

## Conference Paper

# Collective Form for Post-Developmental Inner-city Regeneration

Hiroyuki Shinohara<sup>1</sup> and Melody Yiu<sup>2</sup><sup>1</sup>University of Nottingham, Department of Architecture and Built Environment, Ningbo, China<sup>2</sup>The Chinese University of Hong Kong, School of Architecture, Hong Kong

## Abstract

The strong and rapid urban growth of China in the past decades was largely realised through territorial expansion and essentially building cities from the ground up, a condition known as a 'developmental city'. Many expanding Chinese cities are developmental in character with imported types in vast quantity that are becoming the new dominant types. As outward expansion began to decline in recent years, the focus of development is returning to the city centre, with the risk of large-scale erasure of existing urban fabric along with its history and social life.

This paper explores the possibilities for inner-city regeneration through evaluation of current architecture types in the urbanised Chinese city centre of Ningbo, and the potential to engage in the developmental future. Typology is utilised as a tool of investigation to reveal the evolution of the idea of the city over time. The aim is to point towards an urban vision of the common good with a new collective form, which can then respond to the inevitable developmental forces through a theoretical position for regeneration rooted in urban social life.

**Keywords:** developmental city, type and typology, collective form, inner city, urban regeneration

Corresponding Author:

Melody Yiu

MelodyHLYiu@link.cuhk.edu.hk

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## 1. Introduction

Over the last few decades, Chinese cities have grown rapidly with the powerful will to create a grand new urban image. It is a form of neoliberal economy in the context of globalization, which the city is seen as an economic driver for global investment under strong political influence [1], often with little consideration for its citizens. This condition with heavy state intervention for economic development above everything else is referred to as 'developmental city-state' by Manuel Castells, with reference to rising Asian economies in the late 1980s [2]. This concept is further developed by Christopher C.M.Lee regarding its implication on the urban development, in which he explains the contemporary Chinese 'developmental cities' that "relies on market speculation" with "minimal developmental restriction or political resistance" [3]. It was

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done through expansion of urban territories where new cities were built from the ground up, with imported urban types in vast quantity overwriting the existing urban condition. After decades of expansion, issues such as the diminishing of social life have surfaced from these new territories, while the city centre was somehow bypassed and therefore preserved. As a result, the contemporary inner-city maintained a rich deposit of urban types that reveals an evolution of urban life; however, it is now at risk of being erased by new wave of developmental forces.

This paper explores the typological transformation of urban types as we revisit the inner-city, where once existed a plurality of social life and urban form, and to contemplate the idea of the city as a place for its citizen. Are the existing local urban types no longer valid in the face of neoliberal development? How can we accommodate growth without the need to sacrifice social life? Typology is utilised as the device to analysis the formation of local urbanity, through the case of Xiaowen Alley in central Ningbo, an example of inner-city condition that is found in many Chinese cities. Through evaluation of the three common types (the courtyard house, the slab block, and the tower-podium), the idea of the city and its social life and collective form can be understood, with the aim to search for a regenerative approach against developmental forces.

## 2. Approach: Reading the City through Typology

### 2.1. Typology as idea of the city

The study of types – Typology – has been a path to comprehend architecture and the city. In the 19<sup>th</sup> century, Quatremere de Quincy in his entry in the *Encyclopaedia Methodique* established the definition of ‘type’ in architecture. In contrast to the ‘model’ as a mechanical reproduction of an object, ‘type’ act as the basis of conception [4]. This is the prominent view advocate by the Neo-Rationalist architects and theorists in the 1960s. Acknowledging industrialisation and architectural creation, architecture critic Alan Colquhoun suggested that typology could be the answer to modern architecture to revive its relationship to the historical and social context [5]. This is described as the ‘third typology’ by Anthony Vidler, who stated that the earlier typologies are imitations of nature and then of machines, thereafter the focus of the third typology returns to architecture itself [6]. It is expanded further in Aldo Rossi’s seminal book *The Architecture of the City*, bringing out the temporal dimension of architecture in continuation to make the city, where the understanding of type is independent of function or programme [7]. The instrumentality of type therefore lies in its critical reading

and transformative potential, where it is the object, element, or things that embody ideas instead of determination of form [8].

## 2.2. Assumptions of typology for urban regeneration

Territorial expansion and instant new towns are common developmental characters of Chinese cities since the economic reform almost 40 years ago. The vast number of constructions within a short period of time is causing the newly imported dominant type – the abstract idea of the repetitive urban towers – to rapidly overwrite the existing urban condition that has evolved over time. In this context, the concept of typology again became relevant as a medium to review the inner-city situation in the face of developmental forces in many Chinese cities. Types were not devised in one instance but evolved to accommodate societal conditions and affect people's daily life, while typological transformation is defined as the substantial changes in formal structure in response to a new situation [9].

This paper takes the case of inner-city Ningbo to examine the types and typological transformation against the context of Chinese developmental forces. In contrast to the peripheral new towns, the inner city was built on multiple layers of humanity as the types were developing in continuation, with the urban artefacts withstanding functional changes [10]. As the city centre will become the next battle ground of urban development, if treated with the current developmental mentality, inner-city neighbourhoods would face large-scale erasure by the new dominating types.

## 3. Findings: The common types of inner-city Ningbo

### 3.1. The ethos of Ningbo as a merchant town

The city of Ningbo is located in the coastal region of Zhejiang Province. It was designated as one of the first five open trading ports in China by the Nanking Treaty in 1840, establishing its character as a city of commerce. Gradually, the city grew with a reputation for its merchant trait, known as the Ningbo Clans (宁波帮), which played a significant role throughout modern history by contributing to the post-reform (1980s) economic development that enabled Ningbo to become one of the cities with the fastest growth in that period [11]. The ethos of Ningbo as a city of commerce is reflected through its urban condition, particularly the inner-city urban types.



**Figure 1:** Xiaowen Alley - study site location in relation to old (demolished) city wall.

The study site of this paper, the Xiaowen Alley area, is located in the northwest quadrant within the old city wall boundary, historically a residential zone where houses and landmarks from the Ming and Qing dynasties (c. 17<sup>th</sup> century) still exist. During early republic modernisation in the 1920s, the city wall was demolished and waterways across town were filled to give way for vehicle traffic. Since 1949 under the communist rule, urban development was to serve the socialist ideal of collective productivity, and any form of privatised commerce was regarded as decadent. The once prosperous city-centre enterprises were to become collectively owned, and large family houses were densified to accommodate for more working-class residents [12], while most of



the new large-scale socialist constructions for agricultural (Commune) and industrial (Danwei) production were built in the outskirts. Since the 1978 post-Mao open policy and economic reform, many former businessmen returned to the city for this new wave of economic growth, in the spirit of the old Ningbo Merchant Clans. The local prosperity of the early reform period brought about urban development along the 'three river intersection' (三江口), and the East Gate area (东门口). It was only in the last couple of decades when urbanisation turned to territorial expansion, and once again the city centre was bypassed in developments.

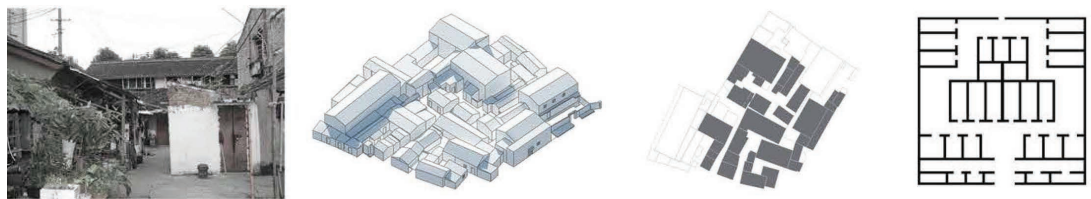
### 3.2. The three inner-city common types

Through field research and archival study, three common types are identified in the Xiaowen Alley area. Each possesses a particular characteristic representing the daily lives of ordinary people, and each registers the social condition of the time. These common types are analysed through their formal structure, highlighting the social dimension of concentrated urban living in the inner city. The three types studied are the residential cluster in the form of 'courtyard houses', 'slab blocks', and 'towers on a podium'. The study of the original types and their contemporary adaptation will give a perspective on the conditions in which they were produced, how they were transformed, and their dismissal and continuity in the current time. The types will be read first at the building scale and then as an aggregation of common types at the neighbourhood scale to understand urban type formation.

#### 3.2.1. The evolution of the courtyard house type

The courtyard house is a type reminiscent of the ancient feudal society, originally conceived for the large household of wealthy merchants residing in the city. While there are a few heritage houses from the Ming and Qing dynasties, most of the courtyard houses found on site were built in the early republic period, but the implied social order was carried through in this type. The social order is suggested by the repetitive elements in axial arrangement around the courtyard, which functions as the centralised common space, with surrounding rooms arranged to denote family hierarchy. The most important location along the central axis is reserved for an ancestor shrine and guest reception (in front) and for the head of the household (in back); rooms on the two sides are allocated for family members; and utility rooms such as a kitchen, storeroom, or rooms for servants are at the front close to the street [13].

Other than the few declared heritage houses, nowadays the courtyard houses found on site are mostly in disrepair, with crowded and poor living conditions, typically known as 'dazayuan' (大杂院), literally meaning 'the big messy courtyard' [14]. While well-documented study of the transformation of courtyard houses in Ningbo is lacking, it can be stipulated from similar cases in larger cities, such as Shanghai. During the early socialist regime, the property right of these once private residences was gradually transferred to the collective through various administrative measures [15]. As a result, the courtyard houses began to have multiple working-class families cohabitate with subsequent ad-hoc addition and densification, forfeiting the spatial–social relationship of the original type.



**Figure 2:** The courtyard house type.

At the neighbourhood scale, the agglomeration of courtyard houses that once formed the urban structure has lost its prominence as the coherent social framework. The ad-hoc addition changed its formal structure and erased the shared common ground. With worsening physical condition, this type has become the dwelling for deprived residents and considered as a low-value property that dissolves into the background of the city. However, while the type has lost its formal structure, the urban formation with alleyways in between houses has remained. Along with densification, it has created a new form of intricate network of alleys and smaller informal courtyards, where sociability is still imposed through the spatial structure that fuses interior and exterior space. It is a permeable urban morphology in which private and public spaces, and therefore social life, overlap. This ambiguous spatial arrangement facilitates social interaction and fosters encounter between neighbours in the form of casual activities, as one can still find the micro-cycle of local commerce with the pharmacy, hostel, barbershop, small restaurants, and corner stores. Despite the current derelict condition, the proximity and porosity generated by the small-scale repetitive elements are inherent and unchanged as associated with the courtyard type. More careful attention should be paid to the dynamic of this type and the idea it encompasses, which could promote sociability for inner-city regeneration.

### 3.2.2. The sociality of the slab-block type

The slab block was the dominant housing type in Chinese cities from the 1950s to 1990s, with its original type tracing back to the Soviet socialist model. The urban housing standard at that time was a manifesto of socialist ideology, converting from capitalistic consumption into a production-based country, with 'production first and livelihood second' [12]. Dwelling units with basic necessities were built to resolve an urban housing shortage due to the influx of rural workers into the city. While the Soviet model has a more generous allowance in living standard, early socialist China did not have sufficient resources to achieve this and had to accommodate multiple families per unit. The later model in the late 1950s divided the inner corridor into four units with one staircase, also known as the 2-2-2 type, with three units of two rooms sharing a kitchen and bathroom and two families cohabiting in one unit [16]. The type emphasises minimal needs with little or no consideration for social space at the family (unit) level, as shown by the absence of a living room. Since housing was provided as welfare and co-habitation was enforced, personal living quality was suppressed under the socialist goal of the country [17].

Since the opening up of the nation in the 1980s, the city flourished again as it was relieved from the Mao-communist regime and cultural revolution. The slab blocks found on site at Xiaowen Alley are an evolution of the original type experiencing this change, marking the political and economic turn of the country and subsequent changes in social structure. The slab-block type is modified for the commodity housing market as it gradually took over the role of government or work-unit provision of housing, where the slab blocks in Xiaowen Alley built in the early 1990s are an example of this transition type. As urban families were now able to afford a full unit with increased area, one key difference found in the commodity housing was that the configuration with a living room, in the centre of the unit, signified an increased emphasis on family (individual) enjoyment. Meanwhile, the shared space of the corridor, which formerly was appropriated for various collective uses, was proportionally reduced.

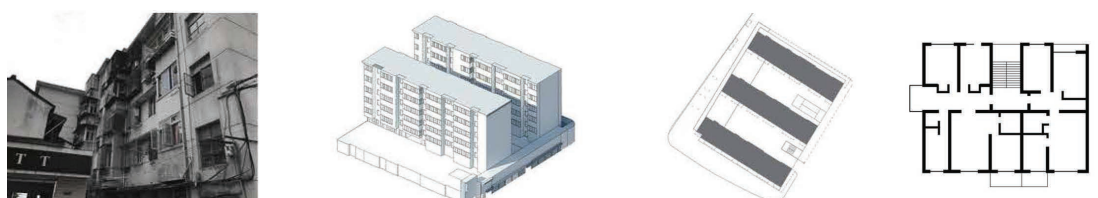


Figure 3: The slab-block type.

While the units are becoming more individualised and less social, at the neighbourhood level, the commodity slab-block compound is still planned with complimentary public amenities such as shops and services along the perimeter of the block facing the street. It departs from the internalised socialist compound where daily services are all provided within, while the streets surrounding these early commodity slab blocks are animated with lively activities. One enters the living quarter in between the perimeter retail, where the main internal road often extends public life with certain commerce or services (e.g., a barbershop) into the compound, giving a blurred boundary of public/private life. Inside the compound, while the unit layout minimises sociability among families, the repetitive arrangement of slab blocks in close proximity provides an appropriately intimate scale for interaction and socialisation of the residents. Balconies facing public outdoor space provide a buffer to the private living quarters, yet with the lower building height and close proximity they still allow for a glimpse of private life from the public space. While there are no pre-defined functional zones between the buildings at ground level, residents can bring out their own furniture and gather around, forming an informal communal space with display of individuality over time.

Dense living conditions are generally accepted in urban China, particularly in the inner city. This density, in turn, provides a sense of community enabled by the human-scaled urban space in between the blocks as well as along the street-front retail. With the freedom of choice of accommodation, individuals living in close proximity are becoming voluntary participants in this collective and social life. The repetitive pattern of the linear slab-block configuration promotes interaction among individuals, whereby the adhesive spatial structure formulates social relationships of the familiar culture of inner-city urban living. This transitional type from socialist welfare housing to commodity housing reveals the history of departure from the coercive collective form into individual choice and private lifestyles; while the unit type provides a degree of private living, the urban type of slab blocks still allows a certain level of social life and interaction.

### **3.2.3. The potential of the tower-podium type**

The tower-on-podium is the new dominant type in Chinese cities [18], a new paradigm of contemporary urban living as the socialist market economy has come into full swing over the past couple of decades. In 1999, housing distribution under the old socialist welfare system was terminated [12]; incidentally, this was when the Central Park Estate near Xiaowen Alley was built, the very first residential tower in Ningbo. For pragmatic reasons of land constraints and the need to increase density, as well as to create

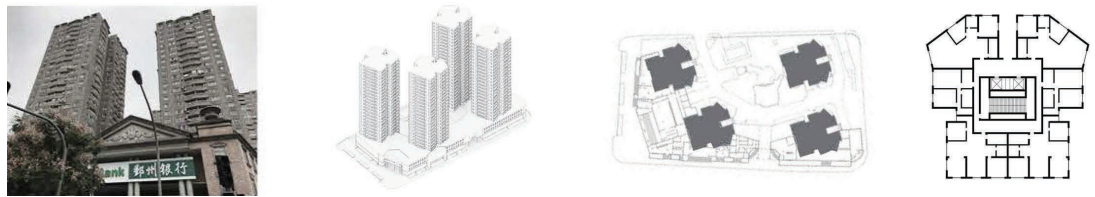


a forward-looking image of the modern lifestyle, the high-rise residential tower type emerged in Ningbo around the late 1990s, where it has made an iconic image among the low/mid-rise residential clusters. The commodity housing market grew as individuals began to enjoy the liberty to choose their dwelling, and new types of residential products appears in the market to meet consumer demand.

The 26-storey tower of Central Park Estate has a typical floor plan of six units organised around a central elevator core. The apartments reach the size of 160 m<sup>2</sup> with three en-suite bedrooms and a spacious living room; they are several times larger than surrounding housing options, advancing towards a more enriched private domestic life. Social space in the tower apartments is confined within, where the corridor serves only as a circulation space, and service by elevator separates the floors with rare occurrences of public life; common space is eliminated in the name of privacy and safety. Beyond the highly private typical floor, the sense of isolation is extended through the tower compound layout and the podium situation in the urban setting.

As the masses of the towers became taller, they required more distance apart to ensure sufficient daylight. The result is a concentrated open space in the middle of the plot, often landscaped as a leisure garden, yet lacking the spatial definition and intimate scale to create meaningful social space. While the podium defines the street with retail storefronts, it also blocks (protect) the inner life of the residential compound from the outside. This podium acts differently compared to the perimeter slab blocks in three key aspects: visual contact, streetscape (setback) definition, and the size and type of shops. The slab-block storefront is a natural extension of the block above, and intermittent breaks allow instances of permeability and visual connection with the inside. On the contrary, the podium, in greater depth and height, completely blocks off any penetration of street life or any suggestion of the inside life, as none of the tower units is visible from street level. The more substantial mass of the tower also requires a further setback from the street, along with current planning requirements for wider streets, as it disrupts the compact fabric and human scale of the inner-city streetscape. The shops at the massive podium are naturally larger in scale, which discourages businesses such as small stores for daily needs, but caters to chain stores with regional clientele. This has also reduced the potential for casual encounters and weakened local social relationships.

The formation of the tower-podium type in the inner city is different than that in the new districts, where plot sizes are often multiple times larger, known as a 'megaplot'. It is a direct product of efficient planning to maximise development for profit under minimal regulatory conditions, with ample supply of land available at the periphery of the city [3]. On these megaplots, the tower type is optimised once and then repeated tens of



**Figure 4:** The tower-podium type.

or even a hundred times to fill the plot at minimum standard of building density and green coverage, leading to a homogeneous field of towers often seen in urban outskirts. Unlike the mindless duplication at periphery megaplots, the tower-podium type for the inner city faces more constraints and creates a stronger impact, visually and spatially. In addition, while megaplot development often completes itself within, the inner-city tower-podium belongs to and affects a significant part of the urban landscape.

As we have examined the positive and negative aspects in terms of urban sociality of the different inner-city types, in the face of the inevitable developmental force, how could we integrate the merits of earlier types while achieving the density that future development would require? The prospective tower adjacent to the Central Park Estate currently under construction could be seen as an attempt to interpret the situation. Its design maintains maximum floor area and a highly private unit plan massed as the slab-block type in the form of an 18-storey tower, with a segmented podium in smaller scale, providing health-related service and retail to the ageing population of the area. This hybrid spatiality recalls some of the familiar types suggestive of a more social inner-city urban living. While the tower-podium type of the inner city is still at a stage of formal exploration, one should not overlook the potential of this type in how it could balance the dual objective of density and sociality.

#### **4. Discussion: Collective form against Developmental Force**

The study of common types at Xiaowen Alley has revealed a particular positioning of the inner city within the greater urban context. Ningbo as a city of commerce through modern history has a relatively light imprint of socialist constructions, reflected in an alternating pattern of inner-city and peripheral development. In contrast to the developmental territories in the tabula-rasa condition, the inner city is filled with rich layers of urban artefacts, where the development of its urban form follows a non-linear path responding to contemporary political or economic ideology.

## 4.1. Typological transformation of collective form

There were two critical moments of transformation when the collective form responded to significant urban history. While the ancient courtyard house has been the dominant type of Chinese cities for centuries, the modern socialist regime brought about the first typological transformation, from the courtyard house to the slab block. There was a fundamental change in social structure from the extended family network into the socialist ideal of a collective, reflected through the standard housing of work-unit organisation. Under this condition, the slab block became the dominant type and continued to evolve through the second half of the 20<sup>th</sup> century, originally as public welfare housing and later adapting into commodity housing form.

The economic reform since the 1980s marked the second key moment of transformation, from the slab-block to the tower-podium type. As the nation opened up, citizens awakened from the collective communist ideology and returned to individuality and private life, as exemplified through the tower type of collective form. As building technology advanced, it was replicated rapidly in vast quantities to accommodate high-density urbanisation with the efficiency and economy that serve developmental expansion. Since then, the tower type has dominated the urban landscape, in the form of large-scale residential compounds, particularly in the peripheries with megaplot planning principles. In the city centre, the tower-podium type is also emerging but in a more compact configuration, yet still gradually transforming the inner-city urban morphology. The mixed urban form reflects the inner-city condition where physical boundaries between different type are being dissolved, yet the invisible social boundary might still be present, if not enhanced, in the case of the isolated tower-podium type.

With the trace of evolving types marking critical moments of urban history, the inner city can be read as a patchwork of different types in co-existence, giving a character that is in contrast to the monotype developmental districts. As urban development in China is progressing into a new situation away from territorial expansion, perhaps the next typological transformation with a new type emerging could be expected in the near future.

## 4.2. The two ideas of the city and the new collective form

The critical analysis of the inner-city types and their transformation reveals two distinct but interrelated ideas of the city. Firstly, through the reading of types chronologically, the city can be seen as an instrument to exercise political or economic will. Whether

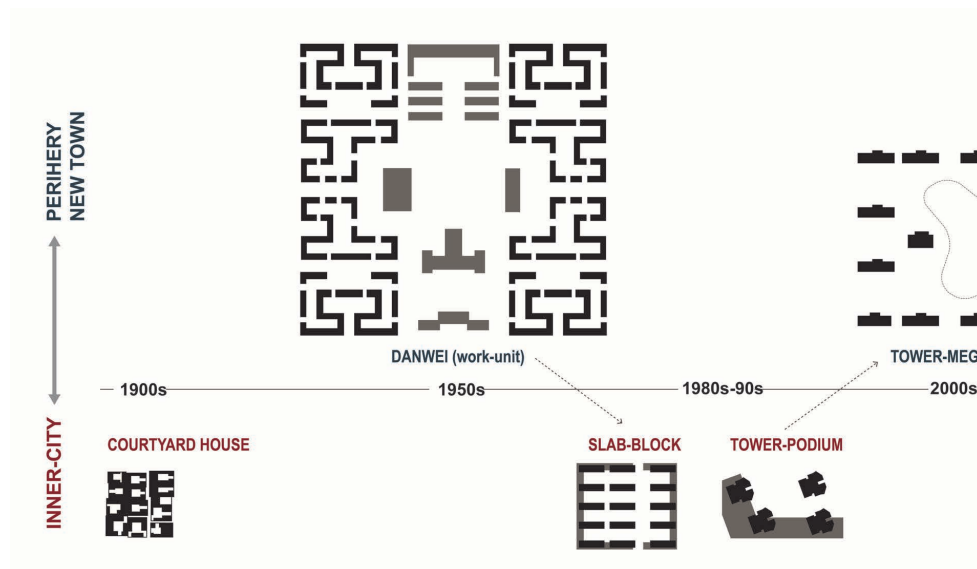


Figure 5: Typological transformation of housing types.

by production or consumption, the new architectural types are estranged from previous ideologies and, in turn, alter contemporary social conditions. On the other hand, the city is a perpetual form of social life; through constant adaptation and modification from within, the familiar culture of sociality always reconfigures and continues despite changes in society and its respective urban/building types. As the collective form has changed from a paternal family unit to a coercive production unit and now to a form of quasi-capitalistic individualism, we should reconsider what might become the new collective form in this contemporary society of choice.

Developed through very different cultural and historical trajectories, there would be a quite different conception of ‘collective’ or ‘community’ in Chinese society to that of the nominal Western understanding [17]. However, after several decades of international exchange and influence, perhaps it is time for a renewed understanding of Chinese collectivism towards a common value that embraces urban sociality and shared interest. While the negative impact of developmental expansion is a reason for city-centre regeneration, there is also a renewed concern about the privatised life and the lack of sociality of suburban living. In recent years, we have begun to see urban trends in form for various collective community initiatives, in a different sense to the socialist collective form as a means of control and population management. The contemporary urban collective form would return to treasure urbanity with a social dimension. What would be the new dominant type that can respond to social concerns beyond politics and economy? The change towards a social collective form with a sense of citizenship is a relatively new concept and phenomenon in Chinese cities, which would be particularly important as it develops through regeneration schemes of the inner city.

## 5. Conclusion

This study began with the investigation of typology as an aperture to read the city, which is especially relevant to the inner-city urban condition departing from the territorial expansion of the developmental character. The urban history of the City of Ningbo is narrated through critical analysis of the common types in its centre, the Xiaowen Alley area. The types and social lives affect one another mutually through adaptation and transformation, where city-centre living is continuing to be seen with a strong vitality — a major difference between the inner city and the developmental new towns. Looking at the currently dominant tower-podium type, we analysed how the type reflects the contemporary lifestyle of individualism with reduced sociality compared to the past. However, the aim of the study is not to advocate nostalgia for the old days (and the old types), but to project into the future by acknowledging the inevitability of the tower type for the required hyper-density in the city centre in further urbanisation. The answer might be an evolution of the tower type with a social dimension, or perhaps a new type will emerge with significant change in society.

With the growing awareness of the importance of urban social life, the new collective form of Chinese cities is in the early stage of formation — not by the strong family ties or by top-down administrative decisions of work units, but in the contemporary situation in which one is free to move around and choose his or her habitat and way of living. With the increasing liberty in lifestyle choice for the future generation of urban living, a new type would be needed in the face of the new social situation. The condition of Chinese inner cities recalls similarity to that of the Italian cities in Rossi's time. While the modern history of China has focused on progress and largely overlooked the connection to the past and the humanities, it is time to think about our cities with permanence and memory beyond the current moment. Understanding types and utilising their transformative nature could be a way forward to devise appropriate strategies for the upcoming wave of inner-city urban regeneration.

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