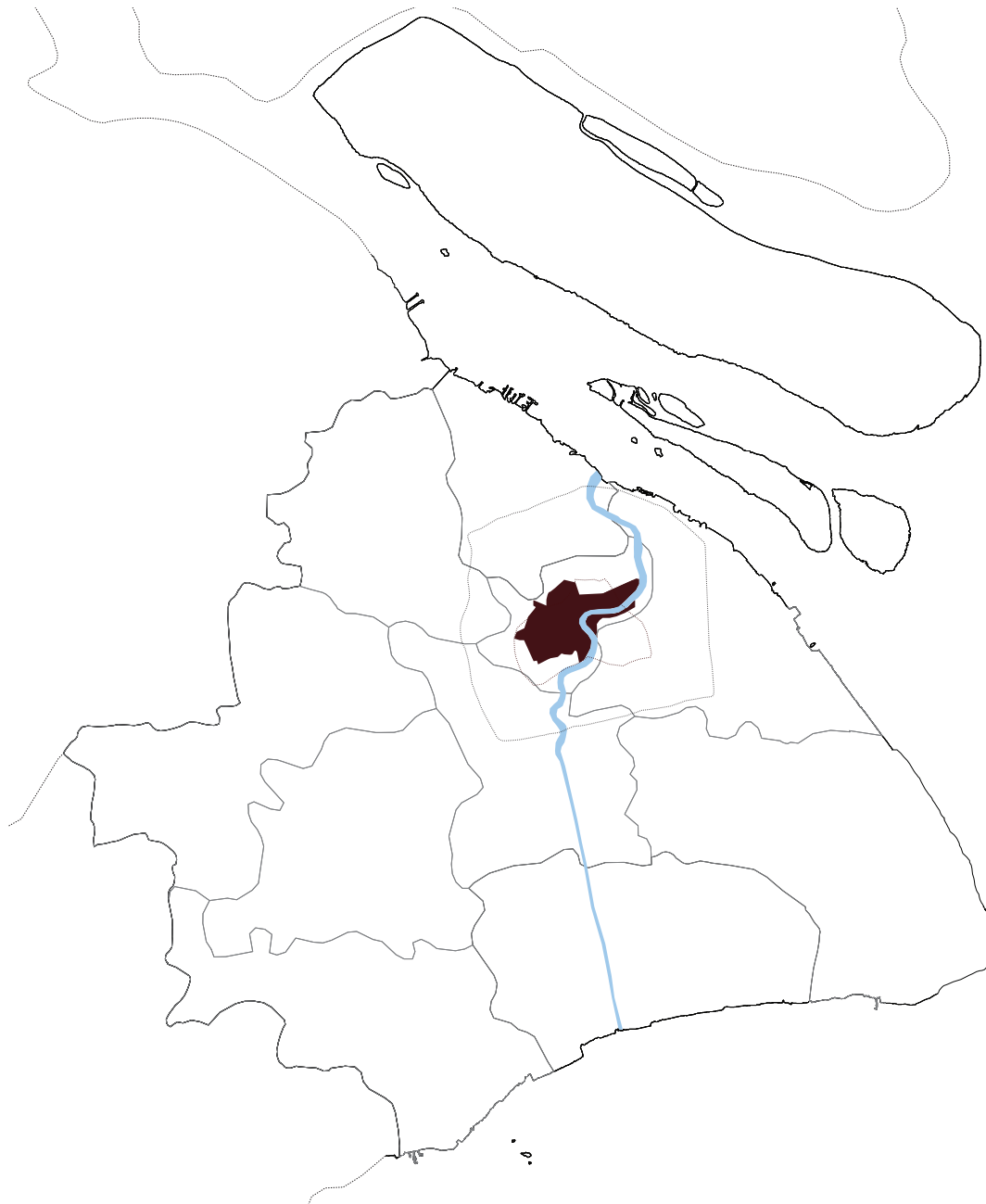
## APPENDIX B - SHANGHAI DEVELOPMENT FROM 1843 TO 2020

SHANGHAI DEVELOPMENT IN 1843

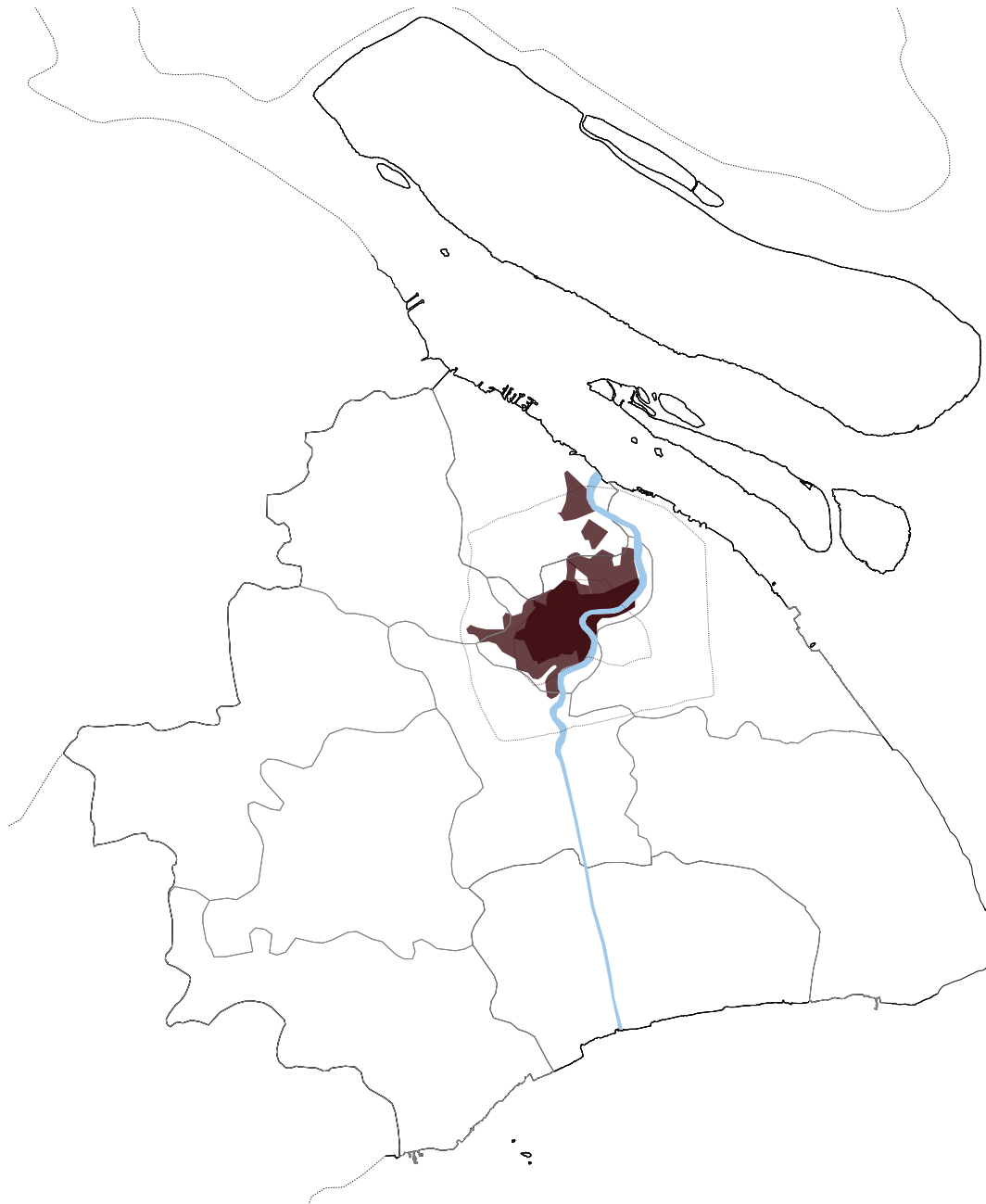


by author, data from den Hartog, Harry. "Urbanization of the Countryside" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.

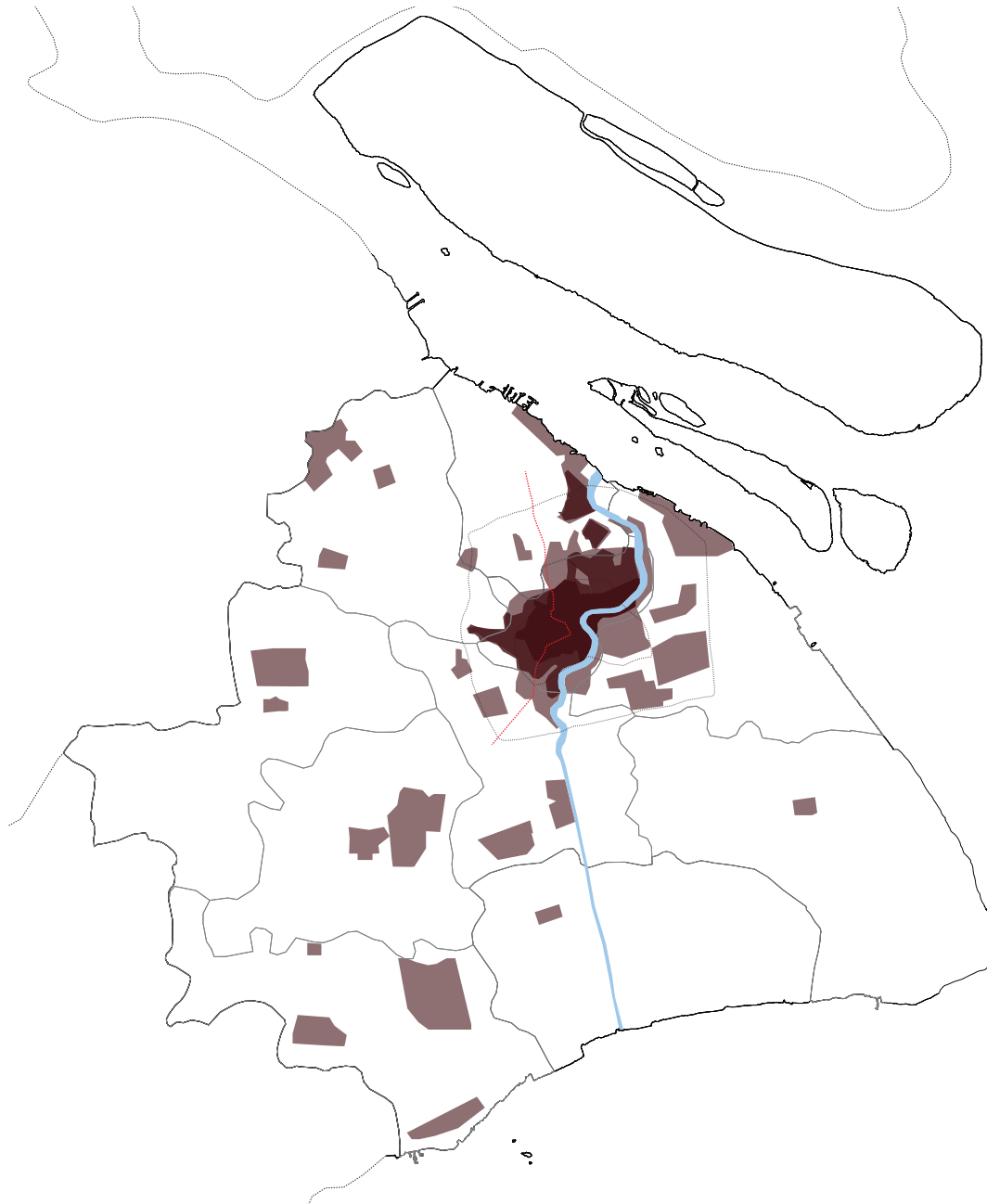




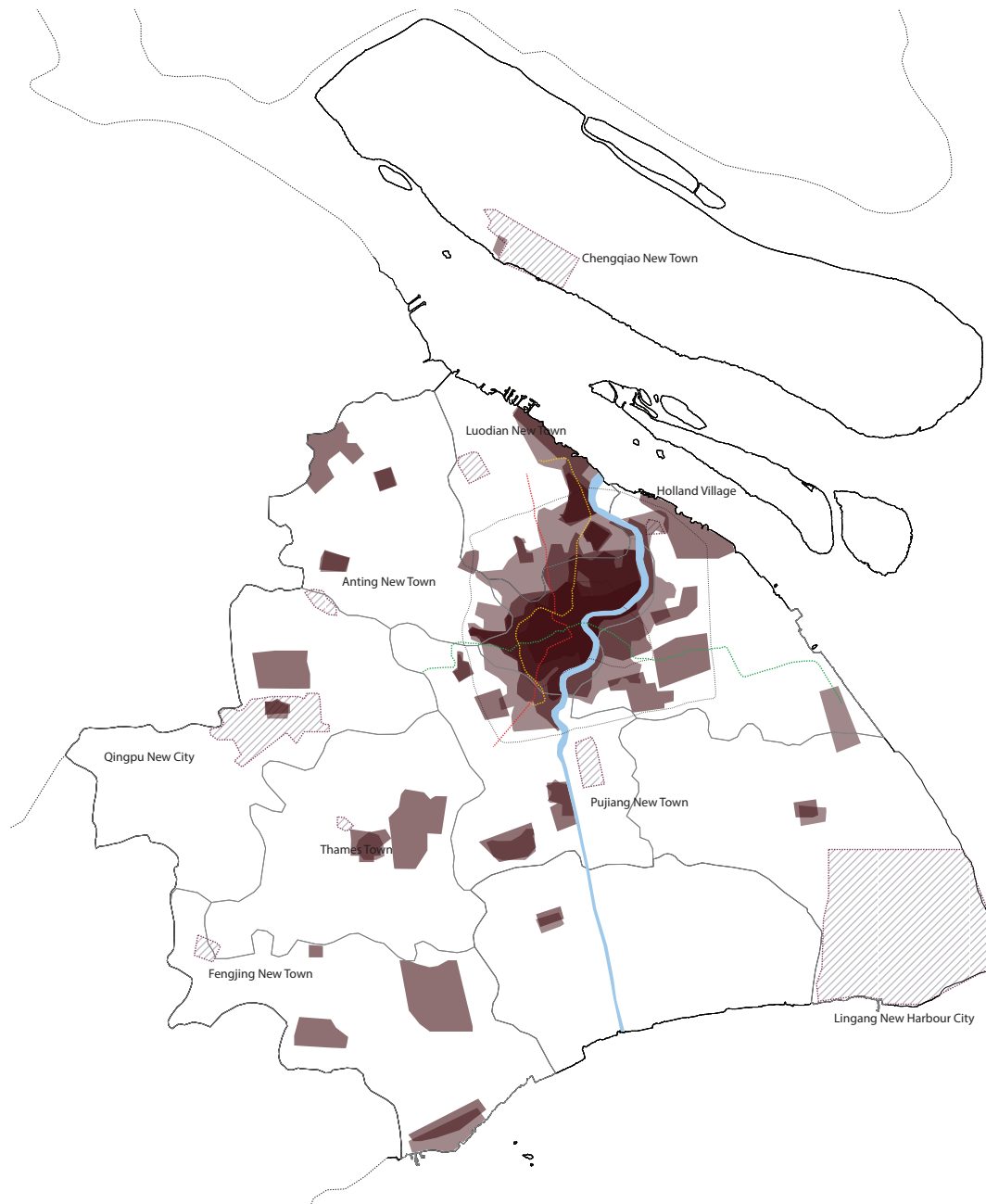
by author, data from den Hartog, Harry. "Urbanization of the Countryside" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.



by author, data from den Hartog, Harry. "Urbanization of the Countryside" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.

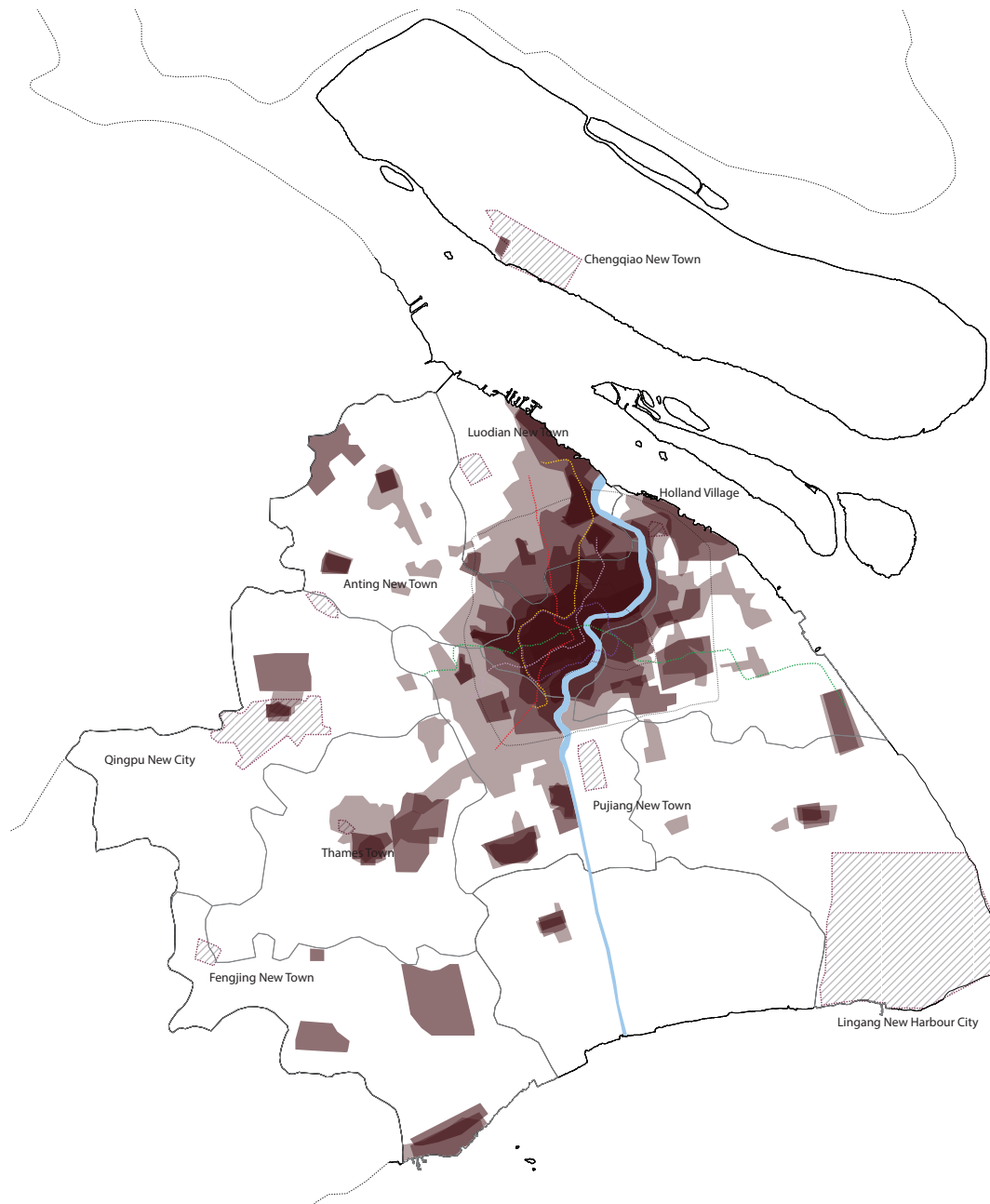


by author, data from den Hartog, Harry. "Urbanization of the Countryside" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.

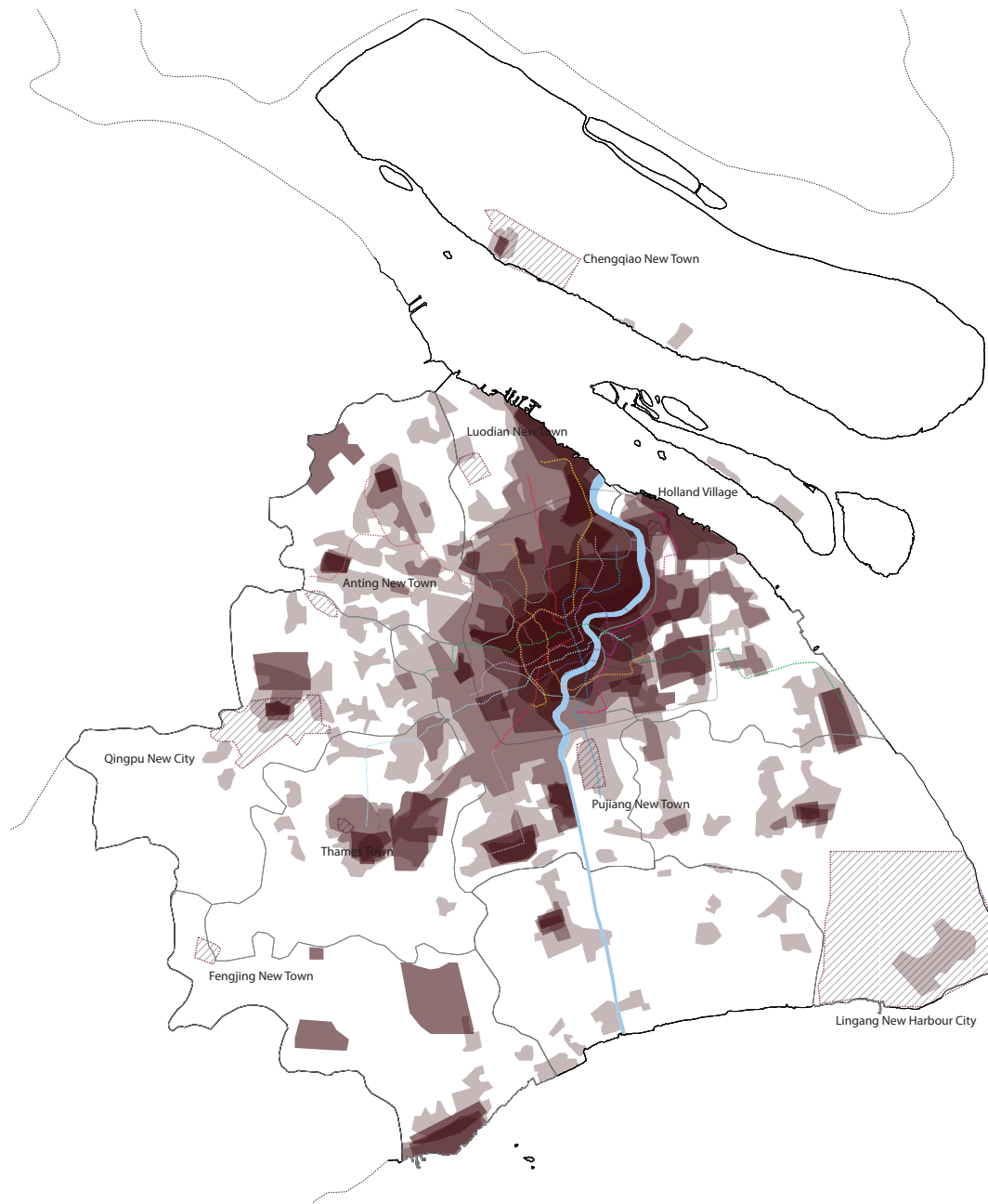


by author, data from den Hartog, Harry. "Urbanization of the Countryside" and "Pilot Cities and Towns" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.





by author, data from den Hartog, Harry. "Urbanization of the Countryside" and "Pilot Cities and Towns" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.



by author, data from den Hartog, Harry. "Urbanization of the Countryside" and "Pilot Cities and Towns" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.



by author, data from den Hartog, Harry. "Urbanization of the Countryside" and "Pilot Cities and Towns" in Shanghai New Towns: Searching for community and identity in a sprawling metropolis. 010 Publishers, Rotterdam. 2010.