



Designing The 張園 Wall

Designing The Zhangyuan Wall

Transitional spaces between the historical and
the contemporary cities of Shanghai

Martina Galdangelo and Margherita Serdino

Supervisor: Marco Bovati
Co-Supervisor: Gerardo Semprebon



Abstract

Shanghai experienced in the last decades one of the fastest economic development ever, leading to a very challenging fate for the composition of the urban fabric. Many historic neighborhoods and buildings suffered from the sudden construction of many skyscrapers, huge shopping malls and business districts: this is clearly visible from the top view of the city, where the historic little “cells” are dominated by the disharmonic high-rise buildings. Among the fundamentals historic remains of the city fabric, Lilong compounds are the main traditional neighborhoods. They were born after the Opium Wars, when Shanghai became the main Treaty Port of China. The start of trade with the international market brought a lot of foreigners to the city, who settled within the Concessions. In this way, despite the imposition it represented for Shanghainese people at first, a process of approaching between the Chinese and the Western culture began, resulting in lifestyle and architectural interesting hybrids that characterized the Lilong. Moreover, one of their most unique features was a strong feeling of community and tradition.

During the recent years, a lack of awareness towards the value of such testimonies – historical and cultural – was pushed by economic reasons of profit maximization. Many Lilong, considered obsolete, did not receive maintenance. Only lately a new importance was given and acknowledged to Lilong and their role in the city. Our project is based on the foundations laid by these latter considerations. Considering this background, the thesis is developed through a theoretical survey and the design of the project. Today two completely different urban environments coexist in Shanghai, side by side. This aspect can be literally found at almost every corner of the city; this implies a consequent relationship between the two, that needs undoubtedly to be solved by whoever takes action in such context.

We believe that the only possible way to make this relationship work and be harmonious in terms of architecture, is through communication. For this reason, we set the main goal of the project at involving both the historical and cultural value linked to the Lilong, together with the opportunities offered by the cutting-edge architecture present in the context of a metropolis

like Shanghai, even if it sometimes results in out-scaled buildings creating gaps with the nearby pre-existences. As in the case of the project site, Zhangyuan, the perimeter wall enclosing the Lilong physically separates the two different realities. According to this, the project sees in such conditions also the potentialities to make the trace on which the wall stands, the place where the communication can be created. The project takes shape through a pedestrian path retracing this line, though volumes, open spaces and transition ones. Being a sort of extension of the public ground, this walkway represents the mean to link the different interest points of the lot, responding to the need for equipped open spaces and public ones in general.

“Designing The Zhangyuan Wall” tries to demonstrate how through a functional program that creates opportunities of activities and interactions for the visitors of the Lilong, stimulates a respectful encounter between such flows and the residents in the same way it introduces them to the delicate context of these traditional compounds, it is possible to balance the two sides making up the Shanghainese urban environment. The frenetic paces of the Shanghai of today and the one belonging to its historical roots can coexist, without making the latter be threatened or overwhelmed, but enhanced instead. These two parts find a dialogue in the project that architecturally differentiates itself from the context. It subtly recalls some materials and hierarchies of spaces and volumes of the Lilong, while at the same time it merges with the contemporary city thanks to its organic composition and different heights. For what concerns the permeability and accessibility of the new spaces, the project engages the public ground of the city in a filtered way: it appears more hermetic towards the outside street, and opens up inwards to the new inner open spaces, referring to the original role played by the wall.

In the same way the wall used to be a sort of symbol of the identity of the Lilong, the new path can be considered a tangible livable element representing nowadays’ Shanghai, a melting pot of valuable realities and cultures, while actually enabling the coexistence of various lifestyles, activities and necessities.

Contents

Premise	9	5 A look inside Zhangyuan: Architecture and lifestyle	
1 Introduction	13	5.1 The life in the alleyway	85
<i>a. Historical research</i>		5.2 Typology reference cases	87
2 The Lilong		5.3 The different appearances of the wall	89
2.1 Introduction to Lilong	17	5.4 Critical comment	91
2.2 Historical background	19	<i>c. Strategies and project</i>	
2.3 Conformation of Lilong	25	6 Project strategies	
2.4 Development of Shikumen typologies	27	6.1 Open spaces, limits, accesses	95
3 Uses and transformation of Lilong in modern times		6.2 The steps	99
3.1 The necessity of revitalizing Lilong neighborhoods	39	7 The project	
3.2 Some popular cases	41	7.1 The masterplan and the path	103
3.3 Critical comment	51	Conclusive remarks	133
<i>b. The project site</i>		References	136
4 Zhangyuan's neighborhood			
4.1 The Jing'an District	55		
4.2 Zhangyuan Lilong	63		
4.3 Zhangyuan evolution: from 2000 to 2020	65		
4.4 Site mappings	67		
4.5 Critical comment	81		



Fig. 1

Premise

Our interest in the Chinese culture starts from the third year of our Bachelor Degree, that we attended in 2018-2019. Shanghai was from the very first moment the city in which we wanted to go the most to attend the Exchange program, among all the places we selected.

We often heard about the strong and flourishing partnership between Politecnico di Milano and Shanghai Jiao Tong University, to the extent that we thought about the opportunity that living such an experience could represent for us. Above all, we always thought that a similar experience could have presented to us interesting cases to develop our thesis project.

We felt attracted by the Chinese culture since the history, lifestyle, and traditions belonging to it are enormously different from the ones of the European culture. At the same time, being the Chinese people one of the most ancient of the world, we were convinced that finding out more about its history, discovering more about its architectural tradition of the present and the past, was worth an in-depth study. Moreover, for what concerns Shanghai more specifically, learning and comprehending the actual dynamics and origins behind its incredibly complex architectural reality, deeply triggered our curiosity. We considered all these aspects as profoundly charming themes to develop and investigate through our work.

Unfortunately, due to the Covid-19 pandemic we lost the opportunity of experiencing the Exchange in Shanghai. Nevertheless, we were still convinced about our will of conducting a research and a project, our thesis, there, reassured by the support we could get by the partner university.

In this way, after months of research and the help of

Professor Qian Du, from SJTU, that provided us specific graphic basis, information and documents, we got closer to the case of Zhangyuan Lilong, an area that from the very first approach showed high project potentialities, both from architectural and urbanistic points of view.

Zhangyuan Lilong boasts a history of centuries, today it is one of the most popular Lilong in Shanghai, among the ones that remained. It is still lived by its inhabitants and attended by tourists, thanks also to its location and proximity to the commercial and attraction core of the city.

When conducting this research and study about the historical, cultural and social background firstly, and then about the current condition of the project area and the urban context it is in, we immediately started feeling hindered. Such difficulties we faced from the very first phases of our research were due to the fact that we never directly lived that environment. Additionally, we were not familiar to sources from where we could get the information or data we needed. For this reasons, the directions we got from Shanghai Jiao Tong University and the support we had thanks to their partnership were fundamental for the development of our work. We are sincerely grateful to them for this.

Involving in our study the concept of “bounded rationality” we were finally able to proceed across the different steps of our research, through the phases of project design and until an exhaustive and logic outcome.

“Broadly stated, the task is to replace the global rationality of economic man with the kind of rational behavior that is compatible with the access to information and the computational capacities that are actually possessed by organisms, including man, in the kinds of environments in which such organisms exist”¹
(Simon 1955a:99)

¹ Simon, Herbert (1957). “A Behavioral Model of Rational Choice”, in *Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting*. New York: Wiley.

1 Introduction

Introduction

One of Shanghai's present concerns is promoting the requalification of historical neighborhoods, above all the Lilong. Along with the actual unstoppable tendency of designing high-rise buildings that maximize the economic return of the activities they host, the will of enhancing the value of certain historical neighborhoods is given up. This means that in many cases, the value of such areas is simply reduced to their monetary value and potential in terms of profit, that is growing every day more. In the end, too many projects keep demolishing physically or not, the interested buildings or their role within the urban environment of the city.

The foundations of the intention to conduct a research aimed at designing an architectural project, lay on the will of creating an opportunity for the city, its inhabitants and its visitors together. To do so, a primary in-depth research on the tradition of the place is needed, the events that made its history, and its contemporary tendencies and necessities as well. These aspects are treated in the first part of the thesis.

Concerning the project and its goals, the strategies and design are investigated in the second and third part of the thesis. Continuous references to the study of the cultural background linked to the site are present, considered unavoidable with respect to the actual understanding of the complex and layered environment of the city center of Shanghai.

Finally, the project aims at treating themes belonging to different spheres. For example, it develops more tangible aspects such as the needs for public aggregation spaces, that the city lacks in general, as well as more

intangible idea such as the value of give more space to cultural activities addressed to the will of an increased coexistence capacity, between the Shanghainese people and the new visitors. The project will aim at creating spaces for this dialogue to happen.

a. Historical research

2
The Lilong

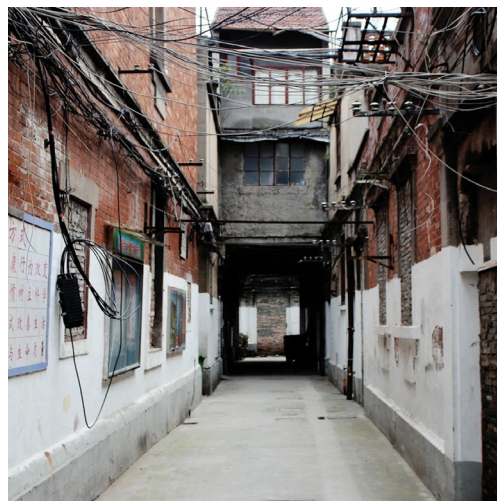


Fig. 2

2.1 Introduction to Lilong

Looking at Shanghai from above, its main feature is the strong contrast between high-rise and traditional low-rise buildings. This is an urban characteristic that distinguishes it from the most famous global cities. This aspect creates a paradoxical pattern of unevenly developed urban fabric².

This is because Shanghai reflects its historical evolution and therefore the different needs of the time. The problem is that the changes have always been very radical and consequently the architecture of the city. According to Citterio, "Shanghai is a collage city made by different textures and patterns"³.

It is possible to distinguish four main categories that reflect the major changes that have characterized the history of Shanghai: Lilong housing, work-unit, high-compound and urban village. In particular, the Lilong are a "fundamental tessera in the mosaic of its memory". The Lilong became the most important neighborhood type until World War II when the population grew and thus the need for more space led to their decline. These low-rise house types were no longer recognized as an economic resource or good in the use of space.

The Lilong were born in 1842 when the sign of the "Treaty of Nanking" between UK and China brought a new "modernity" to Shanghai: the city experienced the change from an agrarian society to an industrial one and thus the need for new housing for the masses. Consequently, they were recognized as a hybrid of the western terrace house tradition and Chinese courtyard house. Literally Lilong is the union of two words: *Li* and *Long*. "Li" refers to the neighborhood while "Long" refers to a small street, an alley. The etymology of the word makes the character of this type of housing very clear: it mainly refers to a neighborhood with a rich social life within its alleys. They were constructed in the inner part of the city as neighborhood units fitted into a city block. The single dwelling that makes up a Lilong is called Shikumen, the conformation of this typology underwent many transformations over the years. The fact that all of the Shikumen were side-by-side and overlooked these small alleyways, made the type of life inside them to

develop horizontally: all the activities took place at the street level. (Taras Grescoe, 2017). In fact, the roads were initially so narrow that they did not allow the movement of cars, and so the "Shikumen were tranquil oases in the hearth of a traffic-plagued city"⁴.

It is therefore possible to identify Lilong as solid blocks cut and connected by linear voids that link the public urban sphere with the private family sphere. In fact, from an architectural point of view, the Lilong creates an independence between each Shikumen, optimizes the use of land and forms neighborhoods by joining the Shikumen together. This aspect concerns the social role of the Lilong who manages to bring people together during a difficult historical period creating an atmosphere of trust, security and harmony among neighbors. Consequently, one of the most fascinating characteristics of these places is, as Silvia Lantieri and Marta Mancini argue, their appearance as circumscribed and compacted islands where the history of the city is preserved inside⁵. In fact, the clear boundary surrounding the Lilong, together with the element of the entrance gate, separate this introverted and collected living from the chaotic spaces of the largest metropolis in the world. "Lilong was a product of Shanghai and belongs to Shanghai people. Reading the Shanghai Lilong is like reading the social history of Shanghai and the Shanghai people"⁶.

2 Arkarprasertkul Non, "Towards modern urban housing: redefining Shanghai's lilong", Journal of Urbanism, 2:1, 11-29. Oxford: Routledge, 2009.

3 Citterio Leonardo, di Pasquale Joseph, "LOST IN GLOBALIZATION, the paradigm of chinese urban housing". Milano: Jamko Edizioni, 2015.

4 Grescoe Taras, "Shanghai dwellings vanish, and with them, a way of life". nytimes.com. 23 January 2017.

5 Lantieri Silvia, Mancini Marta, "Cronache cinesi. I lilong di Shanghai tra speculazione e valorizzazione". ilgiornaledellarchitettura.com. 13 April 2019.

6 Scheen Lena, "Shanghai Literary Imaginings: A City in Transformation". Amsterdam: Amsterdam University Press, 2015.

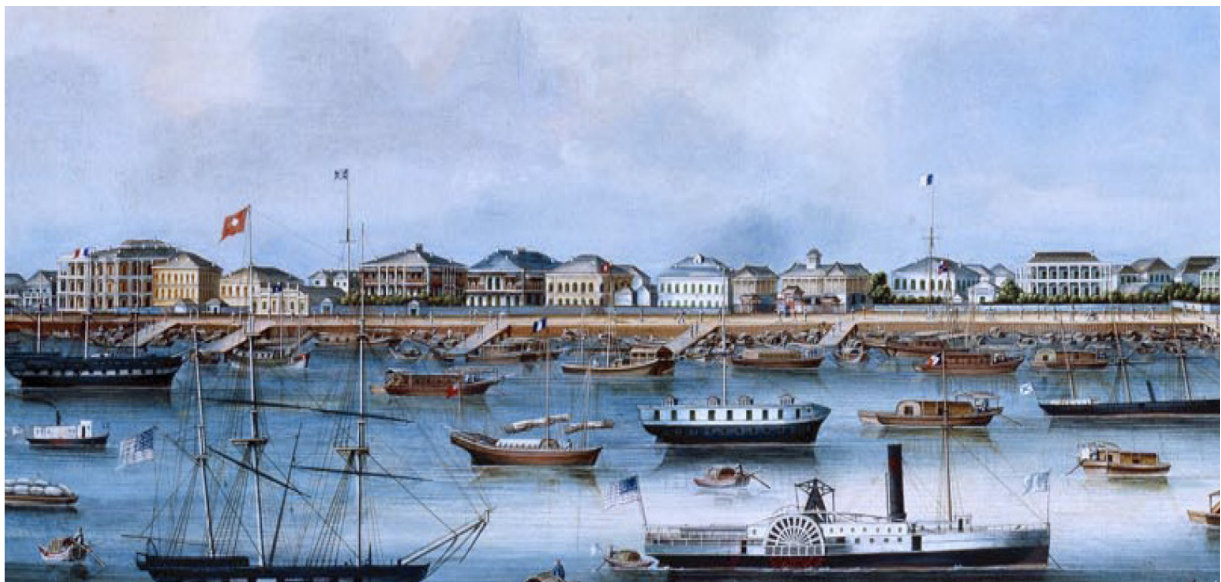


Fig. 3

2.2 Historical background

The Treaty of Nanking, signed on 29th August 1842, marked the opening of China's trade to the West. The Treaty is the consequence of two major wars: the First War of Opium (1839-1842) and the Second War (1856-1860). According to the treaty, China had to pay 21 million dollars, cede the island of Hong Kong and the opening of five ports of which Shanghai was undoubtedly the main one. Consequently, a lot of people moved to Shanghai for work and so there was a need for new houses. The treaty also granted the privilege to foreigners to live in China without limitation, meaning that foreign capitalists could start a new business taking this opportunity to make money.

The introduction of Lilong, within this historical context, is not only a response to the actual need for dwellings, but it also represents the process of modernization that started during that period. They can be seen as a consequence of the change of behaviors towards land properties changed. The new real estate market caused an increase in the price of land, therefore the Lilong were the most efficient and economic dwellings with minimum maintenance and maximum use of land.

From the historical origin of the Lilong it is clear why these housing typologies are identified as a union between Chinese and English culture.

It is possible to say that these new houses are able to meet the new housing needs of the Chinese people by adapting the old layout of the traditional Asian courtyard houses (Sineyuan) and the modernity of the English terrace houses. Such innovations brought a different Chinese lifestyle based on a strong sense of community through semi-public spaces, to Shanghai and in particular within these neighborhoods.

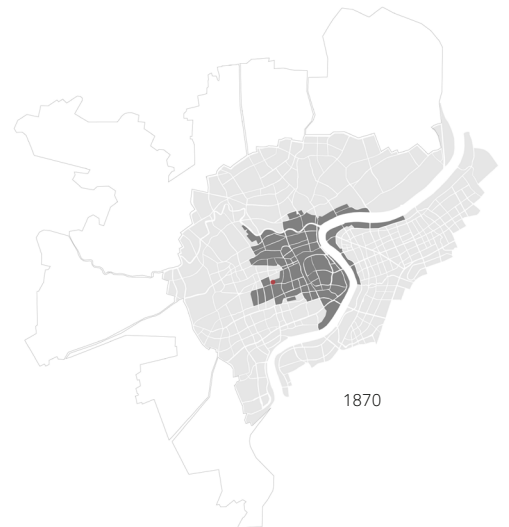
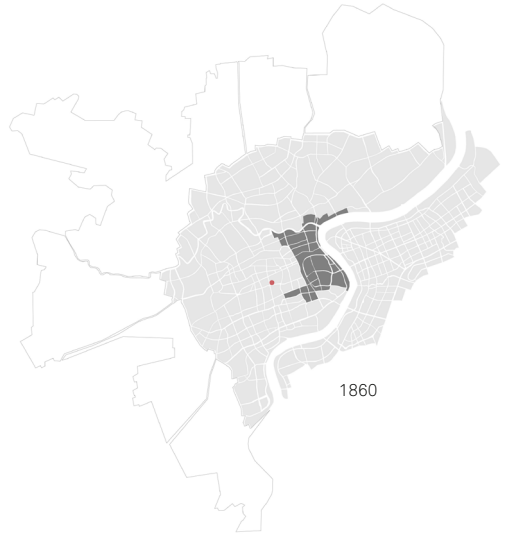
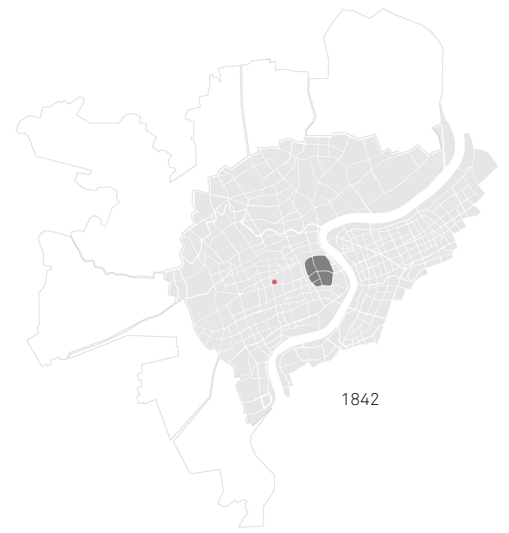
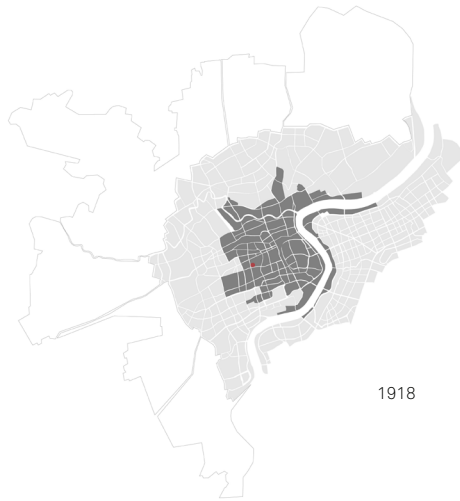
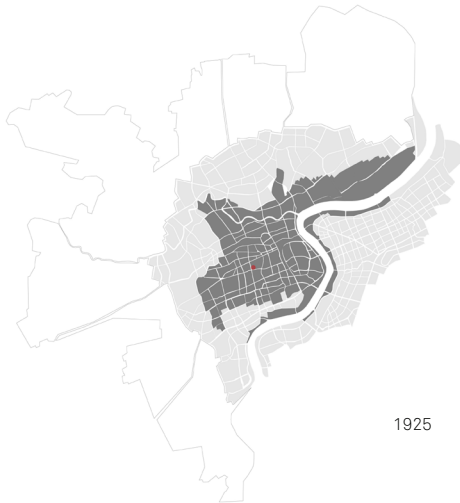


Fig. 4

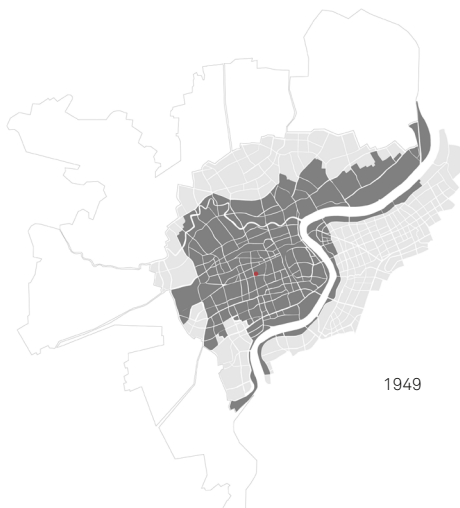
2 The Lilong



1918



1925



1949

The maps in Figure 4 show the evolution of the city of Shanghai starting from 1842, giving an overview on how much the old small city center spreaded in less than a century. The analyzed period corresponds to the one during which the main traditional and historical architectural typology that could be seen in the city, was the one of the Shikumen houses, inside Lilong compounds.

The development of the city from the spreading of Lilong on, started being extremely rapid and deeply affected the urban fabric, in the same way it did on the Chinese people itself. Only in the first 18 years - from 1842 until 1860 - the city's area more than doubled, and then it continued expanding at this pace until the middle of the 20th century at least.

The small circle including the city center is still recognizable nowadays, and we can say it remained quite unaltered from the urbanistic point of view. Instead, for what concerns the rest of the city that was born after the expansion started, in most of it the urban fabric is very fragmented from the point of view of styles and epochs of the buildings. Today the small percentage of Lilong that remained - that are sometimes untouched but the most of the times reused or modified - is easily identifiable due to the deep contrast they highlight with the context.

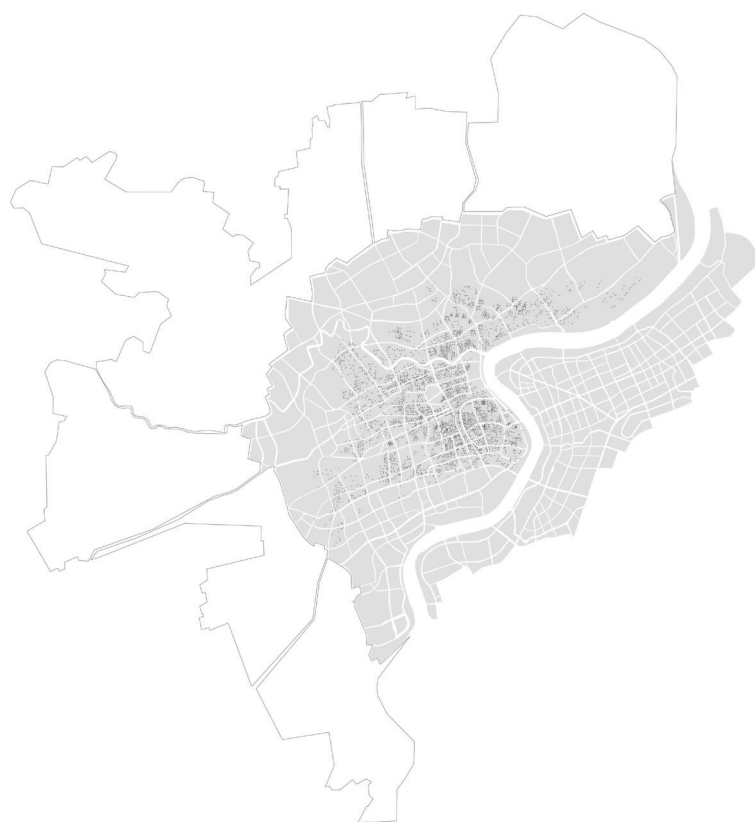


Fig. 5
Distribution of Lilong housing nowadays in the city center of Shanghai

During the period that went from the Treaty of Nanking until the last phases of expansion of the city boundaries around the half of the 20th century, the building typologies that were used were various, of course. Nevertheless, Shikumen were among the ones that contributed to the expansion the most. In fact, today as then, the growth of the city can be retraced through the presence of the Lilong.

Figure 5 highlights the remaining Lilong compounds at the end of the 1900s, when some of them had already been demolished, but their distribution could still underline the shape of the previous shapes of the city, that until the half of the century remained concentrated on the western side of the Hangpu River.

The diagram below (Fig. 6) instead, shows the diffusion of the residential building types in Shanghai during the period that goes from the foundation of the first Western concession, in the half of the 19th century, until nowadays. It represents how the residential typologies were related to the social classes. In fact, the decline of the Lilong housing happened after the foundation of the People's Republic of China, when the more comfortable and efficient residential typologies appeared, for example the Work Unit compound.

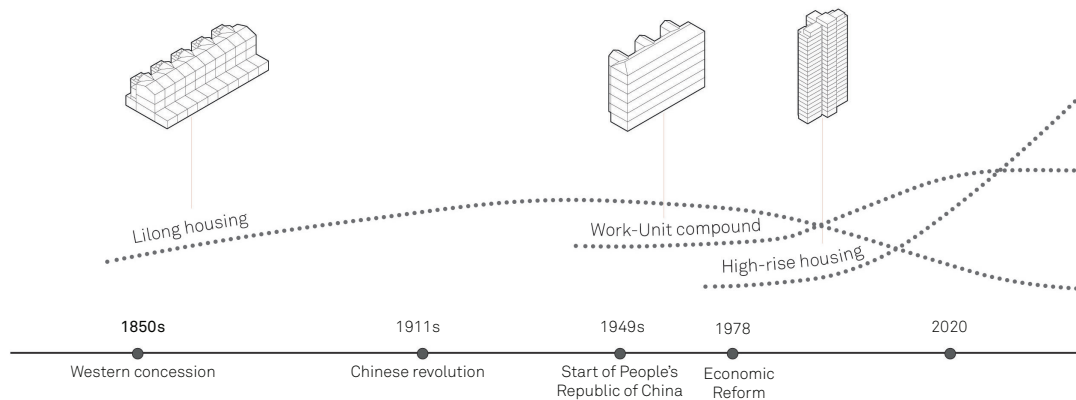


Fig. 6



Fig. 7

2.3 Conformation of Lilong

Urban Conformation

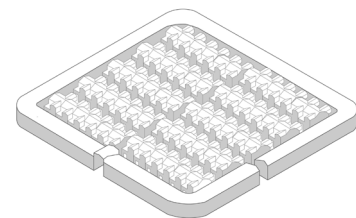
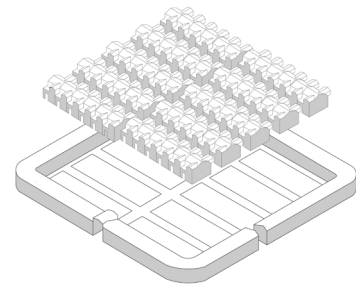
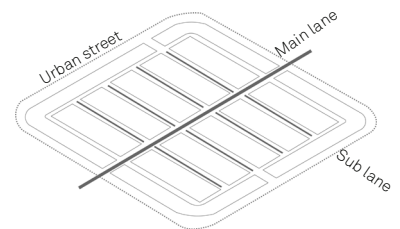
Architecturally, the Lilong consisted of Shikumen used for residential purposes most of all, and commercial activities. These in particular, were located in those Shikumen buildings facing the boundary streets around the Lilong, making them more public. Instead, the more private residential units were located inside the compound. Furthermore, the fact that the access to the compound happened through the typical entrance gate, made it even more private and safe, since the gate was closed at night.

The houses have undergone many transformations over the years. Nevertheless, they usually had 2-3 floors, making the interior space range from 60 to 100 square meters. The ground floor was characterized by the courtyard, the living room, a kitchen and a bathroom in the back. In the center there was the staircase that also served the other floors. The courtyard was the main element as it provided ventilation, southern exposure and common spaces. The second floor was used for private areas such as bedrooms.

One of the aspects that mostly make the different Lilong in Shanghai distinguishable is the decoration of the entrance gates. They were the occasion for designers to showcase their style. In particular, the gate lintel is the most attractive part of Shikumen gates, always made in the Chinese traditional order, with carved brick sculptures or stone ones. It is no coincidence that the term Shikumen means “stone gate door”.

This general description of the Lilong demonstrates that in addition to buildings, what characterizes the most Lilong compounds is first of all the system of open public and collective spaces.

For a good understanding of the architectural features of each Shikumen typology, it is useful to analyze their evolution over time and how, with historical changes, their shape has changed.



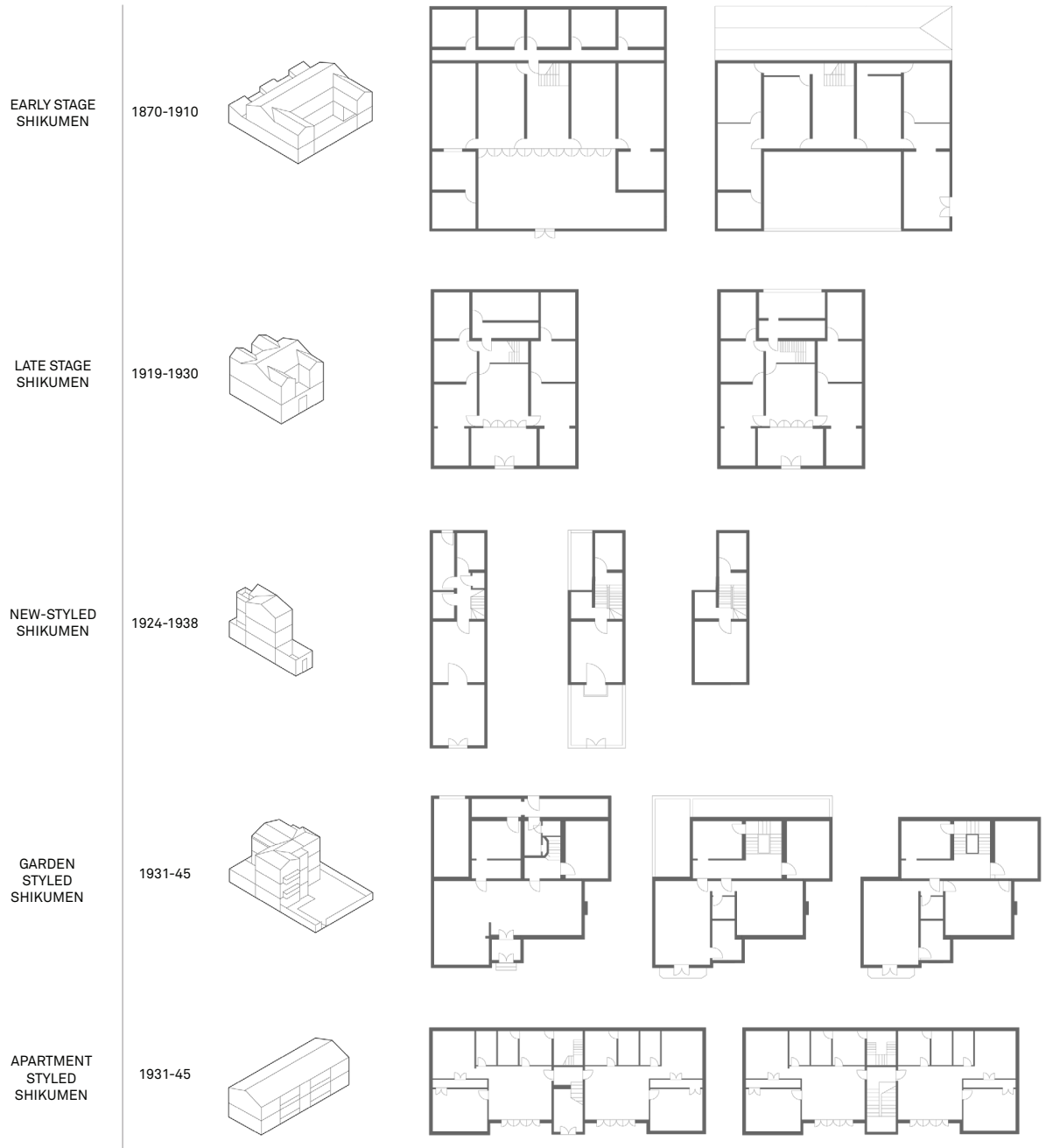


Fig. 9

2.4 Development of Shikumen typologies

The construction of the first Lilong dates back to 1870. Before this some were built in wood but, for safety reasons, in 1869 the full construction in wood was prohibited, in favor of a more durable brick structure.

During the time, however, the construction methods have changed more than once: from wood to brick, then from brick to concrete, and finally to steel.

Nonetheless, all the variations take into account the usual planning principles: blocks containing different units in order to optimize prices, all oriented in an N-S axis and connected to hierarchical linear paths.

With the construction of the first Lilong in 1870, certain facilities were introduced into the Chinese housing culture for the first time. It is the case of shared bathrooms, for example. Each Shikumen type was originally designed to accommodate one family per unit, but then during the time it was possible to see cases of one single housing unit shared by several families, in some cases up to four families of about 5 or 6 people each.

The history of the Lilong spans from the 1870s to the 1940s and sees the evolution of five main different types:

Early-stage Shikumen (1870-1910),

Late-stage Shikumen (1919-1930),

New-styled Shikumen (1924-1938),

Garden-styled Shikumen (1931-1945),

Apartment-styled Shikumen (1930-1940)⁷.

Early Stage Shikumen (1870-1910)

It mainly housed large families as it had many rooms available.

At the entrance of the Lilong there was a huge stone gate (5,4 x 2,5 mt) that addressed people in the alleys to access every single Shikumen. The main feature of each Shikumen was the courtyard placed in the center divided from the inside by French windows to ensure maximum ventilation and illumination. The court was connected with three main rooms in the center (living rooms) and with two lateral and symmetrical rooms (library or bedroom). Behind the main hall was located the staircase leading to the upper floor where there were only private rooms (bedrooms). At the back of the ground floor there was a kitchen, bathroom and service rooms. These were detached from the main plot with a corridor of about 1,5 meters. This detachment also solves the problem of ventilation and light for the back part. Above services rooms, there was a wooden terrace. Finally, the bathroom was shared and not individual.

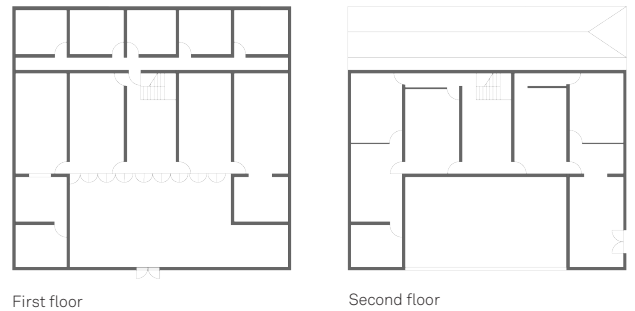


Fig. 10

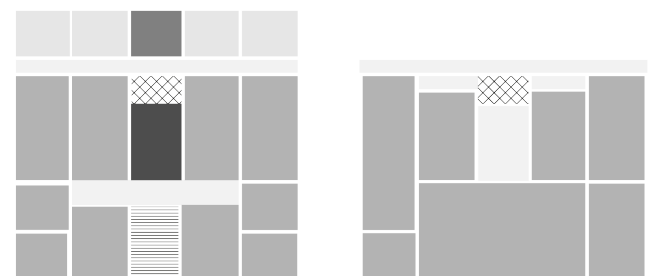


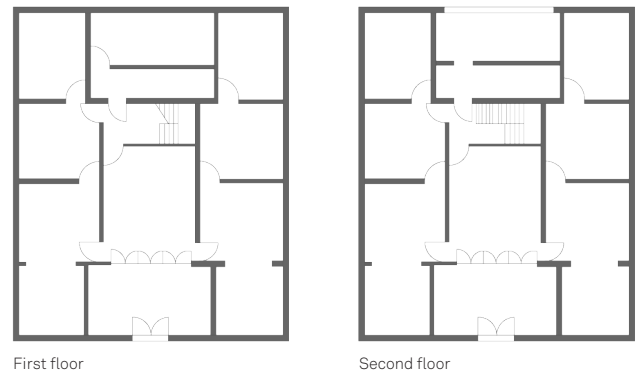
Fig. 11

Functional diagram

Corridor	Living room
Storage	Garage
Bedroom	Patio
Kitchen	Staircase
Bathroom	

Late Stage Shikumen (1919-1930)

The increase in population and thus housing demand led to the transformation of the Lilong. In addition, at the beginning of the 20th century there was a continuous rise in land value and an increase of the price for rent, so the households took this opportunity to create a gain in this and then reducing the spaces to have more housing or rooms to rent. In particular the interior spaces were reduced and were clearly partitioned for specific functions, there was no waste of space. The courtyard that was the main element underwent a considerable reduction. Storeys were added in height, mainly above the kitchen and service rooms. There was still the division through the corridor between services room and the main body. Western technologies such as electricity and running water were added. From the constructive point of view, load bearing walls and wood for ceilings and floors were maintained.



First floor

Second floor

Fig. 12

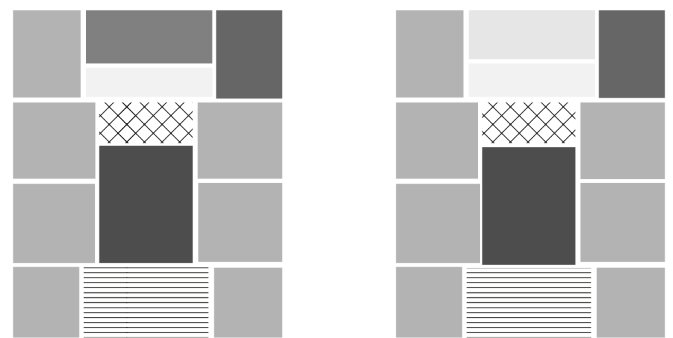


Fig. 13

Functional diagram

- Corridor
- Storage
- Bedroom
- Kitchen
- Bathroom
- Living room
- Garage
- Patio
- Staircase

New-Styled Shikumen (1924-1938)

This typology begins to be built at the same pace as the previous one. The difference is that New Type Lilong housing becomes the most common one in Shanghai. The courtyard also here undergoes a great reduction or even in some cases is replaced with an open or semi-open green space. Usually, each Shikumen is composed of three floors where the top floor is used as bedrooms for children or guests. Additional facilities such as gas, electricity, heating, sanitary system was introduced. From the construction point of view, reinforced concrete was the most popular and limestone mortar replaced the traditional mixture of limestone and clay. It is also possible to find the use of steel for the frames. From the urban point of view the alleys are widened making them become drivable in fact some Shikumen also have a garage. Finally, the stores towards the public street are reduced or completely replaced by homes.



Fig. 14

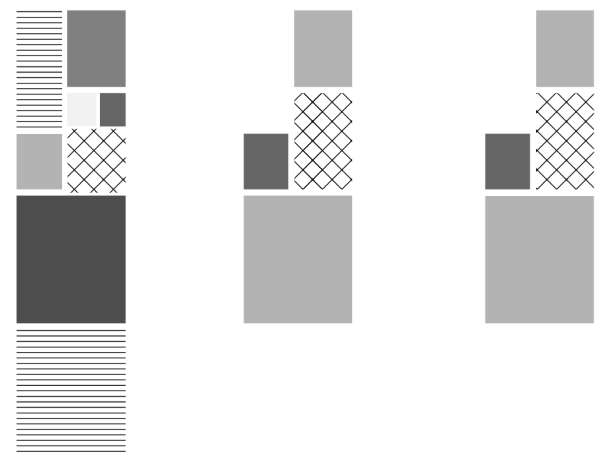
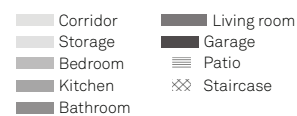


Fig. 15

Functional diagram



Garden Styled Shikumen (1931-1945)

The Garden Lilong are the consequence of a new social class that was emerging at this time. It is the social class of the wealthy and therefore more luxurious homes. All the facilities that were beginning to emerge with the previous type were now fully established: gas, electricity, running water, etc.

All urban spaces and services such as public roads and sewers were also encouraged. It is possible to affirm that with this new typology it is as if the western character of the Lilong was being taken over. Overall, they appeared as semi-detached houses with a private garden in the front or at the back. They were constructed in brick or brick and concrete mixed.

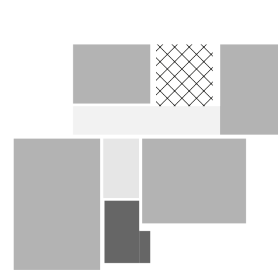
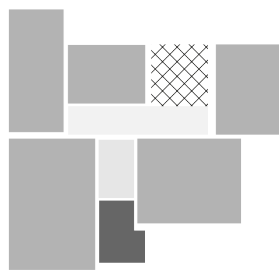
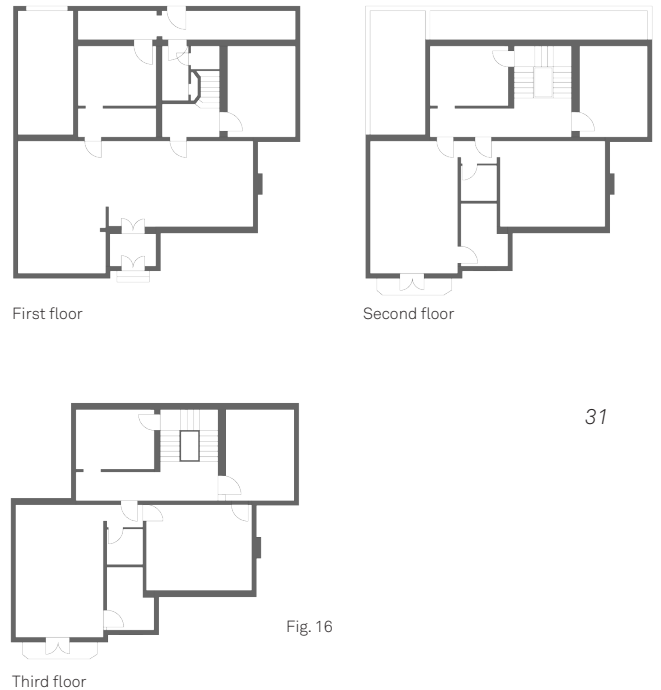
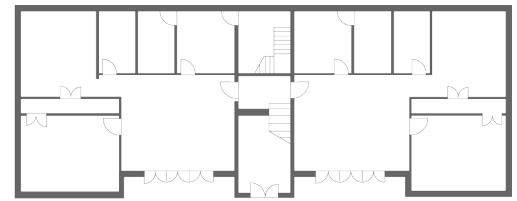


Fig. 17

Apartment-Styled Shikumen (1930-1940)

This typology begins to be built at the same pace as the previous one. The difference is that New Type Lilong housing becomes the most common one in Shanghai. The courtyard also here undergoes a great reduction or even in some cases is replaced with an open or semi-open green space. Usually, each Shikumen is composed of three floors where the top floor is used as bedrooms for children or guests. Additional facilities such as gas, electricity, heating, sanitary system was introduced. From the construction point of view, reinforced concrete was the most popular and limestone mortar replaced the traditional mixture of limestone and clay. It is also possible to find the use of steel for the frames. From the urban point of view the alleys are widened making them become drivable in fact some Shikumen also have a garage. Finally, the stores towards the public street are reduced or completely replaced by homes.



Standard floor

Fig. 18

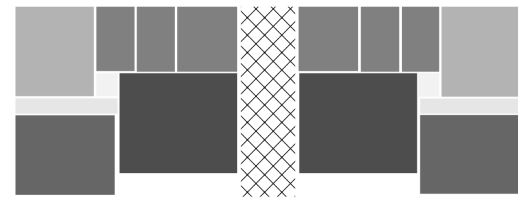
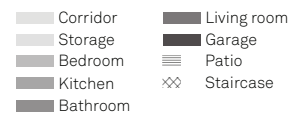


Fig. 19

Functional diagram



2 The Lilong



Fig. 20



Fig. 21

2.5 Critical comment

Shanghai can be considered a very complex and layered metropolis. This aspect is made immediately explicit by observing its urban fabric from above.

Along its streets it is possible to spot many contrasting buildings and situations. Next to the oldest temple of the city for example, a contemporary high-tech skyscraper can be found. The heterogeneity of the urban fabric can be considered a normal condition in a city with such an intense and rich history - even though relatively concentrated in this case. In fact, the whole area of the city, except the small city center, is a mosaic of buildings and lots originally from very different historical period. However, what makes the comprehension of such fabric quite complex, is the fact that very often the recent interventions and constructions look like neglecting the history or the organizational structure of some areas such as Lilong compounds. The presence of a link between a new and an old building is sometimes hard to be perceived, resulting in a deep contrast creating gaps inside the same city.

The fragmented city's urban fabric is clearly showed in Figure 21: the maps highlights the high-rise buildings and the Shikumen lanes of Lilong, both spreaded in the whole city. Such characteristic is so rooted in the city that it appears as made up of isolated realities, located one next to each other.

In some cases, the lack of communication between historical and contemporary buildings, results into the fact that the first ones' historical values is not enhanced or fully respected.

In Figure 21 the highlighted Lilong is Zhangyuan, one of the most popular Lilong compound, still existing but

now about to be demolished. It is located among many modern skyscrapers with which it mainly borders on its northern side, that contribute to separate it from the crowded Wujiang Road and the trafficked West Nanjing Road, two major shopping hotspots.

Zhangyuan Lilong is going to be our project site: when approaching it, what emerges from a first observation is the difficulty in identifying a reference architectural behavior to follow, together with the need of re-linking lots and buildings belonging to the same urban scenario. We consider that this coexistence should sub-means a strong communication between the different parts.

a. Historical research

3 Uses and transformation of Lilong in modern times



Fig. 22

3.1 The necessity of revitalizing Lilong neighborhoods

Nowadays in Shanghai there are different currents of thought on how to behave towards the Lilong compounds, among the fundamental elements witnessing the history of Shanghai.

Some existing cases of intervention on some Lilong, demonstrate that there are different attitudes towards such theme. In some cases, it has been chosen to preserve them, in some other ones to leave their architectural character while changing their use. Another attitude shown is the one of keeping the Shikumen residences present in the lot, just adding more modern buildings. With regard to the preservation of Lilong, it is important to keep in mind that intervening in these areas does not only mean restoring buildings and public spaces physically, but intervening on a living culture that has a fundamental importance for the identity of the city. For this reason, when it comes to preservation interventions, the policies in place today are not only based on the preservation of facades, materials and decorations. Above all, restoring the character of the neighborhood that distinguishes the Lilong and the lifestyle linked to it, became one of the key concepts behind the policies establishment.

The difference between so many currents of thought towards this topic are due to the incredibly rapid growth that Shanghai has undergone since the opening of the commercial port and therefore the fact that it became the most Western city in China. This implies a desire to respond to all the requirements of a global city and therefore to a process of urbanization at an incredible pace both for its speed and size.

These profound transformations, however, have caused falls in the cultural sphere, which also means the loss of traces of the historical city, therefore of Lilong. It is enough to mention that in the 1940s, the 90% of Shanghai's urban area was made up of Lilong compounds while today only 10% (Citterio, 2015). In fact, all the operations started on these sites in the 1990s have led to a transformation of about 88 hectares every year: between 1985 and 2014, about 55% of the urban fabric was destroyed (Silvia Lanteri and Marta Mancini, 2019).

Since the beginning of the 21st century there has been a growth in the awareness on what was happening to the Lilong and, consequently, an increased interest in their cultural and economic resources and the importance of their preservation.

Due to the lack of maintenance, many Lilong have deteriorated over time, no longer reflecting their nature and tradition today: as a consequence, many regulations addressed at their safeguard have been issued, mainly aiming at their unity and not focusing on the integrity of just the single Shikumen unit. In fact, as Moscatelli argues, "it is not possible to comprehend the problems and the potentials of the living unit (Shikumen) without contextualizing it within the organism it belongs to (the Lilong), as it is not possible to understand the situation of the Lilong blocks without placing them in the broader urban environment of Shanghai"⁸.

This chapter will describe some of the most famous case studies of Lilong recovery. Each one has a different ideology and attitude behind. Some start from top-down processes while others were triggered by bottom-up defined dynamics. In both cases, there is a tendency towards an enhancement of the social environment as well as the material point of view.

Additionally, in all cases an increasing awareness about some current problems emerge: lack of accessibility, lack of quality, lack of organization, lack of night visibility, fragmentation, inactivity, indetermination of the flows, the subordination of pedestrian and cycle paths, and many more ones.



Fig. 23

3.2 Some popular cases

Xintiandi

The Xintiandi area is located in the entrepreneurial heart of Shanghai and is home to one of Shanghai's most famous and expansive Lilong. The project for its redevelopment began in 1999 by designer Benjamin T. Wood. The stakeholders are a collaboration between Shui On Group and the local government, so it is top-down intervention.

This collaboration led to the transformation of two blocks of old Shikumen houses into a neighborhood of cafes, restaurants and nightclubs.

In particular, Xintiandi is divided into two parts: North and South. In the northern block the old Lilong buildings have been preserved following the old drawings and preserving the original bricks and tiles. Their interior, however, is characterized by a modern contemporary style and hosts luxury restaurants.

The southern block instead is characterized by new modern style buildings with stores, boutiques, food court, cinema, fitness center.

In the light of this, although the Shikumen have not been subject to invasive demolitions, the change of their function has led to the dislocation of residents and therefore the loss of the idea of neighborhood and social identity characteristic of these spaces. What survives is therefore only the "skin" of the Shikumen deprived of its authenticity (Silvia Manteri and Marta Mancini, 2019). The central area that was a vigorous community center has become a place of confusion, totally denying the connotation of Lilong.

Nevertheless, this intervention was very successful in Shanghai, so much so that it became the "Tiandi" model followed by eight other Chinese cities and won three awards: Innovation China 2001 Architecture Award, AIA Hong Kong Citation 2002, 2003 Award for Excellence from US-based Urban Land Institute. Xintiandi now is one of the most visited Lilong in Shanghai by the foreign community and by the richest component of locals.



Fig. 24

Tianzifang

In the center of Shanghai another very important Lilong is that of Tianzifang, in the Dapujiao district. At the end of the '90s many industries are moved from the center to the suburbs, and this means that consequently many inhabitants of Tianzifang decide to move. This makes the Tianzifang Lilong area fragmented and emptied in some of its parts of activities and residents. At the same time, however, a process of redevelopment of the district began in 1998. It is due to a bottom-up initiative of the inhabitants who remained in Tianzifang. In particular, it was the emerging creative class that transformed Shikumen numbers into art galleries and workshops. Here too, like Xintiandi, buildings are being transformed from a residential to a commercial function. This also leads to processes of gentrification in the neighborhood and, consequently, erosion of the traditional social status.



Fig. 25

Capella Jian Ye Li

Jian Ye Li Chapel is one of the most recent Lilongs to be redeveloped. In 2007, in fact, the Kokaistudios studio commissioned by Portman Holdings designed a “new life” within these Shikumen. This intervention focuses on the single Lilong as all the surrounding lands undergo considerable demolition ignoring the tradition that distinguished them. The objective of this project is to reinterpret the Lilong living in a more “luxurious” key. In fact, it is a micro-scale project of regeneration of about 8,000 square meters of the fabric of the Lilongs of the '30s that housed about 250 families. This neighborhood is transformed into an ultra-luxury hotel where the Shikumen become 55 villa suites over 5 floors, in 62 residences and commercial spaces in the perimeter buildings.



Fig. 26

Siwenly

Siwenli is one of the most extensive Lilong in Shanghai, built in 1921 originally consisted of 736 housing units. Starting in 2010, however, it began to undergo significant demolition for new construction. They began with the demolition of the entire western part and three years later displaced the remaining inhabitants in the eastern part. This stimulates the sensitivity of the architect Jérémy Cheval who, in 2015, stands as a figure promoting a growing attention to the cultural and architectural heritage of Shanghai with the intent then to re-propose a strong relationship between the space of Lilong and its inhabitants. In fact, the redevelopment project of Siwenli is based on the attention not only of tourists but also and above all of the historical inhabitants of the place making them rediscover the richness, authenticity and fragility of their Lilong. To do so, it organizes an event on October 17 2015 "Fireflies Gathering" where 68 artists, painters, photographers, dancers, actors, poets through their interactions and performances enhance the identity of the place. This event calls attention from the governing bodies that make Siwenli among the areas to be preserved.



Fig. 27

Bugao Li

Bugao Li is a Lilong adjacent to Tianzifang then within the Dapuqiao district.

Its redevelopment began in 2008 when the city of Shanghai was preparing for the Expo. Its plan was to increase the maintenance measures of the Shikumen and the surrounding environment. As a result, adaptative adjustments and restoration measures were taken for the Shikumen to maintain its traditional historical style. The project was mainly based on cleaning the walls to restore the original surfaces and improving the living environment inside the houses. At the end of the project, however, the architects focused only on the material aspects and lost sight of the importance of the entire neighborhood as a unique element.

Dongsiwenli and Fenghengli

Dongsiwenli and Fengshengli are two Lilongs within the Jing'an district, Shanghai's major commercial center. In Dongsiwenli the government wanted to behave towards the compound by considering its preservation as a single district, thus maintaining its old style and not focusing on the details in the plan as had happened in Fengshengli. This is a large-scale redevelopment project, leaving all of Lilong residential. Fenghengli, on the other hand, takes what happened in Xintiandi as a reference. In fact, all of Lilong is transformed into a commercial complex leaving only the tradition in the aesthetic aspect of the Shikumen.



Fig. 28

3.3 Critical comment

In the cases just shown, the emerging conclusion is that Lilong compounds, with their original outdoor and indoor spaces, are sometimes not suitable for certain people's contemporary needs.

At the same time another aspect worth attention is the strong cultural and architectural value of these places, that thanks to new policies and increasing awareness are more and more recognized as buildings to be preserved.

The preservation of Lilong couldn't be said to be reached, if it would only concern its material reuse or restoration. What should not be actually demolished, is the culture and social life intrinsically belonging to these contexts. The alleys and Shikumen of the old Lilong are the testimony of some of the most important events that contributed to and defined the present of this city and its people.

Our project starts by focusing on the most valuable cultural aspects of a Lilong, the lifestyle and tradition belonging to it, its architectural conformation. Adapting a similar site to the frenetic metropolitan Shanghai of today means creating a dialogue between these two sides of the same place. The deeply valuable space given by the Lilong has to develop pushed by today's habits and needs. The need we should respond to, are not only the ones of the single inhabitant, but the ones of a city that keeps being characterized by continuous and intense flows of people. International tourism and economic interests are among the main engines moving such flows, making Shanghai inhabitants heterogeneous, claiming different needs and having different cultural backgrounds.

b. The project site

Zhangyuan's neighborhood⁴

- A. Huangpu District
- B. Hongkou District
- C. Jing'an District
- D. Putuo District
- E. Xuhui District
- F. Yangpu District
- G. Pudong District



Fig. 29

4.1 The Jing'an District

Jing'an District is regarded as the center of Shanghai's downtown. It had 1,180,000 inhabitants in 2014 (Shanghai had 24,256,800) in an area of approximately 37 sq. km, making its population very dense (27,000/sq. km) and nowadays characterized by the presence of expats. The district occupies today a great position in the urban structure, being considered a symbol of the new Shanghai. It represents a landmark area of the city, being internationally recognized as a shopping center, a key area of professional service industry, a mainstream culture and fashion center and a modern urban residential area; it recorded approximately the 18% of the GDP of the entire city in 2019 (Shanghai= 500 billion USD; Jing'an District= 28 billion USD).

Jing'an borders the Hongkou District to the East, Hangpu District to the East and South (Xuhui District to the South), Putuo District to the West, Baoshan District to the North and Changning District to the West. On 4th November 2015 Zhabei District merged with Jing'an District, which was the smallest district of the city at the time, bringing it down to 15 districts and one county.

The district is named after Jing'an Temple, an ancient traditional Chinese Buddhist temple. Today the temple is a new replica of the old one, located in the southern part of the district. The neighborhood is largely residential, but with many bars and restaurants. Jing'an Park, located opposite the temple, is popular among locals; it used to be a graveyard for foreigners in the old Shanghai.

Originally, the northern part of the district on the opposite side of the river — that used to be Zhabei — has been highly populated by working class residents. The city's acknowledgment of a shift in the structure of industries during the recent years, and the increase of the immigrants from outside Shanghai, made the district become more attracting for the city residents: real estate prices are convenient compared to the other adjacent neighborhoods, Putuo and Jongkou.



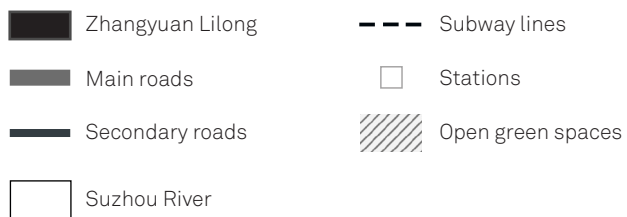
Fig. 30
scale 1:15 000





Fig. 31
scale 1:15 000

Legend





Interest points

- Landmarks
- Museums
- Schools
- Shopping

Economy and development

The whole district is recording a rapid cultural and economic development: the old Zhabei is struggling a bit with the restriction of the past, while the southern part has a better financial structure but limited space to offer. West Nanjing Road, a very popular street considered one of the city's premier shopping districts, runs from north-east to south-west and is located in the southern part of Jing'an: here many five-star hotels, exhibition centers and upscale housing complexes are present. Landmarks such as the Shanghai Exhibition Centre and the Shanghai Center are located along West Nanjing Road. The first is an exhibition and convention center, built in 1955 as the Sino-Soviet Friendship Building to commemorate the alliance between China and the Soviet Union — and is considered one of the city's major interest points. The second one instead is one of the first contemporary skyscrapers built in Shanghai, a complex consisting of three towers rising from an eight-story base, containing apartments, an office area, a supermarket, three floors of luxury stores department, the Shanghai Centre Theatre, the Trading Exhibition Centre and a five-star hotel. Tongren Road is another popular street in Shanghai, famous for the many American and European restaurants and cafes.

West Nanjing Road borders Zhangyuan Lilong's lot along the northern side, without being directly in contact with the Shikumen, a shopping pedestrian street, between two rows of high buildings acts as a sort of huge wall between the old Lilong and the very popular road.

In general, the southern part of the district — the original Jing'an — despite being Shanghai's smallest district, is one of the key business, entertainment and commercial centers, constituted by high rise buildings and shopping venues at the street level, while in the northern part there was an agglomeration of traditional industries (flavorings factories, tires factories, etc.) but in the last decade the municipality decided to move them out, making space for more promising industries (hi-tech, creative, etc.). Jing'an stands out also for the many green spaces it has, including Jing'an Park and Yanzhong Greenbelt, representing a break from the hustle and bustle of the city.

In fact, the Yanzhong Greenbelt is one of the many parks built in the past decade: Shanghai governments decided to make an effort to "greenify" the city. It is located at the intersection of Jing'An, Luwan, and Huangpu Districts, the greenbelt has 24,000 square meters of greenery complete with bamboo, a cherry blossom path, and cultural sites on the southern side. It is a very active place in the entertainment field: many festivals are held here.



Fig. 32



Fig. 33

4.2 Zhangyuan Lilong

In Jing'an District, bordering West Nanjing Road, there are several historical compounds and buildings, that established different relationships with this axis characterized by its modern buildings and by the crowd attracted by the shops and landmark venues. Among these, Fengshengli is a compound located across Maoming North Road, on the western side of Zhangyuan Lilong. They both have a similar relationship with Nanjing West Road, bordering it but being separated from it by a "screen" of new high-rise buildings. Fengshengli has been turned into a commercial complex, offering historical and cultural themes similar to the popular Xintiandi area; it comprises one renovated old building and nine replicas, which now houses global dining chains like Hard Rock Cafe and Goose Island Brewhouse.

Another significant Lilong located in Jing'an is Dongsiwenli: the government confirmed that the compound will be preserved as a whole neighborhood to maintain its old flavor. Its residents have been relocated starting from 2018.

Zhangyuan is a historic neighborhood, a well-preserved Shikumen compound which is about to have a makeover, according to the district government. The size of the compound is about 78,000 sqm (more than eight soccer fields), which sides measures approximately 270 and 290 mt.

The compound is part of the historical protection zone of West Nanjin Road: in July 2017 the city's housing authority announced that buildings deemed to have historic value should be protected, and they started being catalogued recording information such as the age and style, to make sure some buildings aren't torn down during the renewal projects.

According to these urban projects, officials are consulting residents over relocation and compensation, but relocation will start only if house owners agree to move. In some cases, relocation of residents occurs also if considered necessary to better preserve historical structures.

Shi Yunlun, executive with Jing'an Real Estate Group, will

be responsible for the interventions. He released a report saying that "the change of Zhangyuan represents cultural and social vicissitudes [...] it is a mixture of different architectures, from Shikumen building to garden Chinese interior layout"⁹. Zhangyuan in fact, can be considered as a "living" Lilong museum, that boasts buildings of different styles, from Chinese traditional configurations to Art Deco-style lines.

Zhangyuan's history

The history of Zhangyuan dates back to 1872 when a British merchant bought a plot of farmland and built garden villas. In 1882, it fell into the hands of the Chinese entrepreneur Zhang Shuhe, who expanded it and made it a modern public gathering spot. Since its origins, the Lilong has always been a popular venue: it boasts Chinese pavilions and Western buildings such as the five-stories grand Arcadia Hall, the tallest structure in Shanghai until 1919. Here Shanghai's first electric light bulb shone. The earliest entertainment park opened here, offering Chinese opera, magic shows, gambling and dining. Later the Lilong began losing its popularity as competition from newer indoor entertainment complexes — such as cinema — sprang up. It was in 1919, when the property was turned into private residences, that Shikumen buildings were established. One unit was partitioned into smaller flats occupied by several families, which in the end led to shabby living conditions. Now, most of the dwellers are senior citizens and out-of-towners.

MAY
2000



MAY
2009



MAY
2020



Fig. 34

4.3 Zhangyuan evolution: from 2000 to 2020

In twenty years, Zhangyuan Lilong has undergone many architectural modifications, being subjected to several projects that didn't preview the preservation of the old Shikumen or to respect them stylistically. On the contrary, they are mostly high rise buildings resulted from the construction boom of the 2000s. At the same time some other buildings are in a colonial style, so well integrated with the context, but different in language. They host an hotel, a hospital, a school and a shopping center.

Figures 34 highlight the decrease of the number of Shikumen houses in Zhangyuan, but not only: the lots around the Lilong, along the eastern and western sides, were occupied by Shikumen that now don't exist anymore or got modified. But surely, what most of all changed the nature of this district and challenges whoever approaches this site as a designer, is the relationship of the preexistences with the context, and what are the reasons behind the design of this one.

In the last image, it is possible to see the two empty lots in which our project is designed, together with all the public open space of the Lilong.

These two lots were occupied by original Shikumen (from the 1930s) that in the last years have been demolished.

The lot to the South is now empty; the original external wall along Weihai Road has been rebuilt, reproducing fake old Shikumen's facades. The compound is completely closed towards the surrounding area.

The project's design bases consider the wall as one of the main identity element of this place, and see it as a mean to be exploited to stitch the different contexts it separates. In fact, it is the element that physically stays in the exact middle between some skyscrapers around, and the historical Shikumen on the other side, the same one in which we see the potential to make these two apparently different environments, coexist in a deliberate manner.

4.4 Site mappings

To better understand the project's site context, we ran mappings taking into account objective information. The following mappings, in fact, focus on different aspects of the area.

The mappings aim at investigating the typological, architectural and functional character of the buildings and open spaces surrounding the Lilong.

In this context another crucial system the maps analyze is the infrastructural one. Shanghai has a net of roads and public transports, underground and on the surface that often deeply affects the built environment, for its size and turnout.

The infrastructural system has the power of completely changing the character of the built environment, as we already noticed from some pictures taken around the project site's urban block.

Concerning this theme, we noticed how the two bigger streets bordering with the lots of the project site - one along the northern side of the block and one along the eastern one - correspond to a situation of the same scale: a concentration of underground exit, modern skyscrapers, some pedestrian areas and a lot of shopping streets, where the only use is basically the commercial one.

The following maps describe more specifically and in a practical way how the controversial character of the city of Shanghai is a feature that can be spotted at any scale, by describing objectively the project site.



Fig. 35

1. Uses



Fig. 36





Fig. 37

2. Roads and accesses to the Lilong

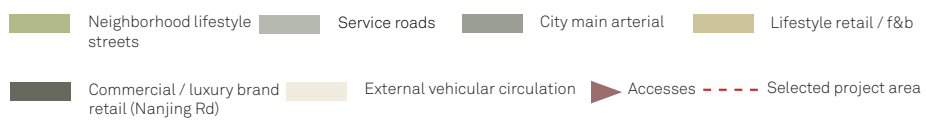




Fig. 39

3. Pedestrian roads and subway stations



Fig. 40



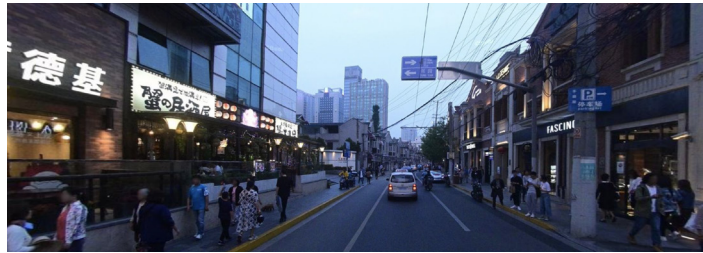


Fig. 41

4. Buildings' height



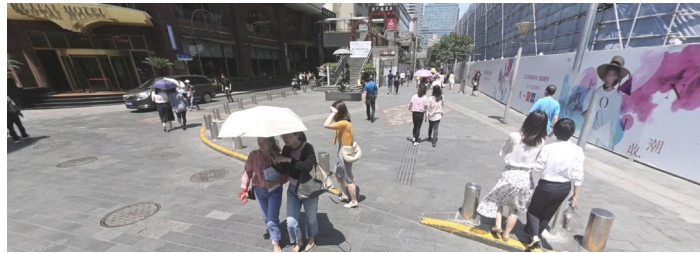


Fig. 43

5. Open and green spaces



Fig. 44

Private gardens Public spaces Pedestrian streets Selected project area



78

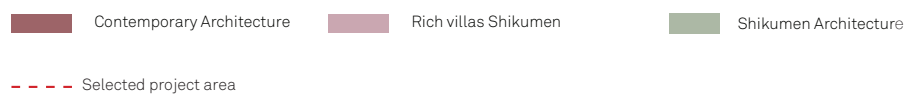


Fig. 45

6. Architectural typology



Fig. 46





neighborhood scale
reality

contemporary scale
reality

4.5 Critical comment

The map in the next page re-elaborates some aspects of the area. In fact, it shows at the same time the scale and the intensity of some highlighted elements. Analyzing the intensity of these elements, in this case means analyzing the intensity which these venues are attended with.

For what concerns the streets in fact, dark blue indicates wide roads with up to four car lanes. The intensity of flows present in the streets is reflected on the built environment: this aspect clearly emerges by analyzing the density of people and the level of attendance of some specific buildings.

Instead, the light color always indicates elements related to a more man-scaled reality.

What emerges from the map is the clear difference between the southern and eastern sides of the Lilong compared to the eastern and northern ones.

In fact, the Lilong appears as opened towards the southern area, where there isn't any barrier - meaning places that don't really relate to anything belonging to this complex and historically valuable context.

**A look inside Zhangyuan: architecture and
lifestyle** **5**



Fig. 48

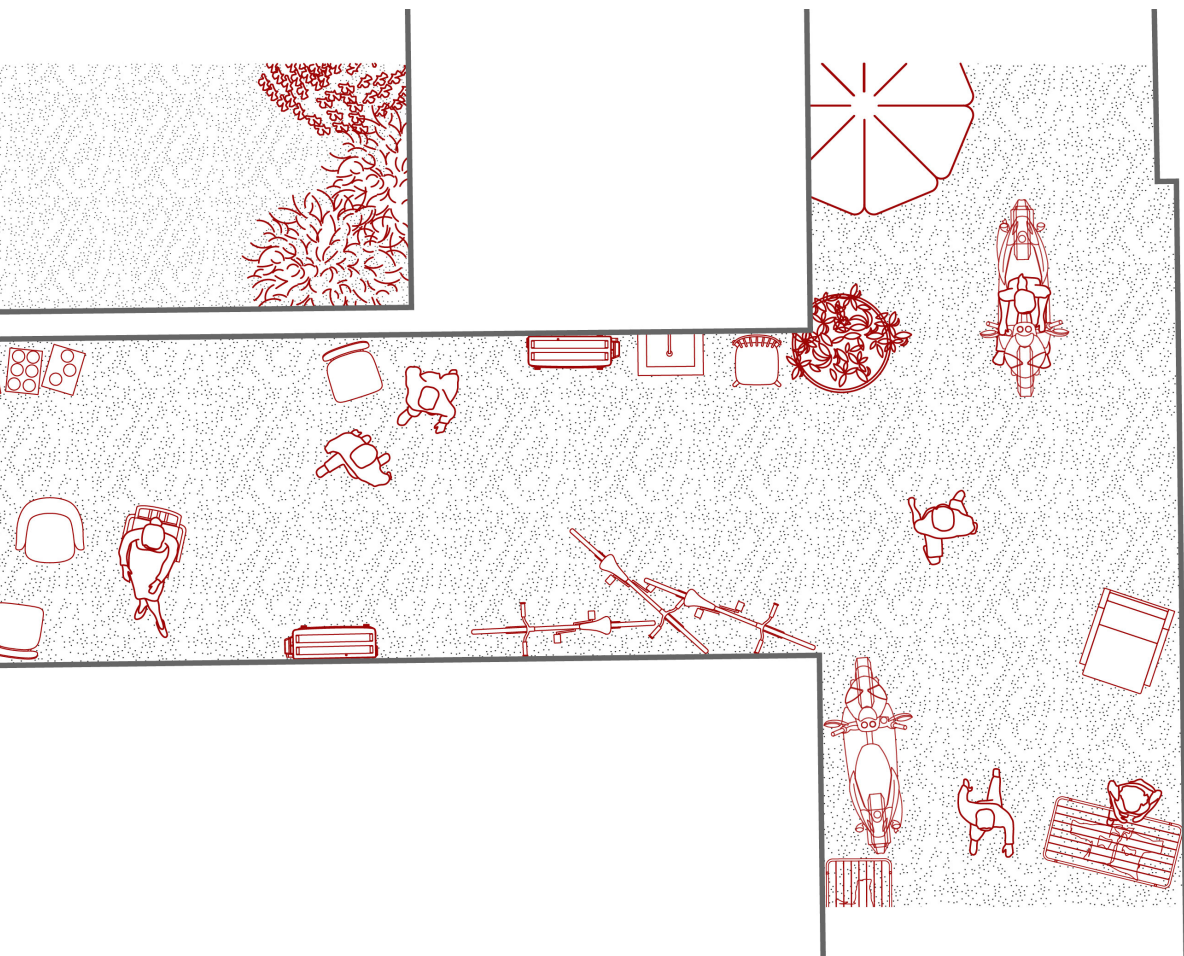


Fig. 49

5.1 The life in the alleyway

One of the main features of the Lilong compound is the life within their alleys, and the atmosphere that typically characterizes them. The culture of these neighborhoods is strictly linked to the life of their inhabitants: they are considered real communities, living according to some systems made of specific dynamics resulted from historical developments of these spaces, that brought to their creation, their architectural conformation, as

well as cultural and economic aspects. One of the main special features is that many activities, not related to the social life but also to the private one, take place in the public alleyways. Due to the lack of the interiors, spaces designed as circulation and distribution of the housing units such as the streets, turned out to be shared spaces, where it is still possible to see people chatting outside the door, playing, dancing, or doing the laundry.



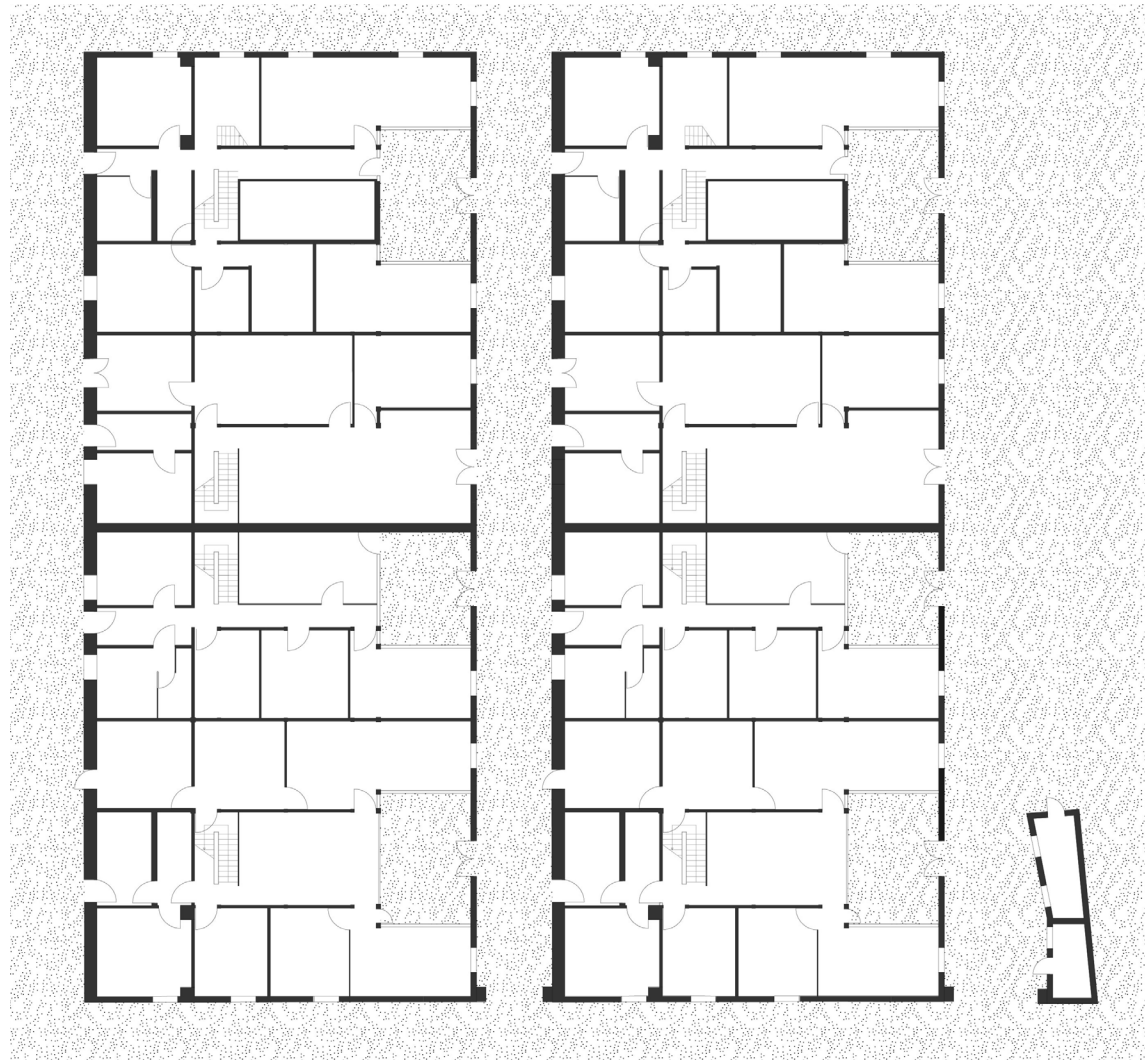


Fig. 50 _ Building A

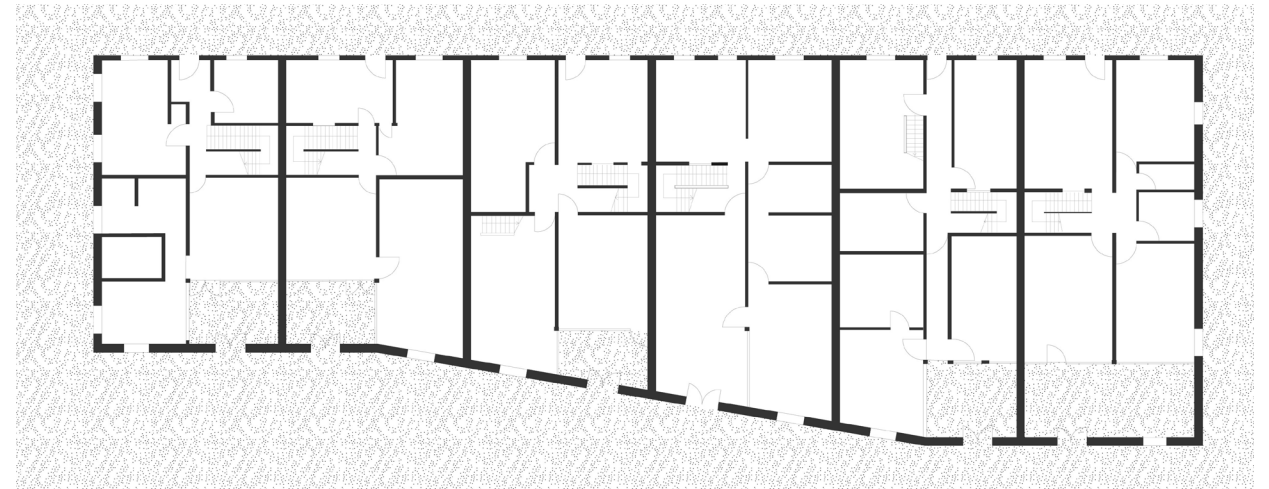
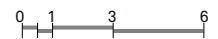


Fig. 51 _ Building B



5.2 Typology reference cases

The drawings represent building A and building B, the two Shikumen highlighted in the key map. They are both located in the southern part of the Lilong, next to one of the two project sites, now empty. In fact, we chose to analyze these two specific cases for the project purposes, considering them an interesting source.

In both cases the typical gate that is usually linking two Shikumen blocks, is free on one side instead.

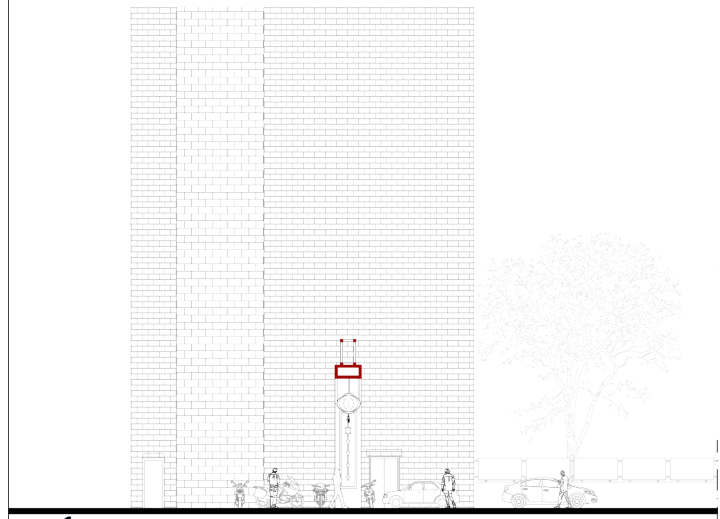
In the case of building A, the remaining part of the gate witnesses that another Shikumen block was likely to be there in the past. The gate is used to access the typical alleyways that are between one block and another one, and so since a lot of buildings were demolished in this Lilong, this gate remained free-standing, attached to a Shikumen only on its northern side, but without its original use in any case.

The case of building B is slightly different instead, according to the current condition. In fact, what happened to it is probably a similar thing to the one that happened to the gate of building A, but what is different nowadays is that building B on its southern side borders a wall separating the inside of the Lilong from the exterior, to which the gate is attached. This wall makes the perimeter of a high-rise building hotel, a few meters far from the Shikumen.

From the point of view of the elevations and floorplan systems, these two cases also testify the variety of decoration styles that characterizes the Shikumen between them. The same goes for the rooms composing the floorplan, even though a common scheme between the different types is recognizable.



Fig. 52



w_1

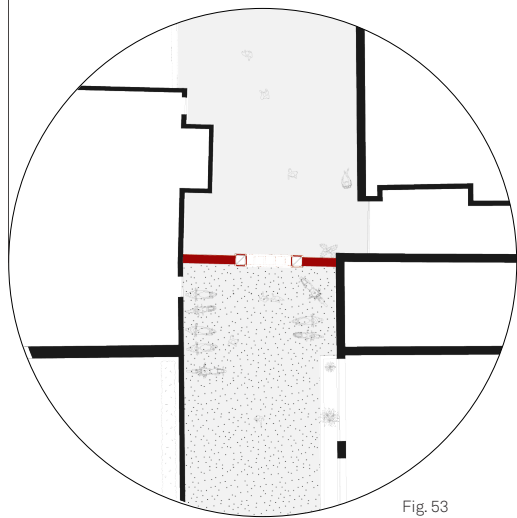
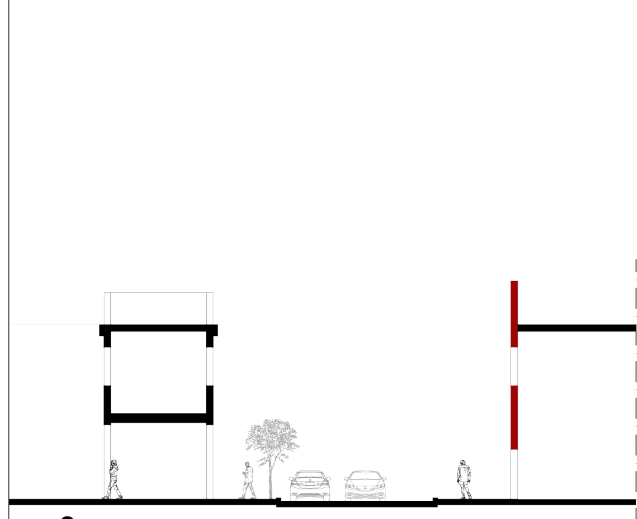


Fig. 53



Fig. 54



w_2

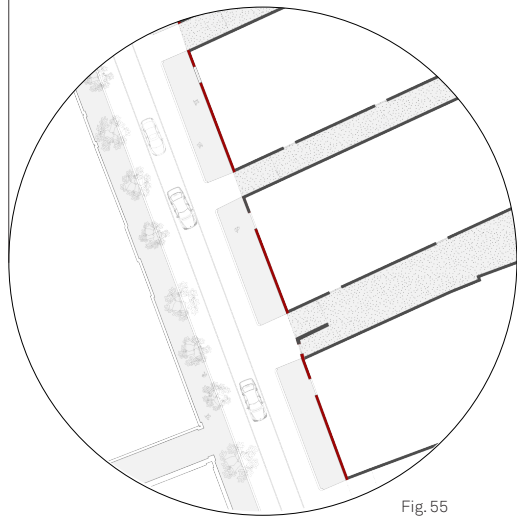
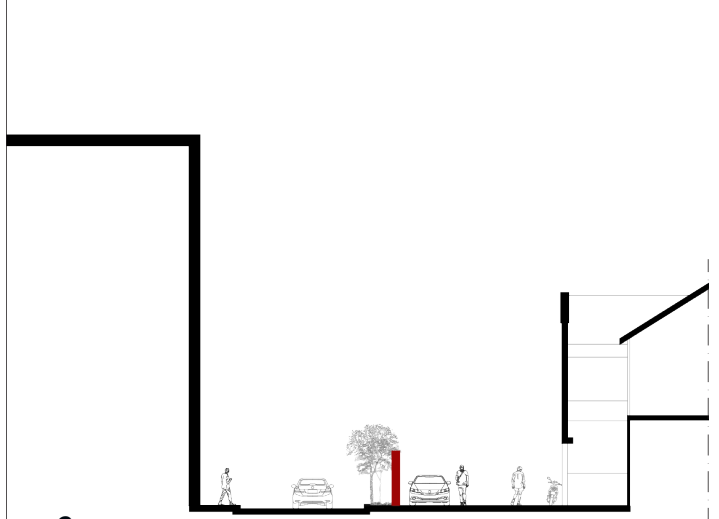


Fig. 55



Fig. 56



w_3

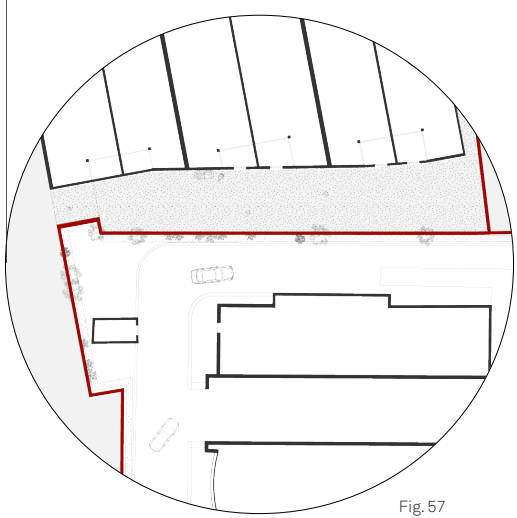
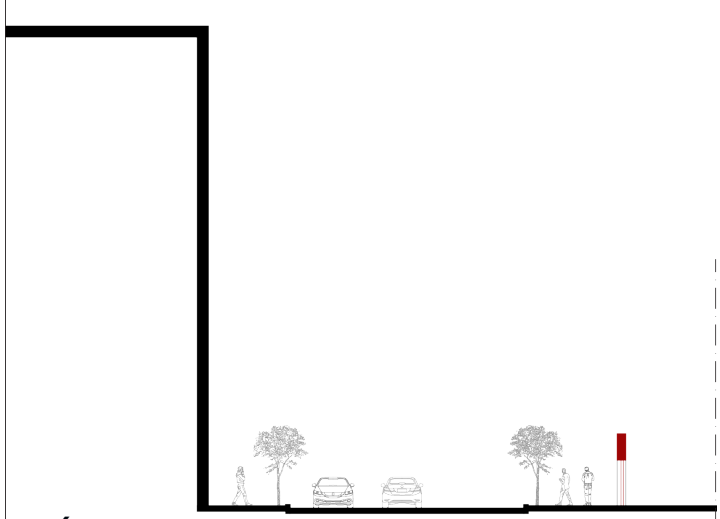


Fig. 57



Fig. 58



w_4

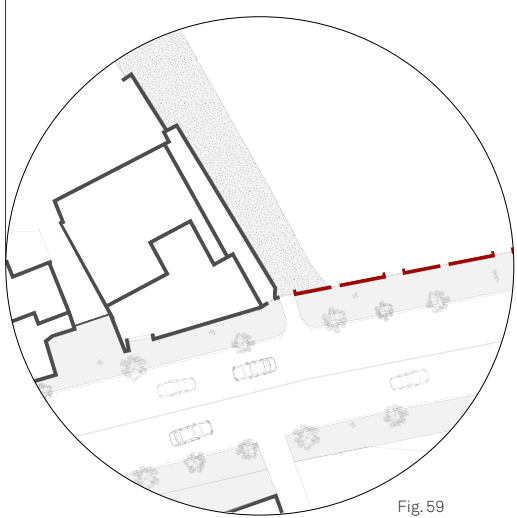


Fig. 59

5.3 The different appearances of the wall

We consider the wall surrounding the Lilong of Zhangyuan as an element of which it is made up of, that brings with itself a strong significance in terms of role and shape. As the study of the current condition highlights, in this case the wall comes in different shapes, resulted from modifications made during different periods, demolitions, replacements, or from its original shape.

Here are some representations that describe more closely the state of fact of some selected portions of wall, chosen in order to give an overall idea of the heterogeneity of shapes and meanings of the wall.

The images zooming in on the case **w_1** shows the main entrance to the Lilong through the original steel gate that

links the street outside to the internal alley, welcoming visitors and residents. The case **w_2** shows the western side of the Lilong, made up of the real Shikumen's side facades facing the small street with cars and pedestrians' passage. Along this side we can find the typical Lilong external belt with small retails.

In the case of **w_3** the wall has been rebuilt to separate the Lilong from a skyscraper hotel located on its south-western edge, and doesn't let any communication. The last zoom, **w_4** focuses on the southern side of the compound, consists of a reproduction. It is made up of a rebuilt wall, faking the original Shikumen facades that probably used to face the street before the demolition.





Elevation along the wall towards the **OUTSIDE** of the Lilong scale 1 : 1.000

Fig.60



Elevation along the wall towards the **INSIDE** of the Lilong scale 1 : 1.000

Fig.61

5.4 Critical comment

The wall along the perimeter of the Lilong doesn't always exist in the same shape. What makes it really interesting from the perspective of the architectural project, and worth the use and development in new different ways, is its location. In fact, laying in between the outside and the inside of the Lilong's context, it unveils the potentialities that the space along this perimeter could offer.

Figures 60 and 61 represent the elevations facing the wall trace along its whole length. Figure 60 corresponds to the outside context of the city, characterized by the high-rise buildings mainly. On the contrary, figure 61 shows the elevation of the inside of the Lilong, made of Shikumen facades.

The two scenarios, belonging to the same urban context, underline again the deep differences between the historical compound and the city that grew in the last decades around it, making it result in as isolated area. The Shikumen buildings appear overwhelmed by the skyscrapers, their different proportion and size make the gap between the difference contexts perceivable.

In the end, since the city skyline is nowadays mainly made of high-rise buildings, these latter look like containing the more human-scaled ones, in the most of the cases corresponding to historical buildings.

In terms of strategy the project aims at exploiting the interesting background created by the contemporary buildings with respect to the traditional pre-existences. The behavior of the contemporary buildings' design can sometimes happen to appear disrespectful towards them, but we consider that it can be taken as a positively challenging aspect, instead. In fact, this condition highlights the need for finding a balance and a dialogue between what looks like two different environments.

The project aims at transforming the tension created by the deep contrasts of the context as an opportunity. If wisely exploited, it could highlight the value of the rich and heterogeneous urban environment of Shanghai.

6 Project strategies

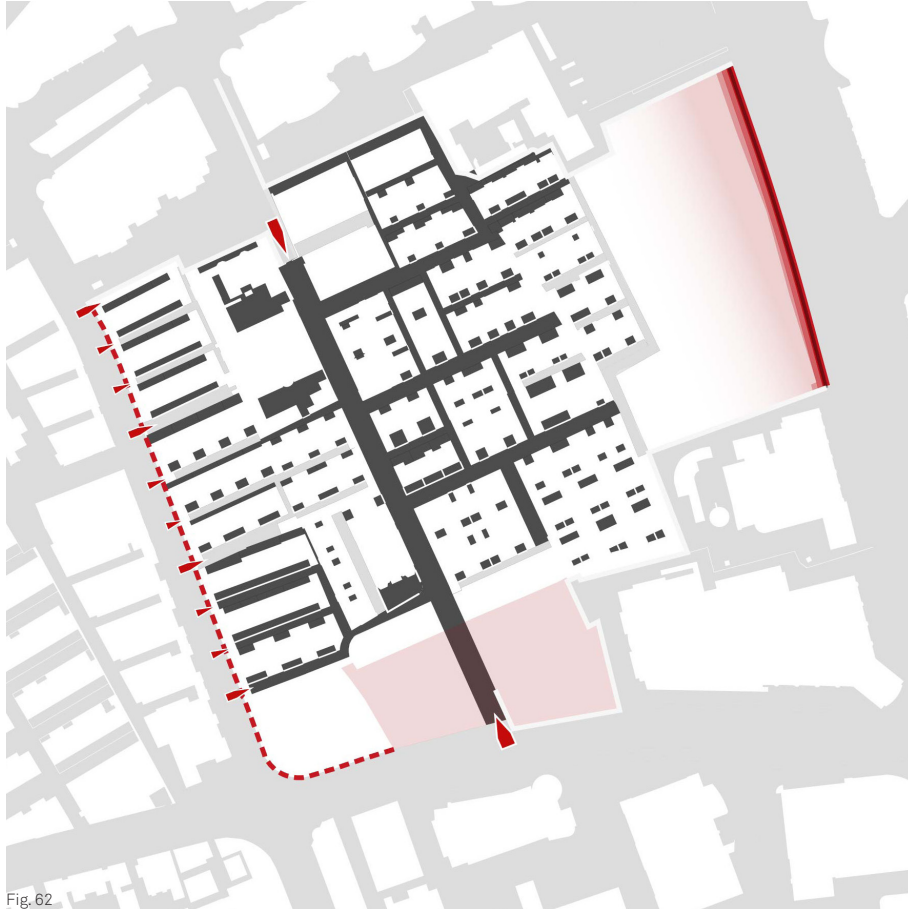


Fig. 62

- Main and secondary *alleyways*: circulation hierarchy of the Lilong's system maintained
- Public and private *open spaces*: Shikumen's courtyards and community's open spaces
- Existing physical *barriers and walls*: they are interposed between the Lilong and the out-scaled context
- Driveway access*
- Pedestrian access*
- Lilong's perimeter defined by a *permeable wall* on the western side with the former small retail row's facade towards the public street; to the East and South the missing side of alleyways typically along the Shikumen facades

6.1 Open spaces, limits, accesses

The analyses conducted, aimed at defining the first strategies shown in figure 62, underline the importance we gave to the open spaces. In fact, they are what typically characterizes the structure of the Lilong typology, through the articulation of the front courtyard that every Shikumen unit has, each one connected to the internal circulation system made of main and secondary alleyways.

The Lilong is crossed by the main alley that links the two main entrances to the compound, from North to South: here, we traced it crossing the southern empty lot that the project develops.

On the other hand, the second empty lot, located on the eastern side of the Lilong, faces the widest and most trafficked street that the project borders. Along this perimeter, in fact, the project locates the majority of the built volume it is made up of. The choice is to recreate the relationship that the internal space of the Lilong originally had towards the context, along which the main entrances are placed.

The space included between the thickness of the main built volume, retracing the old perimeter wall, and the eastern facades of the Shikumen that face the empty lot, is going to be used for open public space, densifying nearby the new building.

For what concerns the use of the southern empty lot, the design provides different equipped open spaces, according to the considerations issued about the context. In fact, the design takes into account the potential of the lot in being located towards the southern side, bordering with the neighborhood's streets and buildings. Here the neighborhood is suitable to be used for public spaces related to the inside of the Lilong, since it is a more human-scaled context compared to the one along the northern-east area. Moreover, the lot is located right next to the school included in the Lilong, that lacks open and green spaces for children. The project design involves equipped public space for both the visitors of the Lilong, its inhabitants and the ones of the neighborhood, and green spaces for the children of the school.



BUILT / OPEN



WALL



ADHERENCE

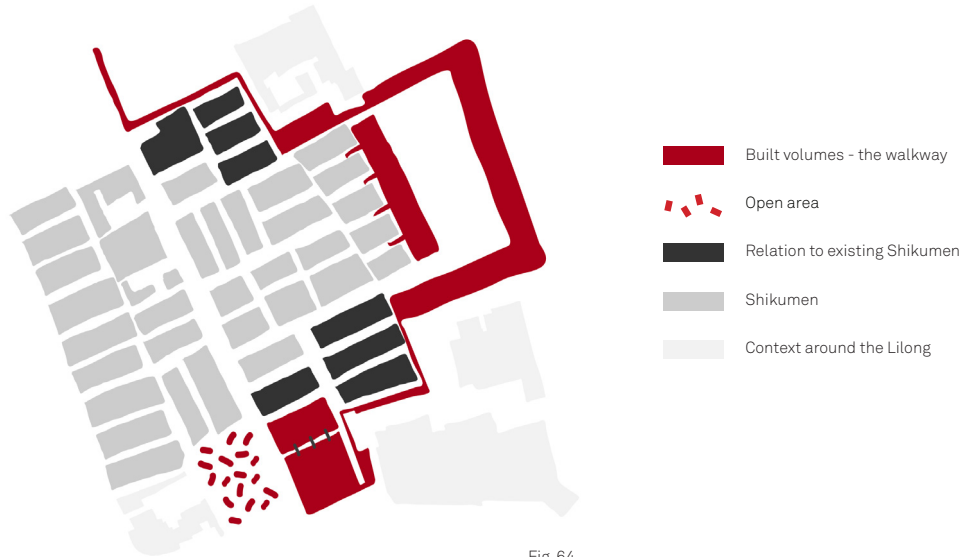


Fig. 64

SYNTHESIS

The project strategy is based on three key concepts that have been researched and that are developed within the project.

The first one is the distribution of the space conceived as mainly **open or built**: the built volumes are located in the eastern lot while the open spaces are concentrated in the southern one.

The second concept is the **wall**, the element in which the most of the potential in terms of identity of the place and possibility to embrace the whole area stands.

The third concept, the **adherence**, refers to the will of creating built spaces, open or not, that in some particular studied cases aims at completing the use and image of some specific parts of the pre-existence. In this case, a

gate remained free on one side in the southern lot, and the Shikumen houses facing the eastern lot that need to protect their privacy considering the fact that they border a new open public square.

Finally, the strategy concepts' synthesis shows how these ideas are going to take shape in order to become a whole. The choice of retracing the wall perimeter enables us to physically link all the different parts of the project. In this way, the project design transforms the element of the wall into an actual path, merging with the open spaces, the public streets of the context around, the exteriors and the interiors of the new buildings, and involving some of the existing buildings.

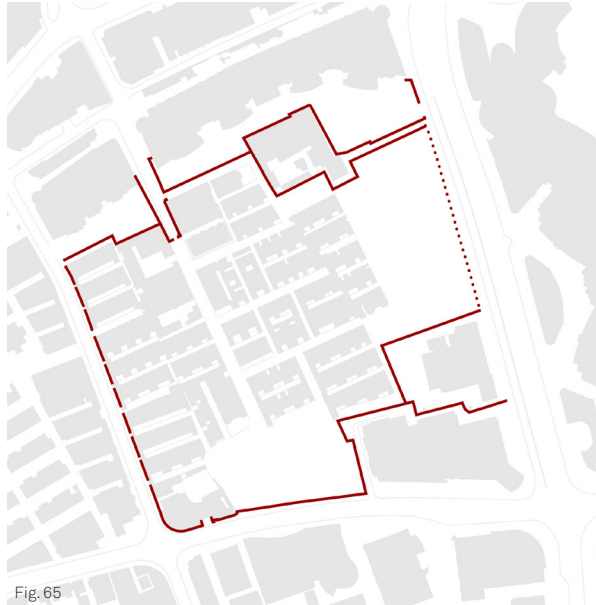


Fig.65

1. Starting point: the existing wall enclosing the Zhangyuan Lilong.

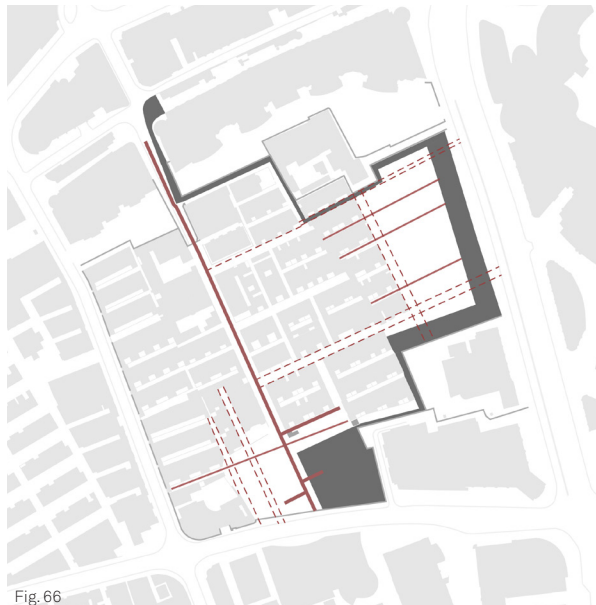


Fig.66

2. The existing wall develops into a path, its different depths are intended to accommodate different functions in different volumes and spaces.

6.2 Steps

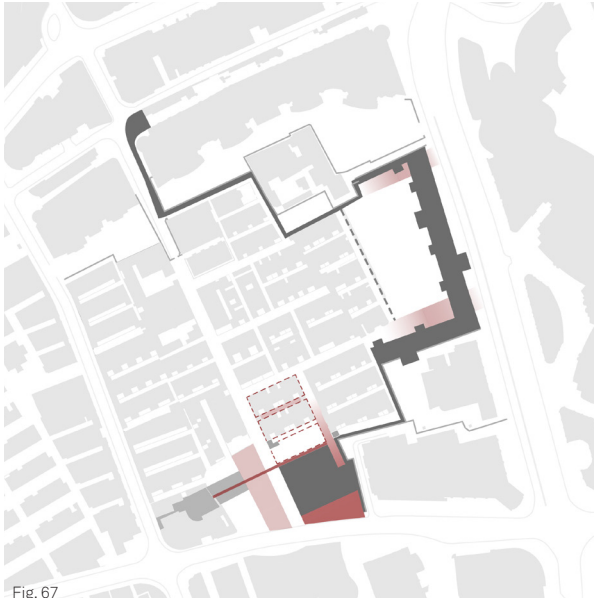


Fig. 67

3. The path is intersected by different volumes that make its boundaries more indented and permeable. Open public spaces in the southern lot take shape according to the pre-existences and the new needs.

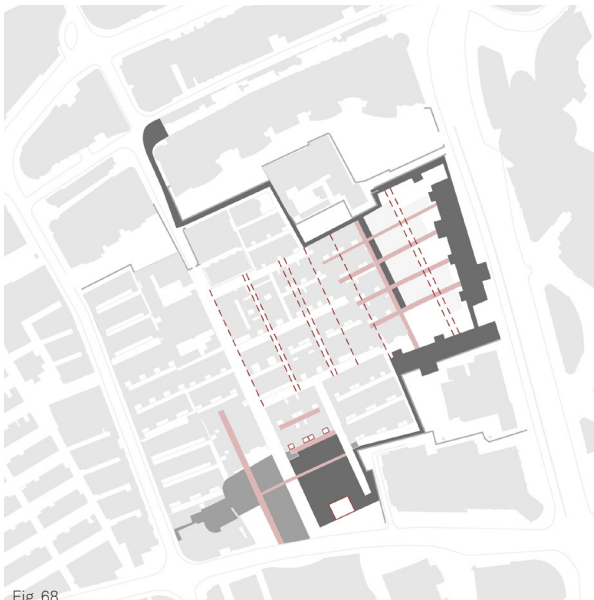


Fig. 68

4. The southern roofed open square is conceived as the ending step of the path, it responds to the theme of adherence with the pre-existence. The path fills and re-link the gap between the inside and the outside context of the Lilong.

b. Strategies and project

7
Project



Fig. 69

7.1 The masterplan and the path

The masterplan: from the old traces to the new uses

The project's masterplan shows its main intentions and morphology. The project develops starting from the original trace of the Lilong's perimeter, considered one of the most characterizing elements of this typology of walled compound.

Following this track also enables us to satisfy another purpose of the project, which is making all the buildings dialogue and coexist. In fact, the project doesn't neglect the modern buildings and the skyscrapers around, that are sometimes considered disrespectful towards the historical context. Contrarily, it aims at involving them into the scenario of the new space, becoming a sort of magnet that attracts what stand on its both sides.

The path and the buildings: experience, materials, spaces

The northern extremity of the path is ideally considered its starting point, located along Wujiang Road - a pedestrian area parallel to West Nanjing Road -, while the southern one is treated as the end of the experience. The path, in fact, consists of a succession of things happening, to discover or to interact with. It involves parts to walk at the street level, parts opening or closing towards the exterior context creating a connection or a boundary.

The first segment of path creates a visual link with the context displaying to the ones running it the original gate of the Lilong, framing it thanks to a wall that addresses the view. The second interest point, after a part of flat walking, is the Shikumen the path actually enters, a museum in which old photographs, explanations and original materials will be showcased. Then the path climbs at its maximum height through the main vertical distribution volume, located on the northern-east corner

of the site, reaching in this way the roofing level of the main buildings, 8 mt. At this level the path communicates with the interior of the volumes intersecting it, one ballet room and a public cafeteria in the second volume. Instead, on the roof of the second building the path includes a seating area for projections and a cafeteria communicating with the library and studying and co-working spaces inside the building. At this point the path through another vertical distribution body gets off at the street level again, skirting some Shikumen and then after running an alleyway and creating a covered space for the displaying of art pieces, passes through a typical gate of the Lilong's alleyways.

The last step of the path is arriving in the southern area, in the covered square that also presents a sort of secret garden in the middle. The square communicates with the public space and makes itself visible: with its squared shapes imposes itself on the street invading the pavement with a corner. In this way it becomes perceivable from the people walking on the pavement but at the same time tries to merge with the space around thanks to the view it creates from beneath the roof: the wall septums in fact frames the different scenarios on the four sides of the square.

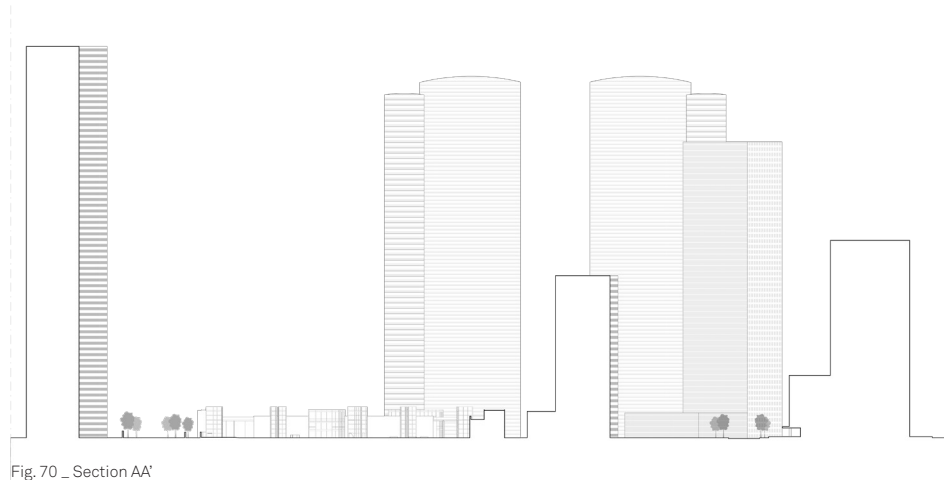


Fig. 70 _ Section AA'

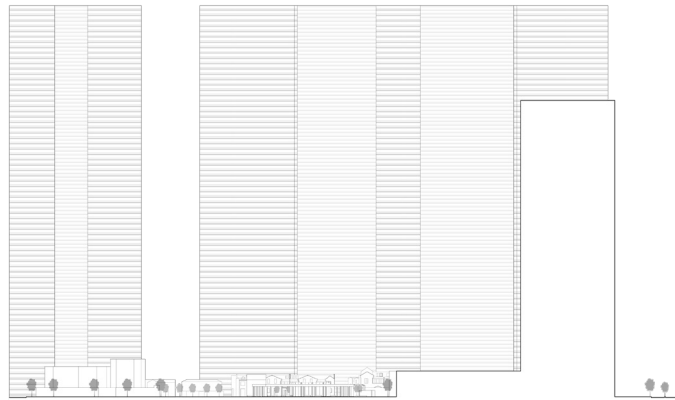
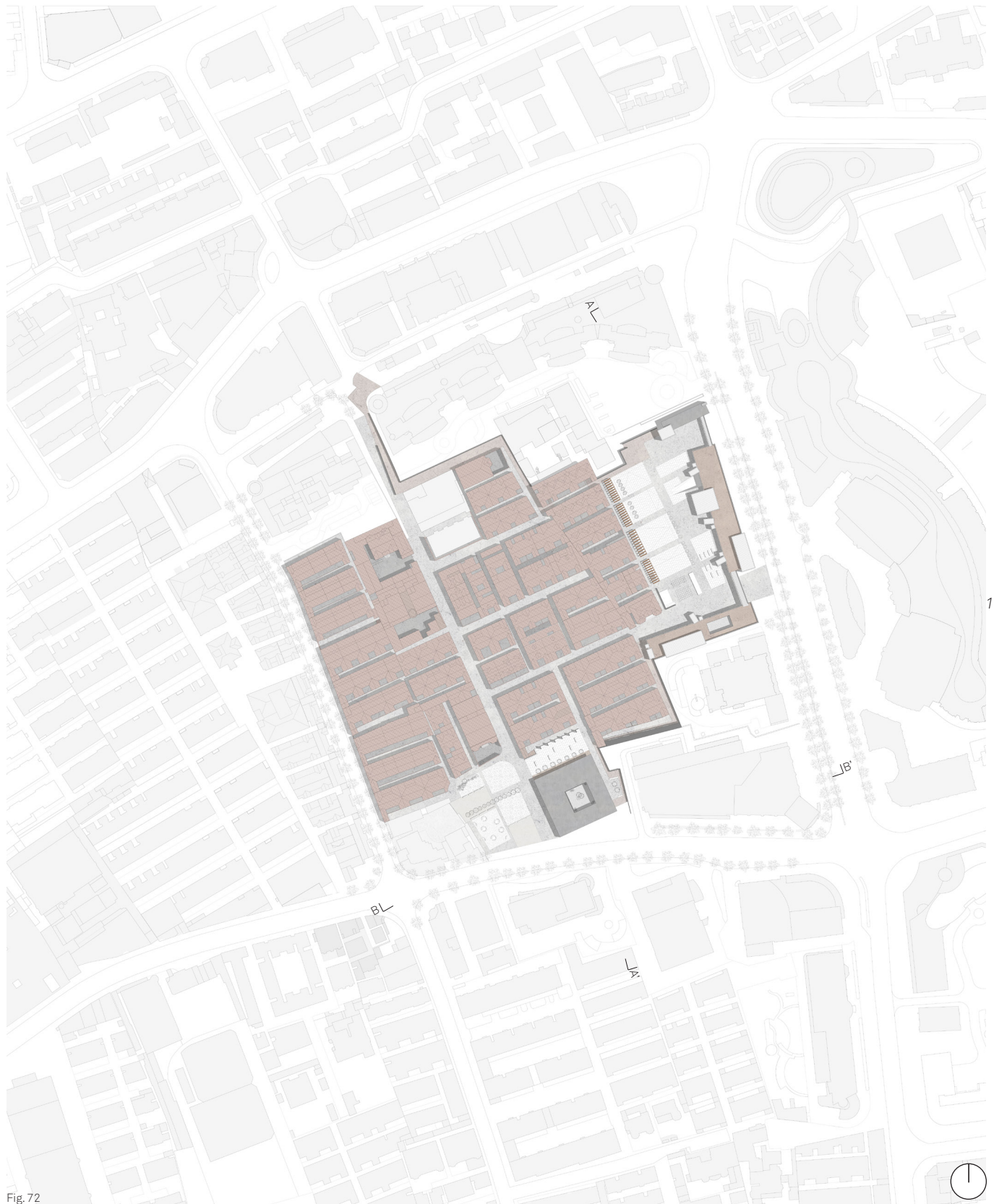


Fig. 71 _ Section BB'



105

Fig. 72



Fig. 73

View from the street



Fig. 74

View from the internal square

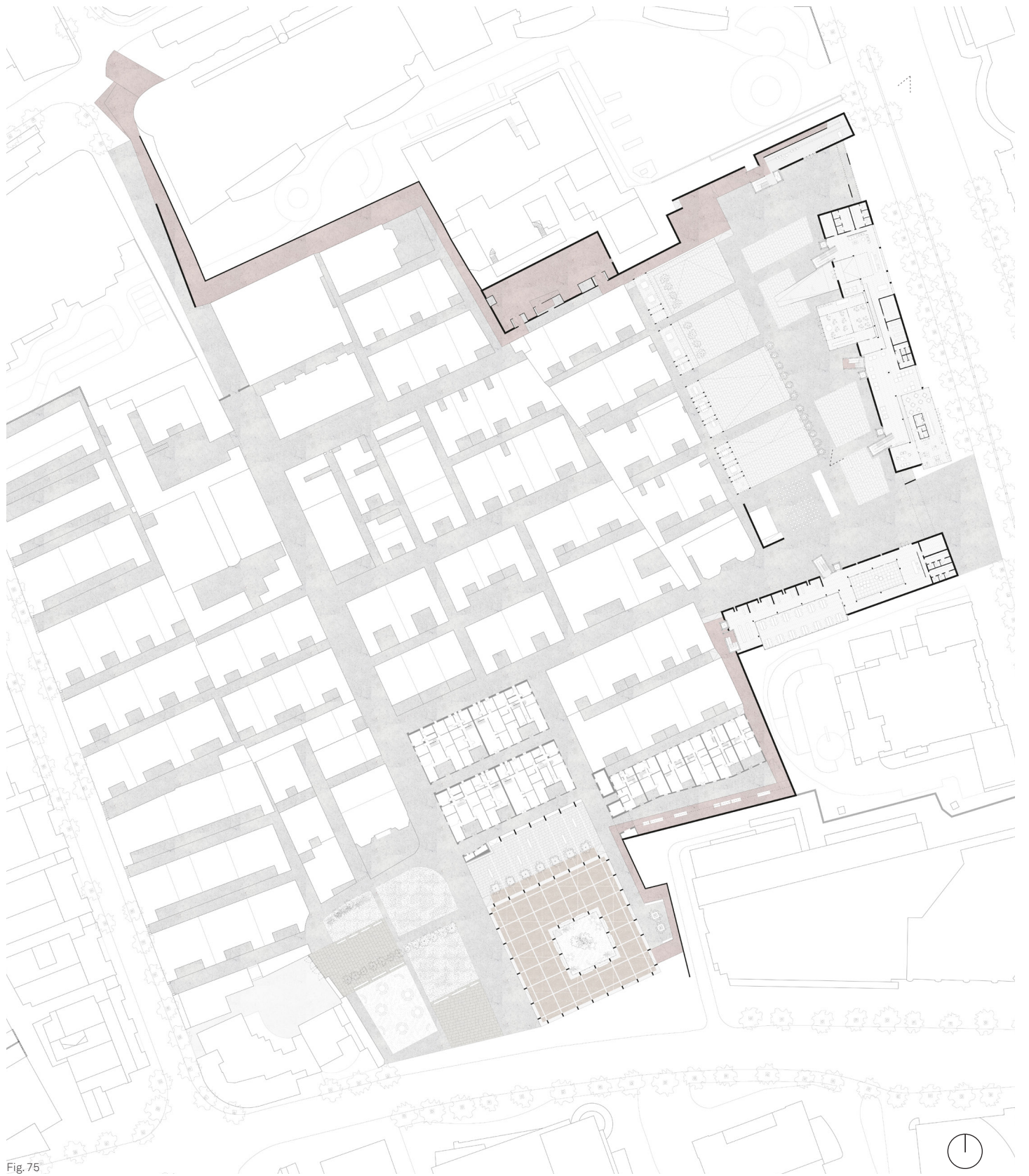


Fig. 75

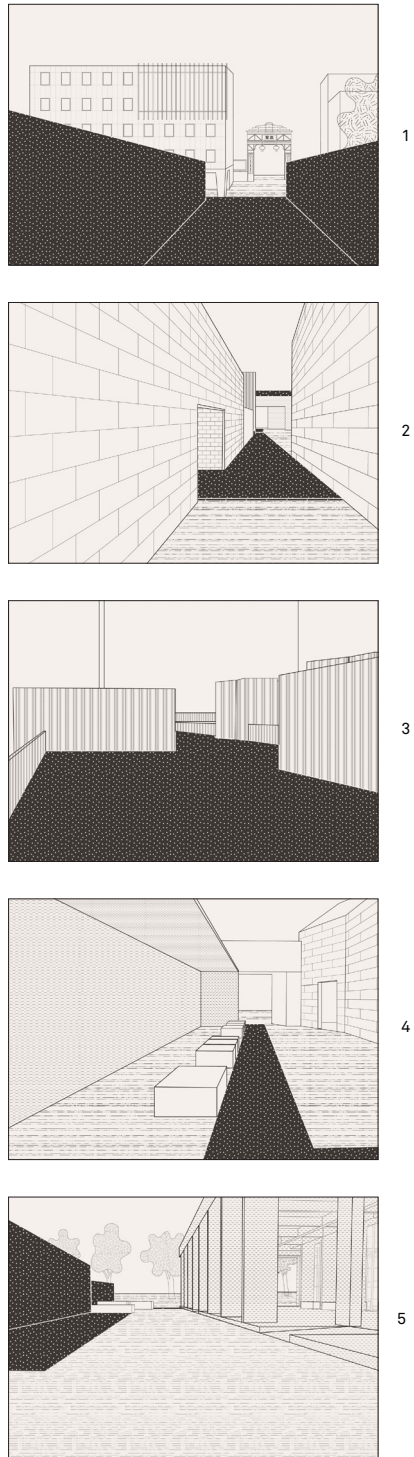


Fig. 76



Fig. 77

110









113

Fig. 79





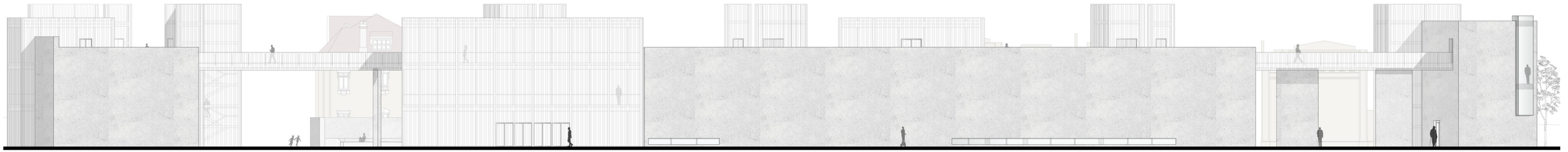


Fig.80_ East elevation

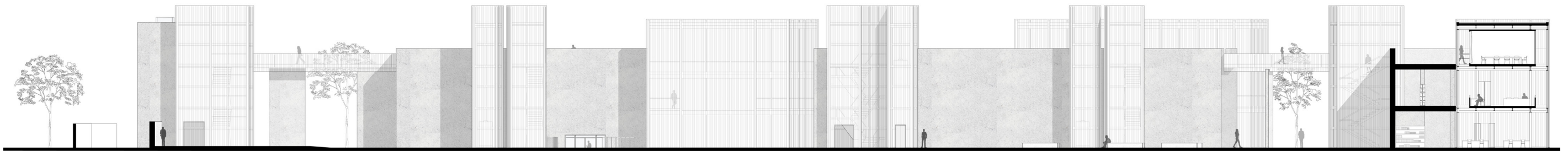


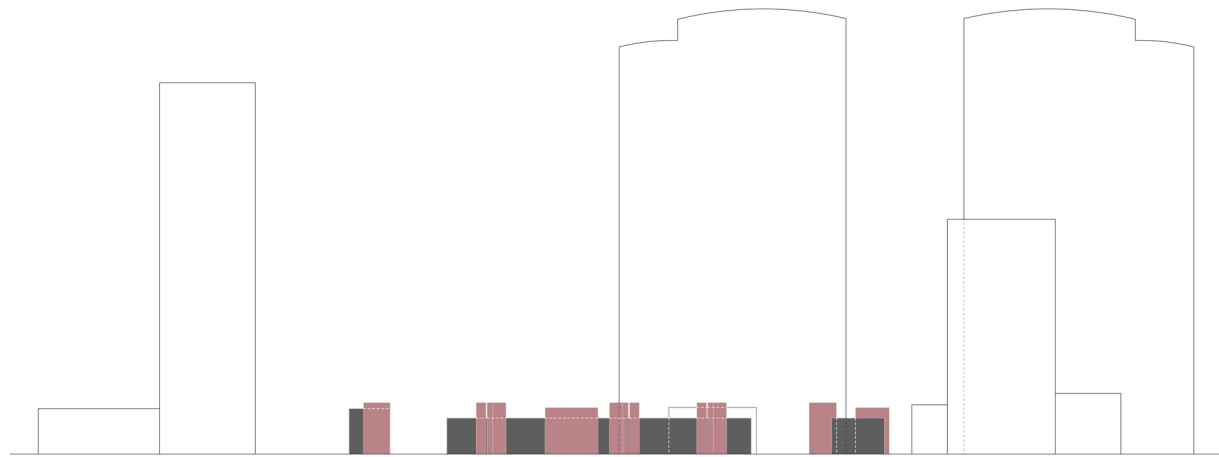
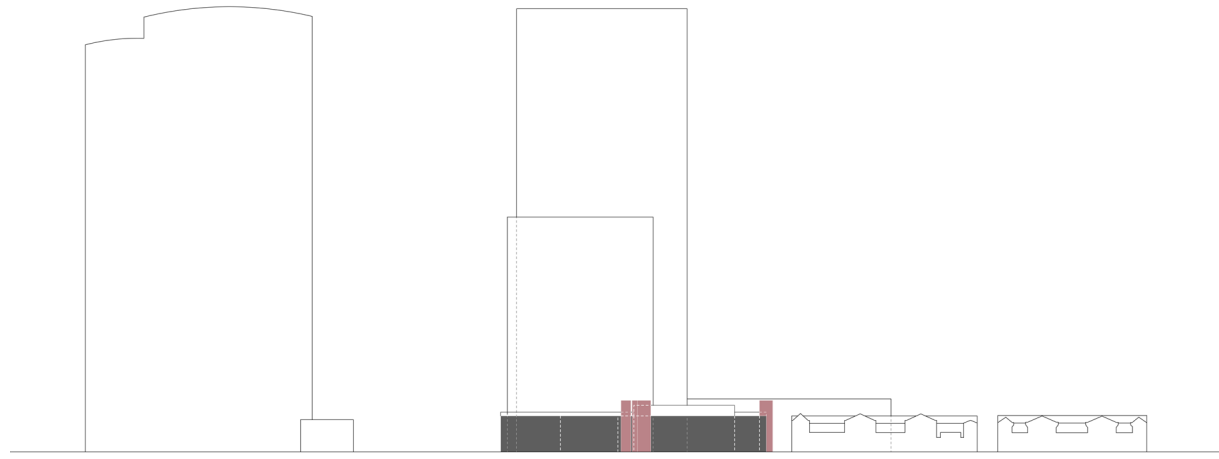
Fig.81_ West elevation



Fig.82_ North elevation

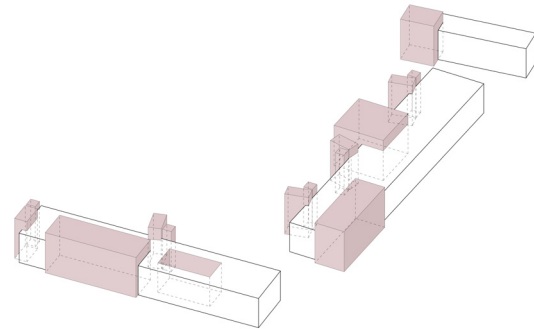


Fig.83_ South elevation



*_Composition and heights of volumes in context:
North and West elevation*

_Relationship between light and heavy volumes



118



Fig. 84

View from the patio in the library building





Fig. 86

View towards the secret garden

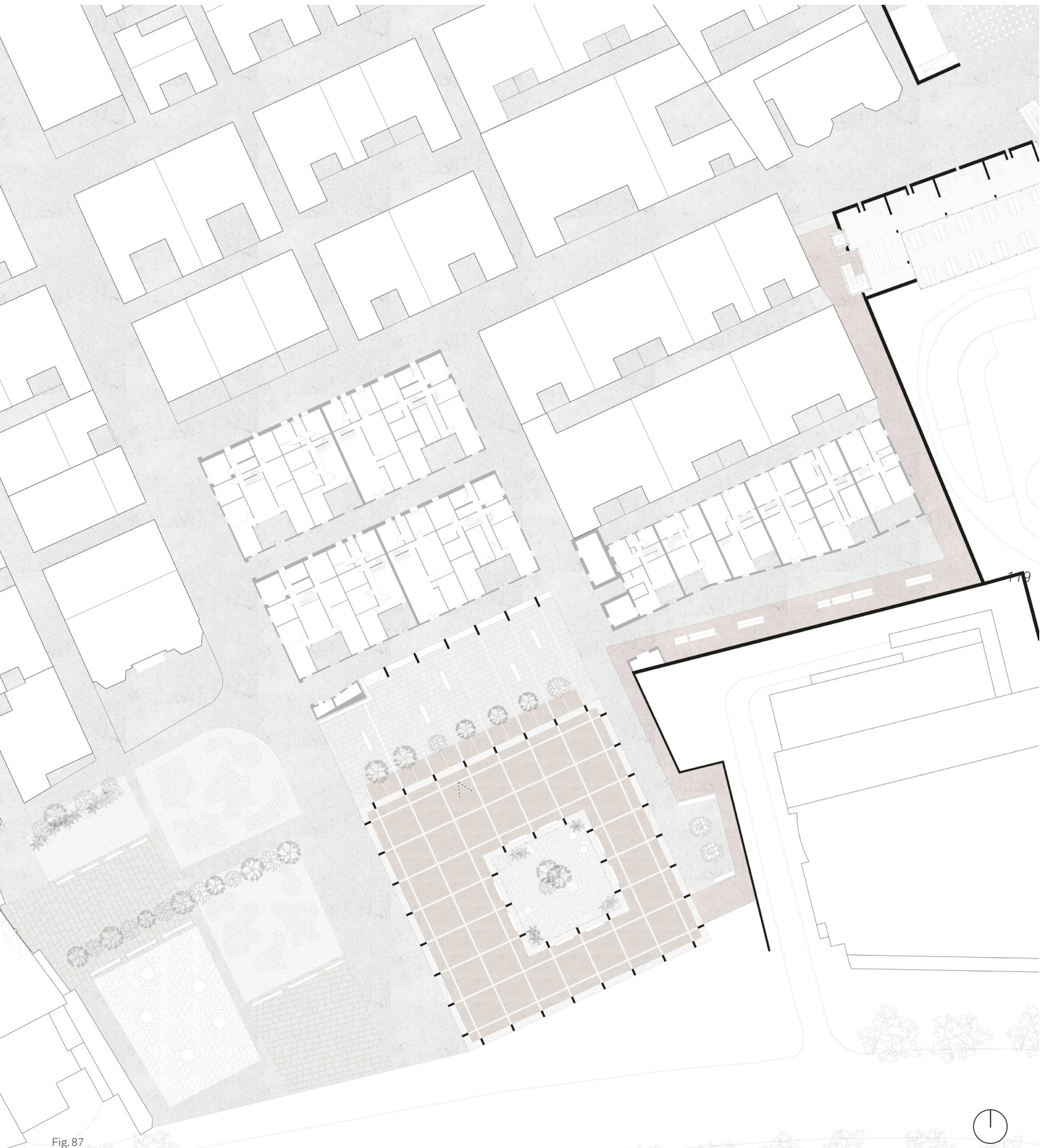


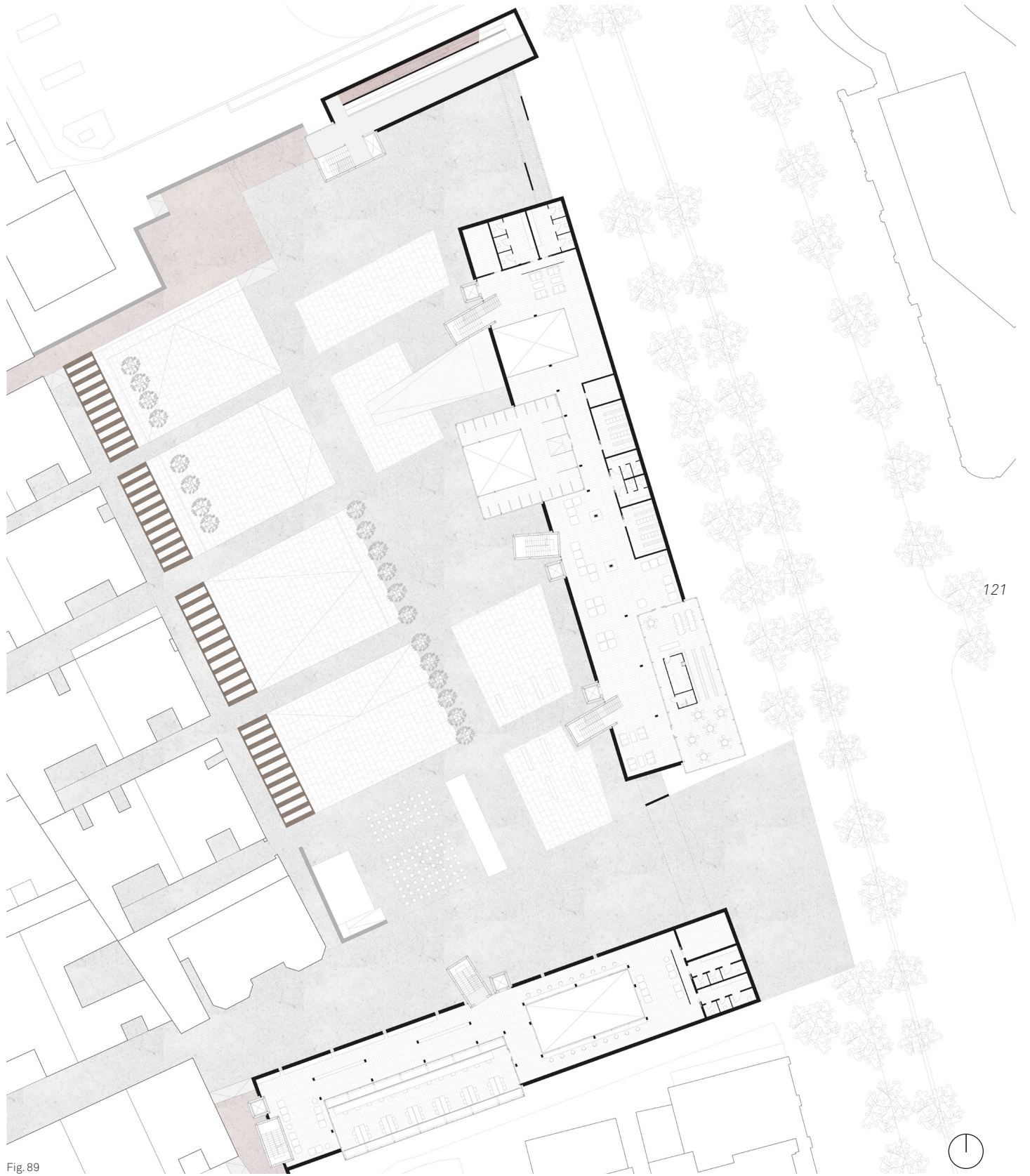
Fig. 87





Fig. 88

View from the art exhibition and workshop



121

Fig. 89



Fig. 90

View from the cafeteria



Fig.91



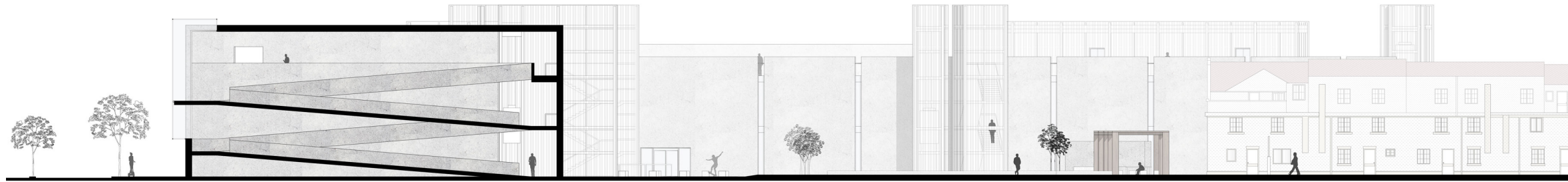


Fig. 92 _ Section CC'

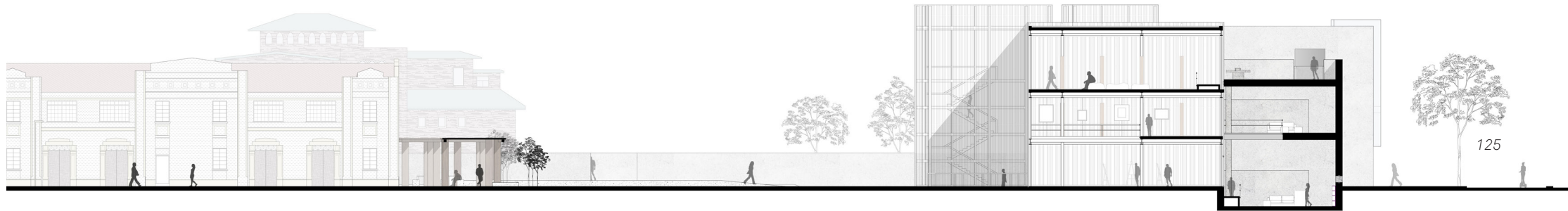


Fig. 93 _ Section DD'

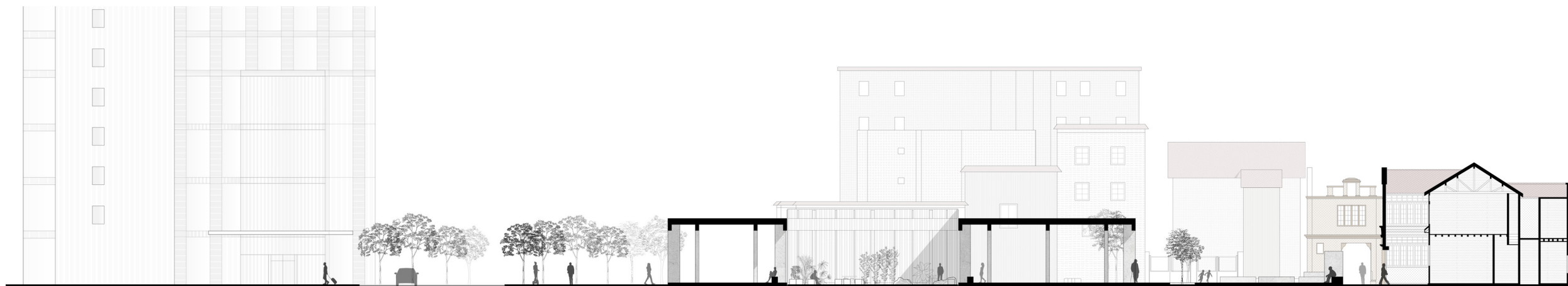
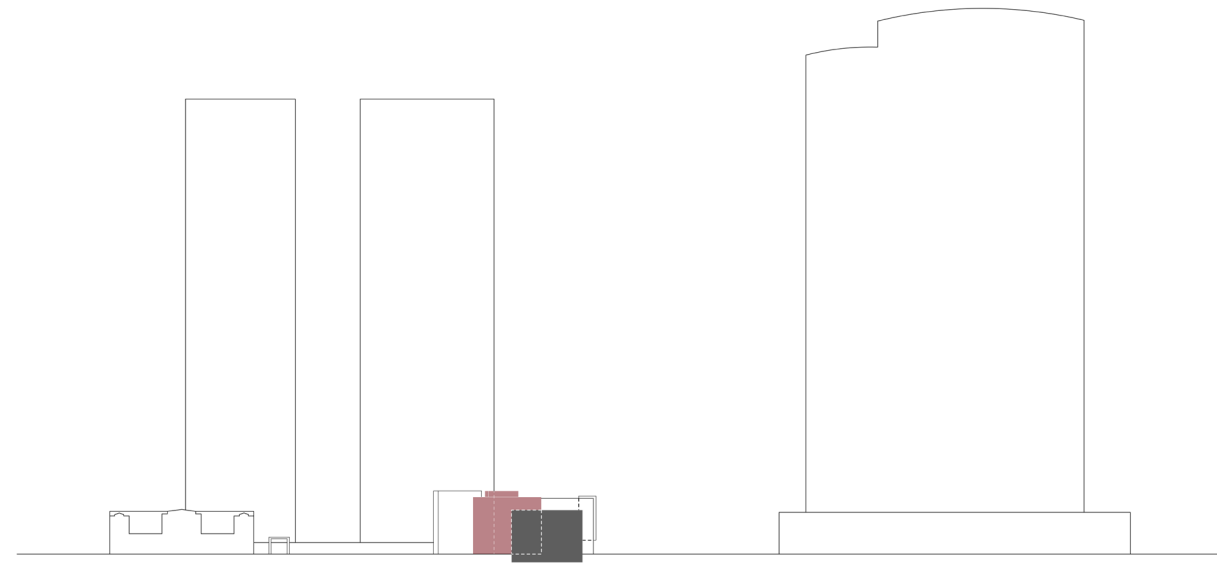
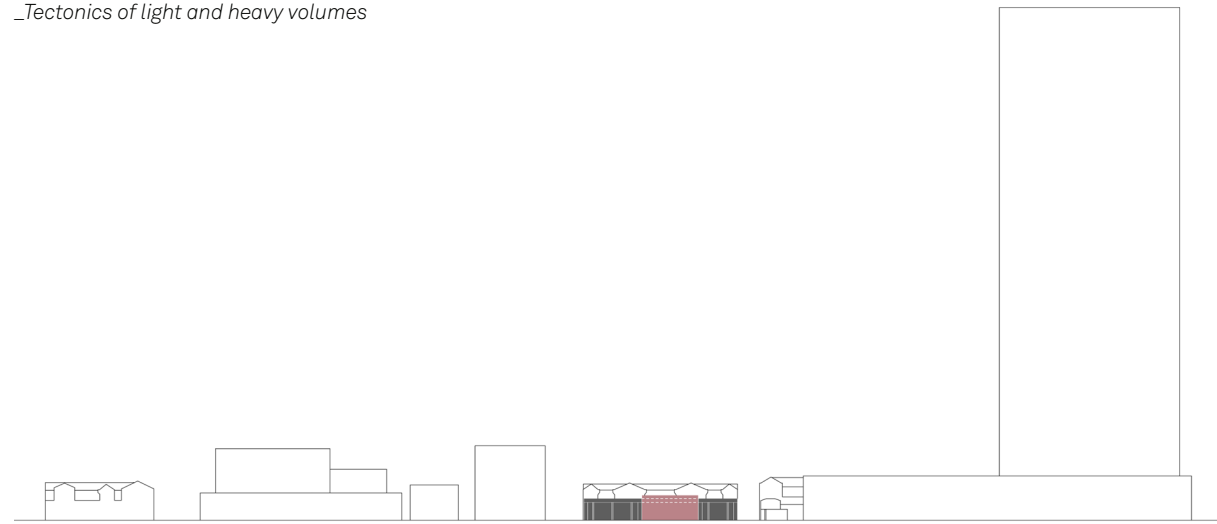


Fig. 94 _ Section EE'



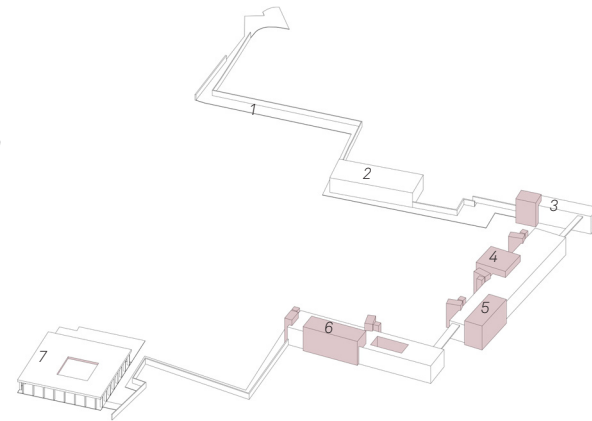
_Tectonics of light and heavy volumes



_The covered square in the context

_Program: main elements

1. Path through the Shikumen
2. Shikumen museum
3. Vertical distribution
4. Art workshop
5. Cafeteria
6. Library
7. Covered square



128

- External facade
- Polycarbonate sliding panels
- Structure - Steel columns
HEA profile 200 x 200 mm
- Screed
th. 2 cm
- Under-floor heating system
th. 8 cm
- Acoustic layer - cork fibers
th. 2 cm
- Corrugated sheet
th. 8 cm
- Structure - Steel beams
IPE profile 180 x 400 mm
- Structure - Secondary beams
IPE profile 120 x 240 mm

- Flooring finish
- Parquet
- Insulation
th. 4 cm
- Sub-floor
th. 12 cm

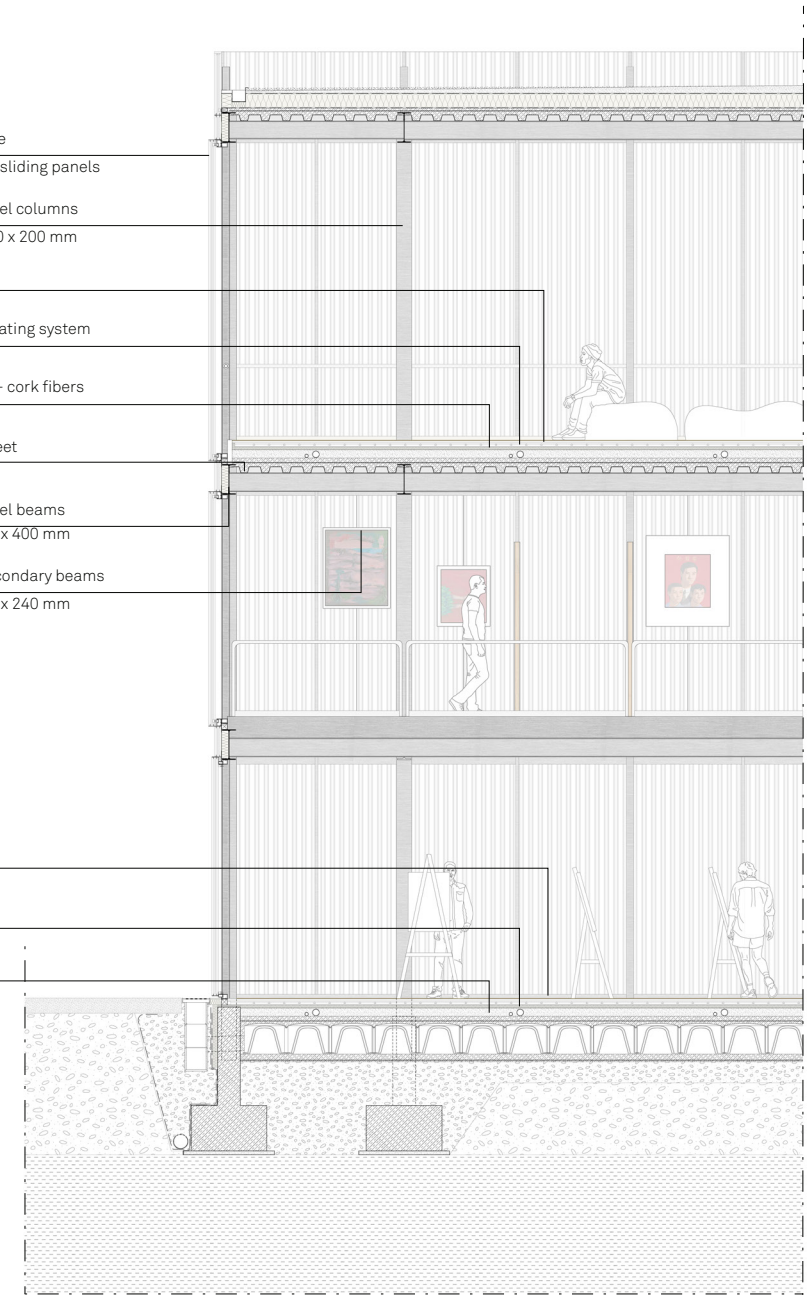


Fig. 95

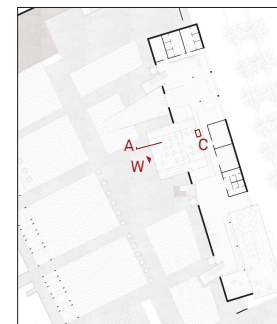




Fig. 96



Fig. 97

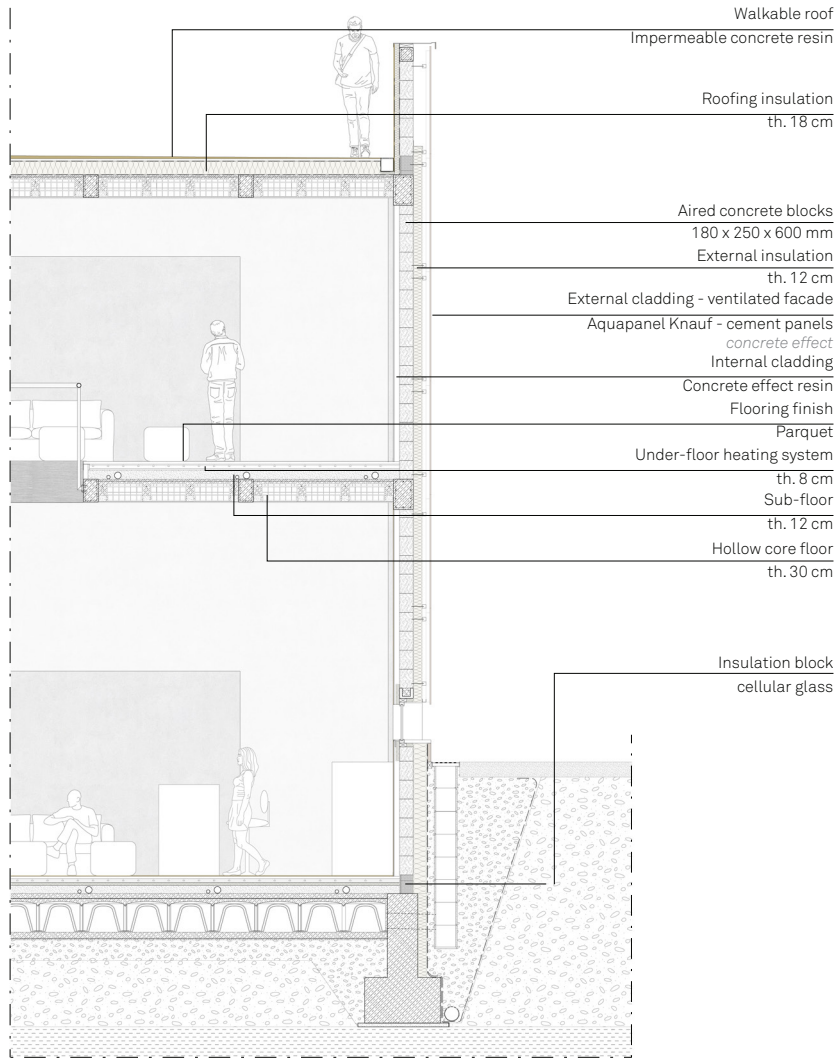
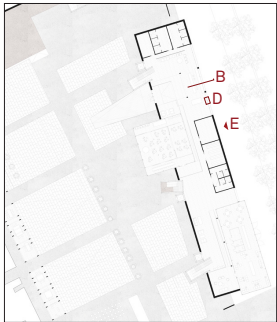


Fig. 98



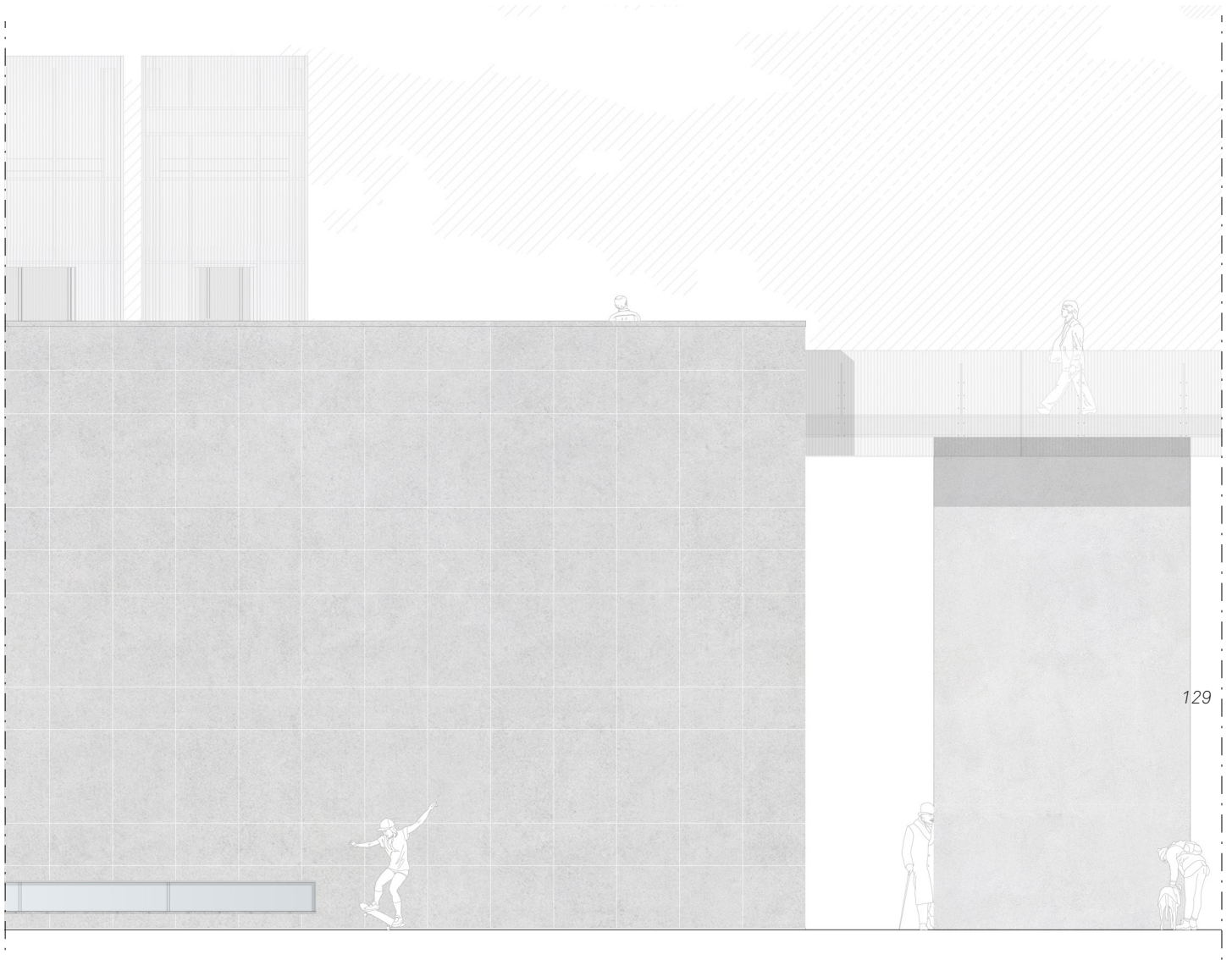


Fig. 99



Fig. 100

8
Conclusive remarks

Conclusive remarks

Today Zhangyuan's residents are likely to be evicted, since various projects were designed for the reuse of this valuable site. Many of them in fact, are guided by economic interests, providing the removal of the residential use, in favor of functions that make tourism and retail more profitable. In this way, many of the original principles linked to the Lilong environment, would be completely neglected.

The thesis demonstrates how it is possible to revitalize the Lilong of Zhangyuan, respecting its origins as well as its settlement principles, while developing it considering the requirements intrinsic to the contemporary city and people.

Moreover, since our project doesn't directly intervene on the Shikumen buildings, it develops the expressed ideas taking shape within the empty lots of the Lilong, resulted from some demolitions. In this way the project can exploit the available spaces at their maximum, introducing at the same time wide open spaces responding to the necessities of nowadays' Shanghai.

Furthermore, we think our project could be considered for the method it displays, as a reference for future projects in similar contexts. In fact, it is based on an alternative approach to the context for the revitalization of Lilong compounds in Shanghai, in general.

Compared to the position taken by the case studies showed in the thesis, "Designing The Zhangyuan Wall" clearly takes into account the features we considered mandatory and inextricably linked to the environment of a Lilong built in the 1930s.

9 References

Bibliography

- Bosker Bianc, "Architectural Mimicry in Contemporary China". Honolulu: University of Hawaii Press, 2013.
- Chunlan Zhano, "From shikumen to new-style: a rereading of lilong housing in modern Shanghai". *The Journal of Architecture*, 4 June 2010.
- Citterio Leonardo, di Pasquale Joseph, "LOST IN GLOBALIZATION, the paradigm of chinese urban housing". Milano: Jamko Edizioni, 2015.
- Feifei Sun, "Chinese Climate and Vernacular Dwellings". Kingston upon Hull, 2013.
- Gregory Bracken, "The Shanghai lilong, A new concept of home in China". *The Study*, Summer 2020. pg 10-11.
- Gregotti Vittorio, "L'ultimo hutong: lavorare in architettura nella nuova Cina. Milano: Skira, 2009.
- Jie Li, "Shanghai homes. Palimpsests of private life". Shanghai: David Der-we Wang, 2015.
- Haase M., Amato A., & Heiselberg P. (2006). *Climate Responsive Buildings in China*. In Sichuan - Hong Kong. Joint Symposium 2006, Chengdu, June 30 - July 1, 2006.
- Hazelina Yeo, "Shanghai - Bringing Human Scale to Hyperurbanisation". In *Urban solutions*, N. Issue 1, 2017.
- Moscatelli Matteo, "Il recupero del patrimonio storico a Shanghai" in *Ananke* n.86, pp. 58-61. Milano, 2019. China, 2020.
- Moscatelli Matteo, "The Vanishing Identity. Birth, Development and Disappearance of the Lilong Housing in Shanghai" in "Architecture in Shanghai. History, Culture and Identity". Franco Angeli, Milano, 2019.
- Novelli Luigi, "Shanghai: architettura & città tra Cina e Occidente". Edizioni librerie Dedaldo, 1999
- Linli Cui, Jun Shi, "Urbanization and its environmental effects in Shanghai, China". *Urban climate* 2 (2012) 1-15.
- Luo Xiaowei, "Shanghai Longtang, Shanghai People & Shanghai Culture".
- Non Arkaraprasertkul, "Towards modern urban housing: redefining Shanghai's lilong". *Journal of Urbanism*, 2:1, 11-29, 22 April 2009.
- Scheen Lena, "Shanghai Literary Imaginings: A City in Transformation". Amsterdam: Amsterdam University Press, 2015.
- Taras Grescoe, "Shanghai Dwellings Vanish, and With Them, a Way of Life". *The New York Times*, 23 June 2017.
- Zhou Xiang, Li Yanbo, Cheng Yuning, "Neighborhood, community and consumption: Study on the socio-spatial structure during two boosting epochs in Shanghai". In "Frontiers of Architectural Research", 2020.

Sitography

<http://www.ambassadorchina.com/living-in-shanghai/districts-and-main-areas/jingan/>

<https://www.archdaily.com/559617/cultural-and-sports-center-bruther>

https://web.archive.org/web/20130928022244/http://www.shanghaixintiandi.com/xintiandi/en/about_house.asp

https://web.archive.org/web/20130928022244/http://www.shanghaixintiandi.com/xintiandi/en/about_house.asp

<https://archive.shine.cn/metro/society/Iconic-Jingan-shikumen-set-for-makeover/shdaily.shtml>

<https://archive.shine.cn/feature/people/The-changing-fortunes-of-Zhangs-Garden/shdaily.shtml>

<https://www.desisnetwork.org/>

<https://divisare.com/projects/293937-bruther-filip-dujardin-maxime-delvaux-new-generation-research-center>

<https://www.joaomorgado.com/>

137

<https://ilgiornaledellarchitettura.com/2019/02/13/cronache-cinesi-e-lora-della-conservazione-critica/>

<https://ilgiornaledellarchitettura.com/2019/04/13/cronache-cinesi-i-lilong-di-shanghai-tra-speculazione-e-valorizzazione/>

<http://www.i-mad.com/>

<https://map.baidu.com/>

<https://movingcities.org/movingmemos/shanghai-jingan-district-1/>

http://shanghaistreetstories.com/?page_id=1288

<http://shanghaistreetstories.com/?p=7271>

<http://shanghaistreetstories.com/?p=6591>

<https://www.shine.cn/feature/art-culture/1711196564/>

<https://theculturetrip.com/asia/china/articles/the-top-9-not-to-miss-sights-of-jingan-shanghai/>

<https://theoccasionaltraveller.com/shikumen-shanghai-zhang-yuan/>

<https://urbanage.lsecities.net/essays/shanghai-public-life-and-urban-space>

<https://www.travelchinaguide.com/cityguides/shanghai/jing-an-district.htm>

<http://www.shuion.com/eng/SOL/pptdev/xin.asp>

<https://urbanage.lsecities.net/essays/shanghai-public-life-and-urban-space>

<http://zhangyuan.sjtubimx.cn/>

Images index

Figure 0 Detail of Shikumen roofs. Source: Luo Xiaowei, "Shanghai Longtang, Shanghai People & Shanghai Culture"

Figure 1. Collage of the project concept with respect to the urban context of Shanghai. Source: drawn by authors

Figure 2. Zhangyuan's overview. Source: /www.shine.cn

Figure 3. View of Shanghai around the 1860s. Source: Bridgeman Art Library

Figure 4. Evolution of Shanghai city center during the Lilong period. Source: drawn by authors with reference to Citterio Leonardo, di Pasquale Joseph, "LOST IN GLOBALIZATION, the paradigm of chinese urban housing". Milano: Jamko Edizioni, 2015

Figure 5. Distribution of Lilong housing nowadays. Source: drawn by authors with reference to LI Yanbo, "The Value of the Lilong Districts and Neighborhoods in Shanghai". Shanghai: Tongji University Press, 2014

Figure 6. The Lilong typology in the history of the city. Source: drawn by authors

Figure 7. Different typology of gate in the Lilong. Source: Luo Xiaowei, "Shanghai Longtang, Shanghai People & Shanghai Culture"

Figure 8. The system of the Lilong alleyways. Source: Citterio Leonardo, di Pasquale Joseph, "LOST IN GLOBALIZATION, the paradigm of chinese urban housing". Milano: Jamko Edizioni, 2015

Figure 9. Development of Shikumen typologies. Source: drawn by authors

Figure 10, 11. Early stage Shikumen. Plans and function diagram. Source: drawn by authors

Figure 12, 13. Late stage Shikumen. Plans and function diagram. Source: drawn by authors

Figure 14, 15. New styled Lilong. Plans and functions diagram. Source: drawn by authors

Figure 14, 17. Garden styled Lilong. Plans and functions diagram. Source: drawn by authors

Figure 18, 19. Apartment styled Lilong. Plans and functions diagram. Source: drawn by authors

Figure 20. Different typologies of Shikumen. Source: documents and drawings given by Shanghai Jiao Tong University

Figure 21. Morphological reading and localization of Zhangyuan Lilong. Source: drawn by authors

Figure 22. Man in front of a destroyed Shikumen. Source: shanghaistreetstories.com

Figure 23. Xintiandi. Source: www.flickr.com

Figure 24. Tianzifang. Source: www.flickr.com

Figure 25. Cappella Jian Ye Li. Source: www.lhw.com

Figure 26. Siwenly. Source: www.flickr.com

Figure 27. Bugao Li, Dongsiwenli and Fenghengli. Source: flickr.com

9 References

Figure 28. Images of Lilong destroyed nowadays. Source: www.polarinertia.com

Figure 29. Localization of Jing'an district. Source: drawn by authors

Figure 30. Top view of Jing'an district. Source: earth.google.com

Figure 31, 31. Mappings of Jing'an district. Source: drawn by authors

Figure 33. Street views around Zhangyuan Lilong. Source: map.baidu.com

Figure 34. Development of Zhangyuan in the history. Source: earth.google.com

Figure 35, 37, 39, 41, 43, 45. Zhangyuan's neighborhood. Source: map.baidu.com

Figure 36. Zhangyuan district uses scheme. Source: Critical re-elaboration from datas given by Shanghai Jiao Tong University and drawn by authors. 139

Figure 38. Roads and accesses to the Lilong. Source: Critical re-elaboration from datas given by Shanghai Jiao Tong University and drawn by authors.

Figure 40. Pedestrian roads and subway stations. Source: Critical re-elaboration from datas given by Shanghai Jiao Tong University and drawn by authors.

Figure 42. Buildings' heights in Zhangyuan. Source: Critical re-elaboration from datas given by Shanghai Jiao Tong University and drawn by authors.

Figure 44. Open and green spaces in Zhangyuan. Source: Critical re-elaboration from datas given by Shanghai Jiao Tong University and drawn by authors.

Figure 46. Architectural typology. Source: Critical re-elaboration from datas given by Shanghai Jiao Tong University and drawn by authors.

Figure 47. Intensity of urban traffic flows and built environment. Source: drawn by authors

Figure 48. The life in the alleyway. Source: Luo Xiaowei, "Shanghai Longtang, Shanghai People & Shanghai Culture"

Figure 49. Graphic representation of life in the alleyway. Source: drawn by authors.

Figure 50, 51. Elevations and floor plan scale 200 of a Shikumen in Zhagyuan Lilong. Source: drawn by authors

Figure 52, 54, 56, 58. The different appearance of the wall. Source: map.baidu.com

Figure 53, 55, 57, 59. Plan and sections of the different appearance of the wall. Source: drawn by authors

Figure 60. Elevation along the wall towards the outside of the Lilong, scale 1 : 1.000. Source: drawn by authors

Figure 61. Elevation along the wall towards the inside of the Lilong, scale 1 : 1.000. Source: drawn by authors.

Figure 62. Project strategies: open spaces-limits-accesses. Source: drawn by authors

Figure 63. The three basic elements for the design concept. Source: drawn by authors

Figure 64. Project synthesis. Source: drawn by authors.

Figure 65, 66, 67, 68. Project steps. Source: drawn by authors

Figure 69. Schematic drawing of the path. Source: drawn by authors

Figure 70, 71. Urban Sections 1:1000. Source: drawn by authors

Figure 72. Masterplan 1:1000. Source: drawn by authors

Figure 713, 74 . Views from the street and the square. Source: drawn by authors

Figure 75. Ground floor 1:500. Source: drawn by authors

Figure 76. Views along the path. Source: drawn by authors

Figure 77. Plan of the path 1:500. Source: drawn by authors

Figure 78, 79. Schematic sections along the path. Source: drawn by authors

Figure 80, 81, 82, 83. Elevations 1:200. Source: drawn by authors

Figure 84. View from the patio in the library building. Source: drawn by authors

Figure 85.. Ground floor 1:200. Source: drawn by authors

Figure 86. View from the covered square. Source: drawn by authors

Figure 87. Ground floor 1:200. Source: drawn by authors

Figure 88. View from the art gallery. Source: drawn by authors

Figure 89. First floor 1 :200. Source: drawn by authors

Figure 90. View from the cafeteria . Source: drawn by authors

Figure 91. Second floor 1:200. Source: drawn by authors

Figure 92, 93, 94. Sections 1:200. Source: drawn by authors

Figure 95. Section 1:50. Source: drawn by authors

Figure 96. Elevation 1:50. Source: drawn by authors

9 References

Figure 97. Plan 1:50. Source: drawn by authors

Figure 98. Section1:50. Source: drawn by authors

Figure 99. Elevation 1:50. Source: drawn by authors

Figure 100. Plan 1:50. Source: drawn by authors

