

Updating Shanghai: life from the ground up

This project is located in Shanghai, China's biggest city, and the fastest growing city in the world. The social structure of two common but opposed housing typologies has been researched: the old alleyway neighbourhoods of Shanghai, and the contemporary residential high-rise tower. This project aims to use the good characteristics of the alleyway neighbourhood and apply them to residential high-rise design, while also trying to maintain the alleyway neighbourhood's social structure and its architecture.

Bart Kuijpers

From shikumen to high rise

In 1842, after the First Opium War ended with the signing of the Treaty of Nanking (now Nanjing), Shanghai became one of the treaty ports where the British were allowed to trade with the Chinese from within 'their' territory. Shortly afterwards, the French and Americans signed similar treaties, also setting up their own concessions, as these territories were known. Shanghai consisted of three separate areas: the Old Chinese City, the French Concession, and the International Settlement. The Taiping Rebellion (1850-1864) saw great numbers of Chinese flee to the safety of the foreign concessions. In order to house all these refugees, thousands of wooden barracks were built in rows. None of these have survived (they proved to be fire hazards and were extremely uncomfortable), but they served as a precedent for the shikumen, a type of alleyway house which combined elements of Chinese, British, and French culture; in many way just like Shanghai itself, with its distinct mingling of cultures.

Three major types of alleyway house can be distinguished: the Early *Shikumen*, the Later *Shikumen*, and the New Style *Lilong* (a *shikumen* is a particular type of alleyway house, while a *lilong* is a cluster of them – which may or may not include *shikumen*). From the 1870s to the late 1930s thousands of these houses were built, giving homes to local Shanghaiese and migrants from the surrounding provinces. They also slowly densified as time passed.

Shanghai's development was halted by the Second World War (which started in 1937 in China), and this was followed by nearly three decades of neglect by the Communist government in Beijing after 1949. Shanghai was stuck in a time warp with little or no urban renewal until the 1980s and Deng Xiaoping's Open Door policy, since which time Shanghai has been in the grip of a construction boom of unprecedented proportions. In 2000 Shanghai had approximately 3,500 buildings of eight storeys or taller; this number grew to over 20,500 by 2010, with nearly 4,000 of them being 20 storeys or more. A large number of these have been built in the former foreign concessions, land that used to support alleyway neighbourhoods. As the alleyway houses fell into disrepair, high-rise towers became the preferred housing typology for both the Shanghaiese as well as immigrants.

A typological analysis

In recent decades, millions of square metres of alleyway houses have been destroyed to make way for high-rise towers. In this process, not only the buildings but also the lifestyle and social structure that resided within these neighbourhoods have been destroyed. Research into the social structure of both the alleyway neighbourhoods and residential high-rise towers was carried out, using four aspects of environmental psychology: 1) Distance in Man, 2) Territoriality, 3) Privacy Zoning, and 4) Environmental Appraisal and Assessment (from Robert G. Gifford's *Environmental Psychology*).

Figs. 1 & 2: The journey from public to private for an alleyway neighbourhood and a small residential high-rise compound. The graph shows the amount of people one can encounter in comparison to the distance over which they are encountered. The openness of the spaces is also displayed.

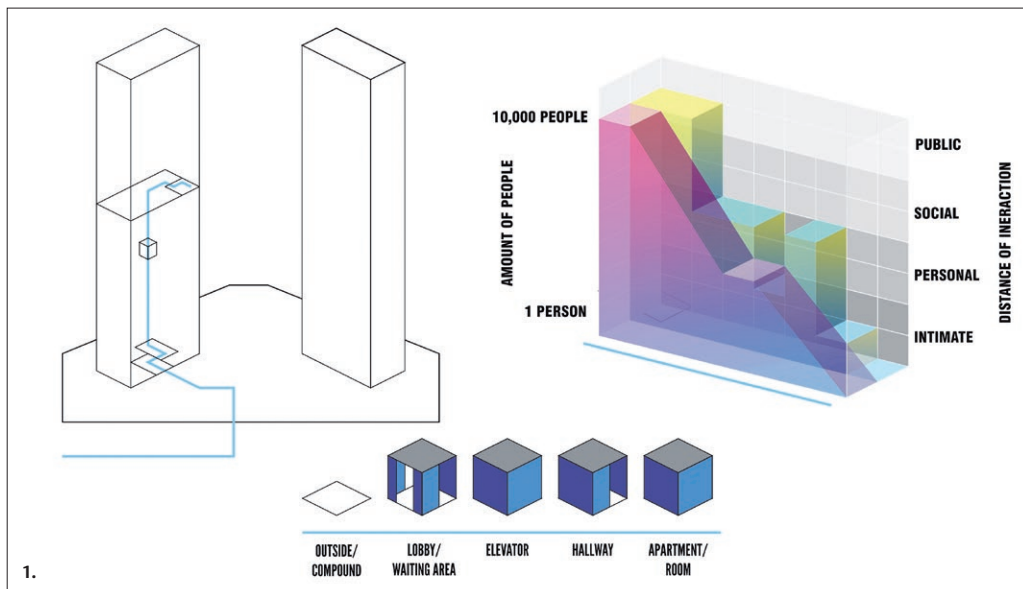


Fig. 3: The high-rise design next to the renovated Shenyu Li, as seen from the public area.



Fig. 4: The redeveloped project location as seen from a nearby tower. The three areas are clearly visible: the renovated alleys to the west; the new tower to the east; and the public area connecting everything.

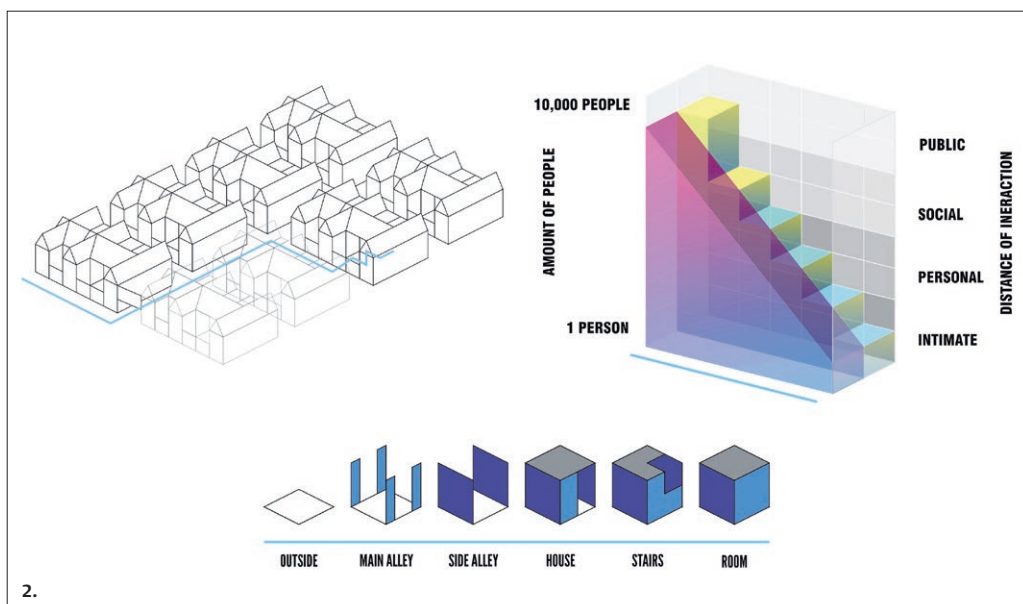


Fig. 5: An impression of the sky-bridges in the centre of the tower.



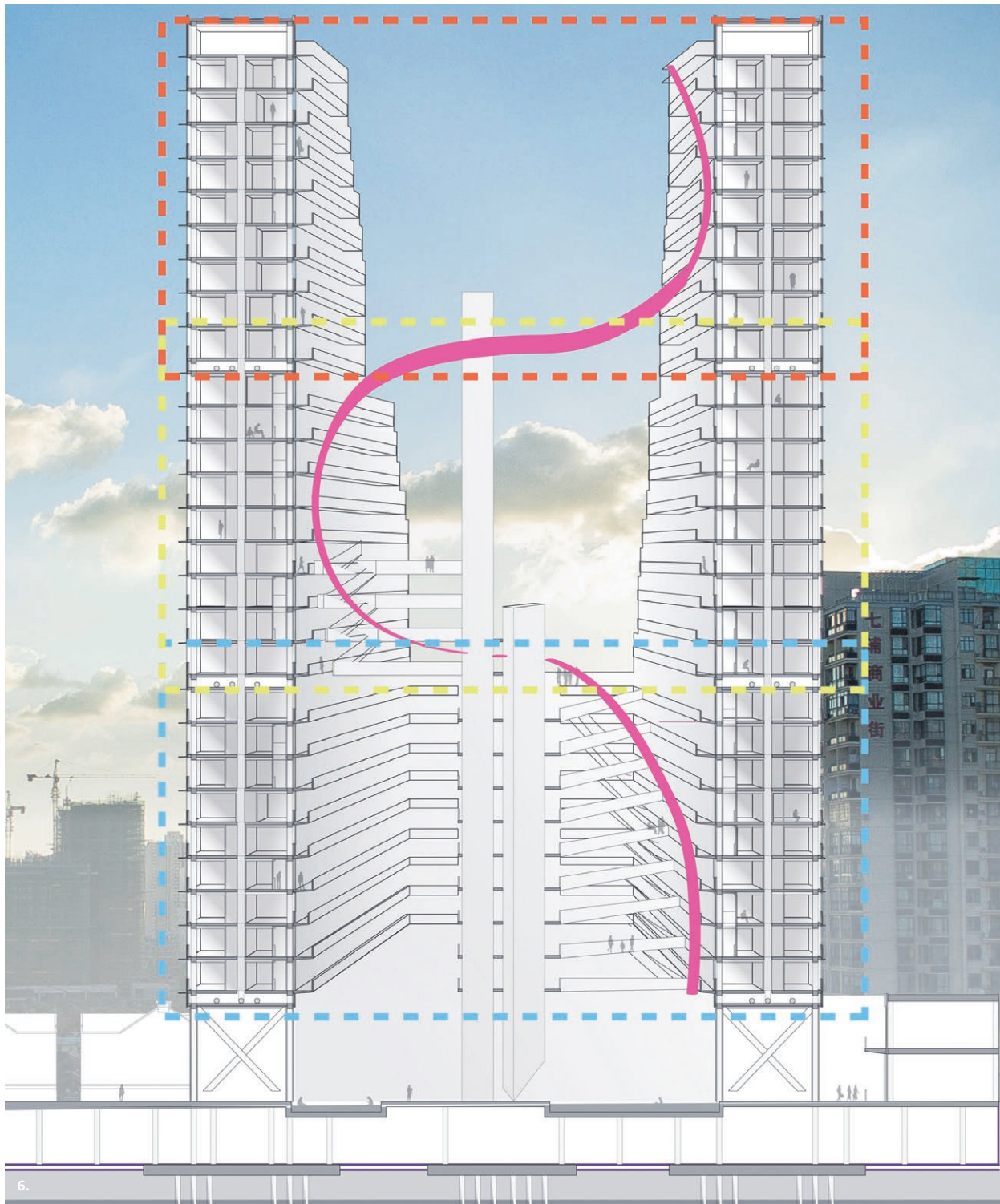


Fig. 6: A sectional view of the tower. The three 'vertical alleys' are shown, as well as the two overlapping areas where bigger social spaces will be located. The pink swirl shows the connection of all the sky-bridges.

Fig. 7: The research graphs applied to the new tower design, again showing the journey from public to private.

Fig. 8: The three transitional zones within an alleyway neighbourhood which can be considered social hotspots.

Fig. 9: An impression of the galleries in the design, also showing the direct connection of the galleries and the courtyard, which act as a transition zone between the semi-private and private spaces.

The design: Jade Well Apartments, 玉井公寓

For the design, two major goals were set:

- 1) maintain and renovate the remaining *shikumen* on the site and 2) maintain its social structure and keep the original residents on site. The chosen location, Nantang Xiaoqu, is located in Zhabei District, just north of Suzhou River, and consists of a number of *li*, some of which have already been destroyed. The project consists of three areas:
- 1) Maintaining and renovating the three alleys on the west, which will provide housing for the new and fastest growing class in China: the upper class, 2) A high-rise tower, located on the eastern part of the site will be the new home of the original *shikumen* residents, 3) A public area, consisting of shops and a park and accessible to everybody, and will connect the above functions.

The main focus of this design has been the high-rise tower, which uses the concept of improving social structure by using the characteristics of the alleyway neighbourhoods. Most residential high-rises are south-facing slabs with the elevator on the northside, but in this design a hexagonal building surrounds the centrally located elevator shafts, creating a large light well. The elevator 'lobby' is completely open and directly connected to the public areas. The slightly raised slabs are divided horizontally in three, allowing the elevators to be divided in three as well, limiting the number of people one can encounter, and making the elevator a slightly less awkward experience.

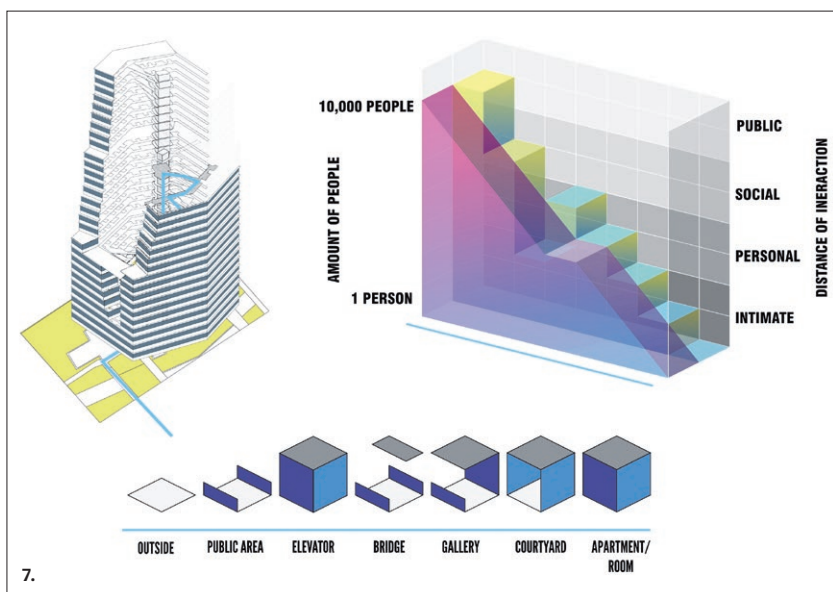
The elevators are connected to the residential slabs via a series of sky-bridges that function as a transition space, but which are large enough to be used as a social space as well. The sky-bridges also connect to one another, both visually and physically, creating three vertical alleys (image 6). The sky-bridges give access to a gallery, which in turn connects to a small courtyard: small semi-private-to-private outdoor spaces. Each apartment has its own or a shared courtyard.

Residents are able to personalize these spaces, within certain limits. The apartments are also organized from public to private with the living rooms facing towards the central 'light well': the spaces enclosed by the hexagonal building where all the social spaces are located. This space is very open and is organically shaped. The bedrooms, which are located on the edge of the building, are the most private spaces, being farthest away from the central social spaces. Being the most private and facing outward to the most public city, the outside of the building is very straight and angular. As the intended residents for this tower are the former alleyway-house residents, mostly from lower socio-economic groups, the apartments are modest in size, the majority being between 40 to 60 square metres. In total the tower is 27 storeys, with 9 storeys per 'vertical alley'. Where two alleys meet, a larger social space is constructed, with a large deck allowing for small commercial and social activities. The three transitional areas identified in the social structure of the alleyway neighbourhood can also be located within this design: namely the open elevator lobby on the ground floor, the sky-bridges, and the courtyards.

In conclusion

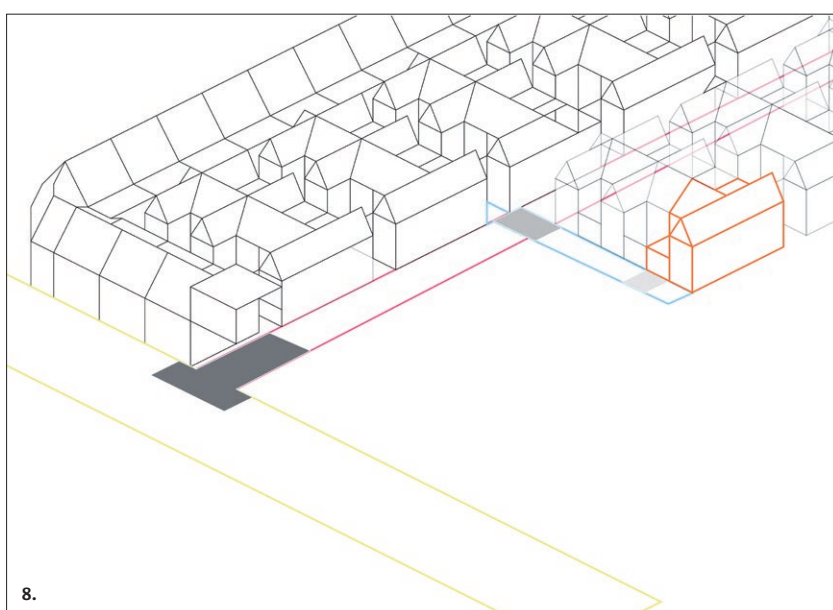
One of the most interesting aspects of China is that the past and future are happening at the same time right next to each other. In this design, an alternative reality is created, bringing the futuristic lifestyle of the new upper classes to the colonial-era alleyway house, while bringing the old-fashioned lifestyle of the alleys to a contemporary high-rise tower. It is impossible to say whether the spaces designed will be used as intended, but the most important aspect is the provision of these spaces, which are lacking in regular high-rise towers. And we must not forget the original residents, most of whom are real Shanghaiese. Now they can stay in their own neighbourhood, with their friends and acquaintances, instead of being relocated far outside the city centre.

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7.

The alleyway neighbourhoods are known for their lively atmosphere and the life that takes place within them. A typical alleyway neighbourhood is enclosed by a line of shophouses that are directly connected to the street. At several points, this line is punctured, most notably on the north and south, where a large entrance gives access to the main alley: the *li* (里) or 'lane'. This alley connects the entire neighbourhood and is a place where all residents can meet as well as where small-scale commercial activity can take place. From this semi-public main alley, there is access to semi-private side-alleys: the *longtang* (弄堂) or 'neighbourhood hall'. As its name suggests, this space is almost used as an extension of the house and all kinds of activities take place in it, from playing cards to washing vegetables and, most importantly, gossiping. The side alleys are connected to the courtyards of the houses. These are private, but because of the high number of residents living in one house (a house of seven rooms can contain up to seven families) it is not as private as the residents might wish. Combined with the fact that the amenities and building quality are completely outdated, it creates an uncomfortable indoor atmosphere, so it comes as no surprise that so much life takes place outside. As a conclusion to this analysis, three 'social hotspots' have been identified, these are the transition areas between each of the different zones: from public to semi-public, semi-public to semi-private, and semi-private to private.



8.

When comparing this fluidity of space-use to the high-rise towers, it is clear that there is a big difference. High-rise compounds are guarded, effectively shielded from the rest of the city; only residents have access to the compound and in smaller compounds there is little space available for social interaction. In the towers themselves, the biggest problem is the elevator. A large number of residents are able to use the elevator, but due to its cramped dimensions users will almost always experience it as a violation of personal space. Of course, quality and comfort in these contemporary high-rise apartments are a lot better than in the alleyway houses, but it is the lack of social space that creates a more individualistic and isolated lifestyle.



9.