

The Urban Design of Guangzhou towards 2049: Direction and Practice

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Abstract

This paper elaborates the meaning of strategy-led urban design towards 2049 through exploring complex political-economic contexts and abundant planning practices in recent Guangzhou. It consists of four parts around this theme: the first is the strategic contexts of conducting urban design in Guangzhou; the second is the stages and trends of urban development of Guangzhou; the third is specific strategies utilized to lead and organize urban design in Guangzhou in last decade; and the last is a vision for the high-quality urban design towards 2049.

2049 will mark the 100th anniversary of the founding of the People's Republic of China, and is also the year in which the Second Centenary Goal of the Communist Party of China is aimed to be achieved. According to this great goal, when 2049 comes, China will become a great and modern socialist country that is prosperous, strong, democratic, culturally advanced, harmonious, and beautiful, and realize its goal of 'the Great Rejuvenation of the Chinese Nation' following a unique Chinese path to modernisation. Responding to these new concepts, new requirements and new stages, the urban design in China should be reconsidered from a longer-term and more refined perspective.

In this context, Guangzhou carries out strategy-led urban design to explore a new paradigm of the Chinese path to modernisation, find a new impetus for the high-quality development of the Greater Bay Area, and promote the growth of Guangzhou towards a new level. Meanwhile, through this innovation of urban design in Guangzhou, we will also create a more liveable and pleasant environment for everyone who is working and living there. This paper will elaborate the meaning of strategy-led urban design towards 2049 through exploring complex political-economic contexts and abundant planning practices in recent Guangzhou.

1. Strategic context

1.1 Orientation from national strategies

The Outline of the National Fourteenth Five-Year Plan points out that "the quality of cities should be comprehensively upgraded, and the

construction of new cities should be promoted". In line with new concepts and trends in urban development, pilot demonstrations of urban modernisation will be carried out to build livable, innovative, smart, green, humanistic and resilient cities.. With regard to the urbanisation strategy, the promotion of urban agglomerations will be taken as the key to forming a comprehensive "two horizontal and three vertical" pattern.

1.2 Strategising from the regional landscape

According to the Outline of the Plan for the Development of Guangdong, Hong Kong and Macao Greater Bay Area, the Greater Bay Area will build a networked spatial pattern of "pole-driven, axis-supported and periphery-radiating", and accelerate the development and construction of major platforms such as Hengqin in Zhuhai, Qianhai in Shenzhen, Nansha in Guangzhou, etc., in order to build a vibrant, world-class urban agglomeration, and to fully build an important source of impetus for high-quality development, and an important growth pole for the nation's economy.

1.3 Methodology from the Urban Strategy

Guangzhou is preparing a strategic urban development plan for 2049 at a high standard, with the development vision of 'a beautiful and livable city of flowers and a dynamic global city'. The plan will optimise the multi-centre, networked urban structure. It will also simultaneously implement strategies such as innovation-driven and manufacturing city, create a people-centred and livable urban area, imple-

ment the concept of green development, and pass on and develop the humanistic spirit.

2. The stages and trends of urban development of Guangzhou

Looking back on the century, the global megacities, for example, London, New York, Tokyo, their development process can be roughly divided into three stages: First, the post-war three decades, the suburbanisation, the relocation of manufacturing, the environmental problems and other situations triggered the decline of the inner city; Secondly, with the rise of the knowledge economy in the 1980s, the financial and business sectors and other high-end service industries expanded rapidly and developed in a concentrated manner, and the proportion of tertiary industries continued to rise, leading to the return of the population and catalysing the economic recovery of the central city; Thirdly, from the beginning of the millennium to the present, faced with the issues of land resource constraints, insufficient industrial dynamics, and lack of vitality in the traditional CBD, the city's planning and construction has gradually shifted to emphasise the functional composite and quality enhancement, and to create more diversified and vibrant urban scenarios with the goal of sustainable growth.

Guangzhou, as the vanguard of China's reform and opening up, and the core hub of the world-class urban cluster i.e., the Greater Bay Area, has also entered the third stage of its transformation and development. By the end of 2022, the resident population of Guangzhou has ex-

ceeded 18 million, with an urbanisation rate of 81.16%. Among them, the central urban area (including Liwan, Yuexiu, Haizhu and Tianhe districts) accommodated a resident population of nearly 6.2 million with a population of 247.41 square kilometres, with a population density of more than 25,000 people per square kilometre, making it a typical high-density core area of a megacity. Since the global financial crisis in 2008, the process of 'retreating from the second to the third' has been accelerated, with a large number of manufacturing and other secondary industries relocating out of the city, and the rapid expansion of the service industry, mainly in the wholesale and retail trade, real estate, finance, etc., with the proportion of the tertiary industry reaching 89.75% by the end of 2021, which has reconfigured the power structure of Guangzhou's economic growth.

However, in recent years, this series of changes has been accompanied by a weak performance of Guangzhou's economic growth. For example, Guangzhou's nominal GDP growth rate in the first quarter of 2023 was only 3.14%, lagging far behind Shenzhen (10.02%) and Foshan (4.77%), which are also part of the Greater Bay Area, as well as even less than that of cities in the central and western parts of the country, such as Wuhan (9.03%), Changsha (5.31%) and Xi'an (7.43%). This situation is closely related to the drastic reduction of new building land in the central city, the rapid decline of manufacturing value-added, and the insufficient development of strategic new industries, which puts forward an urgent requirement for Guangzhou to reconstruct its functional layout and look for

new growth points for sustainable urban development.

3.

3.1 Building Vitality, Empowering Centre

With the goal of building a Central Activities Zone that gathering the core functions of a global city and showcasing its international image, Guangzhou has launched a series of comprehensive urban design practice around key areas such as the Traditional Central Axis and the Guangzhou Station Area, in an attempt to create a place where global high-end functions are led, a core carrier of world-class consumption functions, and an exemplary of quality, low-carbon and intelligent living.

In the Traditional Central Axis, through ‘inte-

grating ancient and modern historical resources based on the millennium cultural root’, Guangzhou will build an urban historical and cultural living room and high-quality living neighbourhood. This urban design stressed the experience of culture, the creation of a new type of urban business district, and the fusion of IAB technology and livelihood projects. The restoration of the scale and texture of the traditional neighbourhoods of Guangfu was focused in the plan, accompanied by the restoration of Lingnan-style architectural clusters, and the three-dimensional and diversified use of urban space, introducing new retail and new business forms to create a cultural shopping street connected to the river and a Lingnan characteristic shopping district with world influence.

In the Guangzhou Station Area, the urban de-



Figure 1. Scope of Guangzhou Central Vitality District and Important Axes

sign proposed that Guangzhou can take the high-speed railway into the city as an opportunity to promote the integration of the station and the city, and to drive the upgrading of the urban centre. According to the Guangzhou 2040 Transportation Strategic Plan, six high-speed railway lines and four intercity lines will be introduced to Guangzhou Station, forming a 'central hub cluster' with Guangzhou East Railway Station, and creating a one-hour rail hub circle centred on Guangzhou. The specific design was planned to activate culture, commerce and tourism with TOD, linking the central high-speed rail hub area, the new commerce and trade cluster, the Liuhua theme block and the urban renewal area in the northern part of the hub, guiding the convergence of diversified flows and accelerating the gathering of people, goods and information. At the same time, the urban design of the Guangzhou Station Area also emphasised the inheritance of history and culture, the control of landscape view corridors and the transformation and development of the characteristic economy - by restoring the southern façade of the Guangzhou Station and the Caonuan Park to stimulate the memory of the place, and by building a transparent view corridor with the creation of an elevated inner ring road, the urban design of the Guangzhou Station Area will provide a concrete and feasible spatial solution for the expansion of the convention and exhibition fashion economy in the Liuhua area.

In addition, linked to the spatial strategy of Guangzhou to build a high-quality development belt of the Pearl River and promote the

construction of a world-class waterfront vibrant area, the Pazhou Artificial Intelligence and Digital Economy Pilot Zone the Baietan Central Business District, and other key zones along Pearl River have also become the spatial foci in urban design to promote the quality improvement and functional rejuvenation of the Central Activities Zone in Guangzhou.

3.2 Innovation Leads, Manufacturing Takes Charge

Faced with the pressure from both the "low-end manufacturing transfer" from developing countries and the "return of high-end manufacturing" from developed countries, Guangzhou, as the core engine of the Greater Bay Area, has clearly put forward the strategic direction of "manufacturing as a city", and has carried out relevant urban design projects with a focus on innovation.

One of the most important projects is the Guangzhou Science and Technology Innovation Corridor Plan. It aims to implement the innovation and industrial layout of the Greater Bay Area, make it clear that no less than 280 square kilometres of land will be used for the development of advanced manufacturing industries and strategic emerging industries, and strive for the layout of national and provincial laboratories, major scientific and technological infrastructures, and major scientific and technological special projects in Guangzhou. Meanwhile, scientific research resources will be concentrated in the corridor in accordance with the "North, Central and South", and ultimately build an "innovation rainforest" to strengthen scientific and techno-

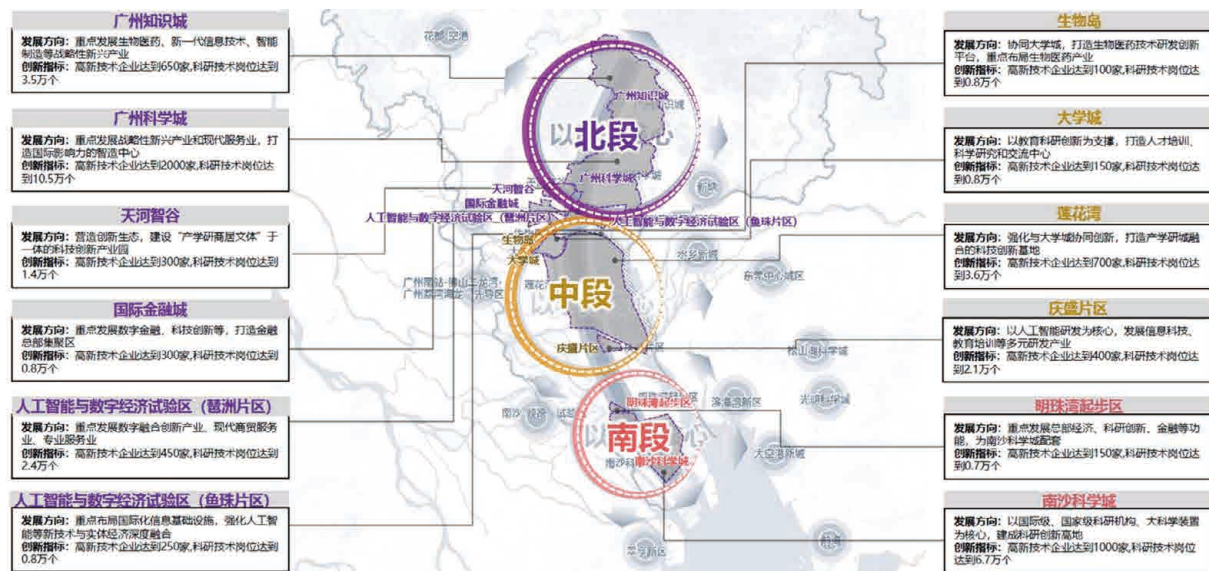


Figure 2. "North, Central and South"

logical self-reliance and self-improvement.

The second is to strengthen the linked development of Guangzhou-Dongguan-Huizhou in the eastern region. Based on the Eastern Hub of Guangzhou, the focus will be on creating a highland for advanced manufacturing in the Bay Area, with 11 pieces of manufacturing land and 5 pieces of land for productive services, in order to safeguard the development of leading industries such as advanced automobile manufacturing, optoelectronic information and semiconductor industry. At the same time, with water as the design theme, the water system of the river and surges will be introduced into the industrial zone to form a waterfront vibrant zone with mixed functions, openness and vitality, which will help the construction of the urban-type industrial neighbourhood. On this basis, science

and innovation talents and resources will be attracted to gather and form the development momentum of waterfront science and innovation industry clusters.

The third is to promote the high-quality development of the Nansha New Area, so as to build a major strategic platform based on the Bay Area, synergise with Hong Kong and Macao, and face the world. The design of Nansha Bay area, for example, focuses on planning the layout of cultural, tourism, science and innovation industry groups, in order to highlight the characteristics of the coastal industry, and promote the deep integration of the functions of the port and the city. In the design, a 16-kilometre "U" shaped coastal walkway will be created, eight rivers and water veins will be connected to the mountain walkway, and the design goal of see-

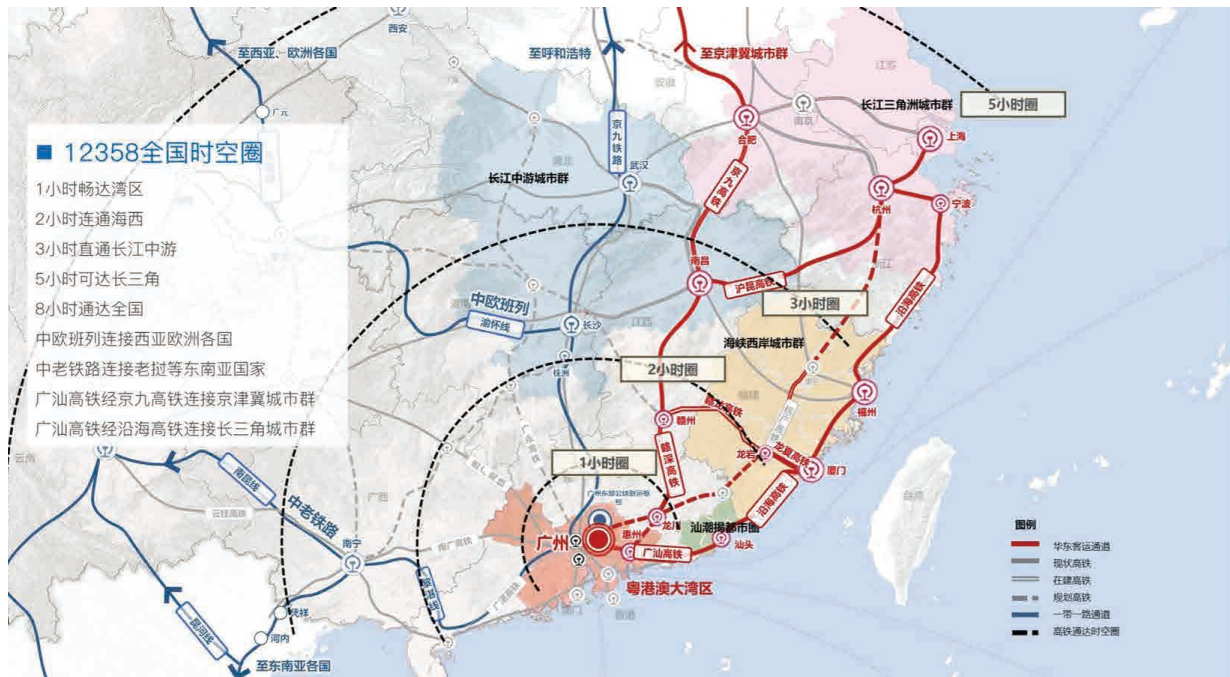


Figure 3. Area of Guangzhou 12345 Traffic Circle

ing greenery in 5 minutes and the mountains and the sea in 10 minutes will be realised. A wonderful scene of harmony between man and nature will be sketched.

3.3 Engine drive, traffic first

Guangzhou has assumed the strategic mission of building a national comprehensive transport hub city, taking the opportunity to promote the construction of an international aviation hub and a world-class railway hub, restructuring the regional functional structure, guiding the direction of spatial development, and building a new engine of urban growth.

The northern part of Guangzhou has planned the construction of Baiyun Airport as a super aviation complex and Guangzhou North Railway Station as an important part of the 'Five Mains and Four Subsidiaries' passenger transport hubs, which area important opportunities to build a new growth pole for the development of northern Guangzhou. It focuses on building the Air-Railway Avenue Industrial Golden Corridor, connecting the Guangzhou North Railway Station and the Baiyun Airport, with air-railway intermodal transport, supporting the spine of urban development. Along the route, five industrial parks will be formed, including the West Living Room of the North Railway Station, the

Digital Manufacturing Park, the Aviation Service Core, the Green Science and Technology Innovation Island, and the U-Port. Around the "Trinity" of new consumption, new manufacturing, and new exhibition and trade, the systematic development of the science, innovation and intellectual creation centre, new consumption venues, and exhibition and trade platforms will be developed to open up the industrial chains.

Building the Eastern Hub of Guangzhou is an important practice to implement Guangzhou's urban strategies towards the development of east and the south, which together with Nansha, will form a science and technology innovation axis corridor facing the "Golden Inner Bay" in the south and north. Priority is given to accelerating the construction of the rail transport network, introducing four hopping crossings, three intercity and 14 subways, and integrating into the Greater Bay Area on the railway. The region will rely on the Shuanggang Avenue, Suiguan Avenue, to build the "10" word development corridor, to make Guangzhou "North Airport, South Sea Port" of the new period of development pattern. The core area of the hub focuses on the construction of the North Square Convention and Exhibition Service Block and the South Square Science and Technology Service Block, sewing up the neighbourhoods and landmarks around the hub through a three-dimensional pedestrian network to multiply the development capacity. And through the 3km development adsorption axis connecting 6 differentiated theme high-quality blocks, connecting the hub with the Pearl River.

4. A vision for the high-quality urban design towards 2049

Facing 2049, Guangzhou will continue to explore the theoretical construction and practical innovation of strategy-led urban design, which will contribute to construct a high-capacity metropolitan network in the Greater Bay Area through making the hubs and tracks playing the leading role; enhance the mobility in the Greater Bay Area through the institutional innovation and more frequent communication among the scientific and technological talents; accelerate the industrial restructuring in the Greater Bay Area by promoting the upgrading of manufacturing and the perfection of the value chain. In the end, we are going to link up the key nodes in the Greater Bay Area, and work together to create a new pattern of urban development which will be towards innovative, integrating and vibrant.