

# String Block Vs Superblock Patterns of Dispersal in China

The superblock in China has become the dominant unit of urban planning, allowing for rapid urban growth while also meeting the needs of state and property developer alike. **Kjersti Monson** explains the conditions that have given rise to the superblock, while challenging it by proposing an alternative 'stringblock' approach, rooted more in collective culture and addressing the demands of the market-driven economy.



At the high end, superblocks function as the ultimate in gated communities – truly wonderful tower-in-the-park environments. Alternatively, they can be relentless in their standardisation and repetitiveness. Whether a project becomes one or the other is often entirely up to the developer.

The superblock represents the DNA of urban expansion in China. As the basic unit of urban planning and real-estate transactions it defines the new Chinese city in a way that the grid and parcel defined New York. The grid and parcel laid the foundation for real-estate transactions in the American city that were in keeping with US values related to the individual's right to land and property. So does the superblock lay the foundation for transactions that are in keeping with Chinese values related to the state and collective culture. Basic cultural institutions and assumptions underlie the superblock form, which was not born in China but has perhaps reached its zenith as a megatypology within that context.

Because the superblock type is so dominant as the vehicle for Chinese urbanisation, it is here that any discussion should start by considering improving the qualitative outcomes of new development as it pertains to the public interest, public space and sustainability.

A superblock can vary in size from 8 hectares (20 acres) in an existing urban area to 40 hectares (100 acres) or more in newly urbanising rural peripheries. As a type, it is efficient for implementing rapid expansion since it allows the government to limit its hard investment to the planning and construction of a widely spaced pattern of major infrastructure only, shedding enormous chunks of developable land with approved use rights in single transactions, wherein the private owner will plan and build interior roads. The sheer scale of a typical superblock requires that the developer has large capital reserves and high political standing, and must also possess the operational and financial capacity to produce a megaproject.

Standard superblocks create an urban fabric characterised by discrete, large and homogenous cells – a 'candybox urbanism'. This phenomenon is underscored by the requirement in newly planned expansion areas (Pudong is such an area, being built from the ground up on previous agricultural lands) for 15-metre (50-foot) or greater 'green buffer' zones between the kerb and the proposed buildings. This precludes multiple blocks from relating to one another with a cohesive streetscape, and furthermore necessitates frontage roads to be built within the green buffer, often duplicating the existing road and encircling the inner block.

Because the typical superblock morphology is cellular, it is not a type that blends well with its environment and it inherently tends to diminish the possibility of cohesive public space or the stewardship of natural systems. However, its spatial logic is practical from a planning, construction and leasing point of view. Discrete circulation (in the spirit of the cul-de-sac) for each building phase is considered preferable so that leasing can begin on one area while another is still under construction.

The land is parcelled and planned by the government at a scale that requires large financial transactions, both in the sale of rights as well as in the ensuing land improvements and construction. Each superblock project can rapidly deliver large numbers of housing units to market while offering a financially attractive prospect to the global-standard

developer and financier. Buildings within a superblock project tend to be standardised, streamlining the design process and reducing costs. The process capitalises on the strength of the Chinese systems of Local Design Institutes (LDIs) – a system of state-owned architecture and engineering institutes that provide standardised construction documentation at a very low cost. The LDI system is designed for maximum efficiency through an institutionalised preference for using templates and standards instead of pushing design innovation. LDIs are typically a required partner for projects of any scale on the Chinese mainland.

In the end, although the result of this process sometimes leaves a lot to be desired with regard to public space, sustainable city-making and social justice, the will to change it is hard to find since it has thus far functioned adequately from both a state and private development perspective. As cities expand ever further into the hinterland, performance is harder to gauge.

### Collective Culture and the Built Environment

*The creation of collectivized dining halls, nurseries, kindergartens, dormitories, laundries, and repair shops will really break radically with the existing family attitude toward property, and this will provide the economic premises for the extinction of the family as an economic unit.*

NA Miliutin in *Sotsgorod: The Problem of Building Socialist Cities*, 1974<sup>1</sup>

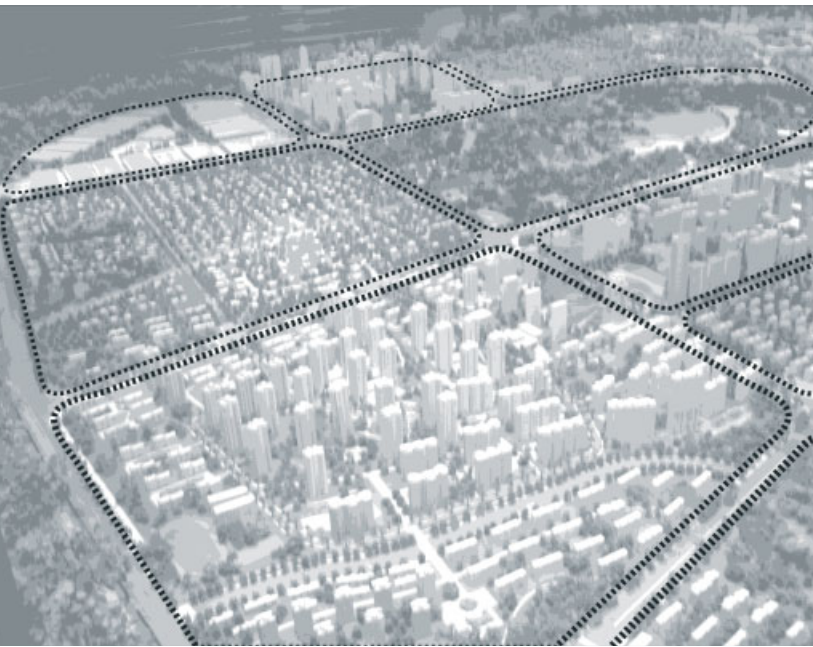
*The Communist Revolution is the most radical rupture with existing property relations; no wonder that its development is the most radical rupture with traditional ideas.*

K Marx and F Engels, *Communist Manifesto*<sup>2</sup>

A history steeped in collective culture, along with the cultural assumptions that grew from the system of institutionalised architecture created to realise the communal built environments in the style of Soviet communism, informed how China ultimately structured its land lease and development regulations, which allowed for a real-estate market to emerge in the late 1980s. In addition to defining a legal and political process for bringing land to market, the government defined a planning process for urban land with the superblock as its basic unit. The lack of a finer grain of parcellisation ensured that development would continue at the scale of the collective rather than of the individual. Given the allowable densities, single developers could house entire small cities in one project.

The dominant typology for land transactions, and therefore for urban expansion under the current system, is the superblock. In order to understand why transactions are occurring only at this scale, and why the individual remains peripheral to land development in China, it is useful to explore the country's history as a collective culture.

Collective culture, long an underlying component of Chinese civilisation, became a tangible characteristic of each



The enormous model of downtown Shanghai at the Shanghai Urban Planning Museum reveals a large-grained cellular pattern of development typical of superblock fabric. Each block is distinct with regard to massing, circulation and open space, and is typically disconnected from other blocks by large and fast-moving roads, resulting in a sort of insular 'candybox urbanism'.

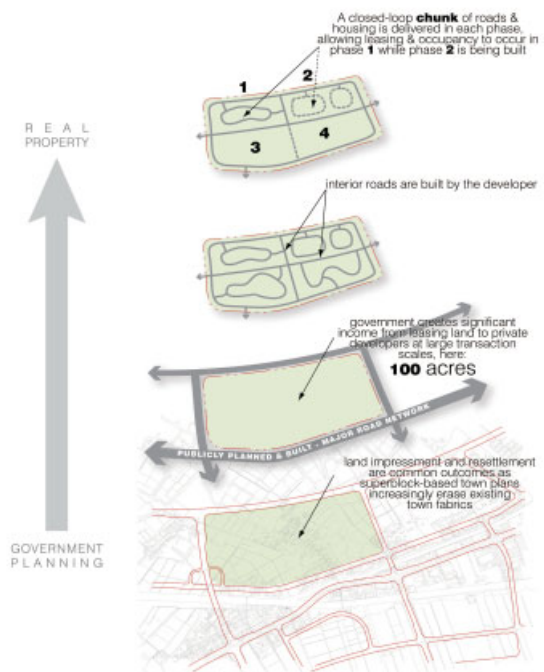
Chinese citizen's daily life in the 1950s through the bricks-and-mortar restructuring of both city and countryside into working communal environments and political structures under Mao. When the People's Republic was formed, the Chinese population was collectivised, with the basic and most important unit of socialisation being the 'work unit'. The work unit was at the core of everyday life, and was the building block of Chinese socialism. In the city, this building block was called the 'danwei'. In the countryside, it was the 'production team'. The work unit was the nucleus of the political and social life of a village, and had spatial implications depending on the means of production employed. An agricultural village was cell-like; an industrial village was linear, and most likely sited along a canal. An urban *danwei* provided the worker members with everything they needed within a defined and controlled area, including the workplace or factory, residential dormitories, cafeteria and school. As large-scale, closed-loop and collectivised walled compounds, *danweis* constituted the basic social and built structure of the Chinese city. They were defined first and foremost as centres of production.

Throughout most of the pre-marketisation communist era or, more specifically, from 1953 to 1984, land was nationalised. Under the law, two kinds of land were recognised: state-owned land, which was either urban land or a nationally significant natural resource, and collectively owned land, which was rural or suburban. The system of local administration was split into three levels: the people's commune (administrator of the town and liaison to higher

officials), the production brigade (administrator of the 'natural village' – often a group with familial ties – and coordinator of production teams), and the production team (a designated group of peasant labourers working together towards production goals).

Land and resources were not held individually, but by the state or commune. Nevertheless, under the law, land rights were necessarily represented by designated parties – those with standing to negotiate in the event of a dispute or land-use change. The state was the legal representative of urban land rights and natural resources. The production team was the legal representative of collectively owned land rights. Therefore the legal framework governing land rights reflected the ideological values of Chinese socialism by privileging two parties with legal standing under the law: the state and the work unit (production team).

Collectivisation meant more than the pooling of labour and the communal allocation of resources. It also meant common eating and living spaces – a standard feature of the dormitory living units built at this time. Standardising communal living arrangements underscored the national dedication to instilling socialist values at every level. The work unit, or *danwei*, was not only the building block of the socialist city, it was the core of communist identity. It represented social identity through work, familial ties and national ideology.



As the basic unit of urban planning and real-estate transactions in China, the superblock defines the new Chinese city in the same way that the grid defines New York. As a type, it has difficulty coping with context, environment and existing conditions. Nevertheless, due to its high efficiency for rapid expansion, clear terms of transaction and strong formal likeness to the collective compounds of China's recent history, it is likely to remain dominant and should be considered as a formal and functional type ready for urban design innovation.



As China turns its attention to the ever expanding periphery and the countryside, the broad-axe development framework represented by the superblock will necessarily have to adapt. The superblock is highly efficient for planning and land transactions, but its form creates enormous disruption to existing natural and cultural systems.

### Marketisation

*Land parcels are the most important State-owned assets valued at 25 trillion yuan (US\$3.019 trillion), more than triple the total value of other State-owned properties.*

*People's Daily Online, 25 June 2002<sup>3</sup>*

*Instead of moving toward a completely capitalist socio-economic system, China is in transition to a market socialism.*

*... a natural resource (land), whose monetary value had been neglected since 1949, suddenly assumes a very important role in the overall Chinese economy ... How then does this 'from nothing to everything' situation come about?*

*Li Ling Hin, Privatization of Urban Land in Shanghai, 1996<sup>4</sup>*

Marketisation is a legal and political process by which state-owned land in China becomes developable, and through which real property is brought to market. The marketisation process in China has heralded a period of unprecedented urban expansion. It has also resulted in the resettlement of large numbers of people and the loss of agricultural land as cities and infrastructure rapidly expand.

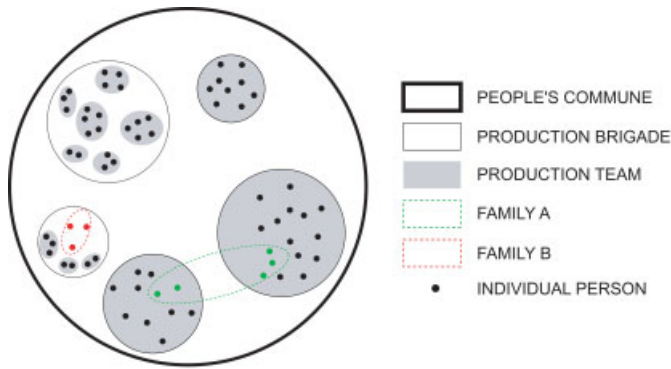
The first hint that there is something fundamentally unique about the new mode of land distribution and development in China is the political incorrectness of using the term 'privatisation' to describe it. Indeed, among Chinese planners and officials, 'marketisation' is the correct term. Because the state has not in fact turned over ownership of land, but rather has established a system of long-term leases and rights of use, it is considered incorrect to refer to developable land as 'privatised'. China still perceives itself very much as a socialist state, albeit one that has floated a market of tradable land rights.

When marketisation began as a result of new legislation in the early 1980s, the communes of the People's Republic were decollectivised and political structures and organisations were renamed. 'People's commune', 'production brigade' and 'production team' became 'township', 'administrative village' and 'natural village'. The two forms of property remained: state owned (urban land) and collectively owned (rural and suburban land). A key difference under the new system, however, was that no legal representative of collective ownership rights was identified under the law.

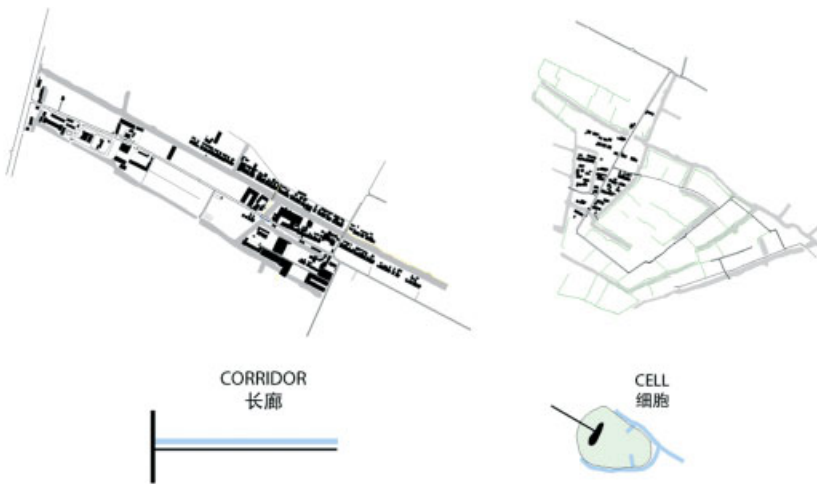
The laws and processes of development for state-owned urban land have been quickly and precisely mapped out over the past 20 years. State-owned urban land has a clear delineation of use rights and specific quantitative planning and entitlement regulations, giving it the stability and predictability that is a prerequisite of any serious investor or developer. Part of this predictability comes from the fact that the process of bringing developable urban land to market is a highly controlled process in China.

As new expansion areas are identified and approved by Beijing, they enter into state- or municipal-level design institutes where land uses and infrastructure are planned and approved. Masterplans are produced according to top-down planning agendas, whether the creation of new government centres for peripheral new towns, expanded industry and logistics around a new deep-water port, key financial districts or new residential units to meet projected demand. These plans typically – and sometimes rightfully – have no relationship to the fabric that existed before them, necessitating substantial relocation and compensation to be undertaken by the developer. Plans focus on major infrastructure and land uses, using the superblock as the basic structural and transactional unit. An auction occurs in which land-use rights are sold to developers who proceed through the site planning, entitlements, construction and lease-up that bring new real estate to market.

At the time of the initial land transaction between public and private, government planners have already defined the scale, general land use and scope of what will be built. The government rarely imposes additional conditions that could forward the public interest, such as easements facilitating public space or environmental goals, exactions or performance-based rules. This should be an important subject for advocates of the 'good city' in China, as it is in defining these nuances of the regulatory relationship between public and private that one truly begins to affect change on a massive scale with regard to quality-of-life outcomes. In the current regulatory climate in China, the outcome of a 'by-the-book' development is typically a fabric of disconnected dense megablocks that may pose challenges to both social and ecological systems. At the high end, these blocks function as the ultimate in gated communities – truly wonderful tower-in-the-park environments. At the low end, they are relentless rows of standardised housing. Whether a project becomes one or the other is entirely up to the developer.



The basic unit of collectivisation in China was the production team, or work unit, which was granted communal land rights under the law. The revolution sought to shift definition of the basic economic building block and property rights from being family-based to being commune-based.



In both city and countryside, settlements in the latter half of 20th-century China were defined first and foremost by the means of production employed in them. Residents would work in the factory or farm that defined their commune, or *danwei*, live in the commune, and obtain services in the commune as a collective. Here, a suburban industrial commune has a linear form, taking advantage of a large canal. A farming commune takes on a cellular form, with a dense residential centre and surrounding farmlands.

The fate of collectively owned land has been different from that of state-owned urban land. Rural and suburban villages are still largely functioning as collectives, although individual farmers have been granted leases. With no recognised legal owner-representative, the land has by default been subject to land grabs and wasteful development practices by local officials throughout China.

One area under the collective land law that has developed quickly is the land impressment process, or how land can be reclaimed by the state, converted to urban land and its residents resettled. Meanwhile, the simple questions of who owns the land, what villagers can do to improve their own situation or benefit from growth, and the problem of how potential investors might engage this territory remain vague. From the perspective of an entrepreneur, this hinterland represents too many legal grey areas, with indistinct rights

and limitations. As it currently stands, the countryside is frozen from a land rights point of view, awaiting state intervention. The refined process of land development via the superblock does not fit rural or suburban land. The scale of development and market absorption that a superblock development must inherently assume in order to justify such a large land acquisition at the start may not be realistic in peripheral areas, where the population may be sparse, migration minimal and buyers hard to come by.

There are differences in both the social frameworks and legal frameworks governing urban land as compared to rural or suburban land. Market reform in China has led to a specific form of collectively owned enterprise in rural areas (Town and Village Enterprise),<sup>5</sup> but has yet to clarify collective property ownership rights, resulting in major hurdles for sustained economic growth and investment. These differences are about to become significant barriers as China turns its face to the countryside, or more precisely the New Socialist Countryside as outlined in its '11th Five Year Plan' in 2006.<sup>6</sup>

### Evolution

Creation of a centralised system of planning, a top-down hierarchy of architectural institutes linked to the state, and the construction of communal living and working environments all underwrote socialist tenets in tangible ways in each Chinese citizen's life and community from the 1950s onwards. The social and political system made communal decision-making a way of life, and the basic unit of social organisation was not the individual but the collective.

When China implemented the land-use regulations (LURs) of the 1980s, it created a revised system of land rights, moving towards a system of market socialism. The process of creating land supply and parcelling newly developable land



Former collective types such as *lilong* (lane) housing or *hutong* (courtyard) housing are now being replaced as marketisation brings new superblocks online throughout city centres and peripheries. The superblock may differ in the way it engages the private sector in order to be produced, but it maintains the socialist lineage of planning and city building in units of large-scale insular compounds rather than city-building at a parcel scale.

for transaction took the form of superblocks and maintained the fundamental powers of the state to implement top-down control. It also preserved the basic principle of planning at the scale of the collective rather than the individual.

Despite the problems inherent in superblock planning – especially environmental degradation and the polarisation of city and countryside – the principles of collective culture that underlie the rise of the superblock as the definitive contemporary Chinese urban form are not likely to change quickly, if at all. This is not because officials deny or do not care about the apparent problems inherent in the type. Indeed, for a system only around 20 years old, one might be surprised that there are not more severe conflicts arising. A lot of trouble has been avoided through the government’s focus on urban land, not suburban and rural land, in this first surge of growth.

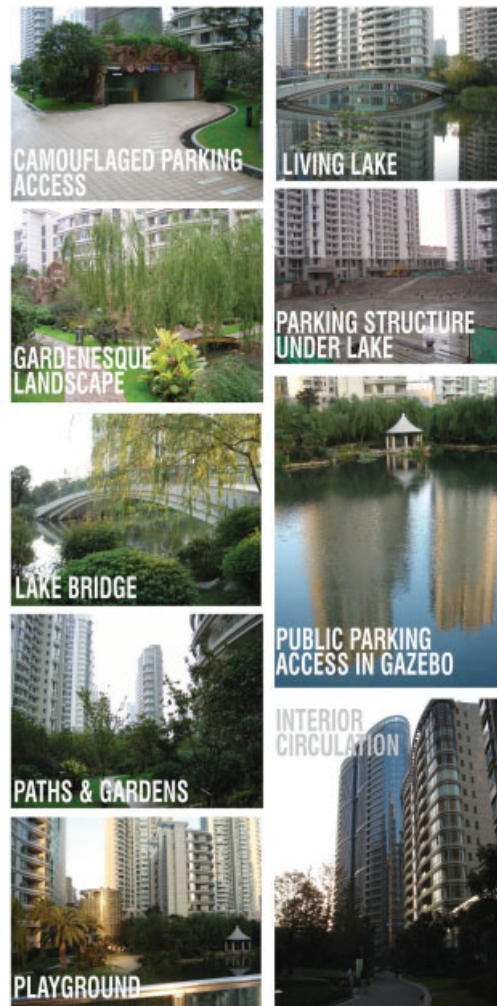
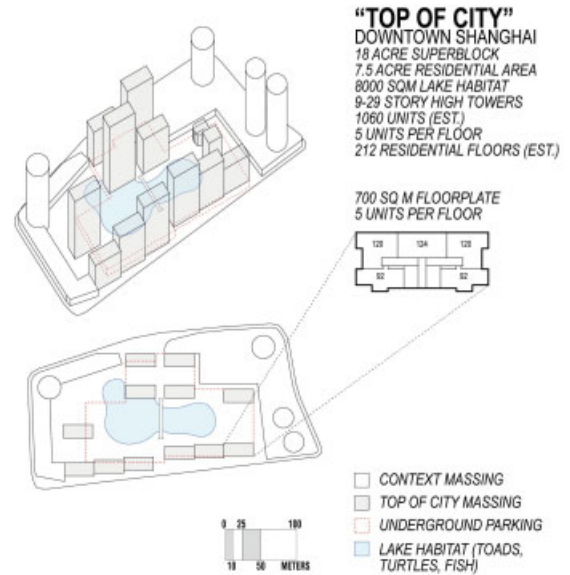
As China turns its attention to the ever expanding periphery and the countryside, the broad-axe development framework represented by the superblock will necessarily have to adapt. The superblock is highly efficient for planning and land transactions, but its form creates enormous disruption to existing natural and cultural systems. When applied in rural settings, it is a destructive force that can be considered speculative at best with regard to real-estate markets, since no one can predict the kind of density a superblock will assume on a site that is entirely peripheral to the city. As the superblock is not designed to coexist but to replace, it requires a tabula rasa attitude towards context that makes any notion of organic or phased growth that engages local populations nearly impossible to imagine.

I propose exploring the superblock as a malleable type that may adopt alternative, less inherently damaging forms. Given the right regulatory framework, superblock-style land transactions and financing could be adapted for redeployment in suburban or rural areas seeking development – keeping the basic DNA of the superblock method intact while adopting a more integrated attitude towards context and form.

### A Masterplan for the Fengxian District Suburb of Shanghai

In 2005, while living in Shanghai, I created a Hong Kong company with two partners – Aaron Loke, a business leader and McKinsey consultant, and entrepreneur Francis Yum. The company, Design Community China, Ltd (DCC), signed a memorandum of understanding with Fengxian District, suburban Shanghai, to undertake an experimental planning process and possible development for Fengcheng town that culminated in an 80-page planning document. Fengcheng is one of the nine towns in Shanghai’s ‘One City Nine Towns’ 2020 Plan.<sup>7</sup>

DCC sought to establish a formal framework for organic growth in the district that would benefit the matrix of farming villages that surround the town, as well as attract development interests who prefer the predictability of the superblock planning model. We evaluated the existing landscape structure north of the town, noting that where



Top of City in downtown Shanghai is a good example of relative success in superblock planning. The small scale of the block (around 7 hectares/18 acres) makes for an intimate and gardenesque centre. A man-made lake is maintained as a living habitat where turtles, fish and toads reside. The community maintains a newsletter and encourages residents to get to know one another through planned events. However, the project turns its back on the public, with sentries posted at each entrance, and although it engages the natural it does so at a superficial level – creating a sort of pond aquarium that sits on top of underground parking without engaging any larger functioning ecologies.



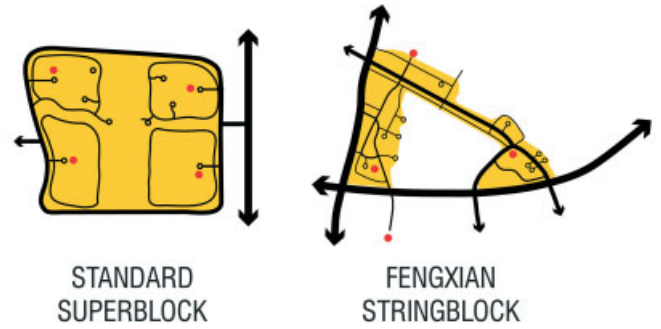
Existing Village/Farm Cell
  Industry  
 Commerce
  Village Mortality

**Design Community China (DCC), Masterplan for Fengcheng town, Fengxian District, Shanghai, China, 2005**

In a planning study for an area of 150 hectares (371 acres) in conjunction with the town of Fengcheng in Fengxian District, a suburb of Shanghai, DCC mapped the pattern of existing agricultural and industrial communes on the site and determined where village mortality would occur as a result of the existing superblock masterplan.



The DCC masterplan for peripheral Fengcheng proposed a pattern of development that would allow new fabric to coexist with the communes and farmland already on the site. 'Developable land' consisted of out-of-date industrial uses, villages that were already facing demise due to existing superblock development, and low-grade commercial edges. Functioning farmland and small villages were largely preserved.



The Fengxian plan maintains the basic DNA of the superblock but presents as more of a string. The circulation hierarchy, phasing and leasing are the same, but the simple choice of where to draw a property line during the land impressment process – which is entirely at the discretion of the government planner – has enormous potential impact on surrounding communes.

superblocks are already planned and infrastructure under construction, there would already be some village mortality.

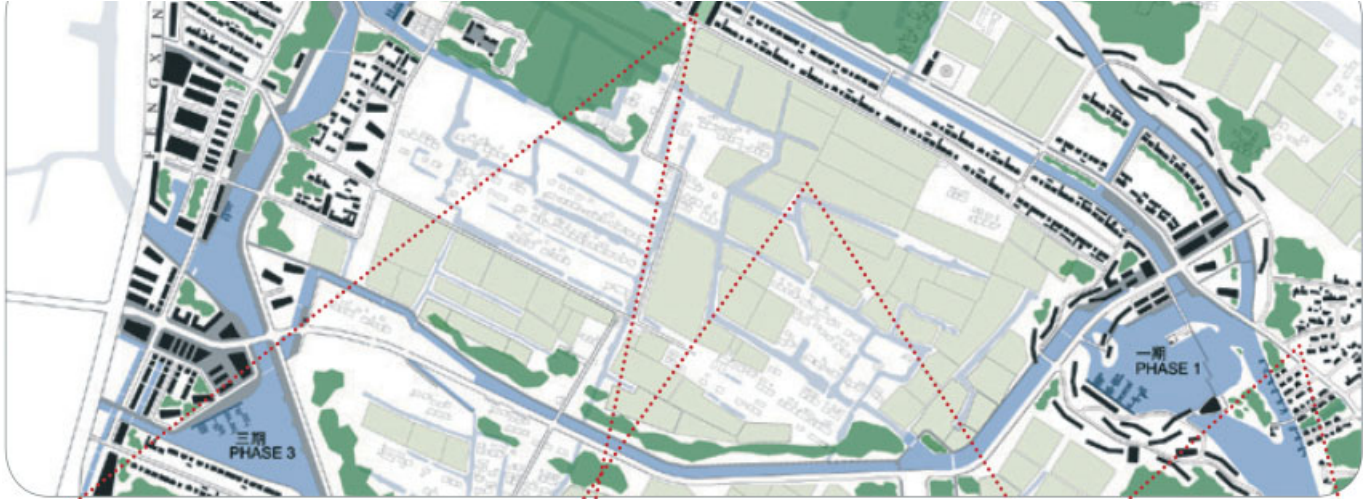
Using this matrix as an organising structure, we endeavoured to create a plan that could be built, phased and financed like a superblock but that would interact more positively with its context.

The plan was composed of focused development areas, allowing existing farmlands to continue functioning, leaving hydrology intact and respecting the boundaries of communal lands. It does not assume or even advocate that these lands remain active farmland in perpetuity – indeed this seems unlikely. The principle at stake is that a new development should not necessitate the demise of functioning webs of activity at its edges. The simple choice of where to draw a property line – which is entirely at the discretion of the government planner – has enormous potential impact on surrounding communes.

Our proposal reflects the basic DNA of the superblock in terms of density, circulation, use, public planning role and financing. Formally, it differs from the traditional superblock. It presents as more of a string than a cell, in order to allow adjacent uses to coexist with the intervention. The string block maintains the fundamental components of standard development, but with different structuring rules.

Ultimately, the breadth and limitations of suburban and rural residents' rights will have to be clarified under the law. Once this happens, it is highly unlikely that the superblock will persist in its current 'candybox' form as a development type in peripheral areas. As land rights and regulations are fleshed out and become more complex under the law, so will urban form. This project is a tentative first step, but in the future it is hoped that urban designers and planners will further push the boundaries of what is possible within China's superblock megatypology.

Ultimately, our plan was supported by officials in the district (including the offices of the planning bureau, agricultural bureau and party secretary) but has as yet failed to be approved by Shanghai Municipality. Insufficient land quotas, the relative insignificance of the project from a municipal point of view, defiance of typical planning processes and political barriers have all played a role in the delay, and we continue to await a final outcome on the venture. Δ



The Fengxian masterplan sought to create a positive interface between agricultural lands and new development. Fields would provide vista opportunities for key public spaces, and views to them were designed into the plan. A farmers' market acted as the heart of the development and the most direct interaction between new residents and farmers. Where village mortality was occurring, the team envisioned existing structures as reuse opportunities with a unique scale and fabric.

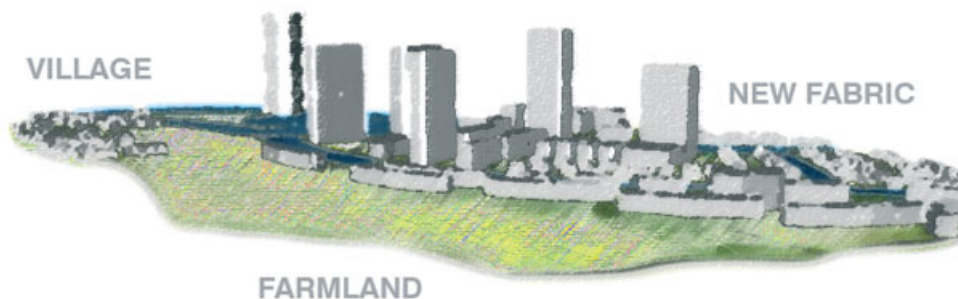
#### Notes

1. NA Miliutin, *Sotsgorod: The Problem of Building Socialist Cities*, MIT Press (Cambridge, MA), 1974, p 81.
2. As quoted in NA Miliutin, op cit, p 81.
3. 'Land Market Reform Advances, But Calls for Fair Play', *People's Daily Online*, 25 June 2002. ([http://english.people.com.cn/200206/25/eng20020625\\_98507.shtml](http://english.people.com.cn/200206/25/eng20020625_98507.shtml))
4. Li Ling Hin, *Privatization of Urban Land in Shanghai*, Hong Kong University Press (Hong Kong), 1996, p 2.
5. Enrico Perotti et al, 'Working Paper Number 150: State-Owned versus Township and Village Enterprises in China', The United Nations University World Institute for Development Economics Research, 1998, pp 24–5.
6. The 11th Five Year Plan of the Chinese Communist Party was adopted in the fourth session of the 10th National People's Congress in October 2006. Highlights of the rural development policy and particularly the New Socialist

Countryside concept can be found on China's official government website at [http://english.gov.cn/special/rd\\_index.htm](http://english.gov.cn/special/rd_index.htm).

7. Shanghai's 'One City, Nine Towns' 2020 Plan has been discussed and its components published and interpreted widely in various media since the plan was adopted by the State Council in May 2001. Maps and documents are not publicly available in print form, but can be viewed on display at the Shanghai Urban Planning Exhibition Center in downtown Shanghai. The author documented key elements of the plan through photographs of this exhibition, policy research, and interviews with Chinese planners and academics over nearly three years spent living and working in China. The author also visited, studied and in two cases worked in focus areas of the 2020 plan, including Anting Newtown, Qingpu District, Chongming Island and Fengcheng, Fengxian District.

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As development pushes further into the Chinese countryside, and as the New Socialist Countryside concept of China's 11th Five Year Plan takes shape in the coming years, the superblock type will have to evolve and adapt to a new set of regulatory issues, increasing pressure to ensure social justice and address the very real concerns about environmental degradation in China.