

Colofon

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Preface

When I first visited China and Shanghai in 2010, it was love at first sight. The busride from the airport in Pudong to the central train station drove us by the skyscrapers in Pudong, on the elevated ringroads in Puxi, and stopped at the square in front of the station, a place where thousands and thousands of people flow through every hour. During the four week trip, most of the time was spend in Nanjing, where I was able to experience more of the Chinese culture and lifestyle, yet it was not as awe-inspiring as Shanghai was. In between the summer of 2010 and 2011, I started learning Chinese, reading about Shanghai, and trying to get accepted into a Chinese university as an exchange student for one semester. The university turned out to be Tongji University, one of the top universities in China in regards to architecture and urban planning. The idea for the graduation project was a project aimed at social sustainablity and the privacy hierarchy order. When reading more and more about Shanghai, quite soon it became clear the ideal subject were the shikumen, the alleyway houses of the semi-collonial era of Shanghai, with their very interesting social structure. As high rise is the greatest threat towards the shikumen, the idea of combining these two opposities quickly became the concept of the graduation project. The semester in Shanghai was orientated towards gaining insight and understanding in the Chinese and Shanghainese culture, specifically in the shikumen. After roaming around in the city for days on end, finally the ideal location was found, Shenyu Li in Zhabei District. From there on, the journey continued with the final results being presented here.

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Introduction

This research thesis aims to gain a further understanding in two seemingly opposing typologies within the city centre of Shanghai, the semi-colonial alleyway houses, the shikumen, and the contemporary residential highrise towers. Between 1870 and 1937 thousands and thousands of alleyway houses have been build in mltiple styles. These houses are a hybrid form of architecture and combine elements from different cultures such as Chinese, British and French. This hybrid character of these houses is the same as the city itself, Shanghai is the most international city in mainland China. The city is neither Chinese nor foreign, but has a hybrid characters that perhaps only can be described as Shanghainese. While it is difficult to pin the cultural identity of such a big city like Shanghai to one specific place, it is unmistakable that for most of the 20th century, the cultural identity for the average Shanghainese could be found in the aforementioned alleys. The majority of the people in Shanghai used to live in and around these houses. They are known for their vibrant social life, which for a significant part takes place in the alleys, rather than inside the

houses. From the 1980's on, particularly in the 1990's and early 2000's, these alleyway houses located in the former foreign concessions have been destroyed in great numbers. Most of the land these buildings used to stand on is now being used by the high-rise towers that reach for the skies. While the living standard in these towers is a lot higher than the shikumen below, which are dilapidated by years of over-use, the social structure in the high rise seems to be lacking and the residents lead a much more solitary lifestyle, especially compared to the social structure and tight knit community in the alleyway neighbourhoods.

This research sets out to map the characteristics, similaraties and difference between these two typologies, with the main focus on the social structure, so a concept for a new typlogy can be developed, combining the best characteristics of both the shikumen and the high-rise. This has led to the following research question:

Which characteristics of the shikumen social structure can contribute to improve the social structure and architectural development of residential high-rise in contemporary Shanghai?

Three important aspects can be identified in the question:

- The setting of contemporary Shanghai
- The contrast between the shikumen and the high-rise
- The social structure

For each of the aspects, different methodologies will be used to analyse them and discover the essence.

The first aspect is the contemporary setting of Shanghai. Both the history and current state of Shanghai will be reviewed by means of a literature survey combined with empirical observations whilst being in Shanghai.

The constast between the shikumen and the high-rise will again be done by means of a literature survey. In case of the high-rise, both the global history as well as

the local history of high-rise will be review.

The final aspect, the social structure, will also be applied to the contrast of the two typologies, where a typological comparison will be made by four criteria. The four criteria that will be used to analyse the characteristics are; the privacy zoning hierarchy, the personal space, the environmental appraising & assessment, and the terrirotirality. In order to further understand the social structure for both typologies, a small survey has been conducted amongst residents of both shikumen and high-rise.

In addition to these main aspects of the research, several notes on (Chinese) culture will be given, based on literature research and emperical observations.

As this research is part of a greater project, the graduation project which is part of the graduation studio ExploreLab, the findings and conclusions will be implemented in the graduation design, which is focussed on a high-rise tower located in the chosen project location.

The concept of the design is to implement the good characteristics of the social structure of the shikumen in the high-rise tower, while at the same time maintaining and renovating the shikumen next to it.



CHAPTER I

SHANGHAI'S HISTORY

Early History

The popular opinion considers Shanghai to be a very young city with a short history. Visiting Shanghai this certainly seems to be true. It is the most modern city in China, both in technology as the people who inhabit it. Of course, we discussing the modernity of a city, especially non-western cities, the measuring standard is often the Western modern standards, and measuring by that, Shanghai is indeed a very modern city. So much in fact, that in many ways it is much more modern than almost any city in the West. Despite this, Shanghai has a long and rich history, from fishing settlement to Megapolis.

Chinese often pride themselves on the long history of China, which goes back more than 5,000 years. This makes it the oldest still existing civilization, unlike for example the Roman, Greek, Egyptian empires which collapsed Millennia ago. In the Chinese context, Shanghai is indeed a young city, compared to the Ancient capitals such as Xi'An (Chang'An), Beijing and Nan-

jing. But even the neighbouring cities of Suzhou and Hangzhou long outshined Shanghai as major cities in the Yangtze Delta. Yet the oldest traces of civilization in the Shanghai area go back many centuries, even as far as 2000BC1. This was mainly in the area of Songjiang, nowadays a satellite within the municipal borders of Shanghai. It was also Songjiang that first was recognized by the Central Government, and it became a county during the Tang Dynasty (618 BC-907) in 751 AD². It was the county of Songjiang that first recognized Shanghai, by updating the official status from village to market town, during the Song Dynasty in 1074³. During the 13th century, there was a big economic growth in the Yangtze River Delta area which spurred the growth of cities and towns such as Suzhou, Songjiang and Shanghai alike. During this era, the Yangtze river delta area established itself as the textile capital of China. Shanghai

¹ China Daily. (2009). Songjiang: the cradle of Shanghai. Available: http://www.chinadaily.com.cn/cndy/2009-09/28/content_8743682.htm. Last accessed 15th January 2013.

² Songjiang Urban Planning Museum

³ Cooke Johnson, L (1995). Shanghai: From Market Town to Treaty Port, 1074-1858. Alto Palo: Stanford University Press.

was mostly known for producing cotton, while Suzhou was the centre of the Chinese silk industry, which it still remains until this date. Right before the dawn of the Yuan Dynasty, Songjiang was promoted to a prefecture in 1277, and shortly after during the Yuan Dynasty in 1292 Shanghai was administered a county seat in the Songjiang Prefecture. ⁴

From this time on a series of periods followed alternating between stagnation and big growth. The Ming dynasty is marked as one of the most prosperous dynasties in Chinese history. Especially during the early days of the Ming dynasty, China became once again a seafaring nation. This happened only a few times during the imperial history, mostly the Chinese empire kept to themselves and did not explore anything beyond the borders of the empires. With Shanghai's proximity to the Chinese sea, it benefitted greatly from the overseas trade. One of the major feats that displays the prosperity during the Ming Dynasty was the construction of a city wall, with as main purpose to protect Shanghai from raids by Japanese pirates.⁵ The wall protecting Shanghai was about 10 meters high and spanned a length of more than 5KM. The enclosed area was oval shaped, and until this day, the outline is still clearly visible in maps of Shanghai. However, this oval shaped also indicates that at that time, and to a certain extend maybe even today, Shanghai's power was merely economic and not of any

⁴ Chunlan Zhao (2004): From shikumen to new-style: a rereading of lilong housing in modern Shanghai, The Journal of Architecture, 9:1, p51

⁵ Warr, A (2008). Shanghai Architecture. San Francisco: Watermark Press. p8.

political importance. The urban development of cities with political importance is regulated by the central government. This development is planned according to the guidelines derived from Confucianism (the book The Rites of Zhou) and geomancy such as Feng Shui, these guidelines dictate square urban shapes, which can be seen in the aforementioned mentioned cities such as Beijing, Xi'An and Suzhou. As Shanghai did not have this status, and the development was not controlled by the Central Government, therefore more natural and organic shape formed the Old City of Shanghai. The wall was constructed in 1554 and would remain in place until 1912. Consequently, this meant the city of Shanghai remained the same size for almost three centuries. The wall protecting Shanghai had a number of gates, both land gates and water gates. Within the triangle Shanghai-Suzhou-Hangzhou, there are many watertowns, nowadays the serve as tourist attractions; small authentic(-looking) villages with an extended network of land- and water-ways. During the Ming and Qing dynasty Shanghai could also be considered to be one of these water towns. The location of Shanghai, at the mouth of the Yangtze, close to the sea and connected to multiple rivers connected to the hinterlands, gave it an excellent position for trade. For the inland provinces it was the gateway to the world beyond China, while for the outside world, it served as a gateway to prosperous and industrious part of China, of course, it must be noted several regions along the coast can be identified, each with their own specialties and own "gateway".

Due to these distinct qualities Shanghai's economy kept growing, and as it did, Shanghai attract more and more people (even though the urban area stayed the same). This growth was recognized by local and national government on several occasions, which are milestones in the history of Shanghai. During the 15th century, the City God temple was constructed.⁶ Temples are buildings of great importance in Chinese history, therefore this also was a decision that had to be approved by a higher governmental authority. It was not within the power of the town itself to make the decision to build

Ibid.

6

a temple. The City God temple boosted both the economy as well as the morale of the Shanghainese people.

As mentioned before, depending on the reigning emperor, foreign trade would alternate between legal and illegal. Early Qing dynasty trade was illegal, but with the end of the Kangxi reign in 1684, foreign sea trade became legal again. One year later the first Custom House in Shanghai was constructed. Records of that time show that even around the turn of 18th century, the port of Shanghai was already busier than London!⁷

Perhaps the most significant event happened in 1732 during the Kongli reign in the Qing Dynasty.⁸ At this time the Custom Office for the Province of Jiangsu moved from Lianyungang, north of Shanghai in the Jiangsu province, to Shanghai. (At that time Shanghai was still part of Jiangsu Province, currently it is one of four cities with a special Municipality) This move gave Shanghai of the customs collections for the whole of

the Jiangsu Province. By the 18th century, Shanghai's economy was already rivalling that of Suzhou, which historically speaking always had been far more important. However, most of the foreign trade was limited to the south of China, in Guangdong, where the Canton system was in place.

⁷ Ibid.

⁸ Wikipedia. (2013). Shanghai. Available: http://en.wikipedia.org/wiki/Shanghai. Last accessed 22th Jan 2013



The First Opium War

During the Qing Dynasty, China considered itself to be the centre of the world. This also reflects in the name. 中国, the Middle Empire. Chinese civilization, at least in the eyes of the emperor, was considered to be far supreme to any other country in the world, which included the European countries. However, Chinese commodities such as silk, tea and porcelain were very sought after by the European elite. Because of the superior sentiment, the Chinese were not interested in European technology, as it was, unjustified, deemed to be inferior to Chinese technology. The only payment China would accept for their luxury items was silver. These lopsided demands created a massive flow of silver into China, quickly exhausting the European silver supplies. After multiple failed attempts, by the British East India Company, to establish a fair trade systems, they devised a plan to disrupt Chinese society. By importing opium, and getting all the influential people addicting to opium, they were able to create a demand which exceeded the demand of silver, and thus stop the one directional flow of silver into China. Initially opium

was allowed as trade material, but in 1839, opium was banned in China. This, of course, created great tensions between the British and Chinese, which resulted in the "Kowloon Incident"; a Chinese man was killed by British and American sailor while on a drunken spree. Both sides tried to stop the trade, which resulted in a series of battles, mostly between the rivalling naval forces, in each case the Chinese were defeated.⁹

The collection of these incidents would be known as the First Opium War, and it waged from 1839 and 1842. The modern Western technology was far superior to outdated Chinese technology, which became painfully obvious during the war. The outcome of the war was Treaty of Nanjing, which was the first of a number of "Unequal Treaties", it stated China had to pay massive war reparations to the British, mostly silver gained from the aforementioned trade, as well as opening a number of treaty ports. In these treaty ports, the British were allowed to create concessions where they had free trade.

⁹ Wikipedia. (2013). First Opium War. Available: http://en.wikipedia. org/wiki/First_Opium_War. Last accessed 5th Jan 2013.

Shanghai the Treaty Port

The cities chosen by the British were Shanghai, Ningbo, Fuzhou, Xiamen and Shameen Island (Guangzhou), in addition to those cities, Hong Kong Island became a British colony.

In 1844 the Unequal treaties of Bogue, Wangxia and Whampoa, respectively gave the British, American and French the right to trade on Chinese soil and extraterritoriality (the exemption of local law for the Western colonialists).

Shanghai was occupied by the British forces in 1842, and some months later, with the signing of the Treaty of Nanjing, they were able to legally trade on Shanghai soil, in addition to this, the Treaty of Bogue also granted them extraterritoriality. Contrary to popular believe, that Shanghai was a mere fishing settlement at this time, the Old city of Shanghai contained more than 550,000 inhabitants.¹⁰

The location the British picked for the their concession was a swampy area located just north of the Old City of Shanghai, bordering both the Suzhou creek as well as the Huangpu river. This was the first urban expansion of Shanghai in almost three centuries. This choice was looked upon as foolish by the local Chinese, as the swampy area was prone to flooding. Strategically however, it was a very good location indeed. It gave the British both trading and military control of everything coming in and out to sea, via the Huangpu River, and all trans-

¹⁰ Minimum Cost Housing Group. (2011). Chapter 1: History of Shanghai. Available: http://www.mcgill.ca/mchg/student/lilong/chapter1. Last accessed 22nd Dec 2012.

port further inland on the Suzhou creek. This gave them a far stronger position than previously imagined.

Soon after the first buildings on the western shore of the Huangpu were erected. This small strip would later become known as the, now famous, Bund. Bund, pronounced in the same manner as fund, is a hindi word meaning "embankment". 11 This zone was the premier trading area for Shanghai, and further spurred the Shanghai economy. With the treaties of the French and American signed, it became a shared piece of land. However, it was off-access to Chinese, with small exceptions such as maids or Chinese merchants, known as "Compradors". The basic deal was anything coming in or going out by sea would be dealt with by the colonialists, anything coming in or going out from the hinterland of China would be dealt with by the compradors. this created a lucrative system for both sides involved.

Right behind the commercial buildings, a bit further inland as seen from the Huangpu river, the Shanghailand-

ers would live. (The local Chinese population would be referred to as Shanghainese, while the foreigners were known as Shanghailanders). The first Land Regulation of 1845, made sure there would be no interference between the Chinese and their area and the British. 12 This meant that any Chinese living there, usually farmers, would be compensated and move away. The big and impressive buildings the Shanghailanders lived and worked in was in stark contrast to the old city. It was an incredibly overcrowded area and very poor living conditions. This was also one of the reasons there was no interference between these opposites. Chinese were not allowed in the foreign concession and any Shanghailander in their right mind would even think of going into the Chinese city. Of course, the Chinese, who were proud people, as can also be derived from the fact they considered their empire to be the centre of the world, were not happy with the intruders. On the same note, in the Shanghailanders eyes the Chinese were barbaric and uncivilized.

12 Ibid. p10

It was not long before British settlement was running out of space and both the French and American also wanted their own concession. The first step was an extension for the British towards the West, more than twice the size of the original settlement, thereby tripling their area. After extensive negotiations both the Americans and French were assigned their own area in Shanghai. The Americans got theirs in 1848, just north of the British settlement, on the opposite shore of the Suzhou Creek. The French Concessions came into existence in 1849, locked in between the British settlement to the North and the Chinese city to the south. 13 Whereas previously there was a buffer zone between the Shanghainese and the Shanghailanders, they were now living directly next to each other, however there still was no mingling between the two sides. These harsh feelings between the two side where also evident in the maps made during the early semi-colonialism. On the maps of the French, the Old city is depicted as an empty oval, while the structure of the foreign concessions are

drawn in great detail, paying great attention to all the luxurious hotels, prestigious warehouses, big mansions and wide avenues. On the other hand, the Chinese did much the same, meticulously drawing all the narrow and disorderly street of the Chinese city, while the area outside the city walls seemed like nothing more than agricultural land or a swamp.

This two faced city seemed like a very unhappy marriage between opposites, but one event would change all this.

The Taiping Rebellion

During the 19th century, the Yangtze river delta, often fell victim to violent conflicts. Most notable in this line of conflicts was the Taiping rebellion, a war that waged from 1850 to 1864, between the Qing Dynasty and the Taiping Heavenly Kingdom. The Taiping rebellion is listed as one of the most violent wars in recent history, claiming anywhere between 5% to 10% of the total Chinese population at the time, with a death of more than 20 million.¹⁴ One particular uprising was of great importance to Shanghai; the Small Swords Society, a sub-branch of the Taiping Heavenly Kingdom, was able to talk hold of the Chinese walled city of Shanghai in 1853. They violent rule send thousands of Chinese people looking for safety into the foreign concessions. The Taiping army smart enough to realize not to mess with the superior armies of the British, French and American, stayed clear of the concessions as they were under the extraterritorial rule, opposed to as under the Qing Dynasty rule. This flow of people was not just from the Walled city of Shanghai, but from all over the Yangtze

14 Heath, I (2010). The Taiping Rebellion 1851-66 (Men-at-Arms). Oxford: Osprey Publishing. p7.

River delta and beyond, Chinese people flocked to the safety of the foreign concessions. While only a couple of hundred Shanghailanders were living in Shanghai at this time, suddenly thousands of Chinese crowded the streets of the foreign concessions, quickly deteriorating the high quality living conditions of the rich Westerners. This sudden mixing of Westerns and the Chinese refugees was not welcomed by everybody and created a division amongst the Westerners and Chinese alike. The feelings that eventually decided to accept the refugees was perhaps best described by a British merchant Edwin Smith;

No doubt your anticipations of future evil have a certain foundation, and, indeed, may be correct enough, though something may be urged on the other side as to the advantages of having the Chinese mingled with us, and departing from the old Canton system of isolation; but, upon the whole, I agree with you. The day will probably come when those who then may be here will see abundant cause to regret what is now being done, in

letting and subletting to Chinese. But in what way am I and my brother landholders and speculators concerned in this? You, as H. M.'s consul, are bound to look to national and permanent interests – that is your business; but it is my business to make a fortune with the least possible loss of time, by letting my land to Chinese, and building for them at thirty or forty percent interest, if that is the best thing I can do with my money. In two or three years at farthest, I hope to realise a fortune and get away; and what can it matter to me if all Shanghai disappear afterwards in fire or flood? You must not expect men in my situation to condemn themselves to years of prolonged exile in an unhealthy climate for the benefit of posterity. We are money-making, practical men. Our business is to make money, as much and as fast as we can; and for this end, all modes and means are good which the law permits.15

By this speech and the money-making frame of mind, Edwin Smith was able to convince the British, American and French consuls to accept the refugees in the safety of the foreign concessions. This influx of Chinese in the concessions created many new problems such as public security and sanitation that needed to be solved. To bring regulation to the sudden chaos and solve these problems, in 1854 Land Regulations were used as a means to regulate the construction of buildings for the British and American concessions. The body to govern these laws was the Shanghai Municipal Council, also founded in 1854. The council consisted of foreign business men, not until 1928 the first Chinese was accepted into the council.

The first order of business of the Council were quite basic and consisted in assisting on the creation of new roads and collect taxes. The main income for the Council came from the construction of rudimentary houses in the British Concession, along Guangdong Road and Fujian Road. Many of the British business men who were previously mainly involved in the opium trade now switched their capital and attention to property

¹⁵ Lu, HC (2004). Beyond the Neon Lights: Everyday Shanghai in the Early Twentieth Century. Berkeley: University of California Press. p34.

development.

The buildings they constructed are known as wooden row barracks and form the base of what later would become Shikumen houses and Lilong neighbourhoods (the term lilong was not used during this time, it would first appear in the 20th century)¹⁶. The houses were designed to be built as cheaply and quickly as possible. As the name suggests, these houses were completely built out of wood and placed in rows like army camps. A further description will be given in the shikumen chapter. Within one year, 800 of these houses were build, by 1863 this number increased to 8,740.¹⁷

Aside from the Chinese refugees being allowed in the foreign concessions further evidence of a growing bond between the opposing forces in Shanghai was displayed in 1855, when the Qing Dynasty, the British and the French army collaborated to take back the occupied

walled city of Shanghai from the Taiping Army. While in Shanghai the foreigners and Chinese became more accustomed to each other, in other parts of China, the Second Opium War waged from 1856 to 1860. This war had little in impact on Shanghai. But by the end of the Second Opium War in 1860, the Ever Victorious Army was established. The ever Victorious Army consisted of Chinese Qing soldiers trained and under the command of European and American officers and mercenaries. This army fought against the Taiping Rebellion, which was ongoing until 1864. This army helped defend Shanghai during the Battle of Shanghai from 1861 to 1862, this time the Taiping Heavenly Kingdom was not able to take a hold of the city. Eventually the Rebellion ended in 1864.18

Liang, SY. (2008). Where the Courtyard Meets the Street: Spatial Culture of the Li Neighborhoods, Shanghai, 1870–1900. Journal of the Society of Architectural Historians,. 67 (4), p482.

¹⁷ Ibid. 4, p57

¹⁸ Wikipedai. (2013). Taiping Rebellion. Available: http://en.wikipedia.org/wiki/Taiping_Rebellion. Last accessed 12th Jan 2013.

One united city

During the entire length of the Taiping Rebellion, refugees from all over China would continue to seek safety in Shanghai. As previously mentioned, this created a booming real estate market. This need for housing also created a need for space. Again extensions of the concessions took place. In 1861 the French Concession expanded towards the South-East, which was fairly minimal, while in 1863 the American Settlement had a massive expansion towards to North East along the Huangpu River. This expansion was almost three times the size of the British Concession. This expansion also marked the combination of the British and American areas to form the International Settlement, as it would be known as from then on. While there was a small dip in the real estate market by the end of the Taiping rebellion, it would quickly pick up again, as Shanghai remained a safe city full of opportunities. Some of the refugees went back to their hometowns again, but the majority of them stayed in Shanghai, and lived in the many wooden row barracks. However, the people who were able to afford to move to Shanghai, quite often

were amongst the wealthier residents of their hometowns, living in luxurious courtyard houses. While, relatively speaking, their wealth in Shanghai was not as big as in their hometowns, these shoddy row barracks were still way below their standard, creating a demand for a better quality housing. This demand coincided with a decision by the Municipal Council banning any further construction of row barracks, deeming them to be a fire hazard and unsafe. ¹⁹ A new type of housing was required.

From the 1870's one shikumen were constructed in great numbers quickly replacing the old row barracks. The characteristics and impact of the shikumen will be discussed in the next chapter.

As time passed on, the three parts that divided the city grew a stronger relationship with each other. Shanghai started to become one city, while every area still had very distinct characteristics. The International Settlement was very industry driven, economy was the leading factor for the urban development. Warehouses and office buildings popped up by the dozens along the riverfronts of the Suzhou Creek and Huangpu River. But it was also characterized by the race tracks the British built. Race tracks were one of the highest priorities for the British and kept them entertained while being away from home. In total three race tracks were build in Shanghai, a bigger race track with each expansion towards the West. The final two race tracks are still clearly visible in the layout of present Shanghai, the biggest and most famous nowadays converted into People's Square. The French had other priorities and built several churches (The British also constructed a number of Churches, but it was not as high on their priorities list as the French), which characterized their concession. Compared to the industrial International Settlement, the French Concession was much more peaceful. Many of the French citizens lived in grand estates with luxurious mansions, while luscious trees lined the streets. Both of these were in stark contrast of the walled city, which did not benefit much from the western modernization.

It was still overcrowded and poorly facilitated compared to the Western parts of Shanghai.

Not only was each area of Shanghai identifiable by their outward characteristics, because of the extraterritoriality they also each had their own law. Something that might be illegal in the Chinese city would be legal in the French Concession, so to escape from the Chinese police in the walled city, one could simply cross the border into the French Concession and you would enter into another jurisdiction, getting off without a hitch. One could simply cross the border from one concession to the other, without the need of crossing a checkpoint and having to identify oneself. This is one of the reasons that can be attributed to the success of Shanghai as a city, and why it became such a big city and economically important city. The extraterritoriality also had downsides, as mentioned before, crimes could go unpunished by simply crossing the border, making Shanghai a gangster's paradise. It also affected the more good natured souls, if you would drive your car from the International Settle-

A new century

ment, through the French Concessions to the Chinese city, you would need to have three drivers licenses, one for each area you passed through.

Fom 1894 to 1895 the first Sino-Japanese war waged, which was a conflict over the Korean peninsula. Like many of the previous international conflicts China took part in, it resulted in another loss for the Qing Empire. Likewise, another Unequal Treaty was signed, now between Japan and China. While the Japanese didn't get their own concessions, it was another foreign force in Shanghai. The arrival of the Japanese introduced the construction of factories in Shanghai. These factories were mainly on the north banks of the Suzhou Creek and Huangpu river. Soon, the other nationalities in Shanghai followed suit, and Shanghai became the premier industrial city in China.²⁰

Going towards the turn of the century, Shanghai steadily kept growing and became a more mature city. This growth was also marked by yet another pair of expansions of both the International settlement as well as the French Concession. The expansion of the International settlement was in two directions, one towards the west

²⁰ Wikipedia. (2013). History of Shanghai. Available: http://en.wikipedia.org/wiki/History_of_Shanghai. Last accessed 19th Jan 2013.

following the path of the Suzhou Creek, and the other towards the east further along the Huangpu river. In total the International Settlement was close to 22 square kilometres, almost eleven times as big as the original walled Chinese city. The French concession expanded Westwards almost doubling the area, making it almost as big as the Chinese city.

The first decade of the 20th century was a reasonably stable time in Shanghai. While on a national level, it was quite the opposite. The Boxer Rebellion from 1899 to 1901 was conflict between the "Eight Nation Alliance" (Seven western countries and Japan) and the Qing Empire. Again it resulted in another loss for the Qing Empire. As if the Chinese empire hadn't been disgraced enough in the previous decades, perhaps the height of this disgrace was reached when the Imperial Palace was looted a second time (which also happened during the Second Opium War), this time for good, and many of the National treasures were looted by the Eight Nation Alliance.²¹ Of course this set bad blood amongst the

Chinese people, seeing their might empire lose again and again to foreign forces, after several millennium of sovereignty. The discontent of the people outted itself in multiple uprisings, several organised by Sun Yat-sen. Sun Yat-sen called for a modernization of the obvious outdated Chinese empire, a more western model. After several failed attempts, the Wuhan uprising in 1911 was successful, and after more than 2100 years (or 4000 years if the Ancient dynasties are included) the Chinese empire fell, and the Republic of China was founded in 1912 with Sun Yat-sen as the first president. His presidency would only last a couple of moths and the several Warlords took over, creating unstable political times.²²

org/wiki/Boxer_Rebellion. Last accessed 27th Dec 2012.

²² Wikipedia. (2013). Sun Yat-sen. Available: http://en.wikipedia.org/wiki/Sun_Yat-sen. Last accessed 27th Dec 2012.



Old Shanghai

While the Central government (now in Nanjing) was highly unstable, for Shanghai it ushered in an era of never before seen wealth and extravagance, for foreigners and Chinese alike. They final step for Shanghai to become one city, without separation, was the demolition of the city wall in 1911. In 1914 there was a final extension to the French Concession, in total about 9 square kilometre, over 6 times to previous area of the French Concession. With the final shape of the city determined, the pieces were set for Shanghai to become the most modern metropolis in Asia, even rivalling western cities such as New York, London and Paris. This era, from 1910 to the 1930's is the era nowadays referred to when speaking about "Old Shanghai". A Shanghai that was known by many names, such as the Paris of the East, The Great Athens of China, Pearl of the Orient and even the Whore of the Orient.²³ This modern Shanghai was evident through many ways in the day to day life in Shanghai.

The most unique and most overwhelming aspect of Old Shanghai were the people themselves, Shanghainese, Shanghailanders and other Chinese alike. Perhaps Aldous Huxley said it best, when he visited Shanghai in 1926, and wrote the following in his diary;

I have seen places that were, no doubt, as busy and as thickly populous as the Chinese city in Shanghai, but none that so overwhelmingly impressed me with its business and populousness. In no city, West or East, have I ever had such an impression of dense, rank richly clotted life. Old Shanghai is Bergson's elan vital in the raw, so to speak, and with the lid off. It is Life itself. Each individual Chinaman has more vitality, you feel, than each individual Indian or European, and the social organism composed of these individuals is therefore more intensely alive than the social organism in India or the West. Or perhaps it is the vitality of the social organism - a vitality accumulated and economized through centuries by ancient habit and tradition. So much life, so

²³ Dong, S (2003). Shanghai: Gateway to the Celestial Empire. Hong Kong: Formasia Books Ltd. p5.

carefully canalized, so rapidly and strongly flowing - the spectacle of it inspires something like terror. All this was going on when we were cannibalistic savages. It will still be going on, a little modified, perhaps by Western science, but not much-long after we in Europe have simply died of fatigue. A thousand years from now the seal cutters will still be engraving their seals, the ivory workers still sawing and polishing, the tailors will be singing the merits of their cut and cloth, even as they do to-day, the spectacled astrologers will still be conjuring silver out of the pockets of bumpkins and amorous courtesans, there will be a bird market, and eating houses perfumed with delicious cooking, and chemists shops with bottles full of dried lizards, tigers' whiskers, rhinoceros horns and pickled salamanders, there will be patient jewelers and embroiderers of faultless taste, shops full of marvelous crockery, and furriers who can make elaborate patterns and pictures out of variously colored fox-skins, and the great black ideographs will still be as perfectly written as they are to-day, or were a thousand years ago, will be thrown on to the red paper with the same apparent

recklessness, the same real and assured skill, by a long fine hand as deeply learned in the hieratic gestures of its art as the hand of the man who is writing now. Yes, it will all be there, just as intensely and tenaciously alive as ever-all there a thousand years hence, five thousand, ten. You have only to stroll through old Shanghai to be certain of it. London and Paris offer no such certainty. And even India seems by comparison provisional and precarious.²⁴

This life Huxley was speaking of was evident everywhere. In 1924, Shanghai counted almost 20,000 registered rickshaws, with about two to three rickshaw pullers per rickshaw. These rickshaw pullers would work in shifts, around the clock. Ten years later, this number had increased to 23,302, meaning there was one rickshaw for every 150 people living in Shanghai.²⁵ While

Tales of Old Shanghai. (Unkown). An excerpt from Aldous Huxley's diary, 1926. Available: http://www.earnshaw.com/shanghai-ed-india/tales/t-hux01. htm. Last accessed 15th January 2013.

²⁵ Ibid. 15, p69

the rickshaw were abundant and very convenient, there were many other forms of transport available. When discussing transport, Shanghai was the frontrunner in China, matching the western cities in terms of facilities. The first railroad in China was the Woosong Road, from Zhabei District, just on the edge of the International Concession, to Baoshan county, currently a district of the Shanghai municipality. Another major leap was the Nanjing Railroad, a line between Shanghai, Nanjing and Hangzhou, connecting the entire Yangtze Delta area, and therefore strengthening the regional economy once more. On a smaller scale there was a very successful tramway system in Shanghai. Each concession operated their own system, the first tram system was operated by the British, from 1908 on, and was also the largest of all three systems. A couple of months later the French trams also became operational. In 1913 the Chinese also joined in. By 1925 the complete Shanghai tramway system reached its maximum size, a combined 14 routes with 328 trams in operation. This system would remain in place until the 1970's.

During the glory days of Old Shanghai, the property development in Shanghai was absolutely booming, and many business man were able to generated small (or big fortunes) in mere months. Many of the richest people in Shanghai were part of this successful real estate business. Names like Victor Sassoon, Silas Aaron Hardoon and Li Hongzhang still are responsible for the construction of many still existing neighbourhoods in Shanghai.²⁶ During decades from 1910 to late 1930's, the Early style shikumen made place for a more modern variant, now known as the later style shikumen. These houses were usually three stories (compared to the two storey early shikumen), had a smaller footprint. These shikumen neighbourhoods could be absolutely massive, as big as 600 houses in one single neighbourhood. While this type of Shikumen are by far the majority of Shikumen houses remaining nowadays. From the 1920's to the late 1930's another new housing typology came into existence, the New Style Lilong housing, the neighbourhoods were constructed in the same way as the shiku-

²⁶ Feng, ST (2009). Shikumen: Experiencing Civil Residence and Alleys of Shanghai Style. Shanghai: Shanghai Chinese Classics Publishing House. p30.

men neighbourhoods, but had an even higher density; a small footprint and up to five stories. However these different types of houses are not the only architectural heritage from that era. Any visit to Shanghai will include a visit to the Bund, the original stretch of the foreign concessions along the Huangpu river. All the neoclassical buildings that make it so famous today were build in the first decades of the twentieth century. All of these buildings are second or third generation, meaning the companies construct new buildings whenever they had the money and technology to do so. However, the current buildings are still from that era, without any major changes in the outward appearance. From 1929 to 1934 the Peace Hotel on the Bund was the highest building in Shanghai, for the next 50 years from 1934 to 1983 this title would belong to the Park Hotel on West Nanjing Road. Another architectural style that was very popular in Shanghai was Art Deco. A lot of western settlements in Asia embraced the art deco style, yet few did it as intensely as Shanghai did. To this day, few cities can match the amount of art deco buildings that

Shanghai has, if any. Not only did it appear in Western style buildings, such as the building on the bund, also the hybrid architecture such as the shikumen adopted and incorporated art deco elements, often mixing this western style with Chinese patterns and elements. As most of the remaining buildings from the colonial era were build from the 1910's to the 1930's, which are still present in the cities today, this era in particular is reminiscent to Old Shanghai.

Entertainment

Shanghai became known as a playground for grown-ups. Examples of this can be found in anecdotes about places such as the Great World. It was a six storey entertainment complex, opened around the clock, with 24/7 entertainment. Anything from gambling, opium smoking, peepshows to more good natured fun such as restaurants, magicians and jugglers. The entrance prize was fairly cheap, and therefore available for almost anybody. ²⁷

For the elite there was also plenty of entertainment to be found. In the movie Shanghai Triad, account of this is given, in their luxurious mansions, extravagant parties would be hosted by the elite in Shanghai, whether they were Shanghainese or Shanghailanders. For the Shanghailanders, perhaps the most exclusive establishment was the Shanghai Club, on the Bund. It was limited to the members only, and one would except to this to be restricted to perfect gentlemen behaviour only, a look in their accountancy revealed the opposite, even in 1870

the expenses for the Club's library only amounted to 72\$ but the liquor expenses totalled \$6,724.²⁸

More common forms of cultural entertainment were abundantly, movies quickly became popular in Shanghai. The many cinemas in Shanghai drew plenty of visitor every day. Not only was Shanghai a popular location for Hollywood movies (and these movies would also be popular in Shanghai itself). Shanghai had a very lively movie industry of its own, a first in China.

In the 1930's Shanghai was also famous for the many writers living in Shanghai. Famous writers such as Lu Xun, Mao Dun and Ba Jin all lived in Shanghai. While these writers were very successful, many lesser known writers also lived in the city. These are commonly known as "Garret writers" who wrote the "tingzijian" literature, named after the room in the shikumen these writers used to rent and work in. It was the smallest room in a shikumen house, usually on the north side, making it the most uncomfortable room in the house,

²⁷ Ban, S (1985). Anecdotes of old Shanghai. Shanghai: Shanghai Cultural Pub. House. p10.

²⁸ Ibid. 23, p41

which was the only room these poor writers would be able to afford.29

While these writers were certainly amongst the lower class people in the city, in stark contrast to most of the Shanghailanders and people such as the Shanghai Club members, they certainly were not the worst off. In a city with so many riches, there are was also bound to be massive amounts of less fortunate people, and sadly that was painfully true for Shanghai too. Many of the Chinese living in Shanghai were living in poverty. According to Stella Ding, cold winter nights could wound up to be fatal for 400 Shanghainese per night, while up to 50,000 dead babies were found on the street each year.³⁰

During the previously mentioned politically unstable times, a new, underground, movement starting gaining ground in Shanghai. It seems like no surprise Shanghai was a good incubator for a new political movement. The location of Shanghai is quite central within (Eastern)

China, but far enough from the Central government to be below the radar.. In 1921 the Chinese Communist Party was founded in the French Concession. Both the first and second Congress of the CCP were held in Shanghai, in a shikumen neighbourhood, the site of the first Congress is now part of Xintiandi, which will further explained later on.³¹

Ibid. 26, p107

³⁰ Ibid. 23, p16

A city at last

In 1927 Shanghai was finally recognized as a city (at the time the 5th biggest city in the world) and it was given the status of Direct Controlled Municipality, separating it from Jiangsu Province.³² Not long after the fact, new urban plans were proposed. The plan was to construct a new Chinese city centre, further away from the foreign concessions, in the current Yangpu District. The site is currently known as Wujiaochang (Pentagon area), referring to the five major roads coming together at the "square". The construction started shortly after presentation the City Centre Area plan in 1929. In 1931 the Greater Shanghai Plan was presented as view for the entire municipality. While the basis was made, the plan was never finished.³³

of Shanghai. Sadly, the opposite proved to be true, in 1937 the second Sino-Japanese war started, which in hindsight was the start of World War 2 in Asia. During the Battle of Shanghai, several areas of Shanghai were bombed down and eventually taken by the Japanese. The Great World entertainment palace was also bombed during this time, as a mistake by the Chinese air force, killing more than 1,000 people. With the threat of war, many of Shanghailanders and wealthier left in search of a safer place. With them, their money also left, and therefore the glamorous, bourgeois ways quickly disappeared. After nearly a century of almost continuous growth, the flame of Shanghai finally started to dim.

By the late 1930's Shanghai counted more than 3 million inhabitants, making it one of the biggest cities in the world. It seemed as if there was no stopping the rise

³² Den Hartog, H (2010). Shanghai New Towns. Rotterdam: 010 Publishers. p14.

³³ Ibid.

World War II & Communism

From 1937 on, the construction slowed down and almost halted, and what worse, several areas of Shanghai were destroyed by the bombings and fighting that took place during the Second World War. Yet, Shanghai still was considered a fairly safe place, compared to other cities such as Nanjing. Previously, all population growth was equalled with a growth in construction, in this case, the construction stopped but the people kept coming to Shanghai, resulting again in an overpopulated city. There was one bright spot, in the opinion of the Chinese at least, in 1943 the Foreign Concessions were handed over to China again.³⁴ In reality, Shanghai was still occupied by the Japanese, but on paper Shanghai was finally completely Chinese again, after a century of foreign occupation. This treaty included all other treaty ports, with the exception of Hong Kong, which remained under British control, even though it was also occupied by the Japanese during the Second World War.

When the war ended in 1945, Shanghai was ready to

make an impact again and the first satellite cities were being design, for the Greater Shanghai Plan of 1946 (Every couple of years, the plans would be updated and adjusted with a new view).³⁵ This plan mainly distinguished between the Urban Area (the city centre) and the Municipal Administrative Area (the area outside the centre). The idea was to have one "mother-city" and several satellite cities, that were still connected to the city. During the late 1940's the first plan of extending Shanghai to the other side of Huangpu river were also proposed. However, these plans were dismissed, when the Chinese Communist Party came to power in 1949.

The communist control brought drastic changes to Shanghai (and China, of course). First off, China was completely sealed off from the outside world, all the concessions already were Chinese for a couple of years, but now all western influences were shielded off. China did allow some foreign influence, namely the Soviet Union. This manifested itself in Shanghai in 1950, when two Soviet experts were invited to help with the future plan-

³⁴ Wasserstrom, JN (2009). Global Shanghai, 1850–2010. London: Routledge. p80.

³⁵ Ibid. 32

ning and development of Shanghai. The plan focussed on integrating residences and work more, which can be seen in the danwei system.³⁶ The danwei's are industrial communities, combining dormitories with industrial functions, often factories. These midrise buildings are usually between five and ten stories in height and are build in rows, with small gardens in between. On the peripheries of the pre-war city this typology was constructed, most notable towards the west and north. Another plan was drafted in 1953, again with the help of a Russian expert. This plan focussed on redesigning the city centre of the foreign concessions. Only a few parts were actually implemented, including the "People's Square", a square intended for political gatherings on the location the former British Racecourse.³⁷ In the same year, a major decisions by the Communist government transferred all land ownership, which previously could have been privately owned to the government. First the land owned by the landlord would be confiscated by the government, and from there on distributed amongst the poor farmers and peasants. Not only was the land taken from the landowners, many of them were targeted by political movements humiliating them, and in some cases even killing them. In years following, most privately owned businesses and all industry was nationalized, in which again the "rightist" business owners suffered from the wrath of the people.

In the first decade of Communist rule, Shanghai saw an incredible increase in housing, as many "Xincuns" (new villages) were build around the former concessions as housing from the workers, and increase the floor area available per capita, which had been living packed together in the Shikumen during the war and the years following.³⁸ While further away from the city centre, this midrise housing typology had better amenities than the outdates shikumen houses.

In the decades following, multiple plans were designed, but they had one theme in common, industrializing the

³⁶ Ibid. ,p16

³⁷ Ibid.

³⁸ Lü, JH., Rowe, PG., Zhang, J. (2001). Modern urban housing in China, 1840-2000. London: Prestel. p114.

countryside, putting the emphasis decentralizing the city and strengthening the control over the countryside. Shanghai being the most western city under Chinese control (Hong Kong not included), was the scapegoat for many policies of the Central Government in Beijing. Shanghai was deemed as a capitalist, bourgeoisie city, the exact opposite of the Communists ideal. While Shanghai was vitally important to the China, next to no money generated in Shanghai was reinvested in the city. Shanghai alone was responsible for up to 12% of the countries' total GDP, yet only a fraction of this was reinvested in city itself. Not only the capital within Shanghai was distributed to other parts of the country. During the Great Leap Forward (1958 to 1961) many people were send from the city to rural areas, to get back in touch with the rural way, and reduce the class and cultural differences between the urban and rural areas.³⁹ Since the first modern dynasty 2 centuries BC, China had been a rural country, for the first 2000 years, China was the biggest producer of agricultural goods

before being over taken by the USA. While there was a strong urbanization during the semi-colonialists era, it remained a rural-based country. The communist party endorsed this concept and wanted to reverse the urbanization.

In 1959 another plan was drafted, based on the concept of building industrial satellite towns in the countryside. The ideal distance from the city centre would be 20km and a population between 50,000 to 200,000 people. Of course, these towns consistent mostly of the aforementioned danwei's. Within the municipality of Shanghai examples of these satellite towns are Minhang and Wujing, both located south of the city, and Baoshan, located north of city on the banks of the Yangtze river.

During the Cultural Revolution (1966-1976), almost all development to both cities and satellite towns alike was halted. The Cultural Revolution fought against the bourgeoisie and capitalist ideals that were still "corrupting" the Chinese people. So of course, Shanghai could not be excluded in this campaign. In 1967, during the

China opening up

"January-Storm" the people were riled up against the Shanghai Municipal Government and many the standing members were purged from their function.⁴⁰ In addition to this, great amounts of citizens were forced to leave the cities and work the land in rural areas. Especially the upper, and former ruling class as well as the higher educated people were affected by these decisions.

When Mao Zedong died in 1976, the cultural revolution ended. In the two years following the dead of Mao, several power struggles took place in Beijing, leaving the rest of the country in uncertainty. In 1978 Deng Xiaoping emerged as the new leader. Deng Xiaoping is most famous for the "Opening up" policy; opening China to the (non-communist) world again after 29 years of seclusion. Deng Xiaoping introduced the "Socialism with Chinese characteristics"; a socialist market economy, which can also be described as State Capitalism.⁴¹ After the ten years of the Cultural Revolution, the economic playing field was completely levelled, and everybody (except for some government officials) was equally poor. This policy introduced a race who could get rich the fastest.

For Shanghai, which had remained an industrial powerhouse through the Mao-era, albeit more decentralized as before, new plans were made. The initial plan was to keep the growth of the city centre minimized, while

⁴⁰ Wikipedia. (2013). Cultural Revolution. Available: http://en.wikipedia.org/wiki/Cultural_Revolution. Last accessed 19th Jan 2013.

⁴¹ Wikipedia. (2013). Socialist Market Economy. Available: http://en.wikipedia.org/wiki/Socialist_market_economy. Last accessed 28th Dec 2012.

developing the new towns located in the municipality. In 1986, a long-term vision for Shanghai was created. 42 From 1986 to 2020, Shanghai was to become an international economic centre, while also focussing on making it a scientific and cultural hotspot in the region. Not only would Shanghai expand towards the West, making a link with Nanjing and Hangzhou, it would also focus on seven satellite cities, each with a particular industry. Minhang, Wujing, Anting, Jiading, Songjiang, Jinshan and Wusong-Baoshan were chosen as the towns for development, ranging from scientific research areas to the petrochemical industry. This includes some of the same towns from the previously mentioned plan for Shanghai made in 1959. These satellite towns were expected to operate independent from the central city of Shanghai, under the control of the state companies of the designated area and specialism, for example, Wusong-Baoshan was under the control of the Baoshan Steel Corporation. After a few years, it turned the plan was a big failure and it was discontinued. 43

Meanwhile, in other places in China, the policies of Deng Xiaoping were highly successful. In 1980 four areas were designated as Special Economic Zones; Shenzhen, Zhuhai and Shantou in Guangdong Province and Xiamen in Fuzhou province. Within these SEZs flexible and more free-market policies applied, and it allowed for foreign investment in those particular areas. These area's were strategically chosen, Shenzhen was right next to Hong Kong, Zhuhai is located close to Macao, Xiamen is right across Taiwan from the Taiwan Strait and Shantou is located in the middle of Taiwan and Hong Kong. One common trait all of these cities had was the access to seaports. Especially Shenzhen proved to be a great success, it was by far the biggest SEZ and with its close proximity to Hong Kong the development of the city skyrocketed. Shenzhen quickly became one of the top, if not the top location for the manufacturing of electronics in the world. While the experiment was extremely successful, at the time of the initial implementation, Shanghai was explicitly not chosen to take part in the experiment.⁴⁴

⁴² Ibid. 32, p22

⁴³ Ibid.

⁴⁴ Wikipedia. (2013). Special Economic Zones of the People's Republic of China. Available: http://en.wikipedia.org/wiki/Special_Economic_Zones_of_

As mentioned before, Shanghai was the economical motor of China, while the Guangdong province generated very few taxes for the central government in Beijing, it was financially expendable. Three out of the five SEZ's were located in Guangdong, with the other two in very close proximity, all of these areas were of no vital importance to Beijing, if the experiment would fail, no real harm could be done. If the experiment was tried in Shanghai and failed, it would have had drastic consequences for the entire country. In 1984 Deng visited the SEZs and as the SEZ proved to be extremely successful indeed, later that year another fourteen coastal cities were added as "open cities", making them available for foreign investment. Amongst these cities was also Shanghai, three areas were chosen as Economic and Technological Development Zones (ETDZ); Hongqiao, Minhang and the Caohejing Development zone. These ETDZ's sparked new life into Shanghai, and it would mark the beginning of the reappearance of Shanghai on the world stage again. 45

the_People%27s_Republic_of_China. Last accessed 27th Dec 2012.

Gupta, SP (1996). China's Economic Reforms. New Delhi: Allied

In 1988 a fifth SEZ was added to the list, the island of Hainan became a province and an SEZ in its entirety. The next addition was the biggest step for Shanghai in it's the surge towards the top, the Pudong New Area was designated as a SEZ. Within Pudong four specific areas were chosen:

Lujiazui Financial & Trading Zone, most well known, directly across from Bund Waigaiqiao Free-Trade Zone, North-Pudong, close west to the Yangtze Manufacturing Zone, located Jingiao Export across the Huangpu close to the Yangpu District. Zhangjiang Hi-Tech Park, a bit further east as seen from the Lujiazui area. 46

Publishers Ltd. p148.

Wikipedia. (2013). Economic and Technological Development Zones. Available: http://en.wikipedia.org/wiki/Economic_and_Technological_Development Zones. Last accessed 29th Dec 2012.

The booming 1990's

When Deng decided Pudong should be the sixth SEZ, he described Shanghai as the "Head of the Dragon". 47 Shanghai is located at the confluence of the Yangtze river and the Chinese Sea, meaning Shanghai would be the leading city for the entire Yangtze area, and in fact, the while country. 1990 also brought another big changes for both Shanghai and the whole of China, the land regulations were changed and from here on it would be possible to lease the land use rights from the government for a period of 40 to 70 years. 48 This proved to be another giant impulse for the both the real estate sector as well as the property development business. Both danwei units as public housing were being sold to the former tenants or third parties by the state, in addition to this large amounts of new construction started to replace the old building stock. Shanghai was being overtaken by a never seen before surge of construction.

The Pudong New District Plan was designed in 1992,

focussed on making it as attractive as possible for foreign businesses to set up shop across the river from "Old Shanghai". Not only did it attract the foreign businesses, it also proved t be a magnet for many migrant workers from the whole of China, looking for better economic opportunities. The massive influx of new migrants called for new housing to be constructed, which created a new need for construction workers, creating a spiral sending Shanghai towards the top of the world stage again. The urban myth goes that during the 90's 25% of all construction cranes in operation were in Shanghai. Whether this is true or not is hard to check, what is known that during 1990 and 1998 about 2000 highrise towers were constructed, 1145 of which were over 20 stories tall.⁴⁹ Pudong was, and still is, on the forefront of high rise construction, boasting one of the tallest skylines in the world. Most of the high rise was build in the city centre, while outside of the inner ring road, the building height for residential apartment complexes was restricted to 33 floors (in 2000 this was increased to

⁴⁷ Balfour, F. (2007). Shanghai Rising. Available: http://www.business-week.com/stories/2007-02-18/shanghai-rising. Last accessed 29th Dec 2012.
48 Ibid. 32, p26

⁴⁹ Shanghai. (2001). Shanghai Statistical Yearbook 200. Available: http://www.stats-sh.gov.cn/tjnj/2000/tables/6_6.htm. Last accessed 5th Jan 2013.

60 floors)⁵⁰, spurring the construction of vast amounts of midrise compounds outside of the downtown area. In 1990 the construction on the most iconic tower on Pudong started, the Oriental Pearl Radio & TV tower, reaching a massive 468 meters into the sky. In 1994 the construction was completed and since then it has been joined by many other towers.

Of course, this new growth also created for a new infrastructure. While during the 1960's there had been plans for metro lines in Shanghai, they were never realised, but in 1995 Line 1 of the Shanghai metro network became operational, shortly followed by Line 2. Aside from the public transport, an extensive road network was created. Shanghai counts three rings roads, encircling the downtown area. In 1994 the inner elevated ring roads was opened, with a length of 50 km, two years later the construction of the Outer Ring road began, spanning more than 100km. Since 2003, the Middle

Ring Road is also under construction.⁵¹ In addition to the ring roads around the city centre, there are 9 roads "cutting in" from the outside towards the centre, connecting the Ring Roads. The most famous, and most prominent of these roads is the Yan'An Elevated road, from Hongqiao towards the South Bund, following the path of what used to be Avenue Edward VII in the French Concession.

In order to channel this massive new development, the Municipal Government react by again designing a new master plan for Shanghai in 1994. The objective to the master plan was to turn Shanghai into a "Modern Regional Urban System" by 2020 with a 75% urbanization for the entire municipality. In order to relieve pressure from the city centre, the position of the satellite cities would be strengthened, turning Shanghai into a polycentral region.⁵² This allowed for greater control of the urban sprawl that had taken control of Shanghai. Exerting this control did not only stop the unstructured

⁵⁰ Urban, F (2011). Tower and Slab: Histories of Global Mass Housing. London: Routledge. p156.

⁵¹ Ibid. 32, p26

⁵² Ibid.

construction in and around Shanghai, it also caused a gentrification process in the city centre. The lilong neighbourhoods that represented the (cultural) identity for more than a century were now being destroyed en masse.⁵³ After decades of use and abuse, in combination with outdated sanitation systems, many lilong neighbourhoods were rundown and becoming slums. All of these neighbourhoods made way for modern high rise, with much higher living standard and therefore a much higher price. Most of the original inhabitants were compensated by getting the offer of newer apartment. There were only certain areas in Shanghai with affordable housing which could be provided as compensation; the satellite cities. One of the main concepts of the satellite cities was the strengthen the city-country connection. With the old centre being gentrified and the poorer people being send to these new towns, perhaps the opposite was achieved. What must be noted that with the new land regulations, the "hukou" legislation

also changed. The residents of these new towns retained their urban hukou's. The concept of hukou will be explained in the Chinese culture chapter.

⁵³ Shanghai. (2005). Shanghai Statistical Yearbook 2004. Available: http://www.stats-sh.gov.cn/tjnj/nj.htm?d1=2004tjnj/C0709.htm. Last accessed 12th Jan 2013.

The 21st Century

As Shanghai kept growing on an unprecedented scale, another new master plan was introduced in 1999, further defining the satellite cities. The plan is being realised from 1999 to 2020, the 1-9-6-6 model; One central city aimed towards the service industry, nine decentralized "key cities" as administrative centres, one for each district (300,000 to 1,000,000 residents), sixty small towns (50,000 to 150,000 residents) and six hundred central villages (2,000 residents). Amongst the aims of this master plan was an attempt to further accelerate the process of relieving the pressure of the inner city. (note: In this context the inner city is defined with the whole area inside the Outer Ring Road, about 667 km², while the new cities are located in between the area of the outer ring road and the municipal borders, about 6000 km².) This was achieved by relocating more people from the downtown area towards the "New towns", with numbers from 50,000 to 100,000 residents annually being relocated. In total these new towns can capacitate 5.4 million people. The nine cities

can be divided into two categories, Songjiang New City, Luchaogang New City and Jinshin city are "strategically situated new cities" while Chengqiao, Baoshan, Jiading, Qingpu, Minhang and Nanqiao are located next to "Municipal Industrial Estates".⁵⁴

As a way to promote the new towns and attract interest, each new city had a certain themed town. These towns mostly had European themes, for example, there is a Holland New Village in Waigaoqiao, an Italian village in Pujiang New town, but also an eco city on Chongming island. These towns were designed by foreign architects, of their respective themed country, in cooperation with Chinese architects to adjust the designs for the needs of the Chinese people. During the design of these urban plans many of the foreign firms were struggling with the requirements, for example the German themed Anting New Town, as part of the International Automobile City in Jiading district. The plan was design by Albert Speer and Partners, and with high exception they were able to design 30% of the building not South facing. Most of the other towns, all housing units were required to be South facing, quite different from western town planning.⁵⁵ In hind sight, these towns have largely failed. While almost all houses are sold (often paid in cash), very few are actually inhabited. The cause of this is due to a widespread problem in China, the problem of real estate speculation. The upper class is buying apartments by the dozen for speculation and investment, as it is seen as a better option than putting it on the bank. While the government is even to this date still struggling with putting restrictions on speculation and limiting the amount of property people can own, the relocation areas are by far the mostly lively. In some neighbourhoods in the new themes, it seems the security guards outnumber the residents living inside the compound.

During the first decade in the 21st century, many of the urban areas outside the outer ring were under construction, but also within the city centre reshaping of the city took place. In 2002 Shanghai won the bid for the World Expo of 2010. This nearly fitted into the plan of turning Shanghai into a city of cultural importance again. After the downfall of Shanghai during the second world war, all cultural identity had been stripped to make way for an industrial identity. The almost 50 billion USD investment in Shanghai for the expo was one the ways of regaining the cultural identity again. The site of the Expo was area of 5.28 km² on both side of the Huangpu river about 2.5km Southwest from the old city. Aside from relocating over 18,000 families and 270 factories within the area of the Expo site, the entire city got an overhaul in preparation for the event.⁵⁶ Over six new metro lines opened in the years leading up to the expo (which also provided a better connection to some of New Towns) and a showcase of China's unlimited possibilities a Maglev (Magnetic Levitation)

⁵⁶ Wikipedia. (2010). Expo 2010. Available: http://en.wikipedia.org/wiki/Expo_2010. Last accessed 19th Jan 2013.

train was constructed from Pudong Airport to the edge of the city centre, quite close to the Expo grounds. The Expo proved to be a great success breaking multiple records, amongst which the total number of visitors which exceeded 73 million in just half a year.

In conclusion

The Expo of 2010 was a success and put Shanghai back into the limelight of the world stage again, it is still having difficulties in accepting the identity of the city. Shanghai was, and probably will be for a long time, a city that is build on industry and business. While Shanghai is trying to portray itself as a cultural city, it remains overshadowed by its economic status. Compared to Beijing, which not only has world class attractions such as the Forbidden City, Summer Palace, Temple of Heaven and the Great Wall, Beijing also a very lively and vivid cultural and art scene, Shanghai is still lagging behind. Numerous museums have been opened, some of which are regarded as the top in their category for the whole of China, such as the Shanghai Museum of Contemporary Art. Iconic shopping areas in the French Concession reminiscent of Old Shanghai like Xintiandi and Huaihai Lu attract crowds from all over the world. And yet, Shanghai cannot rid itself of the stigma of a city that is ruled by money, the power of money and quest for it.

While Shanghai will continue to grow at a mind bog-

gling space, it will mature more and become more comfortable in its role as hyper modern metropolis. With the economic crisis Shanghai is being slowed down a bit, when the new development will slow a bit, the people will be able to keep up with the pace again, the inhabitants get more time to reflect on this city and find the new and suitable identity that will define Shanghai in the 21st century. While many other Chinese cities are trying to modernize both the city and the lifestyle fitting for it, Shanghai is already way ahead and is the international metropolis it aimed to be. From here on it has to continue to mature accepting its history and future. The biggest construction boom has passed, and slowing down the pace, would seem the most reasonable thing to do, but regardless of the time period, Shanghai will always continue to develop at a staggering pace. We can only guess how it will be in 10 years.



CHAPTER II

NOTES ON CHINESE CULTURE

Hukou

In this chapter several cultural aspects will be discussed that will be of importance in the chapters following this one. The chapter will be focused on, but not limited to, Chinese culture. The methodology for these aspects is both the result of literature study as well as personal observation while living and travelling in China.

The Hukou system was already shortly introduced in the previous chapter. A hukou is a record in the household registration within China. This system has been topic of discussion for many decades, mainly due to the divide between the "Urban" and "Rural". While the family registers go back as far as the Xia Dynasty (2100 – 1600 BC), the recent controversy only goes back to the Mao era. The Since the 1950's the hukou has mainly been used to stop, or at least slow down the flow of people from the rural areas towards the cities. Since the Economic Reforms of the Deng Xiaoping era, the legislation has been loosened, but many feel the system should be abolished.

For both rural and urban hukou there are certain advantages. For the urban hukou, it gives the family the right to work in the side, education for children and various other benefits tied to living in the city. What is a benefit for the urban dwellers, is very much a disadvantage, and some go as far as called it discrimina-

⁵⁷ Wikipedia. (2010). Hukou System. Available: http://en.wikipedia.org/wiki/Hukou_system. Last accessed 19th Dec 2012.

tion against the rural citizens. Since the Opening Up of China in the 1980's hundreds of millions rural citizens have migrated towards the city in search of a better life, however, they cannot bring their children with them, as they are not allowed to in the urban education system. The migrant workers themselves are often limited to the most basic, and therefore low wage jobs and are only allowed to work in the city if they buy a temporary urban working permit, forming the so-called floating population. In Shanghai the floating population makes up about 1/3 of all inhabitants, while in cities such as Shenzhen, as much as 75% of all residents belong to the floating population with rural hukou's.⁵⁸

The rural hukou is tied to the village the family is from and gives the right to a certain area of land within that village. In recent years, there have been many cases of rural villages in the peripheral area of big cities that were swallowed by the urban sprawl. As these villages were in the direct path of the plans of the project developers, generous compensations have been paid to acquire the ground for the new construction. The village residents, and everyone who is registered to that village with a rural hukou, will take and equal share in the compensation, in some cases making them overnight millionaires. Tales of these dream scenarios spread quickly, causing many of the migrant workers to decline the possibility of an urban hukou if given the chance. Given the controversy surrounding the system, and the recent mutual disinterest of both the urban and rural in obtaining each others hukou, the call for abolishing the system altogether has been growing stronger over time.

⁵⁸ Wikipedia. (2013). Shenzhen. Available: http://en.wikipedia.org/wiki/Shenzhen#Demographics. Last accessed 19th Dec 2012.

Jia

In order to understand how a Chinese Household works, it is necessary to understand the nomenclature used in China to talk about a home. 家, Jia, House, home, family, aside from the meaning of the character which can be any of these three words, determined by the context, these three definitions are also inseparably connected within the Chinese culture and the Chinese language. As most Chinese characters it is comprised of multiple building blocks, each with its own meaning and when combined in the right order, a new word is created. In the case of jia it has two building blocks; the radical , mian, on top of the character, which means house, or roof, and 豕, shi, pig, below the radical. So literally the meaning of jia is when there is a pig under the roof, the result is a family or a home. As odd as it may sound to the western ear, this is the base to a good family. situation. There are multiple ways to explain the character. First of all the literal meaning; in Chinese the meaning of family is "a related group of people who eat out of one pot", pork being one of the most common type of food in China, therefore can represent the act of a family eating together, pork in this particular case, under one roof. In addition, if a family was able to afford to eat meat, this meant they are relatively wealthy, and good off. The more figurative meaning can refer to a household as an economical unit. One family together breeding pigs, thus providing an income. It is a family making a living in and around the house, combining both production and consumption.⁵⁹

Since ancient times, whenever a family would build a house, it would be build for their specific needs. There was no architect involved, just the combination local vernacular building tradition that dictated the techniques that could be used and the specific needs of the family would define the shape and look of the house. In case there was a need for more room, or less room, rooms could be added or destroyed accordingly. This meant that one piece of land would be used by a family indefinitely, often extending as time passed on and the family grew larger. However, the reasons for this was not

⁵⁹ Knapp, RG (2005). House Home Family: Living and Being Chinese. Honolulu: University of Hawaii Press. p223.

the ideal of keeping a family together, but more so of one family living with a shared budget, again showing the family as a cooperating economical unit.

The relationship between the *house* as a *home* to the entire *family*, both consuming and producing, shows the connection between these three meanings when discussing the character Jia. To give further insight and understand into the Chinese nomenclature, there are two examples which illustrate how the word jia is used to describe the social relationships in China.

First of all there is 家挺, which contains the characters Jia and Ting, Family and Courtyard. The combined meaning is family or household, illustrating the importance of the courtyard, which is present in almost any vernacular architectural style within China, and how this connecting element in the house bring together all member of the family. Another example is the word "everybody", or as the the Chinese say 大家, da jia, literally mean-

ing big family. The lilong neighbourhoods in Shanghai can be used to illustrate this example, when referring to everybody in the neighbourhood, one would use da jia to address the people in the neighbourhood as a whole. This also already gives a view about the social structure which can be found in the lilong neighbourhoods.

Leapfrogging

As mentioned before, Chinese civilization goes back thousands of years. For nearly all of this time, a small, incredibly wealthy elite have ruled of the proletarian majority. For the imperial times, the ultimate ruler was the emperor, right below the emperor were his family members, but also other people that were parts of the palaces, such as eunuchs and concubines. Aside from this select group, the majority of the Chinese people fell into four categories, the shi nong gong shang $\pm \kappa \bot$ $\bar{\mathfrak{p}}$, the scholars, farmers, workers and merchants. Below these four groups were other professions such as guards, soldiers, prostitutes and beggars, but again were also quite few in numbers. 60

While the shi, the scholarly gentry was well off and enjoyed a multitude of privileges, the life of the other three classes was a very humble way of living. The acceptance of this social difference is hard wired into the Chinese society, and while people always dreamed of achieving a higher social status, most of them were

quite content living a humble life and just getting by. During communists times, the common people, the farmers and the workers were highly praised, opposed to the scholarly gentry and the merchants. While the Communist rule did improve living conditions and brought more stability to the country, the divide between the elite, in this case the government officials, and the proletariat remained. As the Chinese were used to this fact, the acceptance and resilience remained. Since the opening up of China, the chances of climbing the social ladder have been greatly improved. The government officials have remained the same as during the Mao era, but now a new class of businessmen have joined the higher regions of society. Both officials and businessmen have power and money, the only difference between them is the order of achieving these two. Nowadays, the difference between the upper and lower class is visible everywhere, especially in a capitalist stronghold such as Shanghai. When asking people

⁶⁰ Wikipedia. (2013). Four Occupations. Available: http://en.wikipedia. org/wiki/Four_occupations. Last accessed 29th Dec 2012.

about this inequality, the usual answer is "It is the Chinese way". While it seems harsh and unfair, it is indeed a typical Chinese way, and has been that way for hundreds, thousands of years.

This acceptance makes the Chinese people quite obedient and really resilient towards big changes. Below are several examples of how this characteristic manifests itself in daily life;

Before the founding of the People's Republic of China in 1949, the written language was fairly unified, something we now know as "Traditional Chinese", but every province, region and city had its own dialect. Illiteracy was a rampant problem, before 1949, up to 80% of the population was illiterate to a certain degree. In order to combat this problem, aside from the introduction of the simplified script, also the official language became "The common language", Putonghua. The simplified script did not only simplify the characters, it also changed the reading order. Traditional Chinese is read from top to bottom, right to left, sim-

plified is read from left to right, top to bottom. Even the literate part of the population, now also had to learn the new pronunciation of the characters according to the Putonghua, instead of their own dialect. Such radical changes, even if the written language was only relevant for 20% of the population, are unthinkable in western civilization, yet in China it was accepted without any major social unrest and it integrated quite smoothly, again showing the resilience of the Chinese people when faced with change ordered from the higher ranks of society.

This also applied to the housing situation. In Shanghai since the 1980's, a race for the skies has begun with high rise apartment tower and office towers, becoming the predominant type of new construction, following in the footsteps set by Hong Kong. In moderate amounts, high rise was able to gain some ground, but in Europe in specific, high rise never was able to become a legiti-

Wikipedia. (2013). Debate on traditional and simplified Chinese characters. Available: http://en.wikipedia.org/wiki/Debate_on_traditional_and_simplified Chinese characters. Last accessed 27th Dec 2012.

Real-Estate Speculation

mate form of housing. Most midrise housing projects dwindled into low income ghetto's. However, in Asia, people were able to adapt their lifestyle reasonably well, and high rise has become the most used form of housing. This will be further explained in the high-rise chapter.

In recent years, real estate speculation has become a major issue in China. Some are predicting a "hard landing" of China's soaring economy, mainly due to the possible bursting of the real estate bubble. Each year the central government in China sets out its goals in terms of economic growth and projected GDP, for each province, which in turn divides this over the cities within the GDP. No province wants to fell short of the goals set, and the easiest way to reach this GDP goal is by building. While there is an urbanization taking place in China on a scale never seen before in human history, the supply surpasses the demand. It is expected that another 300 million Chinese will move from the countryside to the cities in the next decades but for now there are huge problems of derelict buildings. In Shanghai, these problems are mainly confined to the New Towns, not in the city centre. Of course the city centre is the most desirable place to be, which forces the prices up, also due to recent growth of the upper (middle) class. As mentioned in the previous chapter, the Shanghai municipal government intended the New towns to be the residence of the

Shanghainese Shrewdness

migrant worker, but largely failed. Considering the Chinese banks give very little interest and besides that there are very possibilities of investment in China, which resulted in the speculation of real estate, in Shanghai mainly from the upper class living downtown investing in property in the New Towns, with the expectation of the migrant workers which are bound to become sooner or later, driving the prices up for years. Recently the housing prices have started to drop, perhaps foreshadowing the hard landing. What is certain, there is giant problem in China, incredible amounts of very recent constructed buildings are sold, but not in use. Most of these apartments are constructed hastily and with bad quality. The fact nobody is living there and taking care of the maintenance is quickly turning these places into unliveable ghost towns.

Within China each region and each city has certain prejudices against them according to the rest of country. How somebody in Shanghai feels about people in Guangzhou might differ how the Beijingers see them. However, the opinion about the Shanghainese is the same throughout the entire country; they are shrewd and only care about money. Shanghai has been the most capitalistic city in China for at least the start of the colonialism, and has remained so until now. While the Communist government tried their best to bring an end to the bourgeoisie ways of Shanghai, they were only able to subdue it for about three decades. As soon as China opened up, they went back to their money making ways. The love for money is evident all over Shanghai, from the luxurious classical establishments on the Bund to the new money on Pudong. Of course, it was also evident in the shikumen. During and after the war, the amount of shikumen and the space available remained the same, but the population kept increasing, it became more and more common for the tenants to divide their rooms and sublet parts of their rented space out to other people

Beijing-Shanghai-Hong Kong

A journey through land & time

or families. The overuse of the houses became particularly problematic when a great natural growth occurred during the Communist era. The families stayed in the same rooms, but the amount of people using greatly increased. For the sublessor, this was a highly profitable business, often making more money subletting than the landlord did.

Over the summer of 2012 further observations were made in the different typologies throughout China. The trip started in the North, in Beijing. The city centre of Beijing used to be enclosed by a wall. As Beijing is capital of China and has been during many dynasties. As it is of great political importance, a distinct square shape can be recognized on the maps of Beijing. The previous inner city district is nowadays comprised of the districts Xicheng and Dongcheng, until 2010 the outer city consisted of the districts Xuanwu and Chongwen, but merged with Xicheng and Dongcheng. Within the old city, all the important locations such as the Forbidden City and the Temple of Heaven are located. Again these sites are specifically designed to comply with the Rites of Zhou urban planning guidelines. However, the biggest part of the city consists of housing, the famous Beijing Hutongs. A hutong is not necessarily a residential area, it indicates the width of the street. A road 36 meters in width is a "Dajie" or main street, a road of 18 meters is called a "Jie", or street, and a road up to 9

meters is called a hutong. 62

Even though the name only indicates the width of the street, generally speaking the hutongs are residential area's mixed with shops in between. Connected to the road are a number of houses, the typical Beijing residence is a "siheyuan", translated it means a courtyard enclosed on four sides. Around the courtyard four buildings are constructed. There are many variations of siheyuan and different size. The siheyuan are orientated on a northsouth axis, the biggest and most important building is at the north most point of the plot, and in descending order the western, eastern and southern building are the least important. The most prominent and biggest siheyuan can be found in the centre of the inner city, closest to the Forbidden City, which would be the place where high ranked official lived. These siheyuan could be a collection of multiple courtyard, and their urban layout was highly organized and very orthogonal, again according to the ancient urban planning guidelines. In the outer city, where most of the lower ranked people

of society lived (and still do), the siheyuan usually only consist of one courtyard and the urban layout is lot less organized. One of the most interesting aspects of the siheyuan is the graduated privacy, as the user moves further in the house the privacy increases, especially for the bigger siheyuan, with each courtyard, the people access to it decreases. The front of the houses is quite open and can even contain a little shop. The entrance is usually at the South-East corner not allowing a directly line of sight into the courtyard. The furthest building belongs to the family elder, while the western building belongs to the eldest son and the eastern building to the youngest son.

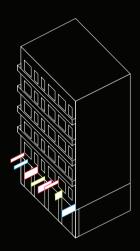
The siheyuan is both in design and use the archetype of Chinese residential architecture and has been around for centuries, and can be seen as the base and precedent that allowed the shikumen to exist.

If the hutong area's of Beijing are representative for the pre-colonial are, the shikumen are a representation of the colonial era. The shikumen are build for a more

BEIJING - SHANGHAI - HONGKONG SIHEYUAN - SHIKUMEN - TONGLAU







modern, higher density city.

In Shanghai, we can see two time periods at the same time. On hand we have the life of the semi-colonial era in the shikumen and alleyway neighbourhoods, on the other hand we have the contemporary, or even futuristic life in the skyscraper. From the Early Shikumen to the Later Shikumen to the New Style Lilong, a slow but steady densification and increase in height took place, while keeping the social structure in place. However, when World War II broke out, the evolution stopped. When walking around the city centre, half a century is missing in the architecture and in the public spaces. Winston Churchill once said; First we shape our buildings, then the buildings shape us. While the communists buildings were build on the edges of city, in the centre, the most important part of any city, nothing was build and thus the communist era is all but invisible and did barely influence the way of life. Because of this absence, the urban typologies have not been able to experience a natural process of evolution. When Shanghai and its

centre was able to grow again, it had a lot of catching up to do, the example was set by the next and final stop the journey: Hong Kong, the post-colonial city and gave a glimpse into the direction of development Shanghai could have gone.

Compared to Shanghai, Hong Kong was a much smaller city during the colonial era, but when Shanghai was stuck in time, Hong Kong continued to grow. The most common typology of Hong Kong were the Tong Lau, the shop houses. Under the influence of the Western colonialists the Tong Lau originated late 19th century and started to appear all of South China, including Guangdong, Macau, Hong Kong and even Taiwan. The original shop houses were a modest two to four storeys in height. As with the shop houses that enclosed the shikumen neighbourhoods, the ground floor was used for the shop and the storeys above were used as residences. As Hong Kong grew more prosperous in the absence of mainland treaty ports, space became scarce and the density started to increase. Slowly the shop houses started to grow from two to four storey pre-war to five to eight storeys post-war. As time passed on these building would continue to grow. Nowadays all over Hong Kong, in all different area's massive amounts of high-rise compounds can be found, making Hong Kong the tallest city on earth. The Tong Lau in Hong Kong were mainly focussed on the commerce rather than the residential function. As it evolved and grew taller, the shops stayed, but the relative amount of residential surface increased. As the social life either took place out on the street, or in the privacy of the home, it never had such a distinct social structure as the shikumen did, and perhaps this is the reason why the high-rise in Hong Kong is widely accepted and omnipresent, but is lacking a clear social structure. Would Shanghai have been allowed to continue at the pace of Old Shanghai, or contemporary Shanghai now, perhaps the high-rise would have had a much better social structure.

Social Theories

Distance in Man

In this chapter a number of theories and aspects related to the social structures will be discussed, most notable the Distance in Man as described by Edward T Hall in the book the Hidden Dimension. Other aspects that will be discussed and used for the analysis of the shikumen and high-rise are the privacy, territoriality and environmental appriasal and assessment. While, the analysis will take place at the after the historical and literature research of the shikumen and high-rise, but as some of the aspects will be mentioned in these chapters, the introduction to the social theories is place ahead of them.⁶³

In his book "The Hidden Dimension" Edward T Hall describes "The Distance in Man". These distances he describes are four distances which determine how we interact with other people. Depending on the distance between ourselves and another person we change how we use our senses to perceive and interact with this person. The precedent for these distances come from observing animals, which have a flight and fight distance. Upon being threatened, there are two choices, either flee or fight to defend itself. Depending on the species of animals these distance can greatly vary. Of course, for us humans, we have all but abandoned these primal reactions. While the reactions have been subdued, our sense still react to other people "intruding" into the invisible barriers surrounding us.

The four distance Hall describes are the following;

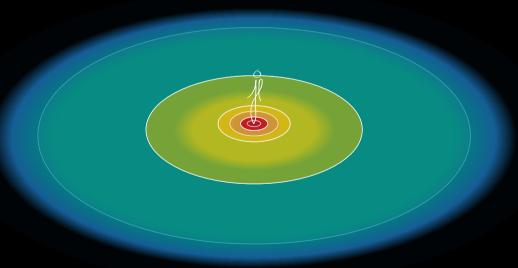
- Intimate distance
- Person distance
- Social distance
- Public distance

⁶³ Gifford, R (1996). Environmental Psychology: Principles and Practice . Boston: Allyn & Bacon.

DISTANCE IN MAN

ON WHAT DISTANCE SOCIAL INTERACTION TAKES PLACE

0-0.15 m INTIMATE CLOSE 0.15-0.45 m INTIMATE FAR 0.45-0.75 m PERSONAL CLOSE 0.75-1.2 m PERSONAL FAR 1.2-2.1 m SOCIAL CLOSE 2.1-3.6 m SOCIAL FAR 3.6-7.2 m PUBLIC CLOSE 7.2 m PUBLIC FAR



And for each four of these distance are subdivided into the close and far phase. For each of these distances the sensory information changes and a long side with this the relationship and the way we interact changes.

The intimate distance, Close phase

15 cm and closer

The distance for love-making, comforting, protecting and wrestling. The physical contact is uppermost in the awareness of both persons. The sensory information includes the olfaction, the sensation of radiant heat and the touch of skin. Sharp vision is blurred, but when close is possible, the view of vision is extremely limited but the amount of detail is extraordinary. Vocalization plays just a minor part in the communication process.

The intimate distance, far phase

15 to 45 cm

Touch is significantly reduced, head, thighs and pelvis

don't easily touch, but hands can reach and grasp extremities. The clear vision includes the upper or lower portion of the face, but facial features such as the nose and lips look distorted. When looking the other in the eyes, the iris is enlarged to more than life size. The peripheral vision includes the outline of the head, shoulders and often the hands. For most western cultures the intrusion into this space is highly unpleasant as the visual system gets distorted. While vocalization is common at this distance, the level is usually kept low, maybe even whispering. Both heat and odour of the other person's breath might be detected. Usually people refrain from interaction at this distance in public, unless it used to show affection. While this distance is inevitable in a packed metro, defensive tactics, such as keeping arms close to the body and retracting when touching another person, as well as keeping the eyes fixed on infinity.

Personal distance, close phase

0.45 to 0.75m

At this distance, it is easy to grasp or hold the other person, and is everything within an arm's reach. There is no more visual distortion, yet the eyes constantly pull the muscles to keep the chosen point of interest in focus for both eyes. The visual angle of 15 degrees shows the upper or lower part of the face in exceptional clarity, the three dimensionality of the face is clearly visible, as well as for other objects. People within this zone are usually familiar with each other and on good terms, such as good friends or couples in public. As Hall remarks; "A wife can stay inside in the circle of her husband's close personal zone with impunity. For another woman to do so is an entirely different story."

Personal Distance, far phase

0.75 to 1.2m

This is the distance for friends and acquaintances to interact with each other. When both parties extend their arms, they will still be able to just touch, therefore it is

the limit of physical dominance. The head size is normal, details and features are easily distinguished. The foveal vision only focus about the area of an eye, so the gaze will wonder around the faces to get a detailed view of all the features and details. Olfaction stops playing a role at this distance in most cases, with the exception of colognes or strong body odor. When observing two people talking who are acquainted but not really good friends, they will standing at the far personal distance.

Social Distance, close phase

1.2 to 2 meters

The social distance, both close and far, is the general distance business is conducted in. For the close phase, the head size appears normal and most details are still clearly visible, such as the hairs, texture of the skin and clothes. The foveal vision covers the entire eye region, or mouth, and usually switches between these two areas in the face. At 1.2 meters, most of the upper body is perceived in a glace, for 2 meters, the entire body can

be seen. The speaking voice is at a normal level. If unacquainted people talk or get introduced, it usually happens at this distance. When business is conducted at this space, it is usually both impersonal and informal.

Social Distance, far phase

2 to 3.6 meter

When business is conducted in the far social distance, it is usually more formal. In an office setting, this distance can be observed when the higher ranking person is sitting behind a desk, and ensuring sufficient distance between him/her and the person at the other side of the table, and example of this could be a job interview. At this distance, some minor details are lost, but skin texture, clothing texture and the teeth are still readily visible. In a 60 degree glance, the entire body is visible. Since both eyes and both are within the sharpest area of vision, there is no need for shifting the eyes. Therefore, it is common to maintain eye contact at this distance, as the eye muscles can relax more, making it easier to

maintain this eye contact. The speaking is a little louder than normal, when the voice is raised even more, it can feel as if the distance between two people interacting is reduced to personal space. As business at this distance is impersonal, it is not uncommon to keep working while someone enters this phase, without feeling obliged to talk or actively acknowledge the person coming into this phase.

Public Distance, close phase

3.6 to 7.5m

The voice is loud, and the way of talking is more formal, more thought through. Details are faded, the three dimensionality in the face is lost, only the white of the eyes is visible anymore, not the colour. The whole body including space around is in full view of the 60 degree view. Other people are noticed peripherally. If humans still have a flight reaction, it would happen at this stage. Perhaps in relationship, the public distance is more one directional in its "interaction". Lecturing to a couple of

dozen of people, when being seated is no longer comfortable, this distance is usually present between the speaker and the audience.

Public Distance, far phase

7.5 meters and beyond.

At this distance, the area of the foveal vision will cover more and more of the body, until the whole person finds itself within the circle of sharpest vision. As the person fits in the circle completely, the interaction with them as human beings fades rapidly, and they become (much) smaller than life size. Often this distance is used to keep people at bay when meeting people of high status, such as head of states or celebrities. This distance makes a normal conversation nearly impossible, in order to do so, the lower ranked person must be allowed to come closer, before actually doing so.

As we move from one distance to the other, the way we interact changes. There are several aspects that influ-

ence our perception and way we interact. In the nature and Scope of Environmental Psychology, Gifford gives three elements that determine our perception; The Setting, the Person and the Social-Cultural Script. The setting is the space, including all factors influence it, such as weather, climate, material and so on. The Person is the observer, which differs by gender, age, and each with its own background, both natured and nurtured. The Social-Cultural Script is the norms of that particular society.

Privacy

Territoriality

The view of Altman on privacy is that privacy is the central process of our space-regulation behaviour processes, we have a desired level of privacy, which can change on the setting and the personal mood. In this process, we try to keep the achieved level of privacy on the same level as the desired level of privacy. If the desired level of privacy is higher than the achieved level of privacy, we feel crowded, if the desired level of privacy is lower than the achieved level of privacy, we feel socially isolated or lonely. The setting can have a big influence on the desired level of privacy, as an example, if we find ourselves in an elevator it takes one stranger to make us feel crowded. However, waiting in a restaurant on a friend, while all other people are in company, can make us feel socially isolated. Good privacy zoning allows us to take control over our privacy, and move between different zones to gain the desired amount of privacy. Privacy is directly related to the personal space as well as the territoriality, the amount of control the user can exert over their environment.

Territoriality deals with the physical space, the possession, defense, exclusiveness of use, markers, personalization, and identity. Territoriality is a pttern of behavior and attitudes held by an individual or group that is based on perceived, attempted, or actual control of a definable physical space, object, or idea and may involve abbitial occupation, defense, personalization, and markin of it. There are a number of types of territoties. The primary territory is owned by an invididual or group, and a controlled on a relatively permanent basis by them. These territories and central in their lives. This includes houses, bedrooms, and company offices. The secondary territories are less important, but still are of significance to the user, such as a desk at work, favorite restaurant or locker at university. The public territories, which are open to all users, with the exception of spefically excluded outsiders, such as minors in a bar. Other areas include trains, stores, sidewalks etc. In addition to these three territories there are a couple more, most notably the intercational territories, an area temporary

yottestolledby a group of interacting individuals. This includes classrooms or a basketball game on a small court. There is are no markings or boundaries in these territories, but entering them could be seen as an interference. Finally there are also the body territory, object territory and idea territory, which will not further be explained. In modern day, territorial behaviour is mostly passive and orientated towards controlling space. This done by personalizing and marking, opposed to physical aggression. Good territoriality allows the users to maximize the control over the space as far as the organizational context allows.

Environmental Appraisal & Assessment

Environmental appraisal and assessment are part of the process of how we know and understand the physical environment we use and take part in. Environmental appraisal refers to an individual's personal impression of a setting, while environmental assessment is the combined rating of several observers. Further more, with the appraisal the emphasis is place on understanding the observer, while the assessment is focussed on the environment.⁶⁴

Environmental appraisal refers to six kinds of personal impressions; descriptions, evaluations, judgements of beauty, emotional reactions, meanings, and attitudes concern that individuals develop for and about a physical setting.⁶⁵

Descriptions are fairly self-explanatory, and is about the language people use to describe a place or space. As this is highly individual, so far research have failed to come

⁶⁴ Ibid., p49

⁶⁵ Ibid., p50

with a standarized set of descriptors for the average person to use, and perhaps it best this way, so people can use their own language.

Evaluations, the most basic evaluation of space is simply good or bad. But many more scales can be used in evaluations such as; useful-useless, unique-common, active-passive, cozy-roomy, rugged-delicate, clean-dirty, ordered-chaotic, warm-cool, light-dark. Of course these are all relative scales, so how a person might evualated a room is largely dependant on their personal background and preferences.

Aesthetics, in landscape beauty is a function of the percentage of different elements in the landscape, the distance to these elements and the placement of the elements in the complete scene. In appraising the landscape four different approaches can be identified, activisits, planners, experimentalists, and humanists. Each with their own specific relevance to the space as well as rigorousness when appraising it.

Emotions to environments are the result of cumulative experiences and can be considered persistant, opposed to sharp and brief. Two scale can be used to define the emotions that a space evokes, pleasant-unpleasant and arousing-not arousing.

Environmental meaning can be divided in three aspects; personal attachment or belonging, the communication of a setting's architectural and philosophical concept, and the communication of the purpose and function of the space. Meaning in the sense of a building's perceived working function has strong effects on its appreciation⁶⁶

Finally the environmental concern is whether the user sees the space or setting worthy of protection, enhancement and understanding.

For the environmental assessment, spaces are examined on a more objective level. It aims to measure the physical propreties rather than the psychological properties. The assessment is often done by experts or frequent-

⁶⁶ Ibid., p64

users of the place. There are two types of assessments, Technical Environmental Assessments, which can include the temperature and air-quality, the other is Observer-Based Environmental Assessments, which is more focused on social, aesthetic and satisfactory aspects.



CHAPTER III SHIKUMEN

Introduction

As mentioned in the Shanghai history chapter, during the Taiping rebellion, the occupation of the Old City of Shanghai in particular from 1853 to 1855, the foreign concessions opened up towards the Chinese people, mostly refugees seeking safety from the violent rule of the Taiping forces. To provide housing for these refugees, wooden row barracks were constructed. These structures were build purely from the desire of making money of the refugees. The name of these houses already explain how they were build; The barracks were made purely out of wood; a wooden load bearing structure and thin wooden panels to cover the facade. The houses were build in rows, sharing the joint structural elements. Each row of houses was placed in front of the last row, as would be the case in an army camp where all the barracks are orderly lined up. What is interesting to note is the structural configuration of these houses. In Chinese architecture, all structures use the same construction technique, regardless of the function. Whether it is the imperial palace or a shed to shelter life stock, in essence the structure

is all the same.⁶⁷ When comparing it to the Western building history, it is vastly different. The buildings of highest importance, such as temple and churches, use a radical different structure compared to any ordinary house or farm. The timber frame used in Chinese architecture can be traced back to 1091, when the Imperial Architectural Manual was written, or the Yingzao Fashi. This manual contains all the information needed for such a construction, the materials, dimensions, connection methods for details and so on. The barracks proved to be a success, within one year over 800 housing units were build. It must be noted that at this time just little over 500 foreigners were living in Shanghai, so the population multiplied several times within one year. Over the next decade, the number increased to 8,740 in 1863. As mentioned before, the Shanghai municipal council deemed the wooden barracks to be a big fire threat and unsafe for living, which was true indeed, and any new construction was banned. This new decision coincided with the desire for

67 Bracken, G (2013). Shanghai Alleyway House. London: Routledge. p86.

A new type of Architecture

better housing in Shanghai by the richer refugees.

The response to this demand were the shikumen houses. The shikumen build from the 1870's to 1910's are now known as the Old Style Shikumen. The word shikumen, or sometimes written as shigumen, consists of 3 parts, and both refer to the words shi and men.⁶⁸ Shi meaning stone, and men is gate, a reference to the stone gates connection the courtyard, or sky wells rather, to the alleys. The stone, shi, could also be a reference to the bricks that were used to build the shikumens, opposed to the wooden barracks that preceded it. Just like the wooden barracks, the shikumen used joint structures for adjacent houses and were build in rows. Everything was build in order to maximize land use and materials and therefore also maximize the profits of the foreign developers.

The shikumen can considered to be a hybrid form of architecture, considering the style is neither Chinese nor Western, but something in between. It is difficult to describe the different influences that composed the shikumen, depending on one's cultural background and ethnicity. First and foremost, there was the collaboration between the Western colonialists and the Chinese locals. The Westerns mainly composed of the British, French and American, but not limited to, as there also were Germans, Dutch, Portuguese and Russians in Shanghai. Opposed to the foreigners, there were the Chinese citizens. On one hand comprised of the Shanghainese locals, who previously used to the live in the Old Walled city, and on the other the Chinese migrants and refugees from the neighbouring provinces such as Jiangsu (at this time Shanghai was still part of Jiangsu), Zhejiang, Anhui, Jiangxi and beyond. A third group was the other Asian nationalities such as Japanese businessmen and Philippine maids. While the mixing of foreigners and Chinese was never endorsed by either side, when the Taiping rebellion broke out, there was no stopping the inevitable. What was the particularly interesting was not the mixing of the foreigners and Chinese, but the internal mingling amongst the Chinese. Because of the safety and economic opportunities that Shanghai provided, many Chinese migrated towards Shanghai. While the Chinese empire had been unified for many centuries on end, still every province has its own culture, customs and dialect. There are great cultural differences amongst all the different provinces and in that sense, China can be compared to Europe. With each province having its own dialect, communication would as if talking to someone from a different country, as well as the food, which also could be vastly different. In earlier times, it was very uncommon for people to move out of their province and usually would remain in their hometown for their entire lives, with the exception of some scholars who would travel the country. All these different cultures coming together in Shanghai, on such a scale, was something quite unique in the history of China. As their Western counterparts, the Chinese migrants also saw themselves as sojourners, only staying in Shanghai temporary and profit from the safety and economic opportunities before returning to their hometowns again. With the mentality coming from both sides, business was a priority in Shanghai. This also translated into the shikumen typology, combing multiple functions such as living and business under one roof, again proving the nature of the Chinese family, Jia, which will also be explained later on with all the functions taking place in the shikumen. The shikumen were a great business opportunity for the people in Shanghai on multiple levels. At the top of the chain were the foreigners who provided the (often through opium trade gained) funds for the construction. The second level were the construction guilds, owned by Chinese businessmen employing locals to do the hard work. These guilds can be separated into types, the western style buildings, which included the shikumen as well as the mansions of the foreigners and buildings on the Bund, and the guilds in charge of constructing Chinese style buildings. Neither guilds

Location & Structure

would interfere with each other's building styles, if this did happen, it would lead to quite aggressive confrontations.⁶⁹ While the foreign businessmen were responsible for the construction of the shikumen, they had no influence over the overall appearance of houses. They would pay the guilds for a house of agreed size and the guilds would eventually decide how the houses would turn out, given they would abide by the building codes set by the Shanghai Municipal Council. The third level of business was the people living within the shikumen, profiting both from small business as well as subletting their housing to make extra money.

The shikumen were build on land previously used as agricultural land, at the time part of the foreign concession. Located more inland as seen from the Bund. This agricultural land included the community housing of the famers families. These community houses could be quite big, as it housed multiple families, located on the intersection of multiple farming plots. These buildings were scattered across the land with dirt paths running between the plots, connecting the houses. Most of these paths followed orthogonal lines, as the land was divided amongst the different families. When the concessions opened up, most of the farmers were compensated and moved somewhere else. In some cases they stayed as the new neighbourhoods were constructed around them. In the early shikumen neighbourhoods, sometimes even in early 20th century neighbourhoods, these community houses were still present in the neighbourhoods. As the land was bought from the farmers, the outlines of the neighbourhoods, followed the plotlines of the former agricultural land, with the former dust paths becoming the new alleyways. The community houses formed the heart of the neighbourhood, with the paths as a main axis running next to them. The main alley, or the "Li" 里 (meaning alley) was the place with the most social activity taking place there. Sprouting from the Li is the longtang 弄堂 (Neighbourhood hall), the small alleys leading up to the houses. The combination of a li and a multitude of longtangs connected to it, created a lilong neighbourhood, literally meaning alleyway neighbourhood. The lilong resembles a fishbone structure, the Li being the spine and the longtangs being the grates. Following the path from the street through the lanes, one would eventually end up at the shikumen, the houses. The courtyard or skywell was connected to the longtong and almost always facing south. This resulted in a structure very rarely seen in Europe; the front of one row of houses, was facing the back of the next row.

As time passed, the concessions expanded and the shikumen evolved, as well as the plan of the neighbourhoods. While the early shikumen neighbourhoods were more organically organised, the orthogonal grid became the standard. In the New Shikumen neighbourhoods, from the 1910's to the 1930's, the li was on a straight north-south axis, while the longtangs were east-west orientated. The New Style Lilong, in the 1920's and 1930's also adopted this layout. The formula was so successful that by the late 1930's, there were over 200,000 alleyway houses in Shanghai, housing the great majority of all people living in Shanghai. Shanghai had become a sea of shikumen, filling all the concessions and beyond, as far as the eye could see.

70	Ibid. 4, p60
71	Ibid. 26, p14

Characteristics

As pointed out in the previous chapter, there are many forms of alleyway houses, shikumen being one of them. Each of these types has their own typology and characteristics. To add to the confusion, there are many names to address these neighbourhoods and houses, a multitude of names can describe these structures, including; shikumen, shigumen, lilong, longtang, nongtang, linong, lilongtang, linongtang.⁷² Some of these (including shikumen) describe houses, while lilong can be used to describe the house as well as the neighbourhood, or longtang can describe a certain area of the neighbourhoods. In colloquial speech, most of these can be exchanged depending on the background of the speaker.

While the wooden row barracks can be seen as the earliest form of alleyway house, they will not be further discussed here, and directly continue on to the early shikumen, constructed from the 1870's to 1910's. Most significant of the early shikumen is their size. The size of houses in China is measure by "jian", the bays. A bay or jian, is the space between two pairs of columns usually

anywhere between 3.6 and 4.2 meters. The early shikumen could be anywhere from 3 to seven bays, combined with a depth of 16 meters, the footprints of these houses could well exceed 200 m², even up to 600 m².⁷³ Inspired by the local sanheyuan⁷⁴, these houses had a small courtyard, or light well rather, at the front of the house, located in the centre between two side-bays. Sometimes the courtyard could be one jian wide, sometimes two jian, with the same going for the two bays on the sides. The total amount of bays would be used to name the type of shikumen, a house three bays wide would be called a three up and three down, if it was six bays wide, it would be a six up and six down house.75 The early shikumen would have two stories, something fairly common in the nanjiang area, but highly uncommon further north, for example in Beijing.

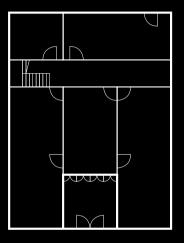
As these houses could be quite big, the neighbourhoods were usually quite small, about 5 to 6 houses per pair of

⁷³ Ibid.4, p58

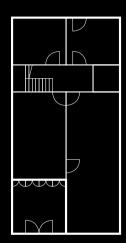
Ibid. 16, p486

⁷⁵ Ibid. 26, p22

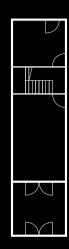
SHIKUMEN EVOLUTION



THREE-UP-THREE-DOWN EARLY SHIKUMEN TWO STORIES

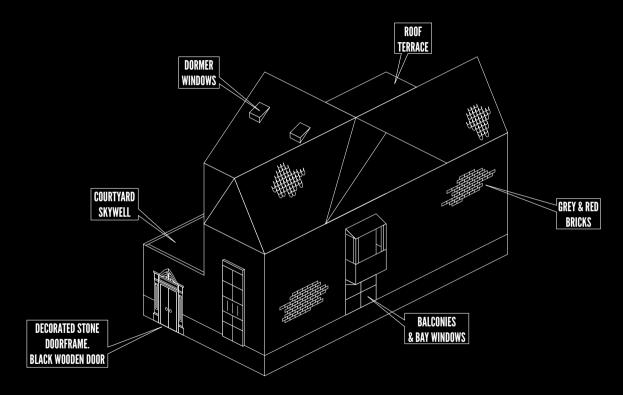


TWO-UP-TWO-DOWN LATER SHIKUMEN TWO-THREE STORIES



ONE-UP-ONE-DOWN NEW STYLE LILONG Three-five Stories

BUILDING CHARACTERISTICS



longtangs and 30 houses per neighbourhood. In addition to this number, the neighbourhoods were enclosed in a line of shophouses on all four sides. ⁷⁶

While the final extensions of the foreign concessions in the early 20th century provided a lot more land for construction, the density of the shikumen houses increased. The Later Shikumen houses are generally only one or two bays wide (one-on-one or two-on-two), with occasionally still a three bay shikumen in between. As the footprint was reduced, the height was increased, one extra storey was added. Perhaps the best evidence of the success of the later shikumen was the size of the new neighbourhoods, these were much larger than their predecessors and could contain as much as 600 houses. As the earlier style, these neighbourhoods were still enclosed by shops on all sides.⁷⁷

The most recent type of alleyway house is the New Style Lilongs, these houses continued the trend of the densification and could have anywhere from 3 to 5 storeys, but usually only one bay in width. On a urban scale, these newer neighbourhoods were much more open, they were no longer enclosed by shop houses, and the longtang were directly connected to the street surrounding the neighbourhood.

In addition to these three archetypes, a multitude of other types of alleyway houses could be found in Shanghai, such as the Garden Lilongs in the French Concession. These houses were much more luxurious and more spacious than the other types of its time (1920's to 1930's), both the house itself as well the neighbourhood layout.⁷⁸

Amongst the previously discussed three archetypes, there were both major similarities and differences. The Early Shikumen can be considered to be the most Chinese. The load bearing structure was the same as the traditional Chinese wooden structure, as mentioned before. While these houses also had brick walls, the purpose of

⁷⁶ Ibid. 4, p58 77 Ibid., p60

⁷⁸ Ibid. 72, p74

these walls was to keep the elements out and protect against fires, not be part of the load bearing structure, as would have been the standard in the vernacular architecture. There was one major difference in the construction, the houses used a joint construction, this can be considered to be a major innovation and was imported from the West, the British row houses in specific. As the neighbourhoods were built by one property developer, instead each family individually building their house, connecting all the houses in a row and using a shared load bearing structure was a good method to reduce cost and maximize land use. The bricks are traditionally grey with lines of orange brick in between. It would not be uncommon to plaster the masonry and turn the building white.

Perhaps the most prominent and iconic feature of the shikumen were the doors, of course, the name of the houses is also derived from the door. The type of door and the decoration around is typical for the jiangnan vernacular, in particular the Anhui (Huizhou) style.⁷⁹ In the Early shikumen the decorations were carved out of stone, while the Later Shikumen often used brick decorations or concrete casts. 80 Regardless of the decoration or the material, each house in the neighbourhood would have the same front door, with the same decoration. As the houses all looked the same, with the same distances of the main and side alleys throughout the whole neighbourhood, navigating a lilong could be like walking through a labyrinth. Both the early and later shikumen had a tall wall protecting the courtyard/sky well. Initially this was done for safety, later on it became purely decorational and in the new style lilong, the wall and door disappeared all together. While the courtyard was actually a sky well and mainly used for storage, all type of alleyway house had this small sky well, creating a transition space from the longtang to the house.

Another distinctive element in the shikumen was the

^{79~} Shan, DQ (2011). Chinese Vernacular Dwellings. Cambridge: Cambridge University Press. p41.

⁸⁰ Ibid. 4, p60

roof. In Chinese architecture, roofs can tell a lot about the construction and status of the person living/using the building. The most elaborate roofs belong to the emperor and imperial court. The edge of the hip roofs are double curved, the construction underneath is highly decorated, it has a golden colour and on the corners small figurines of (imaginary) animals are displayed. Nine figurines indicate the building was used by the emperor, seven figurines could indicate the hall was used by the empress, five other family members or high ranked officials as would be the case for three or one figures. It was always an odd number with the maximum of nine. As the social status of the family living in the house got lower, the roofs became less elaborate; less decoration, simpler in structure and plain in color. The most simple roof was a straight, black pitched roof.81 The shikumen roofs were not of the simplest form, but far from the imperial roof structures. The most prominent feature were the horse head gables, protruding above the pitched sides of the roof. These can again

be traced back to the vernacular architecture of Anhui where they served the purpose of decoration for the fire walls. ⁸² In the Early Shikumen this is a very common feature, but disappeared later on. The shikumen constantly evolved, and many aspects of this evolution was to make the construction process more economical and generate bigger profits for the developers. This is also evident in the roof tiles, while the black tiling on the roof of the Early Shikumen, in the later shikumen and new style lilong, these were often machine produced.

Many elements of the shikumen can be seen as decorative, but in fact were highly functional, such as the windows. The dormer windows on the roof are able to provide some daylight and ventilation to the top floor. The bay windows connected to the longtang and li do not only created an enlarged surface area and thus extra daylight penetration, they also blur the border between outside and inside ever so slightly, providing extra social control.⁸³ This can also be said for the balconies, a

⁸² Ibid. 79, p42

⁸³ Ibid. 16, p493

feature added later on inspired by French architecture, creating a stronger connection between the houses and the alleys.

In terms of the floorplan, it was both functional as traditional. The side bays are wrapped around the sky well, maximizing facade surface and thereby daylight inside the houses. Adjacent to the sky well would be the guestrooms and work rooms. The kitchen was located on the north side. Aside from the entrance in the front, the kitchen was also connected to the longtang, making it an easy day-to-day entrance to the house. In between the front and back of the house was a staircase and in the older shikumen quite often another narrow sky well. On the second floor were the bedrooms located on the south and the "tingzijian" on the north. The tingzijian is a small room, often with a smaller floor height, located above the kitchen. As this was by far the most uncomfortable room in the house, it was often rented out. A group within society was particularly known for renting these types of rooms, authors. They had a small budget and the tingzijian was the only room they were able to afford, a special type literature originated in these back rooms, the tingzijian literature. As one follows the path from the front door to the bedroom, a graduation in privacy can be noted, this path follows from the semi-private areas (longtang) to a slightly more private area (the guestroom) to the transition space which is the staircase to the most private area in the house, the bedroom. While this system works a bit different as it would in the siheyuans in Beijing, its presence is very subtle.

Functions

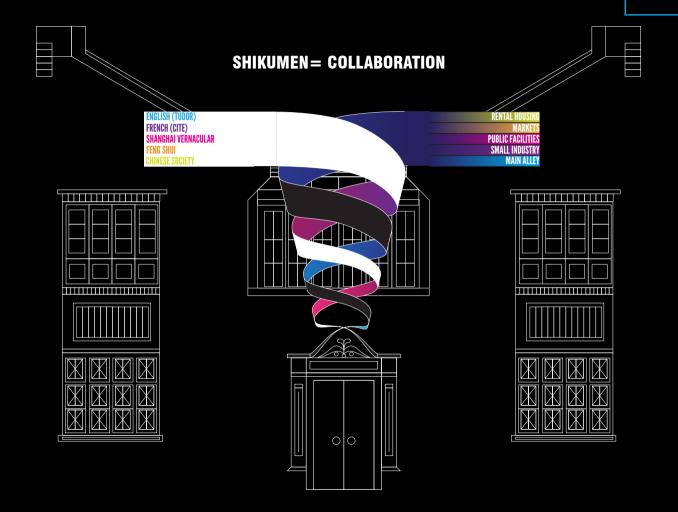
The success of the shikumen can be contributed to the collaboration between different actors and functions. As previously described, the architectural properties came into being through a multitude of different actors; the western colonialists and the Chinese compradors and vernacular. In daily use, it was the collaboration between different functions that made the shikumen so successful. In essence, it was a world on its own, one could live a simple life without ever having the need to leave it. A number of various functions can be identified in the shikumen neighbourhoods;

- Markets
- Residential
- Small industry
- The Li, public space
- Public facilities

In some case, we can even count the original rural structure in the Early Shikumen neighbourhoods as a separate function.

The markets were located in the shop houses which enclosed the shikumen neighbourhoods, and were a

collection of small shops, catering both the needs of the enclosed neighbourhood as well as the surrounding blocks. As is quite common in Shanghai and China, quite often particular streets or blocks were known for a specific expertise. On Ningbo Road, one could find a lot of moneyshops, run by Zhejiang businessmen. Nanjing Road was known for its hardware shops until it started to change into the general commercial street as it is known today, the hardware shops were pushed further upwards. to Zunde Li Also streets with a more infamous reputation existed, such as HuileLi, known for its many courtesans houses. However, the most common houses were small grocery stories, fitting any product in they possibly could, from cigarettes to soap, toilet paper to notebooks, and pens to chopsticks. These shops were also the home of the shopkeepers, usually they lived upstairs or in the back of the ground floor. As these shops were run by regular families, usually couples, they were known as "Mama and papa stores". In the main alley vendors could be found, barbers cutting their clients outdoor or vendors sell-



ing vegetables or fruit from their stalls. Another highly common type of shop found in the main alley were the tiger cookers, a type of shop selling boiled water, which could be used for various purposes such as washing or cooking. If you brought your own tea, it could also be used as a tea house. A survey in 1952 showed Shanghai had over 10,000 Mama and Papa stores and more than 2,000 tiger cookers.⁸⁴

The main axis was also the place where the public functions could be found. This could be anything from small temples or churches to schools. The schools could be in a regular shikumen house where the rooms were all transformed into classrooms. The locals would call these "School stores" as every inch of the house was used and sometimes the tingzijian would be rented out for small industry. It could be seen as a commercial institute rather than an educational one. Of course, the residential function was by far the most common of all functions in the neighbourhood, as the buildings were designed as houses after all. However,

as explained in the note of Chinese culture, in Chinese culture the home and family also are an economical unit. It was very common for a shikumen house to double as a home and workplace. This small industry could span a wide range of activities, including small tailor shops, as Shanghai was the centre for the silk and cotton trade within China, but also opium dens and courtesans houses, as Samuel Liang vividly describes.

In conclusion

With the start of the Second World War in 1937, the construction of the lilong neighbourhoods stopped, and the era of Old Shanghai was coming to an end. Throughout the war and the communist era following, the shikumen remained an essential part of life in Shanghai. Because of the shortage of housing stock, the shikumen residents started to divide and sublet their houses, as mentioned in the Cultural Notes chapter. This over use of the houses put a big strain on the structure, both structurally as socially. Around 1950 88% of the 5 million people living in Shanghai were housed in shikumen and other types of alleyway houses, even by the end of the 1980's the number was still almost 50%.85 While the construction stopped the cultural identity, that was as much part of the alleyway neighbourhoods as the architectural style was, continued to evolve. The glamour of Old Shanghai had faded, but the people kept on living in the houses, and those who used to be sojouners, temporary living in Shanghai for economic chances stayed in Shanghai and became part of the culture.

When Shanghai was engulfed by another economic and property development boom in the 1990's, the shikumen that started to crumble under the decades over over use had fallen into dilapidation. Combined with the fact many people also felt they were a painful reminder of the colonial past, it resulted in the widespread demolition of many neighborhoods. With the same decisiveness the alleyway neighbourhoods popped up all over Shanghai during the 1920's and 1930's, they were being torn down in 1990's and 2000's. While a number of area's has been marked for preservation, the demolition of these old relics in a hypermodern metropolis is continueing still every day.



CHAPTER IV

HIGH-RISE

Ancient High-Rise

High-rise construction has a long and interesting history. Perhaps one of the earliest examples of high-rise is the pyramids of Giza, reaching a height 145 meters. Towering high above any other man made structure of the time, the 26th century BC.86 The pyramid would remain the highest man made construction for thousands of year to come. The pyramid shape is stable in itself and can be made of solid material without the need for added stability elements or elements preventing it from collapsing under its own weight. These characteristics make it the most basic type of construction hence why pyramid high rise structures can be found all over the world, from South America to Africa to Asia, In 247BC in Egypt the construction of the Lighthouse of Alexandria was completed, reaching a height of 120 to 140 meters (its height was altered multiple times throughout history) it was perhaps the first real high rise structure.87 Not only did it have the needle like slenderness we now associate with high rise, it reached a real high rise height. It was constructed of solid stone blocks, which inside the tower formed a winding series of staircases, used by donkeys to transport fuel for the fire on top of the lighthouse. A means of stability not too different from today's modern skyscrapers. Not to mention the purpose of the structure was not religion, but purely functional, something that would rarely happen for the next two millennia.

In multiple places around the world multi storey residential buildings were constructed, amongst which the Insulae in Rome and the mud brick houses in Shibam, Yemen. In Rome, the height was restricted to 20 meters, while the houses in Shibam could go up to 30 meters. While these structures were definitely considered to be high rise in their times, by today's standards they would be considered mid-rise. Their thick load bearing walls provided the stability and strength necessary to carry the loads.⁸⁸

⁸⁶ Wikipedia. (2013). Great Pyramid of Giza. Available: http://en.wikipedia.org/wiki/Great_Pyramid_of_Giza. Last accessed 12th Jan 2013.

Wells, M (2005). Skyscrapers. New Haven: Yale University Press. p7.

⁸⁸ Wikipedia. (2013). Skyscraper. Available: http://en.wikipedia.org/wiki/ Skyscraper. Last accessed 19th Jan 2013.

It was not until the early medieval times when a major wave of high rise started to conquer Europe, with the construction of churches and cathedrals. As the Christian religion became the most important aspect in many European societies they were able to generate massive wealth. In order to showcase their wealth and dominance the churches, houses of God, were the connecting element between the Earth below and the Heavens above. The higher the cathedrals, the more power it would be able exert over the people and shows the importance and wealth of that particular town/city. This race for the skies started in the United Kingdom, with the construction of the Old St Paul's Cathedral in London in the 13th century. With a height of 149 meters, it beat the old record holder, the Great Pyramid of Giza, a record which stood for almost 4,000 years.89 In 1300 the Lincoln Cathedral took the honours with a height of 159.7 meters. 90 After this, a multitude of cathedrals

around Europe, most those in Germany, were awarded the title of tallest building in the World, the last church to hold this honour till 1901 was the Minster in Ulm, with 161.53 meters, it still is listed as the tallest stone building ever.⁹¹ (What must be noted here, there is difference between a building and a structure, which will be addressed later on)

⁸⁹ Wikipedia. (2013). Old St Pauls Cathedral. Available: http://en.wikipedia.org/wiki/Old_St_Paul%27s_Cathedral. Last accessed 19th Dec 2012.

⁹⁰ Wikipedia. (2013). Lincoln Cathedral. Available: http://en.wikipedia. org/wiki/Lincoln_Cathedral. Last accessed 19th Dec 2012.

Modern high-rise

As the medieval power of the church started to decline, the power of technology began to rise. Technological innovations allowed for a much higher building height, both economically and practically. The safety elevator invented by Elisha Otis allowed building to be higher than the previous practical limit of five stories. Electrical lighting and the telephone allowed more convenient use of resources and instant communications over greater distances. Material innovations from various industries such as the railway industry, naval industry and construction industry (innovations in bridges and warehouses) provided greater strength cast iron and steel which enabled better foundation and more flexible load bearing structure. 92

These innovations manifested themselves in two places in particular, New York and Chicago. Both cities witnessed a spectacular growth mid 19th century and as property prices soared, they began building higher and higher. Both New York (1835) and Chicago (1871) experienced Great Fires, clearing parts of the city and

thereby creating space for new, more modern building in the city. 93 In the late 19th century, there are several milestone buildings. The first building to use the Otis elevator was the Equitable Life Building in New York, 1870.94 From 1871 to 1879, the economic depression of the 1870's (partially caused by the Great Fires), both construction and innovation halted. Fortunately the next decade introduced another period of economic growth which was also visible the construction industry. In 1884 the first modern "skyscraper" (this term was not coined until 1888) was completed in Chicago, The Home Insurance Building⁹⁵. Reaching a modest 42 meters, divided over 10 floors, it was the first tall building to use structural steel, even though it most consisted of cast iron and wrought iron. It was the first of many tall buildings in both Chicago and New York, which

⁹³ Wikipedia. (2013). Early Skyscrapers. Available: http://en.wikipedia.org/wiki/Early_skyscrapers. Last accessed 12th Jan 2013.

⁹⁴ Wikipedia. (2013). Equitable Life Building. Available: http://en.wikipedia.org/wiki/Equitable_Life_Building_(New_York_City). Last accessed 12th Jan 2013.

⁹⁵ Kloft, E., Eisele, J (2003). High-rise Manual. Basel: Birkhäuser Architecture. p12.

were used exclusively as office or commercial buildings. The first building using a real steel frame was the Tower Building in New York, 1889.96 Not all buildings adapted the new style, the famous Monadnock building in Chicago (46 meter), design by Burnham & Root, used masonry load bearing walls, an amazing 1.8 meter thick at the bottom and 46 cm thick at the top, while using a metal interior frame.⁹⁷ Most of the high rise was build in the United States, yet the highest man made building and structure were both in Europe. The highest building was still the Minster of Ulm. In 1889 the highest structure was completed; the Eiffel Tower in Paris, surpassing the Washington Monument. The design of Gustave Eiffel is an iron lattice tower, reaching a height of 320 meters, including antenna. The Eiffel tower served as the entrance gate to the World's Fair of Paris, and later on also became a radio broadcasting tower. 98 During the construction and early years of its existence, there was a lot of criticism of this seemingly megalomaniac plan. As

Eiffel proved the design could be realized and the tower embedded itself, it slowly became part of the city and a feat of what modern technology could achieve. The Eiffel Tower would remain the tallest structure in the world until 1930.

Meanwhile, in Chicago the construction kept on going, the preferred method of building became steel construction. The first completely steel framed building was the Rand McNally building (1890), another design by Burnham & Root. 99 By 1893 there were 12 buildings between 16 and 20 floors, and Chicago became the first city in the world to build to build a modern skyline. The limiting factors of buildings high were steel structures, which were still in the very early stages, and the muddy soil of both Chicago and Manhattan. Both cities worked hard to overcome these problems in the search to build higher and higher. In 1892 the Masonic Temple in Chicago reached a height of 90 meters with

⁹⁶ Ibid. 93

⁹⁷ Ibid. 87, p10

⁹⁸ Ibid., p13

⁹⁹ Wikipedia. (2013). Rand McNally Building. Available: http://en.wikipedia.org/wiki/Rand_McNally_Building. Last accessed 12th Jan 2013.

22 stories, becoming the highest building in the city. 100 The reason New York was lagging behind on Chicago was mainly due to the fact the building authorities were slow on recognizing the steel frame structure. When in 1895 steel frame structure were officially approved, the American Surety building was constructed, at 92 meters in height and 21 stories, New York prevailed of Chicago. Four year later, this achieved was again trumped by the Park Row Building, also in New York, reaching over 119 meters. 101

Up to the 1890's, the preferred style of decoration was inspired by the French Beaux-Arts movements, applying the neo-classicistic decorations to the skyscrapers. As the classic buildings that inspired this style were not like the skyscrapers, both in appearance and function, around the turn of the century the architects started working on their own style. This resulted in what is now known as the Chicago School.¹⁰² Some of the character-

Ibid. 95, p12 100 Ibid, 93 101

102 Ibid. 95, p11 istics of the Chicago school include the steel load bearing structure, masonry facades and large steel framed windows. Architects such as Louis Sullivan, John Root and Daniel Burnham were amongst the creators and practitioners of this style, and also carried it to New York, where many skyscrapers were build in the same style.

As the 20th century began, it introduced the first great age of the skyscrapers on the American continent. After the title for tallest building on earth had been in Europe for many centuries, the completion of the Philadelphia City Hall brought this to the new world. Meanwhile the lead for the tallest skyscrapers between New York and Chicago was firmly kept in New York hands, as the New York project developers were competing amongst themselves in the race for the skies. The first great age of skyscrapers, from the 1900's to the 1920's brought many iconic skyscrapers, such as the Flatiron Building design by Burnham (1903). 103 In the years following the improvements to the steel frame structure and experience

¹⁰³ Ibid. 87, p12

gained in construction of skyscrapers allowed the buildings grow ever higher in a staggering pace. The prestigious honour for tallest building in New York traded owners ever couple of years. The Singer building, which stood 186 meters tall and was the tallest building in the world from 1908 to 1909 and brought the title to New York where it would stay for decades to come. From 1909 to 1913 the Metropolitan Life Building was the highest at 213 meters, until Woolworth Building (241 meters) would be awarded the honours from 1913 to 1930. The outbreak of the first world war and economic recessions following slowed down the construction of new super tall skyscrapers. ¹⁰⁴

Meanwhile, in Europe and Asia, carefully the first skyscrapers started to appear. One of the first modern high rise buildings in Europe was the "Witte Huis" in Rotterdam (1898),¹⁰⁵ while only a mere 43 meters tall, it was one of the first tall buildings in Europe to use metal elements as part of the load bearing structure. In other countries, from Sweden to Spain, sparsely tall buildings started to appear. However, the construction of high rise failed to take ground in Europe until at least the second half of the $20^{\rm th}$ century.

As the American economy went through up and downs, perhaps somewhat surprisingly it was during the worst recession, the Great Depression that lasted for the bigger part of the 1930's, the record for the tallest building in the world was improved multiple times. The first building to rise above the Woolworth building was Bank of Manhattan Trust Building (283 meters) in 1930, the success was short lived as only mere months later the honours were bestowed on the iconic Chrysler Building at 319 meters. As the Chrysler building was higher than the Eiffel Tower, it received the title for both the tallest building and structure in the world. In 1931 the Empire State Building claimed the throne at a staggering 381 meters and would remain the tallest building in the world for the next four decades.¹⁰⁶

¹⁰⁴ Ibid. 95, p12

¹⁰⁵ Wikipedia. (2013). Witte Huis. Available: http://nl.wikipedia.org/wiki/Witte_Huis_(Rotterdam. Last accessed 12th Jan 2013.

¹⁰⁶ Ibid. 95, p13

All over the world, construction was a low priority during the second world war, and had devastating effects on many cities around the world, mostly Europe, but also Asia. The post-war period brought all different kinds of development around the world. For the US it introduced the urban sprawl of low rise middle class housing on one hand, with the inner cities "projects" or ghettos as lower class housing. Many cities in Europe started to rebuild their war-torn cities, while all over the planet, including the communist countries, mass produced social housing started to appear. The same development was happening almost all over the world; mass produced mid rise social housing, partially carried by the ideals of the modernist movement. As time passed one, the mid rise grew to high rise. Where previously high rise was almost exclusively the domain of office and commercial functions, it became more and more common for residential functions to be part of the high rise. In Europe, the height of residential high rise remained fairly limited, as it never became a popular form of housing, and many of these social housing areas quickly fell in to

decline and became known to be areas of social decline.

In some areas, the social high rise did catch on, most notably Singapore and Hong Kong. Both of these colonized city states experienced a great economic growth after the second world war and have a high level welfare, especially compared to the region surrounding it. The housing evolved from the colonial shop houses, only a couple of stories high, to five, ten, fifteen or twenty stories and beyond. The majority of the citizens of these cities are Chinese immigrants and as explained previously in the social notes chapter, they accepted this new form of housing without problems. Perhaps the economic opportunities combined with the central location of the social housing, in both cities the available land for construction is limited and there are strict land development regulations in place, was enough reason to move into these houses and become the most common form of housing.

During the 1970's, another surge of high rise ambitions swept across the world. The two World Trade Center

Towers of New York were able to beyond the record holding Empire State Building, at 417 meters these twin towers dominated the New York skyline. Two years later, in 1974, Chicago was able to take the crown with the Sears Tower, nowadays known as the Willis Tower, a 442 meter design by SOM.¹⁰⁷ Both of these towers used a structural facade, which would later be developed to become the curtain facades so many tall office buildings use nowadays. However, during the 1970's the high rise construction was not limited to the United States. In Europe the German city Frankfurt Am Main started its first high rise boom. Mid 70's the Silbelturm and Westend Gate were constructed, at 166 and 159 meters these two towers became the highest in Germany, during the same period, a number of other towers were completed, between 120 and 150 meters. 108 It was also during the 1970's that Hong Kong and Singapore started to build towards the skies. One of the most notable towers in Hong Kong was the HSBC

Building by Norman Foster. 109 At the time it was the most expensive building on the planet, but also the first skyscraper that diverted from the American style skyscrapers, and served as a reinvention of the skyscraper. While some of the South East Asian grew to become tall cities, such as New York and Chicago, in Europe most of the cities remained fairly low, but little by little more and more high rise buildings started to appear, following in the footsteps placed by Frankfurt. Quite often these were iconic landmarks, if they weren't able to impress with their architectural design, then their sheer size in comparison to the surrounding would provide them status. Most cities developed their skyline in the last quarter of the 20th century and continue to do so in the 21st century. As time passed on, the location of high rise started to shift, from the United States towards Asia, including the middle East. As we entered the 21st century, the tallest buildings on the planet can be found in Asia. In 2004 the Taipei 101 became the tallest build-

¹⁰⁷ Ibid. 87, p14 108 Ibid. 95, p20

¹⁰⁹ Wikipedia. (2013). HSBC Building Hong Kong. Available: http://en.wikipedia.org/wiki/HSBC_Building_(Hong_Kong). Last accessed 12th Jan 2013.

ing on earth with 509 meters in height, taking over the record of the Petronas towers, in Kuala Lumpur, also in Asia. 110 At the moment 43 of the world's tallest buildings are located in Asia, with the highest being the Burj Khalifa in Dubai. As the history teaches us, skyscrapers and iconic buildings can be created in any time period, and are usually unaffected by economic recessions. Hence why even now all over the world skyscrapers are still being created, such as the recently completed Shard in London and the One World Trade Center in New York, which is currently under construction. Of course, the latter tower is the best example that even the worst skyscraper disaster ever has not been able to stop us from building towards the skies.

Not only can the greatest number of skyscrapers be found in Asia, it has also become known for innovate skyscrapers. The traditional skyscraper is a slender tower, a needle like shape, which has been the standard for centuries, as the towers of the cathedrals all possessed this basic form. More and more, in Asia in particular, we can

see an evolution taking place where the tall buildings step away from the elementary high rise shape. Perhaps the most extreme example is the OMA designed CCTV Tower in Beijing which reaches a height of 230 meters. The loop the building makes, has as much as a skyward direction as it has a horizontal and downwards direction. While the building is incredibly tall, the observer does not want to look upward and fall in amazement of its height, but stays intrigued with the horizontality. Nearby the CCTV tower in Beijing,Linked Hybrid by Steven Holl can be found. Eight residential towers, connected by sky bridges providing space for semi public functions on an elevated level. While the towers themselves are anything but extraordinary and comply with the traditional shape of the high rise towers, the horizontal "wire" that threads through all the buildings and connects them is highly unusual and again accentuates the horizontality of the project, rather than the verticality. A similar design can be found in Singapore, The Pinnacle@Duxton is a social housing project consisting of 7 52 storeys towers connected by sky bridges on two

different levels. These so-called sky gardens have a wide range of functions which include a running track and multiple gardens. Again the social life which would normally take place on the street at ground level is elevated brought towards the users living in the sky. While the Pinnacle@Duxton is purely residential and the sky bridges aims to provide a place of social interaction, the nearby Marina Bay Sands does the same but with commercial functions. On top of the three hotel towers, a slab is laid out connecting the three towers at the highest level hosts many different functions such as restaurants, a night club, a swimming pool and a park.

Another Asian city with the ambition to further exert itself as a international metropolis is Seoul, South Korea. For the new development of the Yongsan Business District "starchitects" from all over the world have been invited to contribute their view of high rise towers fitting for a 21st century metropolis. A large number of these designs, such as the Cloud by MVRDV, the Cross # Towers by BIG, Project R6 by REX, the Pentominium

by Murphy/Jahn, the Velo Towers by Asymptote and Block H by Kohn Pedersen Fox all feature strong horizontal elements or horizontal sky bridges and parks on an elevated level.¹¹¹

As the Asian countries are not as influenced by the ongoing economic recession, and many Asian countries are part of the emerging economies, it is safe to say the foreseeable future of tall buildings can be found in Asia. And these tall buildings will continue to grow more horizontal, as means to stimulate (social-) interaction on an elevated level.

¹¹¹ Dezeen. (2012). Yongsan International Business District. Available: http://www.dezeen.com/tag/Yongsan-International-Business-District/. Last accessed 13th Jan 2013.

High-rise in China

In China, the most famous pyramid is the tomb of the First Qin Emperor, Qin Shi Huang, known as the first emperor of China, located near Xi'An. The pyramid is barely noticeable as such, as it is made of rammed earth and looks like a hill in the landscape, completely covered in trees, reaching 76 m above ground level. The site is now more well known for the Terracotta army buried in the vicinity of the pyramid. The reign of Qin Shi Huang lasted from 247BC to 210 BC, and during this time he was able to unify China under one rule, hence the amazing tomb that was build in his honour. 112

Not many tower were build in China until the Song dynasty, which is now famous for its pagodas, inspired by the Indian stupa, religion monuments for the deceased. The early stupas were mounds of mud and clay, but evolved into highly decorated towers with intricate shapes and forms, and sometimes even reach-

ing heights above 100 meters. While the Chinese Song pagoda's did not reach such heights, they did resemble the needle, slender shape. Even in Shanghai multiple pagoda's can be found, most famous the Longhua pagoda. The temple next to the pagoda dates back as far as 242 AD, when the King of Wu (during the Three Kingdoms period) ordered 13 pagoda's to be built, the Longhua pagoda was one these. The temple complex was destroyed and rebuild multiple. The pagoda standing there today is based on the design of the Song dynasty. It stands about 40 meters tall and was the tallest structure in Shanghai, until the turn of the 20th century. 114

In the North of China, almost all buildings are single story buildings. The further south, the higher the building height. The Jiangnan vernacular style buildings are usually two stories. Further South, in Fujian province, from the 12th to the 20th century a typology known as tulou's were build, literally meaning Earth Buildings, build of rammed earth and any other materials on hand. These round communal buildings could be up to five

¹¹² Wikipedia. (2013). Chinese Pyramids. Available: http://en.wikipedia. org/wiki/Chinese_pyramids. Last accessed 15th Jan 2013.

¹¹³ Lu, BJ., Cai, YX (2006). Chinese Architecture. p68: China Intercontinental Press. Beijing.

¹¹⁴ Ibid. 5, p87

stories high, housing upward to 80 families in one tulou. The tulou can be considered to be one the few midrise vernacular style buildings of China's imperial era.¹¹⁵

The arrival of the Westerners in Shanghai also introduced modern technology to the far east. As Shanghai was undoubtedly the most successful treaty port, it is no surprise Shanghai fully embraced these technological innovations and it reflected in the buildings in Shanghai. As mentioned before, the buildings on the Bund went through multiple generations. As the buildings were rebuild, each time they would get bigger and more impressive. It was on the Bund were the first steps toward a high rise city were taken. Most of the buildings on the Bund today are second or third generation buildings, build in the 1920's and 1930's. A few of the older generations still exists, such as the two Russell & Co. Buildings, no. 6th and 9th on the Bund, both of these buildings are amongst the oldest buildings on the Bund, dating back to 1881 and the 1860's respectively, and at four and three stories in height are also amongst the smallest on the Bund. Both of these buildings have been renovated and changed in appearance multiple times, but especially the 9th on the Bund Russell & Co Building has kept its neo-classicistic style. They also have an "old fashioned" stone and brick load-bearing construction, as many other buildings on the Bund also have. 116 There are also several second generation buildings, build just after the turn of the century. Bigger, higher and more imposing than their predecessors, it includes 15 on the Bund, the Russo Asiatic Bank from 1902, the Great Northern Telegraph Company Building on the 7th (1906) and the six storey Palace Hotel of 1907.117 Each of these buildings had a different style, from Arts and Crafts to Beaux-Arts. The biggest building on the Bund is without a doubt the Hong Kong and Shanghai Banking Corporation Building. When Palmer & Turner, who are responsible for the design of many landmarks in Shanghai and on the Bund, were chosen to design the HSBC Building the instruction given were; "Spare no expense, but domi-

116 Ibid. 5, p32 117 Ibid., p38

¹¹⁵ Ibid. 79, p72

nate the Bund". With a width of 100 meter and a height of 60 meters, it dominated the Bund indeed. While the exterior in neo-classicistic style is fairly simplified, but lack of exterior decoration is compensated for with the interior. It was known as "the most luxurious building from the Suez Canal to the Bering Strait". Being one of the highest buildings in Shanghai, it had a lattice steel structure to reach this height. 118 One of the few buildings to reach higher in the sky than the HSBC building is the Sassoon House (also known as the Cathay Hotel or currently the Peace Hotel). The construction was commissioned by Sir Victor Sassoon, who would become known as one of the wealthiest and most powerful men in Shanghai, mainly because of his position as a real estate mogul. The Sassoon House was located on the corner of Nanjing Road and the Bund, arguably the two most prestigious streets in all of Shanghai. The 20th on the Bund was the first Art Deco skyscraper in Shanghai, again designed by Palmer & Turner. The building included offices for the ED Sassoon ltd, the

Cathay Hotel and Sassoon's weekday penthouse at the very top floors of the building. The bar for luxurious hotels was raised once again, claiming the title from the Astor House, as the Cathay Hotel was known as the most modern and luxurious hotel in the whole East¹¹⁹. The construction was made of reinforced concrete, opposed to the American high rise, it was more common in the rest of the world. By the end of the 1920's the face of the Bund was set in stone for the following eight decades. For the city lying behind it, it was only the beginning. The 1930's were a time of an unprecedented scale of construction and would designate Shanghai as the first high rise city in the far east.

One of the first residential towers was the Normandie in 1924, in the French concession. Located on the sharp intersection of Huaihai Lu and Wukang lu, the building is highly reminiscent of the Flatiron building in New York, designed by Czech architect Ladislav Hudec. ¹²⁰ Nearby, on Maoming Lu, year later the Old Jin Jiang

¹¹⁹ Ibid., p40 120 Ibid., p121

Hotel was completed, once again an Art Deco design by Palmer & Turner. This can be considered to be the first real high rise tower (completed before the Sassoon House) with 14 storeys it reached 57 meters, constructed with an American style steel frame structure. 121 In the booming 1930's another Art Deco design by Palmer & Turner on Maoming Lu, Grosvenor House, reached even higher with 18 storeys. The Grosvenor House & Gardens were commissioned by Victor Sassoon and had a residential function.¹²² Were the American cities only used their high rise buildings for commercial functions, and Europe completely shied away from high rise, even in this early stage, Shanghai already embraced the high rise residences. What must be noted, these buildings very luxurious and it was mostly wealthy foreigners who dwelled in the skies, opposed to the local Chinese, who mostly lived in the shikumen below. Almost an exact copy of the Grosvenor house were the Broadway Mansions in International Settlement just north of the Bund, completed in 1934. At 78 meters

121 Ibid., p106 122 Ibid., p107 and 19 storeys, it was one of the highest and most visible buildings in Shanghai, and was one the most iconic landmarks in Shanghai¹²³. While being nowhere near as high as the New York skyscrapers on the time, the design would easily blend into the International style of the New York skyline. Another New York inspired building was completed in the same year, Ladislav Hudec designed the Park Hotel, on Nanjing Road, right next to the race course, now known as People's Square. At 22 storeys and 83.8 meters, it was the tallest building in Shanghai and would hold that title until the 1980's. During the 1930's many high rise towers were build, often functioning as residential towers.

During the 1940's little was build in Shanghai. Most of the influential real estate mogul's had fled the city to spend their fortunes elsewhere. However, there are some exceptions, such as The Bank of China on the 23rd of the Bund, build in 1941 it is one of the few big buildings

123	Ibid. p247
124	Ibid., p16

constructed during the Japanese occupation of Shanghai. The design was a collaboration between Palmer and Turner and a Chinese architect, Lu Qianshou, and it was built in an Art Deco style with a Chinese roof on top. As Chinese nationalism was popular amongst the people, it was important for the building to be designed by a Chinese architect and to have typical Chinese feature, most importantly the roof.¹²⁵ After the war, the corrupt Nationalist government did not help the struggling real estate market to rise back up again. And new construction became something out of the ordinary, instead of part of the order of the day, as it was in the booming 1930's. While the communist government brought stability to China, they were not interested in a new economic boom, however a number of interesting buildings were constructed, often to display their power and dominance, most notably of these is the Hall of Sino-Soviet Friendship. As the two communist countries were cooperating closely, the Hall was a gift from to Soviet People to China and became the tallest structure in Shanghai.

Finished in 1955 the Soviet star on top of a gold coloured spire reached 110.5 meters, more than 26 meters above the peak of the Park Hotel. ¹²⁶ For the remainder of the communist rule, most of the construction was limited to mid-rise danwei's on the peripheries of the city and the new towns surrounding Shanghai.

While Shanghai was without a doubt the most successful and most important of the treaty ports before the creation of the People's Republic of China, from the 1950's on it was Hong Kong's turn to shine. As Hong Kong kept growing under British command, its role on the world stage became more and more prominent, eventually becoming the one of the major world financial centres as we know it today. As land available for new construction in Hong Kong was limited, from the 1960's and 1970's on, the city started to develop towards the skies. A trend that has continued until today, making Hong Kong the most vertical city in the world.

When the Mao era ended in mainland China, and Deng

¹²⁵ Ibid., p42

Xiaoping started his opening –up policies, Shanghai aimed to restore its status amongst the world's metropolises once again. As Shanghai and Hong Kong are cities with fairly similar background, the precedent was set by Hong Kong and Shanghai wanted to follow in its footsteps. One of ways to reaching this goal was to update the appearance of Shanghai to an appearance fitting for a metropolis.

In 1958, the average of "net dwelling space" was only 3.8 square meters per capita (excluding bathrooms, kitchens and hallways), about half that of the net dwelling space in soviet Russia. By 1978 this had marginally increased to 4.5 meter square meters per capita. It was evident more housing was necessary. As it happened with the Shikumen a century before, the first wave of construction was mainly for the upper class citizens. This included the early winners of the opening up policy as well as overseas Chinese returning to China to chase the new opportunities. During the communists rule the maximum height was restricted to 20 stories,

but the new market allowed for taller buildings to be build. One of the first additions to the Shanghai skyline was the Yandang Building in the Luwan district. At 28 stories tall it contained 197 apartments, intended for the overseas Chinese. 128 The same for the Aijian compound in Xujiahui, on the edges of the former French Concession. Constructed in the mid 1980's the complex of 4 15 storey reinforced concrete towers provided a luxurious living style in the centre of Shanghai. It was equipped with stainless steel sinks, hot water boilers and phone lines. 129 In comparison; in 1986 98% of the Chinese population had electric lighting, 57% had their own tap water, while 16% had shared tap water, the rest had no access to tap water at all. A mere 24% had an independent toilet, 10% had shared toilets, while the rest had to use public toilets on the streets. 130 It would be safe to assume the averages for Shanghai would be a little better than the nation's average, given the history of Shanghai, yet it was no where comparable to the

¹²⁸ Ibid., 158

¹²⁹ Ibid. 38, p244

¹³⁰ Ibid. 50, p159

¹²⁷ Ibid. 50, p158

Western standards of the time.

While the inner city construction was almost exclusively reserved for the high segment, on the edges of the city mass housing for the middle and lower classes were being constructed. One of the example is the Quyang development which started in 1979, located in the north of the Hongkou district, just west of the Wujiaochang area. The Quyang development was built on a 80 hectare site, and was designed to house 30,000 inhabitants as well as provide public functions such as a hospital, schools, a large shopping centre and many other facilities. The project consisted of mid-rise concrete building blocks between five to twelve stories in height, with coloured concrete as facade material. The Quyang was a great success and many projects like it followed, creating a urban sprawl of midrise compounds. 131

In downtown Shanghai, the construction of prestigious high rise continued. In 1989 the New Jin Jiang Hotel Tower was completed. At 46 stories and 153 meters

much higher than the Old Jin Jiang, but fulfilling the same role, pushing the bar higher and becoming a landmark for Shanghai. The New Jin Jiang was the highest building in Shanghai until 1994. Another prestigious project was the Shanghai Centre, or more commonly known as the "Portman". The Shanghai Centre quickly became one of the go-to spots for the expatriates in Shanghai. Consisting of a seven storey base with two 34 storey towers and one 48 storey hotel, it has been described as a "city within in city", containing everything from the hotel to service apartments, a number of consulates to a theatre, a supermarket to a number of exclusive shops. Perhaps the most impressive feat of the Shanghai Centre is the achievement of a foreign architect to create such an elaborate and cultural significant landmark in the post-communist market. 133

The following years, Shanghai experienced a construction boom on a scale never seen before. Perhaps the most influential building to signify this wind of change

Ibid., p159

¹³² Ibid. 5, p107

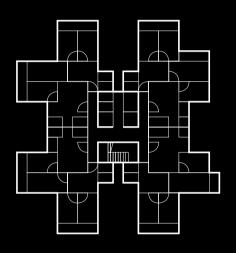
¹³³ Ibid.,, p186

is the Oriental Pearl Tower. At a height of 468 meters it was the first major building to be build on the other side of the Huangpu river, on Pudong. To this day it remains one of the most iconic buildings in Shanghai. 134 When construction began in 1990, as Pudong was designated as one the Special Economic Zones, it was the starting signal for mass development on Pudong. As mentioned before, between 1992 and 1997 more than 2,200 high rise buildings were constructed, nearly a thousand of them higher than 22 storeys. These high rise buildings were build all over Shanghai, in the old city centre, on the edges of the ever growing cities, but also many them were build on Pudong, as there was plenty of space of new construction, while still having a relative central location.

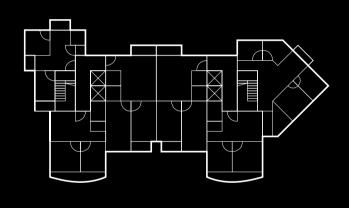
From the 1980's to the turn of the millennium, the high rise residential tower have been evolving and adapting. Early towers, such as the Aijian and Yandang project usually have cross shaped, or butterfly shaped floor plans. Meaning these towers have one central core containing

the elevators and emergency staircases with the number of apartments organized around this one central core. Often the lines of the facade are very jagged to ensure the maximum amount of facade surface and thereby daylight penetration in the apartments. While the south facing apartments were very comfortable, the north facing apartments were a lot less comfortable. Receiving no sunlight during the winter months combined the high humidity climate in Shanghai, these apartments clearly had their disadvantages. The next step were Y-shaped apartments, again organized around a central core, except every apartment was directly south facing or southwest or south-east facing. However, what soon became the standard in China and Shanghai, were the all southfacing slabs. An example of this is, is Brilliant City in Putuo district. A massive complex of 36 22 storey high rise slabs. Situated just north of the Suzhou Creek the plot is 0.5 million square meters, while it has a total floor area of 1.6 million square meters, it provides a central location in Shanghai, while the residents can enjoy the park along the slow meandering river and passes by.

HIGH RISE EVOLUTION



BUTTERFLY
MULTI ORIENTATIONAL
MANY SMALL APARTMENTS, FEW ELEVATORS



SLAB SOUTH FACING BIGGER APARTMENTS, MORE ELEVATORS This project has proven to be a big commercial success, with housing prices tripling in a matter of years. Each of the slabs has a number of elevator cores on the north side of the building, so all of the apartments have a south facing facade. Combined the relaxing park below, it has become a popular location for the fast growing upper middle class of Shanghai. 135

Of course, it can always be better. The most luxurious and expensive apartments in Shanghai are on Pudong, on the shores of Huangpu, just a stone throw away from the giant skyscrapers. Compounds such as the Tomson Riviera or the Cofco Seascape Residential Area are amongst the most expensive properties in Shanghai, with prices going up to ten of thousands of dollars per square meter. These apartment tower have the same elevator core at the north side of the building except there is only one apartment per one or two floors, reducing the number of people having access to the elevator drastically and giving the apartment owner their private

little lobby on each floor. 136

Nearby these compounds the buildings continue to grow taller. First the SOM designed Jinmao Tower was completed in 1998, topping out at 421 meters containing 88 floors, it has firmly embedded itself as part of the Shanghai skyline. Perhaps most notable is the 31 floor atrium, reaching from the 56th to the 87th floor. 137 Right across the street from the Jinmao tower is the Shanghai World Financial Center, reaching a height of 492 meters, when completed in 2008 is was the second tallest building in the world, only surpassed by the Taipei 101 Tower. 138 In 2014 the Shanghai Tower is expected to be completed, at 632 meters it will the second tallest building in the world behind the Burj Khalifa in Dubai. When completed, the Shanghai Tower is expected to be LEED Gold certified. 139

¹³⁶ Ibid. 50, p165 137 Ibid. 5, p211

¹³⁸ Ibid., p214

¹³⁹ Wikipedia. (2013). Shanghai Tower. Available: http://en.wikipedia.org/wiki/Shanghai_Tower. Last accessed 19th Jan 2013.

Residential high-rise characteristics

While the initial high rise construction was mainly for prestigious reasons and commercial functions. Over time in cities around the world, mainly in Asia, it has become a necessity and homes to people from all walks of life. Especially in China the residential high-rise has become a great success and towers are abundant in all cities. The early development of the residential tower in the 1980's mainly took place in the 1st tier cities and the SEZ's. Nowadays there are more than 160 cities in China with 1 million people or more 140 and each of these cities are rapidly growing and constructing high rise towers.

The early residential towers were between 15 and 25 storeys and constructed out of concrete. Each floor would up to eight or sometimes even more apartments. The apartments were situated around a central core with elevators and staircases, the floor plan resembling a butte-

fly or the Chinese character # (Jing, meaning well). 141 As all apartments were facing outwards from the central core, there was a clear distinction and preference for apartments; the apartments facing south are by far the most popular, as it they will always get enough sunshine and stay a bit warmer during the winter. What must be noted that in any city in China south of the Yangtze river, the houses do not have heating. While this is acceptable for the cities in Guangdong province, with a subtropical climate. In cities such as Nanjing (and also Shanghai) it is not uncommon for the temperature during the winter to drop below 0 degrees. While living in an apartment that is south facing with no central heating is uncomfortable, living in an apartment that is north facing without central heating would be unacceptable by western standards. If the humidity is also taken into account, for Shanghai this averages at out 75% during the winter months and 80% during the summer months¹⁴², the north facing apartments were quite unliveable dur-

Wikipedia. (2013). List of cities in the People's Republic of China by population. Available: http://en.wikipedia.org/wiki/List_of_cities_in_the_People's Republic of China_by_population. Last accessed 19th Jan 2013.

¹⁴¹ Ibid. 38, p246

¹⁴² Wikipedia. (2013). Shanghai. Available: http://en.wikipedia.org/wiki/Shanghai. Last accessed 22th Jan 2013

ing the winter months. The reason these buildings were designed this way was because of the desperate need for a new housing stock, these apartments were still on a lot better building quality and comfort level than the (pre-)Mao-era houses. By maximizing the apartment space and minimizing the (vertical) transportation space, these towers were highly economical but lacking on the comfort aspect, completely in line with the philosophy of Deng Xiaoping, Production first, livelihood second. As the Chinese became more affluent and the general living conditions rose, the change also became apparent in the way high rise was being constructed. Instead of the butterfly or well-shaped floors, the buildings changed to a y-shape. Three wings going outward from the central core, allowing each wing to have a South, South-East or South-West facing orientation, thereby increasing the comfort off the apartment and eliminating the north facing apartments. As with almost all residential high rise towers in China, the y-shaped as well as its predecessors and successors, the facade is straight forward and generic looking. Most commonly a combina-

tion of concrete facade elements pair with windows. The most recent variation of the high rise evolution is the south facing slab. All apartments are facing south, with an elevator core located on the north side of the building. This is by far the most comfortable way of housing, but because of the limited number of apartments that can be connected to the elevator core, it is also a more expensive solution. This variant emerged during the boom of the 1990's and has continued to be the most widely constructed type of tower. As these buildings were build during times of great economic growth combined with the urban sprawl and massive urbanization, they are often build in clusters consisting of multiple to dozens of towers, creating huge urban blocks. In recent year, it has become more and more common for more elaborate, pitched roof structure on top of high-rise towers, which used to be flat topped. The argument used was to make the tower more historic impression to the city, but in fact it was to repair leakage and bad insulation.143

143 Ibid. 50, p66

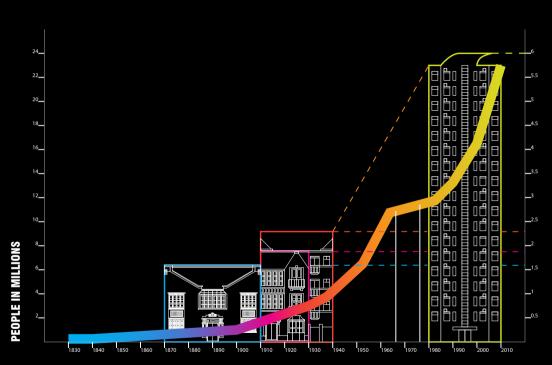
Shikumen vs high-rise

In recent decades Shanghai has been the stage for a battle between two seemingly opposing typologies, struggling for space in the centre of the city. While the only possible obstacle for the urban sprawl was the amount of materials and labour available, within the Puxi downtown area of Shanghai, the biggest obstacle for new construction were the existing buildings and neighbourhoods. In the area of the old concessions, previously the preferred method for property developers to generate profit was by using every available hectare and build alleyway neighbourhoods. Nearly a century later this space has become the some of the most valuable land in Shanghai. And that is exactly were a tough problem for the city of Shanghai lies. After more than half a century of overuse and abuse, most of the former glorious Shikumen and Lilong houses have fallen into decay, most of them bordering on a slum-like status.

It's no surprise many of the property developers only see one use for these houses, which is to destroy and use the valuable land they stand to build new and modern buildings. Considering all of the shikumen are build within the area that is now the city centre, the land prices are high and the locations are highly sought after. The most profitable and perhaps also the most logical solution is to build high rise towers. The shikumen, once considered modern and comfortable living are now under threat of extinction as a new wave of construction, that promises the same way of living in a more modern time, is taking over the land these houses were build on. Especially in the 1990's and early 2000's vast amounts of shikumen have been destroyed or in order to make way for high rise residential or office towers or mid rise shopping malls. Within a period of 8 years from 1995 to 2003, more than 700,000 households have been relocated and over 31 million square meters of shikumen houses have been destroyed.¹⁴⁴ The destruction of shikumen houses is directly related with the number of new high-rise buildings. In 1990 Shanghai had 748 buildings of 8 storeys and above, a decade later this was increased to 3,529, and grew to 5,671 in build-

144 Ren, X. (2008), Forward to the Past: Historical Preservation in Globalizing Shanghai. City & Community, 7(1), p29

POPULATION VS BUILDING FSI & CONSTRUCTION PERIOD



FS

ings in 2003. By 2011 this has grown to a staggering 22,998 buildings, 6,825 of which are over 20 storeys in height. The majority between 11 and 29 stories. Of course, many of these buildings are build outside of the city centre, where no shikumen had to be destroyed for the construction to start, but any construction in the former concessions would have been at the cost of shikumen and lilong neighbourhoods.

In 1994 the Hong Kong Shui On group was able to lease the ground in the Taipingqiao area in the former French Concession in Shanghai. After years of negotiation, planning and looking for investments, in 2000 Xintiandi was opened.146 Xintiandi is an area of reconstructed shikumen houses which now houses fancy restaurants, bars and boutiques. The only shikumen house which looks somewhat like the original houses is a small house for exhibition purposes, while all the other buildings look like shikumen on the outside, but inside are grand spaces far exceeding anything like the original shikumen houses. It is not surprising many people view Xintiandi as fake, the buildings are empty shells, their outward appearance reminiscent of the Shikumen of old Shanghai, but both the functions as the organisation of spaces inside is nothing like a real shikumen neighbourhood. Not to mention the urban configuration has been adjusted to create a number of open squares, filled with the terraces of the bars, something unthinkable in the narrow alleys of a true shikumen neighbourhood.

Shanghai. (2013). Shanghai Statistical Yearbook 2012. Available: http://www.stats-sh.gov.cn/tjnj/nje12.htm?d1=2012tjnje/E1004.htm. Last accessed 19th Jan 2013

While Xintiandi itself can be considered fake, it has succeeded to bring the attention to the hidden beauty of shikumen. Before Xintiandi, the Shanghainese would think of shikumen as something shameful. The neighbourhoods are bordering on being slums and it is an ever present reminder of the degrading semi-colonial past that Shanghai was forced through. Because of Xintiandi, people have started seeing the beauty in the houses and recognize these houses are part of their culture. Xintiandi has become one of the most popular tourist attractions in Shanghai, attracting Chinese and foreign tourists alike. As Bracken remarks, the Chinese tourists come to Xintiandi to experience the foreign lifestyle, the foreign tourists try to catch a glimpse of the Chinese way of life.¹⁴⁷ It is this hybrid character that also stood at the creation of shikumen.

Following the success of Xintiandi, a number of similar projects are either realized, under construction or being planned. The Portman House, the redevelopment of Jianye Li is one of these. Two thirds of the

original neighbourhood have been destroyed, only to be rebuild again later, while the other third has been renovated. The functions include luxury housing, serviced apartments and several commercial functions such as restaurants and bars, like Xintiandi. While only one third of the Jianye Li project remains original, the experience will be a lot more authentic. The main function is residential but intended for the upper class, as it perhaps would have been 100 years ago. Another example of a renovated alleyway neighbourhood is Tianzifang, again in the former French Concession. Where the previously mentioned projects all have been top-down projects, Tianzifang is a bottomup project. The residents of the neighbourhood started renting out their rooms to artists and many rooms were transformed into gallery spaces, as Tianzifang became a hip destination, more and more galleries, shops, bars and restaurants moved into the slightly renovated and redecorated houses, while still a good amount of the original residents lived above or next to the modern hip functions. The architecture in Tianzifang is almost completely authentic, it still has the narrow cramped alleys, the interiors are still small and the steps of the stairs are steep. As it has become more popular (not to mention it is way more affordable than Xintiandi) almost all people buzzing through the alleys are tourists and consumers. The small crowded alleys mimic the atmosphere of original alleyway neighbourhoods, but it is used completely different.

Finally, the most common type of shikumen and alleyway neighbourhoods that can be found in Shanghai, are the original neighbourhoods. While there are many neighbourhoods still existing, the great majority has been destroyed, and many await the same faith. In these neighbourhoods the original way of life can be observed. Many people have installed air-conditioning units to make life inside a little bit more comfortable during the hot & humid summer and the cold winters. However, the amenities in most shikumen are extremely poor and outdated. The lack of inside space and comfort forces the people to go out of the house and use

the alleys as an extension of their homes, which in its turn also creates a lack of privacy. It is exactly this lack of privacy and space that creates the lively alleys and vibrant social life in these neighbourhoods. While these building are being deteriorated by time and intensive use, even more fragile is the social interaction structure that the buildings enabled. Many people living in shikumen are hoping to find a better place to live, either by earning enough themselves or by compensation when their neighbourhood gets destroyed to make way for more contemporary buildings. As most people would get relocated to more contemporary buildings, albeit a location further from the city centre, they would also get forced into a more contemporary lifestyle, a more anonymous lifestyle. As Arkaraprasertkul notes from an interview with locals of the shikumen; "It's probably this lack of privacy that I'd miss the most—it makes us a community."148

Arkaraprasertkul, N (2012): Moral Global Storytelling: Reflections on Place and Space in Shanghai's Urban Neighborhoods, Storytelling, Self, Society: An Interdisciplinary Journal of Storytelling Studies, 8:3, p172

The debate whether to preserve the shikumen or let "nature" take its course and allow for new construction to be build in the centre of Shanghai has been ongoing for a while, with outspoken supporters on each side. What is known is that Shikumen are a unique typology, that can be found nowhere else in the world, and it is part of the history of Shanghai. The social structure is something most people would look down on, as it unmistakably is the result of a community of lower economic class citizens, it does not fit of the ideals of the government officials who prefer model villages where everything is clean and organized. Much can be learned from the alleyway neighbourhoods. The design and layout of these neighbourhoods is the results of building as economically as possible and geared to maximize land use and profits, where it unexpectedly succeeded is the fact it provided the right amounts of space in the right places that allowed for good social interactions, something which seemingly is lacking for many apartment towers.



CHAPTER V

TYPOLOGICAL ANALYSIS

Social structures

When discussing the qualities of space from a viewpoint of social interaction, there are several important aspects, for this analysis a number of parameters will be used to determine where and how the social interaction takes place;

The privacy zoning hierarchy and the transition from public to private

The dimensions of the spaces in relationship to the distance in man

The territoriality and how an individual or group can control the space

The environmental appraisal and assessment of a space

To analyze the social structure of the different typologies, two locations in Shanghai are chosen, the location for the shikumen is the project location. Parts of this block are already being demolished or have been demol-

ished some years ago, and therefore the social structure and overall atmosphere has been in decline, and perhaps not representative for shikumen neighbourhoods within Shanghai. However, as these are the people that the design stage will be aimed at, it was decided to keep this area as the research area. While multiple of the surrounding city blocks have already suffered a similar fate, there still is a high percentage of alleyway neighbourhoods around the chosen project location.

For the analysis of the high rise typology, the Zongx-in apartment complex was chosen. It is about 2.5km further upstream the Suzhou Creek. The complex is a guarded compound with two 23-storey towers. The surrounding area of the complex is a combination of alleyway neighbourhoods (also under demolition) and several bigger high-rise compounds. The complex has roughly 350 apartments, between 100 and 150 square meters per apartments, making it comparable in size as the intended design. Aside from the size, one of the main reasons for choosing this location was a practi-

cal one, the fact an acquaintance of the researcher lived here and therefore had free access to it, without having to deal with the security guards.

In both cases, we make the small journey from the public realm to the private, analysing each step in the process with the four aspects mentioned above. The starting point for each typology is the neighbourhood scale; the compound/alleyway itself, as well as the surrounding blocks. The end point is the most private space, in both cases the bedroom.

Social structure shikumen

Step 1, the local area

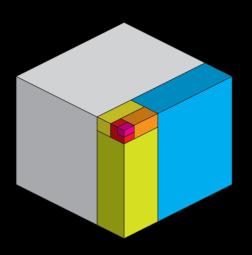
The area surrounding the location consists of multiple city blocks, each containing a number of alleys (Li's) as well as three high rise towers. A pair of these towers is residential, the other is multifunctional, including a supermarket, offices, an hotel and apartments. The streets that intersect the blocks are (or were before they got demolished) lined with shop houses. While it is impossible to give an accurate number on the total amount of people living there, the rough estimate is about 8,000 people. The way people move through the streets is quick and in a public manner, unless they come in the vicinity of a shop. There are no park or other outdoor spaces with a specific public functions, but the presence of the Suzhou Creek on the south of the area provides a fresh breeze of air through the area.

Step 2, The Neighbourhood

The neighbourhood is about 5 hectares in size and contains a number of "li's", ranging from 50 houses in the

biggest alley to 2 in the smallest alley. These individual lanes are connected to one another by an unorganised network of paths and extended side-alleys. From the step of the local area to the neighbourhood, the amount of people is reduced from 8,000 to 2,000 people. Navigating through a neighbourhood like this is a constant switch from public to semi-private spaces. While most alleys are accessible directly from the public space of the streets surrounding the neighbourhood, some of the internal paths fulfil an almost public role, as they are in between two alleys and don't belong to either one. On the smaller connecting paths, the spaces allow for no more than a semi-private way of interaction, yet because of this connecting role, they can be considered semipublic spaces. Because of the economic way of building, there is little open space within the neighbourhood giving it both a sheltered feel as well as a little claustrophobic feel. On the scale of the neighbourhood, the spaces most used by the people living here, and perhaps visitors, are the points where the internal paths intersect with the public space. At the gates and entrances of the

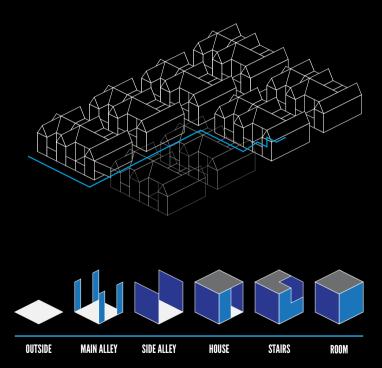
AMOUNT OF PEOPLE IN DIFFERENT SCALES



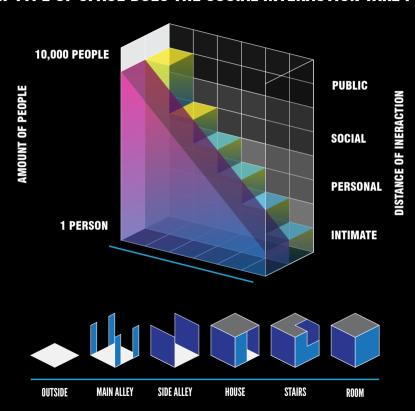
SHIKUMEN

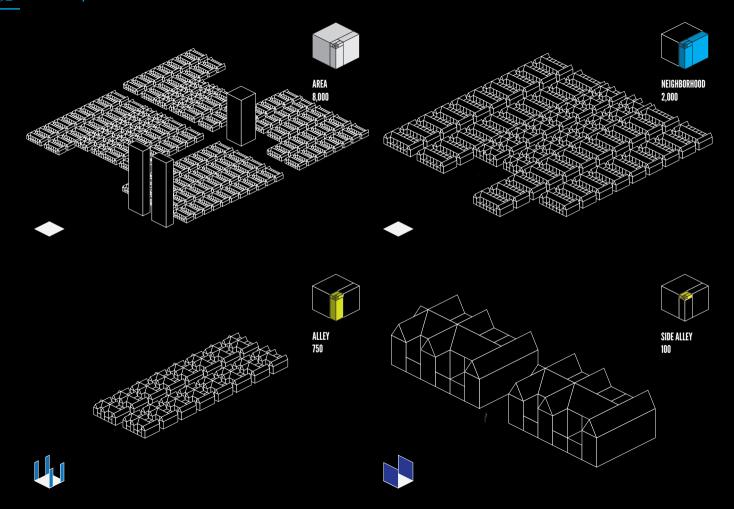
SCALE	PEOPLE
AREA	8.000
CITY BLOCK	2.000
u	800
LONGTANG	100
NEIGHBOURS	50
HOUSE	15
ROOM	3

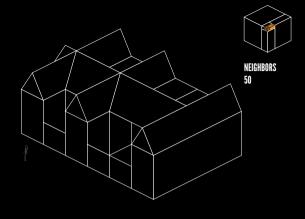
IN WHAT TYPE OF SPACE DOES THE SOCIAL INTERACTION TAKE PLACE?

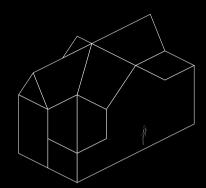


IN WHAT TYPE OF SPACE DOES THE SOCIAL INTERACTION TAKE PLACE?





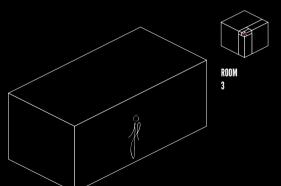






HOUSE









alleys, as well the shops (particularly restaurants) one will be able to meet both residents of the neighbourhood as people passing by.

Step 3 The Alley

The main alley in the neighbourhood is called Shenyu Li. Build in 1927 it was constructed before the boom of the 1930's, and therefore quite different from most alleys in Shanghai. Shenyu Li has a North-South orientation and the eight rows oof houses connected to it have three houses on each side of the main alley. The houses are two-on-two, making them quite big for their time, and also amongst the surviving Shikumen, they are quite big. The alleys within the shikumen usually have a width of 4 to 6 meters, in the case of Shenyu Li, it is about 5 meters, it allows for social interaction at a close social distance. Again the total number of residents is difficult to estimate, but 50 houses with 7 rooms each and in some cases one family per room, the total number of residents could be as high as 1,000. In some cases a family rents multiple rooms, so the number of residents is put at 750. The alley serves as a meeting space for these 750 people and people familiar with the area passing by. In the bigger neighbourhoods (or the ones not facing demolition) in the main alley some commercial functions can take place, such as fruit carts or small breakfast stalls. As the alley measure over 150 meters in length, it finds a good balance between being sheltered and a feeling of openness.

Step 4 & 5 The Longtang & The Neighbours

The side alleys, or longtang, sprout from each side of the main alley. While these are obviously paired, the connection between the neighbours will most likely be stronger than the relationship with their fellow residents across the main alley. The distance between two rows of houses is usually 2 to 3 meters, just far enough apart so sunlight can enter the courtyards or light wells. Initially the front door was the most commonly used entrance to the house, but as the shikumen became overpopulated, the backdoor to the kitchen became more widely used, as will be explained in the next step. Being in the long-

tang, the spaciousness is already starting to decrease. With only a width of 2 to 3 meters, any social contact takes place within the close social space or even the personal space. While there is no visual or physical barrier between the li and the longtang, in practice there is. While anyone outsider can freely roam around in the li (although a watchful eye might be kept on strangers), by unwritten rule it would generally be considered trespassing for an outsider to step into this semi private area. As one long tang with 6 houses can be home to anywhere between 50 and 150 people, chances there is always someone watching, providing social security. As the name suggests (Long Tang means neighbourhood parlour or hall), this space is used as an extension of the house and it can be used for anything, from drinking tea to playing mah-jong to preparing the food for dinner.

Step 6 & 7 The House & Room

As mentioned before, the shikumen houses on Shenyu Li are quite large. They are almost 8 meters in width and 16 meters in depth, only the light well at about

4 by 3 meters left open. While it the style is later shikumen, the houses only have two floor, but still giving at total of about 200 square meters floor space and a very generous floor height. Most of the houses have been slightly modified and now have a total of 7 seven rooms, excluding kitchen. In previous times, Shenyu Li was a very prominent lane, with celebrities and wealthy business living there, all owning their own house. In recent times, it more common for one family to occupy one room, so there can be seven families living within one house, meaning more than 20 people can share one house. The kitchen, at the back of the house, is directly connected to the staircase and the hallway. These areas are the only common spaces in the house, due to their dimensions, the interaction will take place on a personal distance, considering they are all co-tenants this shouldn't cause too much discomfort. While there is, or used to be, a light well at the back of the house, these spaces are dark, cramped and unpleasant. While the rooms are the most private spaces in the house, these are almost always shared, giving the residents no final step

in privacy. While the rooms can be nice and spacious, their outdated building quality and crowdedness makes them uncomfortable, which is one reasons many residents prefer to do daily tasks in the long tang.

Social structure high-rise

Step 1 Local Area

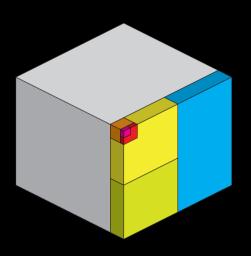
The area surrounding Zongxin consists of multiple high rise compounds. The towers in total house an estimated 7,000 people, making the number of residents in the area comparable to the area but on a much smaller area, 5.5 hectare, compared to 15 hectares of the shikumen local area. While the high rise houses almost much residents as the shikumen area on a smaller area, there still is enough space for both public open space as well as guarded open space. Outside of the largest compound is a public space attached to it, with green and small ponds, as well as a number of shops on the ground floor. As this is situated on the north of the compound, the number of shops is limited and hidden behind the green space, it is not much used and generally not a great space. Both the streets as outdoor space is not much used, and the main source of traffic is car traffic.

Step 2 Compound

The entrance to the compound is guarded and accord-

ing to official rules is the place where guests should register, this policy is not strictly enforced. The number of people that have access to this compound is estimated to be 1,000 people, occasionally visitors might arrive, as well as the maid and other service staff. As the compound has only one entrance, the only incentive people will have to visit the compound if is the destination of their journey lies within the compound. The open space within the compound consists of parking spaces, bicycle parking and green space. As both the entrance and most of the open space is located north of the towers, it is not a pleasant space to be. To dimensions of the space around the towers are quite generous allowing for public interaction. Especially the fact most of the open space is used by cars arriving or leaving from the parking space or parking garage underneath the towers does not contribute to the liveability of the space. It is no surprise the space is mainly used as a transportation space, instead of a social space.

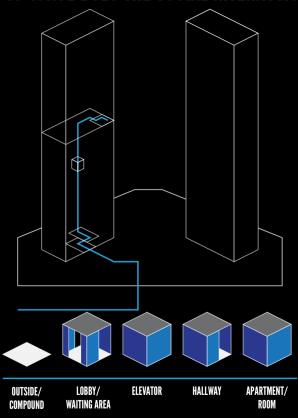
AMOUNT OF PEOPLE IN DIFFERENT SCALES



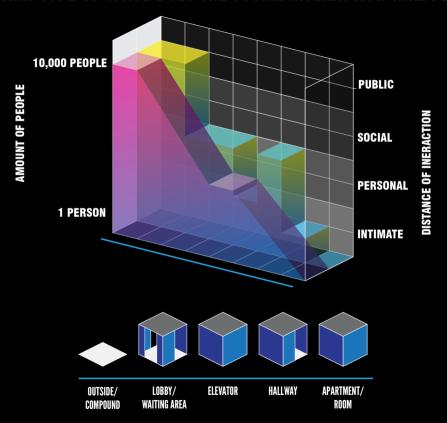
HIGH RISE

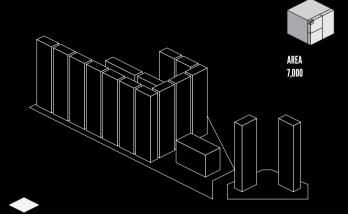
SCALE	PEOPLE
Area	7.000
COMPOUND	1.000
TOWER	500
ELEVATOR	250
FLOOR	10
HOUSE	3
ROOM	1

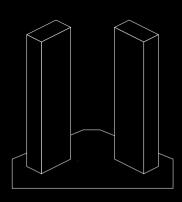
IN WHAT TYPE OF SPACE DOES THE SOCIAL INTERACTION TAKE PLACE?



IN WHAT TYPE OF SPACE DOES THE SOCIAL INTERACTION TAKE PLACE?













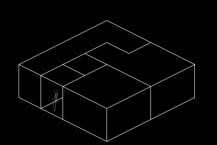




ELEVATOR

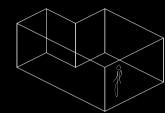








FLOOR 10

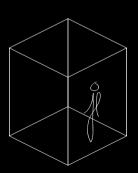




APPARTMENT 3









ROOM 1



Step 3 & 4 The Tower & Elevators

This particular compound has two towers, each with approximately 175 apartments or 500 people. The main entrance is located to the north side of the buildings and is directly connected to the lobby, there is not special verification (in terms of keys or cards) necessary to enter the building. The lobby is a modest space with a regular floor height, as the facade of the entrance is completely made out of glass, it is a well lit room with enough daylight but a uninteresting view. The space also contains the mailboxes of all the residents, but as the space has little to no seating and no zoning elements, it is again purely used as a transportation space. From the lobby the path splits in three, two paths towards the different elevator lobbies and one towards the parking garage. The spaces are fully enclosed with no natural daylight and almost similar in distance to a hallway inside an apartment. The interaction that takes place here will almost always be in the close social distance or far personal space. It is estimated that 250 people have access to the elevator lobby, a dead end space of about 10 square meters.

Step 5 The Elevator

Of course, the same amount of people have access to the elevator as to the elevator lobby, with the major exception the elevator is much smaller and completely closed off. Any social contact within the elevator, about 2.5 square meters, will always take place within a personal distance. While the elevator ride always lasts less than a minute, if the elevator ride is shared with another person, it is by far the most uncomfortable and socially awkward step in the process from public to private. Aside from the fact the inside of the elevator is completely enclosed and small, it is a transportation zone, but the user remains stagnant, unable to move.

Step 6 The Floor

As the elevators reaches the desired floor, the hallway is similar to the elevator lobby on the ground floor.

The dimensions of the space are roughly the same and caters about 10 people, spread out over 3 apartments. While the hallway is completely indoors, there is daylight penetration at both ends of the space. The doors of the apartments are often decorated with typical Chinese stencils, but it seems uncommon to make further effort to personalize the space around the front door of the apartments.

Step 7 & 8 The Apartment & the Room

The apartments are all quite spacious and each have their own living room, kitchen, bathroom, and multiple bedrooms. While the size of the rooms is comparable or smaller than the rooms in the shikumen houses, the fact each apartment is only occupied by one family gives the residents a much more comfortable experience. As the complex was build in the previous decade, the building quality and indoor climate standards as far better than the century old shikumen. The apartment is insulated, air-conditioned, and south-facing, letting plenty of daylight and sunlight come in. The apartment is only acces-

sible to the residents themselves, which is 3 people on average. If the residents invite a visitors or family, they will be restricted to the most public area of the house, the living room, while the residents themselves can retreat to the most private part, the bedroom. Opposed to the shikumen houses, the high-rise apartments do have the final step in the journey from public to private.

In conclusion

When comparing these two typologies each have their distinct qualities. When looking at the largest scale, the local area, it becomes immediately appartent why highrise is so rapidly gaining momentum, it is able to fit the same amount of people on a fraction of the land the shikumen neighbourhoods use. Yet, the streetscape is lacking in comparison to the shikumen neighbourhoods. The sidewalk became an extension of the streets, creating a softer border between the street and the neighbourhoods. The abundance of shops, which usually are run very locally and the intended audience is local, creating a vibrant street life, full of people, either loafing around, busy practicing their craft, or selling their goods.

For the neighbourhood/compound scale, it is again the border of the area that is most interesting. For small sized high-rise compounds, there usually is only entrance and it is a guarded gate. In the shikumen, there are many gates and passages interconnecting the different parts of the neighbourhood, but also connecting to the street in

a wide variety. Interesting to note is these gates might not always be open, and can be locked by residents at random times. The main gates would be closed at night in earlier times, but nowadays the gates are always open; The neighbourhood relies on social control by the residents themselves. It this porousity that gives the shikumen a distinct quality over high-rise when looking at the neighbourhoods on an urban scale. Anyone is free to enter and pass through the neighbourhood. The neighbourhood takes up space within the city, but gives it back by allowing anyone to use, within certain boundaries, the high-rise also takes up space, but only lets a specific number of people use it.

While the shikumen neighbourhoods are porous, they can only be used by pedestrians of people on bicycles. While the main alley is sometimes used to park cars, it is impossible to pass through an alley by car. The compound is a dead-end but still accessible for cars. As Jan Gehl notes, the pleasantness of a space is directly related to the amount of cars passing through. 149 If the car traf-

fic increases, the social interaction decreases. While the car traffic within the compound is quite light, when using the space, the residents would always have to stay out of the way of the cars, making it unsuitable for example children to play around. If the space within the compound surrounding the towers was better zoned, separating social space and transportation while adjusting the size of the social spaces for semi-public interaction on a social distance, it would immediately become a better place to be.

Within the tower, all the shared space are transportation space, with no social space in between. While social spaces would make a good addition, it would require an overhaul of the building. Each tower has an estimated 500 residents. While the lobby doesn't need to be able to house 500 people at the same, it needs to be adjusted so person can have social interaction with one of multiple people out of those 500. Right now the lobby is just one storey in height, if this could increase to make it more spacious, and suitable as a meeting place for en-

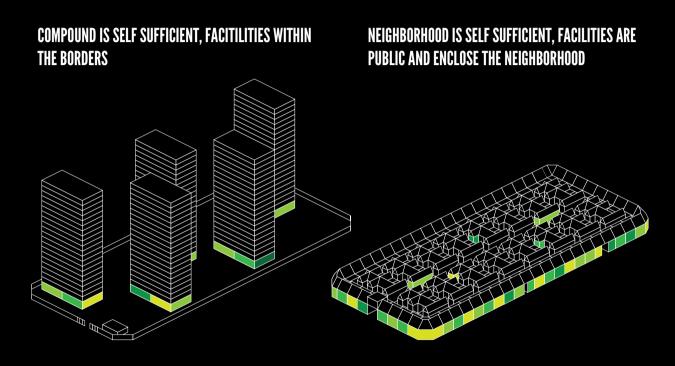
counters within the social distance. And again, perhaps created a small border between the social spaces and the transportation spaces.

For the high-rise, the elevator remains a problem, which is difficult to solve. It will always be a full enclosed, small space, where the user can exert little control over. What can be improved is the amount of people able to use the elevators and the spaces before entering the elevator, and the spaces after exiting. In the case of analyzed towers, these two spaces are exactly the same in dimension and environmental qualities, with the only exception that the elevator lobby is used by 250 people and the elevator hallway on the residents floor only 10 people.

For the shikumen, the transition from the semi-public main alley to the semi-private side is a smooth transition, with corresponding changes in dimensions of the spaces and amount of people having access to the space.

When looking at the dwellings themselves, the high-rise apartments are obviously way better and more comfort-

FUNCTIONS



PUBLIC FUNCTIONS



vacy.

able than the shikumen houses. The residents are able to achieve the final step of privacy, while the shikumen dwellers are stuck in the second to last step towards pri-

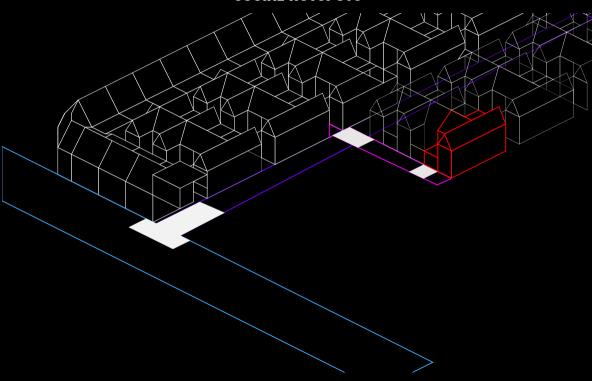
On the bigger scale, the shikumen neighbourhood allows for a significantly better social structure than the high-rise, while high-rise provides for much better living standard and indoor comfort.

Transition zones

As we can see, the shikumen neighbourhoods have a very gradient transition from public to private takes place. As we identified the four major spaces; the public street, the semi-public li, the semi-private longtang, and finally the private house. When walking around in these neighbourhoods, it becomes obvious that some spaces are more used than other, namely the transition space between each of these zones. The mouth of the li towards the street is a frequently used space, people either sit around or are selling their goods or services (such a bicycle repair). Where the paths of the li and the longtang cross, it is a popular spot to hand around and have a small chat with people walking by. In front of the courtyard, where the house meets the longtang, people sit outside, chat with their neighbours, prepare food, read a book, play games, and all kinds of other activities take place in the personal distance.

TRANSITION AREAS

SOCIAL HOTSPOTS



Green space

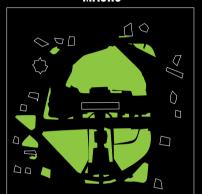
Within Shanghai we can classify three scales: macro, medium and micro green space. The macro scale green can be the big parks such as People's Park and Jing'An park, close to the Yan'An elevated high way. These parks can cover multiple hectares and are accessible for the public. These can be used for all kinds of activity such as the wedding market in People's Park, and taichi and dancing in the evening by the elderly.

A big surface of the green space in Shanghai conists of the medium scale, and is mostly provided by the green in between the towers of the high-rise compounds. By law they are required to create a certain area of green space within each high rise compound. As this is happening on such a large scale, it definitely contributes to improving Shanghai as a liveable city.

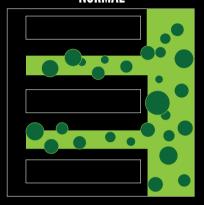
On the other hand, because of the intense land use and the low open space ratio, within the shikumen neighbourhoods there is almost no green space. Because of the ordering of semi-private and private space, plotted plants are often used to personalize and mark the property, which is the micro green space in Shanghai. While the dimensions of the main alley fit its purpose perfectly, the quality of the space (and the city) could improve if more green space was available. This would especially impact Shanghai on a larger urban scale.

GREEN

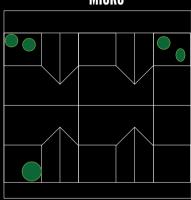
MACRO



NORMAL



MICRO









Survey

In order to gain a deeper insight to the social structure within both typologies a small survey was conducted amongst the residents of both the neighbourhood of the project location as well as a small high rise compound.

The high rise compound is relatively small and consists of two towers each 23 storeys high. The total number of apartments is approximately 350, making it comparable to the intention of the design. The complex is located in Jing'An district, also located along the Suzhou creek, 2.5 km further upstream as seen from the project location. The complex has been completed in 2005.

The survey had five questions and was conducted during the afternoon between 14:00 and 16:00 on a weekday. Because of the limited Chinese proficiency of the surveyor, the survey was kept as compact as possible. Also with the combination of ethnical background of the surveyor (Caucasian) in comparison to the intended surveyed (Chinese, most likely Han Chinese) and the local culture, where they might not often be subjected to survey, let alone a foreigner surveying, it provided

further reason to keep the survey short and as little intimidating as possible.

Hereby the survey and its results:

The survey consisted of the following questions;

You have lived here for how long?

0-1 Year 1-3 Years 3-10 Years

10-25 Years 25+ Years

How many of your neighbours are you acquainted with?

0-3 people 3-10 people 10-25 people 25+ People

How would you rate living here

Terrible Bad So-so

Good Great

What is the reason you started living here?

Location Social Structure

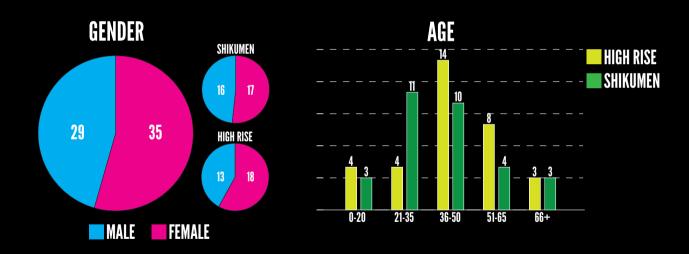
Financial Reason Family Other

How do you feel about the social interaction in this neighbourhood?

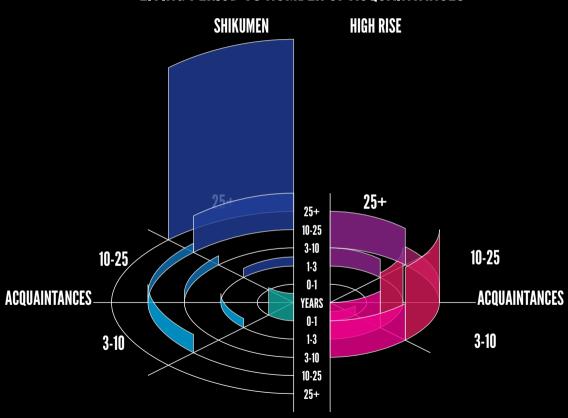
Good Contact So-so Contact
Little Contact No Contact

SURVEY

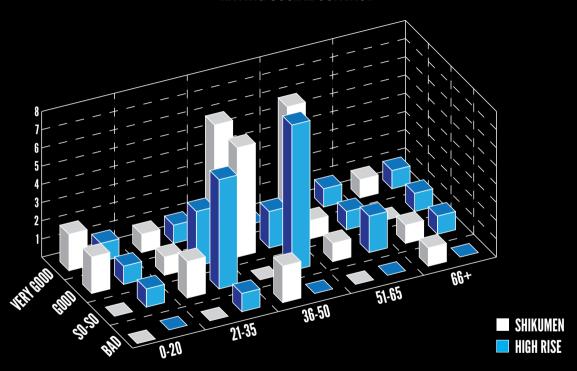
2 TYPOLOGIES - 5 QUESTIONS - 65 PEOPLE



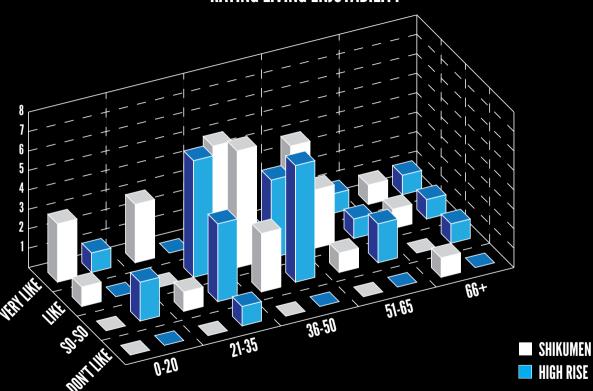
LIVING PERIOD VS NUMBER OF ACQUAINTANCES



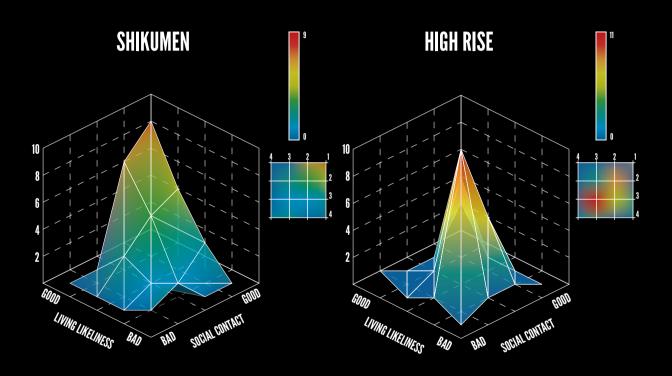
RATING SOCIAL CONTACT



RATING LIVING ENJOYABILITY



LIVING & SOCIAL CONTACT



In conclusion

Not only do the shikumen residents rate their social interaction better in comparison to the high-rise residents, which was to be expected, they also enjoy living there better. The sample group and range of questions are too small to draw any definite conclusion and relations between the outcome of the questions, but it is safe to assume a better social structure provides a more enjoyable living environment.

While the shikumen used to be the housing of the sojouners, the people living in the houses now are long term residents, some of which have lived here all of their life, perhaps giving extra environmental meaning in the appraisal of the neighbourhood, and therefore making it a more enjoyable experience. This longterm residence also is directly connected to the amount of friends and acquaintances they have within the neighbourhood.

The role of housing for the sojouners has been adapted by the high-rise towers. Very few of the surveyed has been living in the compound since its completion, and a significant amount move in quite recently. As they haven't lived there for a long time, they have less acquaintances, but even the residents who have lived there for multiple year, still interact with very few people. It could be that the comfort and space of their relative luxurious homes gives them no incentive to go outisde and interact with neighbours.



CHAPTER VI CONCLUSION

Shanghai has a long and rich history, with ups and downs. For the majority of the time since it began as a small fishing settlement, it has been an almost continuous growth. The most remarkable era's of growth are Shanghai's time as a treaty port as well as the current era.

In the previous years, Shanghai has been the fastest growing city in the world since a couple of years, and as of now, there is now end of the growth in sight. Both of these most recent era of growth can be identified by two different typologies, the shikumen of the late 19th and early 20th century, and the high-rise towers of the past three decades. As mentioned at the beginning, these two typologies have their own characteristics, similarities and differences.

The shikumen can be considered to be a hybrid type of architecture, combining different elements from different cultures, making them very fitting in the context of Shanghai, which is the most international city in China. Tall buildings have become instant international recognizable landmarks for the globalized

metropolis, it is no surprise it has been easily accepted by Shanghai and its citizens.

In their respective times, both shikumen and highrise towers were build as an update from the existing, outdated building stock, providing a more modern way of life with a higher standard of living and comfort. While the local Shanghainese were the first wave of people to move into these houses, the second wave has been the intended sojourners, coming to Shanghai to seek for economic opportunities before moving back to their hometowns again. While it is uncertain to say if the current high-rise residents will go back to their hometowns, it would seem likely they will stay in Shanghai, as the shikumen residents did. Because all these people came to Shanghai in the semi-colonial time, and stayed there, and their lifestyle became part of the cultural identity of Shanghai. Whether this will also be the case for the high-rise lifestyle, or perhaps already is happening is something only time will tell. What is certain is that the shikumen, especially in their urban configuration have a very specific design that has allowed for a great social structure.

This design was not intentional, just as the concept of the high-rise, the construction was aimed at maximizing land use, and thus minimizing costs while maximizing profits. The dimensions of the lanes and side alleys are just the right proportions for the amount of people have access to it and the social interaction desirable for those particular settings. Especially were the transition between the different social zones meet: the public and semi-public transition zone, the semipublic and semi-private zone, and the semi-private to private transition zone. Especially in the side alleys, the longtang, the residents are able to mark and personalize their direct surrounding while still being in a pleasant setting to interact with their neighbours and friends. In order to ensure the contemporary high-rise will last as long as they colonial low-rise precedessors did, it needs to be socially sustainable. To achieve this, a new concept needs to be developed for the design of high-rise, a concept focussed on people, instead of money. Perhaps this could have been achieved naturally if Shanghai was able to experience a natural growth without the burdern of the Second World War and the communists era. However, with the lessons learned from this research, it will be attempted in the graduation design. However, it will not stop there. Instead of demolishing the shikumen, they will be kept and renovated. The shikumen are part of Shanghai's history and culture, while many of these neighbourhoods have fallen into dilapidation, and not all of them can be saved, we owe it to the generations after us, and towards the people living in these houses right now, to try out best and keep as many as possible, or at least find a healthier balance between new construction and demolishing the old.

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