

The Development of Social Planning and Urban Planning Thought in Modern Nantong

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Abstract: The mature Nantong planning theory formed in the period of Zhang Jian has always been the focus of the research on the local planning theory in modern China by the planning academia. In the course of nearly one hundred years, the influence of Zhang Jian's planning thought and theory on the planning development of Nantong is the emphasis of this study. From the perspective of historical development, this work will briefly analyze the relationship between the social planning thought and urban planning in modern Nantong, and put forward the related problems and analysis.

1. Urban Construction History of Ancient Nantong

1.1 Spatial pattern of the ancient city

Nantong is located in the Yangtze River estuary, which is a land formed by a large amount of sediment deposition in the Yangtze River. The formation of Nantong land began in the Tang Dynasty, known as "Hudou Alluvion" in history and "Tongzhou" after the city was officially built. From the Tang Dynasty to the end of the 19th century, the spatial structure of the city has been "square city, cross main street, state governance in the middle, and symmetrical temples". The bell tower and watchtower are the center, and the south street is the axis. On both sides of the axis, there are east temple, west temple, Confucian temple, martial temple, plate-shaped road network, low and orderly traditional dwellings, which constitute the texture of the city. The Hao River around the city wall became the natural boundary of the ancient city, forming a typical pattern of axisymmetric and left ancestor and right society cities in ancient China.

1.2 The camp city thought of ancient city

This urban pattern of Nantong is based on the construction method of "*Zhou Li Kao Gong Ji*". It is guided by the unity of man and nature, the circle of heaven and earth, and the induction of man and nature, which is in line with the background of feudal society. South Street is the axis of the city, and Wuya is the starting point of the axis, and Wolf Mountain is the ending point. Confucian temple and martial temple are the religious buildings, which are symmetrically arranged on both sides of the axis. The city is square and built with a city wall. The moat can be used as the boundary of the city and connect with the outside traffic. The layout of the city is a relatively regular Lifang system (Fig. 1).

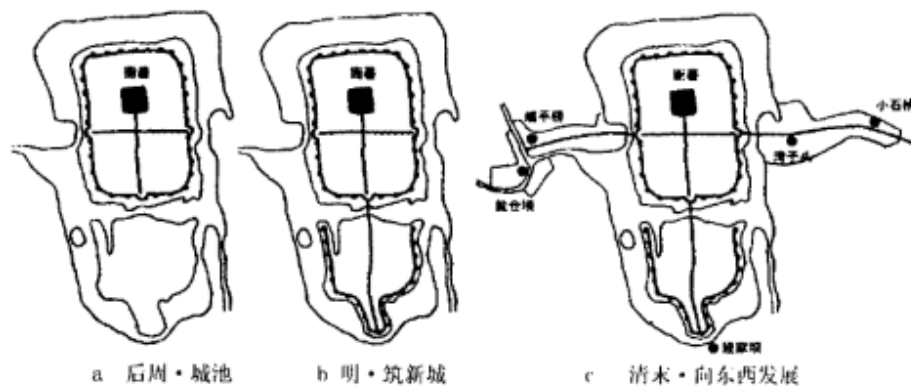


Fig. 1. The evolution of Nantong city (Source: Cao Hongtao, Liu Jinlu. Urban Development in Modern China. Beijing, China City Press, 1998.)

2. The Planning and Construction History of Nantong in Modern Times

2.1 The planning and construction of Nantong during the period of Zhang Jian from 1895 to 1929

From 1895 to 1925, Nantong experienced the biggest turning point in its planning history due to the particularity of its background. It gradually evolved from the traditional pattern to the modern cityscape, and developed from the traditional closed city to the cluster.

2.1.1 Single plan of Dasheng Cotton Mills

In 1895, Zhang Jian, who carried out the "industrial salvation", founded Dasheng Cotton Mills in Nantong (Fig. 2), and located the factory in Tangzha town, nine kilometers away from Nantong city. Zhang Jian said in *"the Brief on the Construction of Tongzhou Cotton Mills"*: "The Report of the First Shareholders' Meeting (1907)" mentioned that the base of the mill is located between the inland and the outer rivers with convenient transportation, and thus it is based on this. Bing Shenchun purchased land and planned to lay foundation, dredge harbor, build bank, construct inn and house for supervisors to stay [1]. It can be seen from the above recorded words that Zhang Jian chose Tang Gate as the site of his cotton mill because of comprehensive consideration of traffic, construction and other factors and analysis of location. Due to the consideration of the traffic conditions in the site selection, the layout of "one city and three towns" was basically determined.

2.1.2 Single plan of Tongzhou Normal School

In education, Tongzhou Normal School was founded (Fig. 3). When Zhang Jian traveled around the world, he realized the importance of universal education and decided to set up public normal schools. However, the Qing government was on the verge of extinction and had no time to pay attention to Zhang Jian's education, and thereby he turned to private normal schools. From the site selection of normal schools, raw materials procurement, construction, etc., Zhang Jian has been carrying out his own ideas.

2.1.3 Transportation planning

In terms of transportation, firstly, the river transportation on which Nantong has depended since ancient times should be optimized, and water conservancy companies should be established. New docks should be opened, and the Gangzha River should be dredged and widened, and roads should be built along the Gangzha River. It greatly improves the transportation connection between the freight terminal and Tangzha industrial zone, and facilitates the circulation of other raw materials through the terminal to the outside world. With the development of inland waterway, the connection between Nantong and the whole Jiangnan area and Shanghai has been strengthened. The inland river network formed by the whole northern Jiangsu area also forms a whole with the whole southern Jiangsu through

the outer river routes, strengthening the commercial and cultural exchanges. Apart from water conservancy, there is also the planning of county roads. In addition to the unified planning of the road network between one city and three towns, Zhang Jian jumped out of Nantong city and extended to the whole county (Fig. 2). Linking Rugao, Qidong, Haimen and Kemu Township together, it promoted the development of these small towns in the whole county.

2.1.4 The pattern of one city and three towns

The proposed pattern of "one city and three towns" (Fig. 3) prematurely dispersed urban functions, increased the difficulty of infrastructure construction, and made it difficult for each group to connect, which was not conducive to the layout of future development along the Yangtze River. However, Nantong was a small city with backward economy at that time, and its functions were scattered outside the urban area prematurely. The inconvenience of traffic leads to the weakening of urban agglomeration, which is not conducive to the rapid development of Nantong urban area and does not conform to the general law of urban development.



Fig. 2. Road branches in Nantong County (Source: Fan Kai. Annals of Nantong County in the Republic of China. Nanjing: Jiangsu Ancient Books Publishing House, 1991. 37~39)

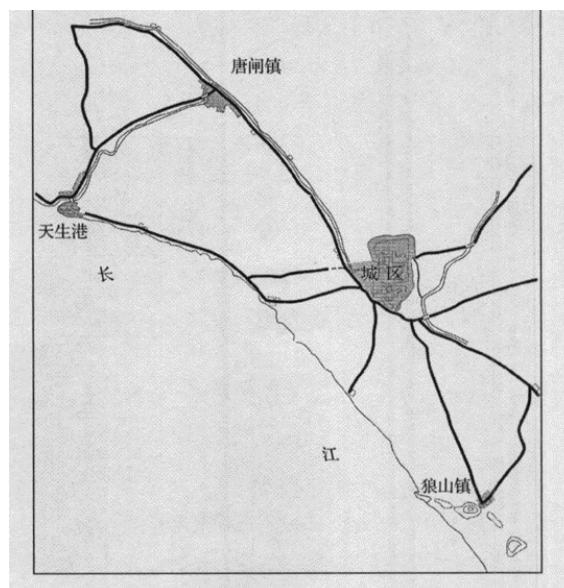


Fig. 3. One city and three towns (Source: Internet)

2.2 The theory of social planning in the period of Zhang Jian

Wu Liangyong said that Nantong is a product of China's early modernization, which is different from the concession commercial port or the city developed under the occupation of foreign powers. It is the first representative city that the Chinese people consciously and creatively adopt a more

comprehensive planning, construction and operation based on the Chinese concept (Fig. 4). "Cultivating one's morality, governing the country and pacifying the world" has been throughout the whole process of Zhang Jian's social thought (local autonomy). Instead of discussing urban planning as a separate discipline, urban planning is regarded as a subsystem of the social planning system. It has complex and close links with politics, economy, culture and society, and cannot be separated. Therefore, Zhang Jian's idea of urban planning is not only limited to urban construction, but also related to all aspects of the city. What's more, it is beyond Nantong city itself, extending the scope to the whole Jiangbei region, and has a certain idea of regional planning. However, it is generally included in the general system of social planning.

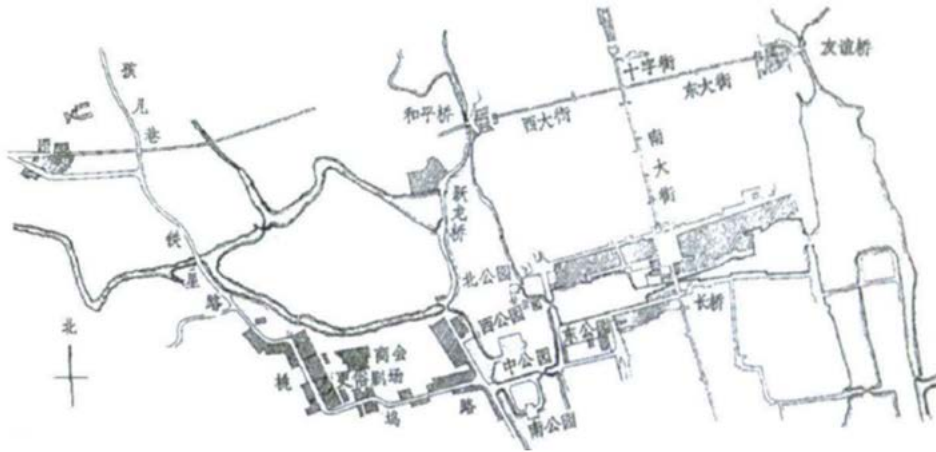


Fig. 4. Urban planning of Nantong in 1922 (Source: Chen Bochong. Modern Nantong Architecture and Urban Studies (1840~1947). Master's thesis. Beijing: Tsinghua University, 1989. Graph 90)

2.3 Urban planning of Nantong from 1929 to 1978

From 1929 to 1949, the planning and construction of Nantong city once stagnated due to the special historical period and social background at that time. Zhang Jian's death in 1926 also led to the stagnation of Nantong planning and construction thought. From 1949 to 1965, many urban planning and design schemes were formulated, and Nantong was divided into several functional areas. In 1952, Nantong was divided into industrial area, cultural area, warehouse area, residential area, scenic area, crop area, etc. In 1960, the city's preliminary planning was redrawn, which determined that the nature of the city was an industrial city with light industry, chemical industry and cotton spinning as the main body. The population and the scale of urban land use were also preliminarily planned in the near and long term, and the general land use scope of chemical industry zone, light textile industry zone and machinery industry zone was defined.

2.4 Main planning theories from 1929 to 1978

During this period, Nantong changed from a "garden city" like Howard's to a Soviet urban planning focusing on urban industrial and living areas. Its main purpose was to build a production-oriented city, which was also a choice in line with the background of the times. However, the planning objectives were seriously inconsistent with the actual level of economic development, and the planning objectives could not be completed on time, and city management is out of control. The planning at this stage only emphasizes the functional zoning and planning objectives of the city, but ignores the location advantages, water transport advantages and the important role of the port in Nantong. The waste of port resources affects the rapid development of Nantong. The theory of social planning appeared obvious fault in this period. Due to the comprehensive influence of social, economic, cultural, etc., social planning can only play its role in a relatively stable social background.

3. Urban and Rural Planning of Modern Nantong

3.1 The urban planning and theory of Nantong in the 1980s and 1990s

Since the 1980s, Nantong's planning has been on the right track [3]. Based on "one city and three towns" pattern, the urban space is divided into four characteristic functional areas (i.e., the gate area, the main urban area, the development zone and the river port area). In the middle, the green space is used to isolate the natural terrain, and the expressways are used to connect the groups, so that the whole urban area has a zonal planning structure. On the premise of not destroying the original urban pattern, the axis of urban development should be delimited, and the functional areas should be reasonably divided and closely linked. During this period, the city was mainly positioned to cooperate with other cities in the region and develop together. It inherited part of the content of social planning, began to pay attention to the "humanization" of planning, and comprehensively considered various impression factors of planning.

3.2 The planning concept of the new era in the 21st century

3.2.1 Planning of 2009 ~ 2020

In the new century, the planning of Nantong has put forward a new goal to build Nantong into a big city with a population of one million [5]. The plan pays attention to the overall development of urban and rural areas, giving priority to the development of key towns with good location and solid foundation, optimizing the layout of villages and towns and promoting the modernization of rural areas. It should also further strengthen cooperation and exchanges with Shanghai, Taizhou and other surrounding cities as well as southern Jiangsu, regional connectivity, river sea connectivity, and ecological protection of coastlines. It is necessary to reasonably control the scale of the city, establish the boundary of urban development, promote the compact development of the city, adhere to the intensive and economical use of land, reasonably develop underground space, and protect the basic farmland. It should improve the urban infrastructure system, further improve the construction of transportation facilities, reserve the channel across the river, strengthen the external connection of the city, and promote the integration of transportation in southern Jiangsu. Reasonable spatial structure has been formed, and economic construction, urban and rural construction and environmental construction have been promoted simultaneously. It should delimit the protection scope of urban blue line, establish a water-saving city, promote the construction of sponge city, delimit the protection scope of green space, and formulate strict protection scope.

3.2.2 Land space planning in 2035

2035 urban planning: the first is planning concept innovation. It should thoroughly implement the five new development concepts and the requirements of "one respect, five overall plans", and strengthen the strategic guidance and rigid control role of the urban master plan. Second, the target station is high. The third is full coverage of the city, including Nantong City, Hai'an City, Rudong County, Rugao City, Haimen City and Qidong City. The ecological control line and urban development boundary are defined within the city. The fourth is to establish an information platform of "multi planning in one". The fifth is to establish the evaluation system. The new edition of the urban master plan specifies five categories of indicators: innovative development, coordinated development, green development, open development and shared development. The establishment of index system and the highlighting of index control are the core contents of this planning reform, as well as the main basis for evaluation and assessment [6].

3.2.3 The conjecture of new planning concept

The planning theory of the new era further expands the content of social planning, and runs through the whole process of planning. Nantong's humanistic concept has undergone a qualitative change from "local autonomy" in Zhang Jian's period to "market-oriented, state-controlled" now. In the process of applying social planning, different planning concepts should be changed accordingly. The essence of

social planning is unchanged, and yet the form and content can be changed with the progress of the times. This is the core of social planning, and different times correspond to different social planning.

4. Problems of Current Urban Construction and Theory

Nantong still continues the basic pattern of "one city and three towns", which is Zhang Jian's Chinese style "garden city". Although it has been expanding its functions on the basis of this pattern, it still prematurely determined the functional zoning of the city, which has a far-reaching impact on the re-zoning of the city's functions in the future. After that, Nantong can only carry out mapping planning, and the big structure can not be changed. It can only be further enriched and supplemented. The current Nantong planning should jump out of the previous planning pattern, and make a new definition of functional area in the new national policy and regional level. Developing new industries and making good use of the economic belt along the Yangtze River will promote Nantong's urban development to a new level.

Traffic layout is also worthy of in-depth study. In the past, urban external traffic planning focused on the connection with urban traffic, the construction of supporting facilities, and the impact on the overall layout of the city, while ignoring the impact of traffic flow on the whole city. With the completion of Shanghai Nantong railway and Yantong railway, Nantong has carried out a new round of urban layout. However, these two high-speed railways closely connect the whole northern Jiangsu, Bohai rim economic belt and Yangtze River Delta economic belt. As the hub of this railway, Nantong should not only focus on the development of urban areas. At the same time, the high-speed rail line also connects the whole Nantong city from south to north as a whole. Therefore, the whole Nantong city should be regarded as a whole to study its role in this railway line. The development and analysis of each small node in the city area can form the high-speed rail economic belt in Nantong city area and drive the overall development of the city. From the point to the surface, it should not only focus on the development of the point, look at the overall situation, and maximize the full value of the high-speed rail line.

The aging degree of Jiangsu ranks the third in China, second only to Shanghai and Beijing. Solving old-age care problems and effective supply of old-age care services will become the key issues. At present, the supporting facilities for the elderly in Nantong are not perfect. The new 2035 plan should do a good job in the elderly planning, thus providing for the elderly.

With the gradual construction of Nantong central innovation zone, it will become the new city center of Nantong. The scientific and educational resources in Nantong have always been relatively scarce, and thus the middle innovation zone attracts more talents to stay in Nantong, and the new city Nantong develops new growth poles. It takes the road of innovative city.

Today's urban and rural planning is more rational and systematic. The excellent social planning theory summarized in Zhang Jian's period has not been attached importance to and inherited by later planning, ignoring the influence of many human factors on planning. The planning of Nantong should be a theory deeply rooted in the local ideology of Nantong, which is more characteristic of Nantong, rather than blindly copying and learning. Attention should be paid to observing whether the planning theories elsewhere accord with the reality of Nantong. Based on the excellent theories of the predecessors, the realistic Nantong plan should be summarized and sublimated.

5. Conclusion

After the economic circle of the Yangtze River delta is formally incorporated into the national development strategy, Nantong should seize this opportunity and work hard to prepare 2035 planning. It should make full use of its own advantages in location and transportation, make up for its own shortcomings, and take off in the new era. At the same time, it should pay close attention to the formulation of new land and space planning, delimit the new three lines, stick to the ecological red line, and adhere to the line of ecological priority. On the premise of adhering to the original urban pattern, new development points will be developed to connect Shanghai and southern Jiangsu. The

planning of Nantong should also be a dynamic process. With the constant changes of policy, economy and other factors, the planning should also conform to the times and make a new planning in line with the times. It is necessary to inherit and carry forward the rich connotation of Zhang Jian's social planning thought, and put the idea of "people-oriented" through the whole process of 2035 master plan. Planning is never planning on the basis of planning, but a complex system with comprehensive consideration of society, economy and culture. If the system wants to operate well, it should start with top-level design and do a good job in policy regulation. It is also necessary to take Nantong into consideration in the Yangtze River delta and even in the whole country, do a good job in regional planning, and form a close organic whole with other regions.

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