



Local Adjustment with Path-dependence: the Governance Structure Shift and Spatial Responding in Chinese Third-front City since 1980s

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A primary task of Chinese planning historians is to show how Chinese urbanization expresses the complex and changing relationship between a strong central government and market forces. Here is one kind of cities called Third-front city, making a pure sample to understand Chinese modern institutional design and related spatial phenomena. Such cities were first built for war-preparing in remote Midwestern China in 1960s, under compulsory power and planned arrangement from central government, which seems not a sustainable mode by general acknowledgement. Yet those cities have still went through transformation and gained follow-up development. With the perspective of historical institutionalism, we assume there exists the interaction of institutional path dependence and endogenous incremental change. This paper takes one typical of them, Shiyan in Hubei Province for empirical study. From the Socialist planned economy stage (1960s to 1970s) to China's Reform stage (since 1980s), we mainly explore how government structural change effected the city's development outcomes as a core institutional factor, especially where planning got involved. We find that the initial institutional system dominated by central government had ensured rapid rise of Third-front city in early stage, while producing path dependence and long-term urban spatial influences. In face of transformation, general environment of modest reformation in China had provided enough buffer space for new institutions; On the other hand, despite path dependence in terms of industry pattern, finance structure, administrative power and so on, new local actors' seeking for incremental changes within original institutional framework also generated transformative effects.

Keywords: central-local government relationship, planning history, path dependence, Third-front city

Introduction

In the common transition environment of globalization and capitalization, places with different institutional backgrounds will always make quite varied choices. This is largely due to factors such as their different stage of economic and technical development, the division of power between local, state and central governments, constitutional protections and traditions of property rights, and type of urban system, and so on¹. This inconsistency has been confirmed in the process and phenomenon of contemporary urban development, especially in some developing countries and emerging market countries, which cannot be explained by the traditional geographical location theory². Incompletely rational choices made in specific space-time scenario can have significant impact on urban space evolution, via intervention in local institutional arrangements including administrative power structure, capital accumulation mode and policy efficiency³. Therefore, taking the time dimension as one of determining factors rather than simply static labels in research about urban planning and constructions, it might help to better understand how those important historic events changed local urbanisation procedure, and how their influences had been inherited and evolved during later changes. Actually, this is also where the core value of planning history research lies, instead of just 'telling stories'⁴.

Unlike in western context, China's reformation is more like a process seeking balance in terms of both local-central government relationship and planned-market economy, changing from the status of highly centralized socialism to a compromise towards decentralization. So planning history research in China shall provide a valuable model for major socialist countries or even other developing countries. Many research with regards to Chinese urban

¹ Sorensen A. *Taking Path Dependence Seriously* (Planning Perspectives, 2015).

² Savitch H. *Cities in the International Marketplace* (Shanghai: Gezhi Press & Shanghai People's Press, 2013).

³ Pal A. *Doing Evolutionary in Economic Geography* (Economic Geography, 2016).

⁴ Sorensen A. *Taking Path Dependence Seriously* (Planning Perspectives, 2015).



planning after 1949 has pointed to the influence of the Soviet Union^{5,6}, but the practice of socialist planned economy system in many places actually underwent local adjustment, which generated corresponding institutional legacies that played key roles in Chinese reform and opening up, which then set an example as institutional transition of pragmatism and gradualism⁷. There have been studies on the evolution of urban planning against the background of China's transition from a planned economy to a market economy, most of which pointed out a fact that Chinese urban planning is path dependent due to its strong government-dominated political origin^{8,9,10,11,12}.

Indeed, the planning history of most Chinese cities contains complex historical background factors from home and abroad, and this adds difficulties to distinguishing real endogenous institutional innovations to explain 'purely Chinese model'. Luckily there is a special kind of Chinese modern cities called 'the Third-front city', built for war-preparing during the Third-front Constructions from 1960s to 1970s, making an ideal example for analysing Chinese special process and characteristics of planning evolution¹³. Those cities locate in inland area far away from national boundaries, and were mostly accompanied by the constructions of the Republic's large industrial plants at that time, especially in fields as iron and steel, petrochemical, machinery, transportation equipment and army defence. Some cities even developed from deserted land to big or medium sized cities¹⁴. The main question here is, early establishment of Third-front city largely benefited from the compulsory power and strictly planned arrangement of central government, which seems not a sustainable mode for a city's development by normal sense from a market economy view. Yet such city mostly went through the follow-up reform and opening up after 1980s with their own ways. Why and how?

To cope with this question, related concepts of historical institutionalism (HI) are introduced in the next section (especially the concept 'path dependence'), while a logical framework is provided to interpret how governance transition and spatial evolution interact with each other in the Third-front city. The following two parts of this paper are for empirical study with one typical Third-front city, Shiyan in Hubei Province. The third section tells about the specific governance structure in Shiyan under circumstances of planned economy and 'the Third-front Constructions', along with its spatial effects on urban planning. The fourth section then explores how Shiyan's governance structure react to the nation's overall institutional transition during Reform Period after 1980s, paying key attention to some prominent path dependence factors and the ways new governance actors managed to live with them.

Characteristic of institution-space interaction in the Third-front city: from view of historical institutionalism

Interpret urban planning history by institution

The theory of historical institutionalism branches from new institutional economics. It stands up for the very viewpoint that both institutional stasis and change matter in urban political dynamics. As a typical capitalist economic landscape, cities are strongly geospatial dependent. Urban phenomenon are shaped by multiple actors' interaction in social relations, behaviour patterns and policy process, which are always generated from specific historical conditions¹⁵. Since the design of institution can be seen as resource allocation based on power relationship, planning history then can be told as a history of institution-building under urban political coalitions of different scales and levels. Urban property capital, its quality, liquidity, risk structure, and profit margins are all shaped by place-specific compromises with regard to who pays for what; which risks are socialized; how infrastructure is delivered, paid for, and maintained; and how public services are provided. Particularly important is the specification of the rules that apply to new capital investment in urban space, and the distribution of the costs and benefits of such investment, which are reflected by local industrial arrangement, fiscal arrangement, spatial strategy and so on.

⁵ Andrusz G D. *Cities after Socialism* (Blackwell, 1996).

⁶ HOU Li. *Urbanisation in the First Thirty Years of PRC* (Urban Planning Forum, 2010).

⁷ WU Fulong. *Transition and Reconstruction* (Nanjing: Southeast University Press, 2007).

⁸ Abramson, D. B. *Urban Planning in China* (Journal of the American Planning Association, 2006).

⁹ Xu, J. *Socialist Urban Planning in Transition* (Third World Planning Review, 1998).

¹⁰ Ng, M. K. and W.-S. Tang. *Theorizing Urban Planning in a Transitional Economy* (Town Planning Review 2004).

¹¹ NING Yuemin. *New Urbanisation Process* (Acta Geographica Sinica, 1998).

¹² SHEN Guangyao. *Review on the Studies of Urban Governance* (Urban Problems, 2012).

¹³ HUANG Li. *Planning and Development for Third-Front Cities* (Urban Planning Forum, 2013).

¹⁴ ZHOU Mingchang. *The Third Line Construction* (Researches in Chinese Economic History (1964-1980), 2014).

¹⁵ Boschma R. *The Handbook of Evolutionary Economic Geography* (Cheltenham & Northampton: Edward Elgar, 2010).



‘Path dependence’ is the core idea in historical institutionalism. In a particular local historical process, some external critical junctures marked by major historical events will always contribute to specific institutional choices, and at the same time certain form of political coalitions in favor of this newly-set institutional framework. Yet change does occur after that, while some institutions are harder to change than others and that such differences in openness to and patterns of change can have profound impacts on urban outcomes¹⁶. On condition of that, later institutional adjustment tends to adopt an incremental and moderate way rather than a radical change, with consent to the validity of existing institutional framework. Thus urban transition in real situation often presents as an evolving procedure with constantly feedbacks or adjustments between institutional design and spatial outcomes.

Special central-local relationship as the core of path dependence in Third-front City

As ‘important legacy’ of Chinese urban planning and construction during the planned economy, the value of Third-front cities has been emphasized by many planning history researchers in China^{17,18,19}. Some have further managed to dig the institutional roots behind those cities planning characteristics^{20,21}, but there is still lack of exploration towards the subsequent functions of path dependence factors in reform period (also known as ‘post Third-front Constructions’ period). This can be partly attributed to the limitation of theoretical perspective which used to regard institutions as controlled variables, so that we could only discuss the planned economy and the market-oriented reform separately. Now the application of historical institutionalism might help a lot to break through such limitation.

Urban space is moreover a political expression²², that is, the way politics acts on urban development is through arrangements for land and its overlying spatial structures by urban governance actors (who have power rights and benefit from urban space)²³. Our discussion about the Third-front city follows this theoretical logic as well. Despite that in Soviet-style socialist planned economy, individual is reduced to a passive and minimal state and private property rights are abolished²⁴. Although resources are allocated by plans, or more accurately by bureaucrats, they nonetheless need to be controlled by some organizations that then put them into consumption or production. That is, there are still de facto property rights, which inevitably give rise to property interests. These property interests may be held by a factory, a school or even a government agency. In a Third-front city as Shiyang, such organization compound took the shape of ‘the Third-front enterprise’. However, it was actually not an enterprise in the real sense, but a vertical dispatch department set up by the central government for the construction of large industrial bases at local. Therefore, ‘the Third-front enterprise’ had got dual role as an industrial entity and both a local government agency, which made it the central knot between governments of different levels and between government- enterprises. This had then led to multifaceted intertwined status of central-local government relationship in the Third-front cities, making a starting point for path dependence (Fig.1).

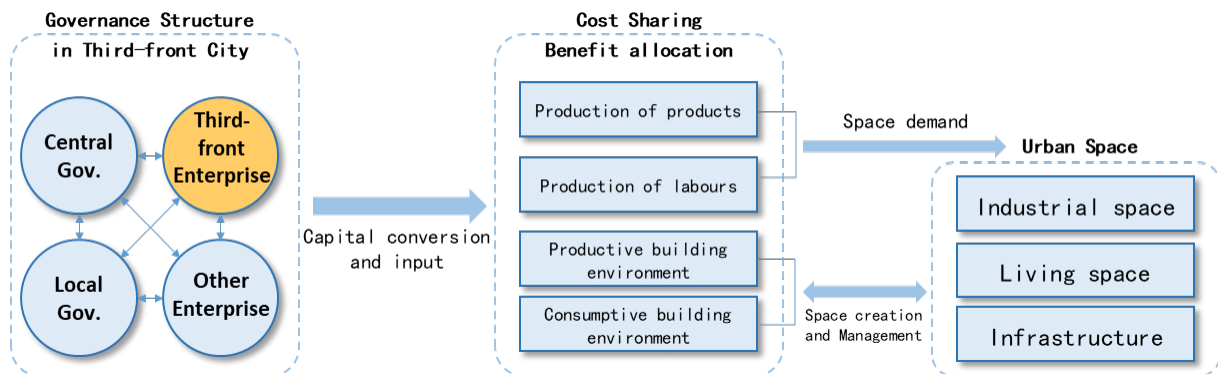


Figure 1: the interaction machine between governance and space in the Third-front city

¹⁶ Boschma R. *The Emerging Empirics of Evolutionary Economic Geography* (Journal of Economic Geography, 2011).
¹⁷ HU Jun. *Chinese Cities: Patterns and the Evolution* (Beijing: China Architecture and Building Press, 1995).
¹⁸ LI Baihao. *Planning History of Modern Chinese Cities* (Nanjing: Southeast University, 2003).
¹⁹ DONG Jianhong. *History of Chinese Urban Constructions* (Beijing: China Architecture and Building Press, 2004).
²⁰ ZHANG Jingxiang. *New China Urban & Rural Planning Thoughts* (Nanjing: Southeast University Press, 2013).
²¹ HUANG Li. *Planning and Development for Third-Front Cities* (Urban Planning Forum, 2013).
²² Davies S J. *Theories of Urban Politics* (Shanghai: Gezhi Press & Shanghai People’s Press, 2013).
²³ ZHANG Jingxiang. *Spatial Governance* (City Planning Review, 2014).
²⁴ Hayek, F. A. *The Road to Serfdom*. Chicago (IL: University of Chicago Press, 1944).



Planned economy period: the ‘enclave’ of central government and the formation of path dependence

Chinese central government had been investing enthusiastically towards Third-front cities from 1964 to late 1970s. At this period, Third-front cities were essentially more like the implementation bases of the “Comprehensive Plan for Regional Industrial Construction”²⁵, and therefore were set up completely surrounding the state’s production units, with needed labour force and their living facilities, which totally was ‘the socialist style’. The City of Shiyuan was selected then as the location of Chinese second automobile factory, one of SPUs. This implementation changed Shiyuan from a remote deep-hill village to a large-scale specialized industrial city.

‘State-owned enterprises(SOE)’ as the foundation of exotic specialized industries

Once located in some place, large-scale industrial projects will have profound impacts in terms of investment return, industrial chains and bringing other sub-sectors²⁶. During the Third-front Constructions, industrial projects launched basically shared the above characteristic of significant positive externality, which was further magnified by the State’s centralized and monopolistic investment. For example, Chinese second automobile factory (referred to as ‘the SOE’ here), which was a military-oriented enterprise directly subordinated to the State Council’s machinery industry authority, providing products nation-wide, was totally ‘airborne’ to Shiyuan when there was no modern industrial departments. Under the state’s strict supervision and support towards the whole operation process including production and sales, capital withdrawal, and financial flow, the SOE achieved dramatic development and became the absolute pillar industry of Shiyuan. This process brought profound influence toward Shiyuan from two perspectives. On one hand, the SOE in Shiyuan restricted local economic development. The profit of the SOE went directly to the central government, leaving the local of Shiyuan in a dilemma of lacking financial income from its profit. In the meanwhile, Shiyuan also had difficulties to adopt other industries since the pillar industry had dominant impact on local economy. On the other hand, the SOE lay industrial foundation for Shiyuan. Under the strong promotion of relevant national policies, the SOE had received fully support from the entire country for raw material, personnel, technology, and other aspects. The complete industrial chain and national leading technology had provided Shiyuan the potential and opportunity of becoming an ‘automobile city’.

Administrative structure: close connection with central government and integrated leadership by the local and the SOE

Third-front cities like Shiyuan at first did not have much political resources except for exploitable land, due to their weak linkage with capital city and other cities in the same province. When the SOE settled in Shiyuan, a strong linkage between the local and central government had been created robustly. In order to form a streamlined administrative structure between local and the central government, a unique administrative system had been introduced. The technical and administrative leader of the SOE also undertook the position of the party and governance leader of the Shiyuan city. Under this administrative system, central government provided more direct guidance and support towards the city development via the SOE. For example, the leader sought tens of million funds directly from the central government specifically for the setting up of local education, health care, culture, sports, public security, fire protection, residents’ committees, the People's Armed Forces, real estate, telecommunication, and warfare, which boost local development dramatically. In addition, since the leader was granted rights of both city and SOE construction, he could arrange local personnel and industry more efficiently. One manifest practice was encouraging family members of SOE staff to participate in local production industry cooperating with the Second automobile factory, and in other service and commercial work unit. By this means, the special administrative system created a self-sufficient society by providing products and services for the producer group, which succeeded in intensive use of local resources and providing stable life quality for residents at the same time.

Spatial Effect: fragmented land use pattern based on industrial clusters

The decade from 1973 to 1982 was the crucial developing period for Shiyuan. During this decade, the State Ministry of Finance allocated 47.1 million Yuan in the fundamental urban infrastructure construction for Shiyuan. Under this circumstance, Shiyuan benefited from the vast investment in rapid urban expansion, while was constrained strictly in the urban development pattern planned by central government at the same time. For air defence considerations, central government set 23 sub-factories of the SOE scattered in 8-10 mountain valleys with a total spatial range of approximately 10-22 km connected by massive mountain roads, bridges, and railway lines²⁷. This industrial spatial

²⁵ SUN Yingdan. *A Study on the Development and Planning of Chinese Three-line Cities* (Wuhan: Wuhan University of Technology, 2010).

²⁶ CAI Jianming. *The Research into Chinese Urbanization Dynamics and Strategies* (Progress in Geography, 1997).

²⁷ WANG Xingping. *History of Industrial Space Planning and Design in Modern China* (Nanjing: Southeast University Press, 2014).



distribution affected the spatial pattern of urban region profoundly. At planned economy era in China, residential area and supporting living facilities were in coordinate with production sectors to provide sufficient services under the guidance of a rigid rule. Shiyang's residential area and facilities therefore followed the pattern of industrial cluster land use, and formed a fragmented urban pattern with 8 separating functional clusters separately every 3-5km. Under this basic urban development pattern, hospitals, primary and secondary schools, other service facilities, and warehousing and freight yard land were all set by time in 8 clusters respectively (Fig.2). Later industries settlement was also attracted adjacent to original clusters, which enhanced this scattered pattern. Although this fragmented spatial pattern was not economic rationality, it still developed smoothly relying on the leaning financial support by central government.

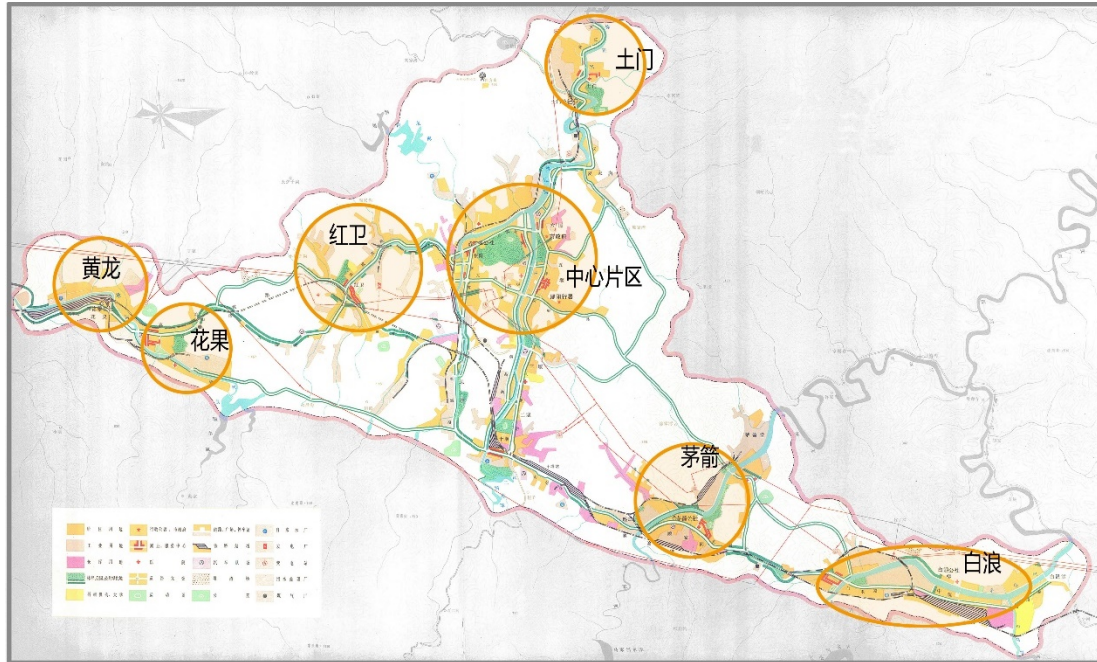


Figure 2: Urban structural plan organized for the priority of each factory

Reform period: 'the return of local authorities' and their compromise to path dependence

Overall institutional environment change in China began from the early 1980s with decentralization as its fundamental characteristics²⁸, both in administrative and economical territories²⁹. Local government was a pure local branch of the state in the planned economy, but in the market economy it would enjoy much higher degree of local autonomy and have many more functions. In the meantime, thanks to the termination of the wartime planned economic policy, the nation's investments for Third-front industry projects had been cut down greatly. As a natural result, Third-front cities were not that tightly bound to the central government, then 'the return of local authorities' in governance system became a must to ensure those cities' succeeding development. But in fact, Third-front cities mostly witnessed a situation where local actors showed inertial dependence towards central government via the existence of 'Third-front Enterprises', while making some incremental institutional adjustments within the original governance framework. This in a sense provided enough buffer zone for the Third-front city to go through transition steadily, as things went in Shiyang.

Sustained overflow effect and political say by the Third-front Enterprise

The special system design of integrating local city with enterprise in Shiyang ended in 1982, and local government of Shiyang officially established. The Chinese Second automobile factory was no longer an all-round dispatched agency responsible for Shiyang City, beginning to show more market-oriented interest demands itself. Yet as the nation's important assets still, Chinese Second automobile factory could consistently get indirect support from the central government in many ways like produce orders, technical help or brand building. This was the very economic overflow effect local city needed, so the Second automobile factory and its related industries had taken dominance in Shiyang's production system for a long time (Tab. 1). Above that, benefited from administrative resources accumulated during the planned economy, Shiyang had remained some political privileges in negotiating

²⁸ LUO Zhendong. *Metropolitan Development in China* (Beijing: China Architecture & Building Press, 2007).

²⁹ LI Yanyi. *Central-Local Relationships and Local Governance Revolution in China* (People's Forum, 2014).



with the central government. Even a lot of early local government members were former leaders of the Second automobile factory. They helped seek for several important projects for Shiyang city, including the Automotive Industry College set up by National Ministry of Education, talent introduction policy towards nation-wide, and convenience in international trade, which were quite rare for inland cities like Shiyang.

		<i>Number of enterprises</i>	<i>Output value</i>	<i>Fixed assets value</i>
(10 thousand yuan)				
Vehicle manufacturing	Dongfeng Automobile (former: Chinese Second Automobile)	3	1971120	1512401
	Other local enterprises	13	654752	82600
Assembly	body	3	66303	9800
	Axle	6	55929	17521
	Frame	4	41586	20749
	Exhaust & Transmission	4	78348	78733
	Mould	2	35205	8423
Parts manufacturing		134	575296	291570

Table 1: Enterprises of automobile industries in Shiyang (2008).

Local government's struggle in interweaving administrative and property relationship

In the state owned assets system of China, the rights of property and income are attributed to governments by levels. During the former planned economy, to facilitate the central government's control on the Second automobile factory, the administrative level of Shiyang had actually been promoted higher than the province level. When it came to the reform period, some mismatches had popped up then: the financial income of the Second automobile factory belonged to the central and the Hubei Province government; the part of local collective enterprises belonged to the Yunyang Region (approximately the range of Shiyang Metropolitan Area nowadays); thus the city of Shiyang could only rely on little revenue from agriculture and business departments, which made it hard for the local government of Shiyang to organize the city's planning and constructions. By 1990s, the gap in public services grew larger and larger between the Second automobile factory system-inside and the local. Faced with this problem, the local government actively took advantage of institutional legacies by the Third-front Constructions and made a policy towards sharing public service responsibilities between government and enterprise. The specific practice is that, the Second automobile factory first organized a 'Shiyang management department', embodying all those non-business affairs and public services such as infrastructure, energy supply, education, medical care, accommodation, entertainment and so on; According to later operating conditions, these functional units could be passed to corresponding administrative sections, or seek asset merging with local enterprise actors.

Spatial adjustments: tiny change with regards to original urban spatial pattern

Not only the governance structure, also in spatial planning, the needs of automobile industries had been put in first consideration in the reform Shiyang. In spite of the awareness that the scattered pattern in a long range was kind of wasting, the pattern was still continued in later planning drafts, with tiny advices of combining adjacent production clusters into comparative multi-functional zones (Fig.3). In addition, to ensure a steady level of infrastructure facilitating, local government had also made the decision of joint sponsor in major facilities construction, which actually enlarged the scope of Second automobile factory in local Shiyang.

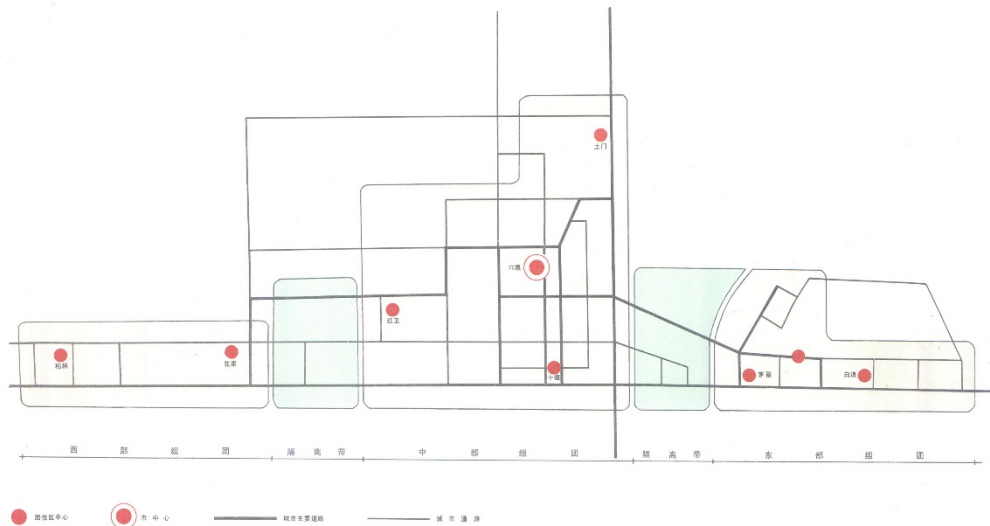


Figure 3: Urban structure of three main clusters put up during reform period.

Conclusion and Discussion

For Third-front cities, the special central-local relationship plays the core role of path dependence in its comprehensive institution system towards urban development. Especially the creation of giant-scale ‘SOE’ as Chinese typical doing after 1949, has proved the view that ‘Once the political alliance is combined with a large enough asset owner group, it can effectively prevent the formation of another alternative alliance’.

Just as in Shiyan, the initial institutional system dominated by central government had ensured rapid rise of Third-front city in early stage, while producing path dependence and long-term urban spatial influences. In face of transformation, general environment of modest reformation in China had provided enough buffer space for new institutions; On the other hand, despite path dependence in terms of industry pattern, finance structure, administrative power and so on, new local actors’ seeking for incremental changes within original institutional framework also generated transformative effects. Thus, the beings of Third-front cities, which seemed incompatible with market economy, have made their own way to strive the conflict in Chinese overall transition environment.

The geospatial dependence and institutional path dependence of urban phenomenon are in constant interaction. Only by taking historical institutional legacy seriously and figuring out how it functions among urban governance, can we come up with better ideas to help the local make effective adaptive response towards common transition.



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