

UDC 711

Lina Zhang, Wowo Ding*School of Architecture & Urban Planning, Nanjing University**No.22 Hankou Rd, Jiangsu, P.R. China, 210093**e-mail: zln.nju@gmail.com, dww@nju.edu.cn***THE EVOLUTION OF CHINESE DANWEI SYSTEM
AND ITS INFLUENCE ON PLOT DEVELOPMENT:
THE CASE OF NANJING**

Abstract. *Social and economic policy has a profound influence on urban form development, besides urban planning, urban coding and site indicate. With different backgrounds of social and economic policies, the managements of urban development are discrepant, thus the outcomes of urban form are diverse. In New China after 1949, the state chose the Danwei System as a social organization form, and at the same time, the land utilization planning system was chosen as the land management policy. This made China's urban construction management and urban form development proceeded on a unique road: instead of plot development, danwei actually acted as the carrier of urban development. Taking Workers' Cultural Palace as a typical case, located in central district of Nanjing City, this paper illustrated its nine stages of plot development from 1946 till 2017. The transformation processes have revealed the intimacy with relevant social and economic managements in China. The detailed analysis has interpreted unique relationship between the danwei development and national guideline, national economic planning, land disposition system and urban planning. Through a profound and overall investigation, specific way of social influence on plot development in Nanjing can be proved. At the same time, this paper presents meaning transformation of some important elements, such as plot, in the process of urban form configuration in China, which eventually further deepen the understanding of present tangible form.*

Keywords: *social organization, Chinese danwei system, land planning system, dawnei, plot development, Nanjing.*

Research background

After a long period of urban construction in modern city, people have gradually realized that social and economic policy, urban planning, urban coding and site indicate, all these affected the process of urban development and involved in determining the formation of physical form in each plot. In these series of factors, social and economic policy is the part of superstructure in the leading position. In nature, they have actualized the most fundamental and far-reaching influence on urban transformation. However, it is a pity that, although social and economic policy is recognized as an important factor, as early as the study of Conzen Alnwick (Conzen, 1960), the presence of its force was less clearly demonstrated. Especially in term of its path and aspects, the influence of social and economic policy on the process of plot development has seldom been interpreted.

The literature review in morphological study shows that the study on the influence of economic policy mainly stays in the relevant research of fringe belt. The research method of fringe belt is to understand the diversity and development between the interregional physical form by comparing their different economic policies or economic conditions. However, this method is more focused on explaining 'what does urban morphology have to offer the enrichment of economic and society' rather than explaining 'what do these fields (economic and society) have to offer toward the enrichment of urban morphology' (Conzen, 2004). Additionally, this method is limited in terms of the relationship between the physical form and its changes in each plot and the relevant policies.

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In the context of planned economy system (a specific political and economic environment), the author has proved that the generation and transformation of plots has their own features in planned economy system by the historical and morphological investigation on several blocks (Zhang & Ding, 2017). However, in the published paper ‘Changing urban form in a planned economy: the case of Nanjing’, the specific way of social and economic influence on plot development has not been thoroughly interpreted. Based on the article mentioned above, this article tries to make an in-depth discussion on this issue.

Since the beginning of 1950s, China has gone through the period of traditional planned economy. Until the economic reform began in 1978, planned economy system started to be displaced by the socialist market economy system gradually. Although it was clearly announced in 1992 that the socialist market economy system was a goal, the impact of planned economy system on urban development was attenuated by degrees. The impact of planned economy system actually remained at least until the 21st century. This study focuses on the demonstrating the influence and path of the related social and economic policy during and after planned economy system on urban physical forms. This paper seeks to make breakthroughs in the following three aspects. First, the completeness of the case study. The case should not only cover the traditional planned economy period, but also the period when the socialist market economy dominates and traditional planned economy declines. It makes it possible to explore the whole timelines of the far-reaching factors of the policies and to make a comparative study before and after the policies. Second, the clarity of policy implication. This paper will clearly explain the meaning of planned economic policies which played the direct and important role affecting the transformation of physical form. It helps to make the research object specifically be defined. Third, logically analysis on the path of influence. By comparing the case investigation with the relevant policies, the interpretation about the impact and its path could be much clear.

Taking into account the integrity and details of the evidence, a typical case of Workers’ Culture Palace was selected in the scope of the previous article. The path of the full text is as followings. Firstly, based on the former research, the policies that are directly related to urban development in planned economy system will be expounded. Secondly, by tracing physical changes of Workers’ Culture Palace from 1949 to 2017, the development process and background situation of danwei can be clearly presented. Finally, interrelation of development process of Workers’ Culture Palace with background situation and the process of policy changes could be examined. Thus, specific routes of the policy influencing block development could be recognized.

Key policies affecting urban physical form in planned economy system

It is noteworthy that the Chinese planned economy system was not based on the highly developed capitalism. Social background of the planned economy period endowed the main task and goal of the Chinese planned economy system as realizing socialist industrialization, which represents as the furthest mobilizing social resources in order to accelerate the pace of industrialization and to realize the overtaking strategy. Thus, the core characteristics of traditional planned economy system are unitary public ownership and administrative planned economic management system. From an economic point of view, the essence of economic system is the reaction of economic relationships. Due to the fact that all means of production were concentrated in the hands of the state, in the process of social production, traditional planned economy system in China has the following main characteristics: 1) emphasizing centralized and unified leadership of the central government; 2) carrying out vertical management based on the departments; 3) state assignment of the production task and construction tasks; 4) state monopoly of the purchase and marketing of the products of all enterprises; 5) unified resettlement of the labor force; 6) enterprises turning to be the appendage of the government and all its economic activities and economic contact basically instructed by the government agencies at all levels, mainly by the central government (Chen, 1999).

In accordance with it, China has gradually established the danwei system after 1949, which is a social regulation established to meet the need of China's industrialization and overtaking strategy. It is the core administrative system of planned economic system in the field of social life organization. In the aspect of urban construction, the danwei system has implemented the state's land use plan and national economic plan. Therefore, from this point of view, the policies which directly affect urban physical form of the block in the traditional planned economy system are "danwei system" and "land planning system".

Danwei system

Danwei system is an important national strategy and administrative tool for promoting modernization and realizing industrialization. A feature of its structure is so called 'umbrella structure' (Liu, 2000), which parallels the top-down control and the administrative field control (Fig. 1). Traditional planned economy system depends on no other than danwei system to realize effective allocation of urban resources by either the unified allocation or intensive delivery of urban resources. Danwei system also plays the important role to putting across government policies from top to bottom. Thus, in danwei system, the flow of economic power from top to bottom can be clearly expressed. On the other hand, danwei system is an organizational form for managing personnel (Zhou and Yang, 1999). In danwei system, a laborer can only be combined with production materials through danwei; at the same time, an obligation of danwei to individual has also led to that individual *conversion*. Not only individual's social identity is given by danwei, but more importantly, all physical needs of danwei members are all supported by danwei, such as kindergartens, schools, hospitals, old cadres and retired workers' homes, trade unions, housing management departments, etc. All these functional configurations within danwei are to meet the needs of danwei members. Consequently, danwei becomes a contact point between the state and individual. The relationship between state, danwei and person constitute a central axis of material allocation, which can be distinctly recognized in danwei.

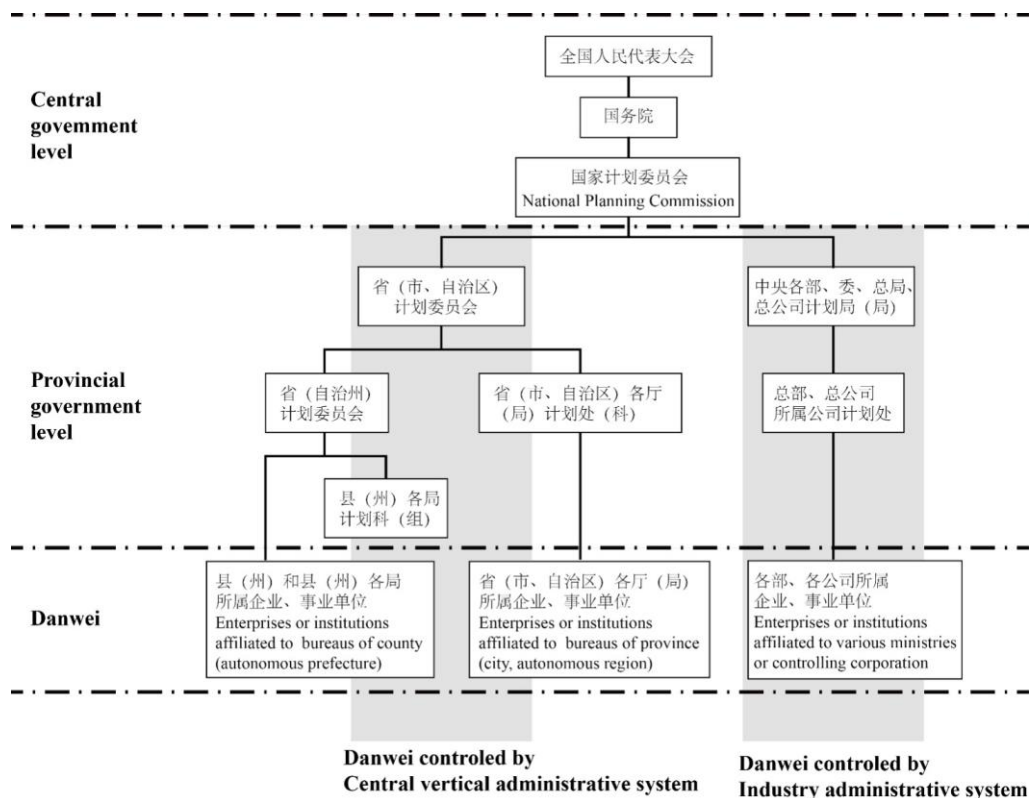


Figure 1. The role of danwei system in the resources disposition. Source: Li, Z. (1983). 'Jihua jingjixue' ('Planned economics') (Renmin University of China Press, Beijing)

Land planning system

Chinese land planning system consists of national economic planning, land utilization planning, and urban planning.

1) As far as the national economic planning is concerned, the state formulates medium-term development plan for ministries and bureaus every five years, and at the same time the state puts forward corresponding tasks for ministries, bureaus every one year. In these economic plans, the consideration of throughput improvement, promotion of social life service capacity, and development of finance and indicators allocated by the state to various departments are ultimately required to be implemented in a specific site.

2) As far as land utilization planning is concerned, land disposition system is mostly interrelated with urban physical changes. Under the existing structure of government and ownership in China, municipal governments are representative of the state-owned land, and municipal governments assign their land management bureaus to carry out this function. But their practice must be supervised by a higher level government and the people living in jurisdictions. In planned economy, disposition of land resources is a social process to change the use or physical conditions of the land. Before the reform of economic system, land disposition was a highly administrative process. Actually, the entire urban land disposition process was only a passive process under the influence of other socioeconomic policies of the government. Governmental economic planning agencies possessed undisputable power of influence on the urban land disposition. However, before making a plan for land disposition, planning agencies never considered making a forecast for the land resources and demand. What they first considered was an investment plan needed to reach a goal of increasing certain types of economic growth. The allocation of land was only a by-product of the process of investment planning. This mechanism of land disposition is shown in Fig. 2. In this process, an application for investment and use of the land must first be submitted to the government planning agencies by the proposed land user and its corresponding superior government agency. In such processing of applications by the government planning agencies, the main considerations are the amount of investment of the state economic plan of the central government for a year, priority order of the construction project in the plan, and the amount of capital available for a fiscal year. Once the investigation plan is approved, the application for the land use is also approved; the amount of land allocation will be decided by some empirical ratio between the construction project and its land use acreage.

Therefore, if there had been any plan for land use before the reform in China, it would have been only a unified plan based upon the balance between the supply and demand for land.

3) As far as urban planning is concerned, the Soviet Union-style of urban planning has produced broad and profound influence on China's urban planning system. The Soviet Union-style of urban planning understands the city from the perspective of a carrier of stepping up production and regard urban development as the organization of industrial productions. Therefore, at that time, urban planning is emphasized to cooperate with the construction of industrial project and it mainly focused on two aspects: firstly, setting up the factory sites, and secondly planning for the factory area and living area concurrently. Accordingly, planning principles are as following: a) the function and the scale of the factory are determined by the superior economic plan; b) site with best water supply, the flattest place, most convenient area was always selected for industrial land; c) location of the residential land should conveniently be connected with the affiliated factory, that is to keep reasonable commuting distance but avoid polluted environment by the factories; d) establishment of public facilities such as Workers' Cultural Palace, schools, canteens and so on must strictly save the investment as far as possible on the basis of meeting its standards. Under the guidance of these ideas, housing investment was listed as a nonproductive investment and turned to be the supporting facilities. Thus, with the influence of the Soviet Union's communal living concept, 'Danwei Compound space' pattern as a distinctive Chinese urban space was formed in 60-70s.

entertainment room and so on. But after its completion, it gradually transformed into a public activity venue mainly for opera performances and celebrities' gatherings.

After the establishment of a new municipal Party in May of 1949, Jieshou Hall was used as the office of the Nanjing Federation of Trade Unions. In 1951, the Nanjing Municipal Government allocated the plot of Jieshou Hall to the Nanjing Federation of Trade Unions. Thus, Nanjing Workers' Cultural Palace was established by using original buildings and it even won a larger land area for the future development. As a result, Workers' Culture Palace was a new urban function, imbedded into the central area of the city with huge occupation in the early days of New China. It is a symbol of the status of the working class and an important culture and entertainment rallies.

Driven by the Nanjing Cultural Bureau's plan for the development of cultural facilities, Nanjing Municipal Construction Committee approved Workers' Culture Palace to expand their land occupation to 13700 square meters until 1977, which directly brought a pressure on the old street system and caused alteration of the branch road system.

From 1952 to 1988, the plot boundary to its west with its western neighbor of Xinhua News Agency Jiangsu Branch changed a few times in order to create an official entrance of vehicle access facing the Zhongshan East Blvd for Workers' Cultural Palace. By 1988, the buildings in Workers' Cultural Palace include a science and education building (the archives shows that it was built in 1987), a cinema, a multi-functional stadium, two bookstores, a skating rink, and a north gate building.

Until 1992, with the construction of the whole Hongwu North Road widen project, land occupation of Workers' Cultural Palace continued to be expand. The east side of 'Shoukang Li' residential unit dominated by the old style single-store residence and the adjacent branch road had been fitted into the scope of Workers' Cultural Palace.

In 1996, Workers' Cultural Palace expanded the scope of its land use again. The 'Juexing li' residential unit with new style two-store house, on the southeast corner of block, and related branch road had been fitted into the scope of Workers' Cultural Palace. The 'Zengsheng li' residential unit with new style two-store house, on the southwest corner of block, and other units with the related branch road had been fitted into the scope of Workers' Cultural Palace. Consequently, all the land in the southern half of the block belongs to Workers' Culture Palace.

In the late 20th century, with deepening of the Chinese economic reform, symbolic meaning of Workers' Cultural Palace has gradually weakened and its centralized social service function has transformed and been dispersed into other commercial buildings. The second round Hongwu North Road widen project in 1998 drove the transformation of Zhenghongjie area toward the commercial walking area. Thus, excepting preservation of the original north gate building and expansion of science and education building to form a new Workers' Culture Palace Complex, the original Jie ShouHall and 'Shoukang Li' residential unit which was to its north side transformed to a podium served as Workers' Film City in 1998 and a 29-story building served as Tianfeng Hotel, which started the business in 2002 (the property right belong to the Nanjing Federation of Trade Unions). At the same time, the original land was gradually split up. Zhenghong Building has been constructed on the south-east corner of the original Workers' Cultural Palace and the its original land along Zhenghong Street was used as the urban walking system in the process of the General Reform of the Zhenghong Street Area.

In 2004, Workers' Culture Palace was converted from self-supporting institution to public welfare institution with balanced financial allocation. In 2006, the plots on the northeast of this block has been reintegrated. The new formed plot amalgamated the site of a new Workers' Cultural Palace Complex with the land to its north side. The stakeholder of this new plot is Nanjing Land Reserve Center. At this moment, the former Workers' Culture Palace is being shrunk to only Tianfeng Hotel, and, out of the ordinary, two other adjacent units shared their passageway with the Tianfeng Hotel.

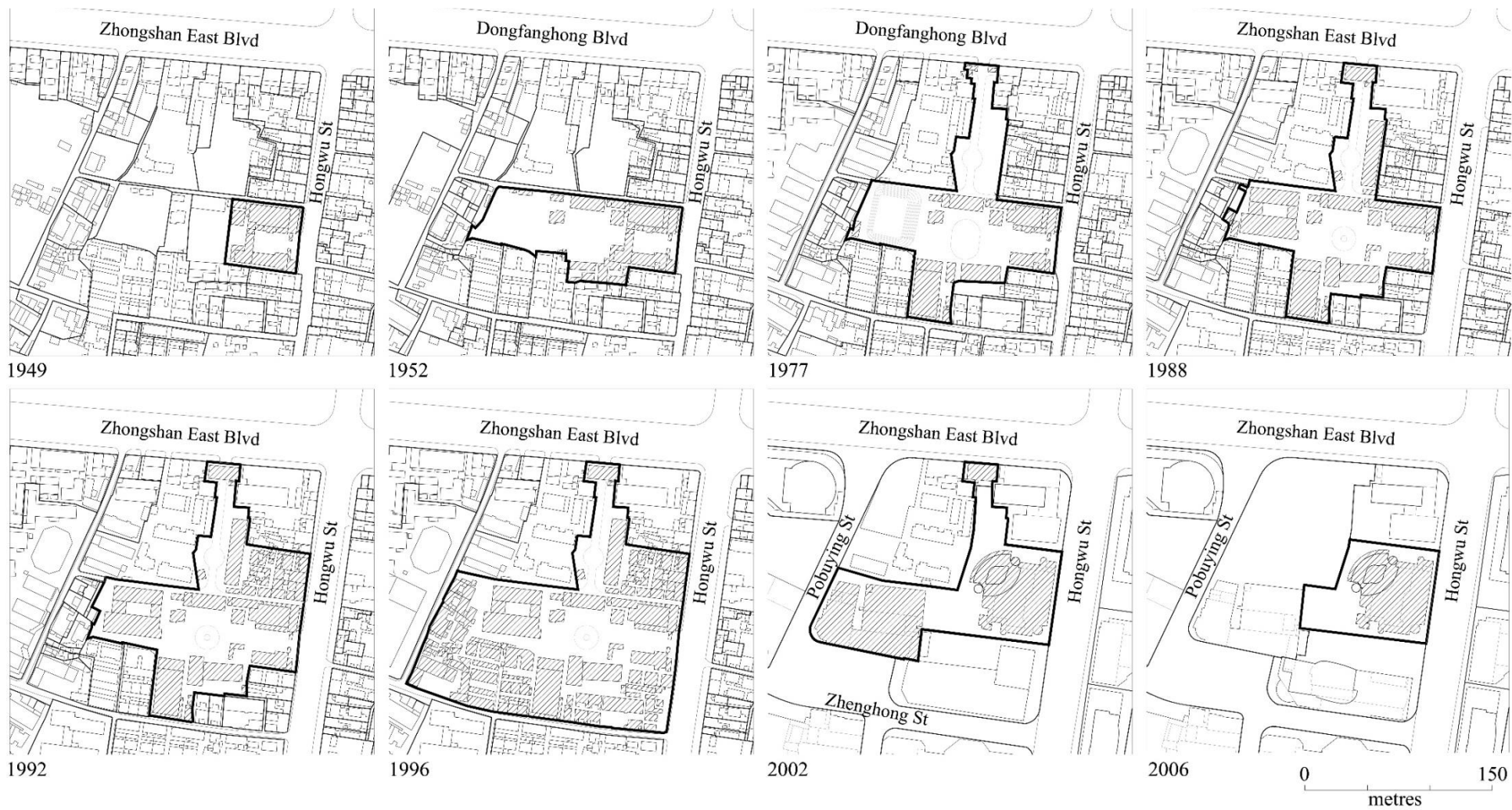


Figure 3. In Xinjiekou district, the predecessor of Workers' Culture Palace and danwei development of Workers' Culture Palace in 1952,1977,1988,1992,1996,2002,2006.

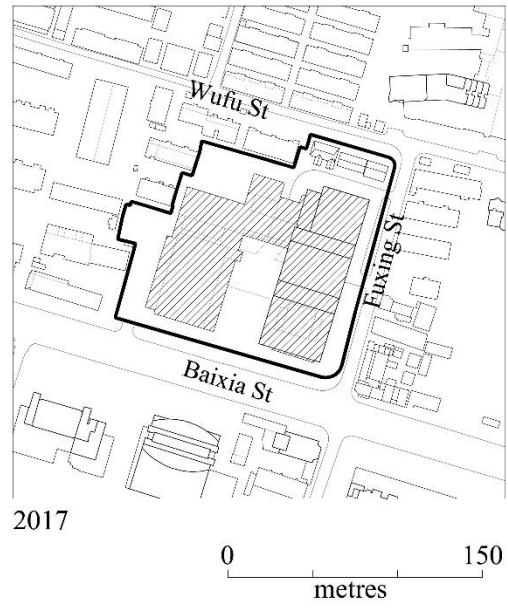

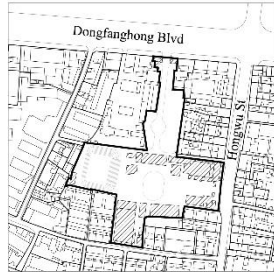





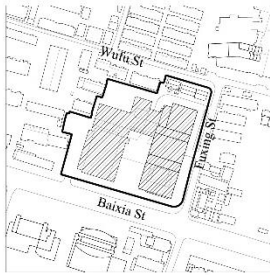


Figure 4. New Nanjing Workers' Cultural Palace located far away from city center is under construction

The inner connection between the building pattern and the social policies

Social policies and conditions	The changing social-economic environment			related				related		related	
	National guidelines	related		related	related						
	National economic planning				related	related				related	
	Land disposition system				related	related					
	Urban planning		absent (spatial demand of danwei led plot development)				absent (on the level of block development)	absent (on the level of block development)		absent (The development of block is actually driven by the development of danwei.)	absent (on the level of block development)
(analysis step 2) In-depth social reasons	In the early days of founding of the PRC, the core position of the working class needed to be expressed. The social status requires the expression of urban physical spaces.	At that time, the scattered social forces needed to be united. In order to make the working class grow into a cohesive social force, all danweis developed the trade union organization. For the whole society, it is necessary to have a locus for workers' meeting or large-scale events (indoors or outdoors).	Since the shortage of goods, the fastest way to create the new danwei of Workers' Cultural Palace is to make use of existing buildings rather than new construction. The Jieshou Hall with large indoor space and acted as the symbol of the Kuomintang authority was the good option for this new danwei by sapactial transformation.	The state and local government strongly supported the construction of key danweis. Therefore, the Workers' Cultural Palace has obtained considerable funding and a amount of reserve land for its further development	As a rare and important urban cultural facilities, the state and local government strongly supported the development of the Workers' Cultural Palace with a large amount of capital and land.	In the process of danwei development, a part of branch road within block was swallowed. It can be seen that the plot development was placed above the development of entire block.	There is a contradiction between the using condition of the land and the demand of danwei development. In the process of plot development, the urban planning at that time did not provide the proper guidance or restrictions on plot development.	The changed demands for plot development reflects the changed organizational demand of passenger flow and traffic flow after social needs become complex.	Even the occupation of the Workers' Cultural Palace did not largely changed, the plot coundary partially changed. The development process of the science and educational building exhibited that the land requirement at that time should be achieved when there was the reasonable requirements, the agreement on resettlement and compensation, and the approval from Urban Planning Bureau. In the process of program recommendation, the resettlement and the compensation for the original resident, danwei has played a considerable role. Although 'The central district planning of Drum-Xinjiekou in Nanjing' has been developed in 1984, the actual guidance and restriction on block level is vacant.	The filing noted that this was the second land application aimed for renovate the existing workers' cinema. The first land application was failed in 1976 perhaps due to other function part of Workers' Culture Palace was more urgent to be constructed. The approval of the renovation project shows the public's demand for workers' cinemas and the support of government funds.	The land expansion of danwei one again swallowed part of the branch road. It can be seen that in this process the development of danwei still outmatched the development of overall block.
(analysis step 1) Historical evidence											
				1952				(1952-1988)		1988	1992

			related			related	related				
		related							related		
					financial support shifted						
	fundamental shift			related (the product of policy transformation)							
related (specific suggestion in block level)			related (releasing spaces for urban renewal)	related (Urban planning conducted the active control on shaping the urban public spaces.)	related (releasing spaces for urban renewal)		related (UP concerning the functional transformation in city center)	related (UP played the special role in coordination)		related (UP played the special role in coordination)	related (UP can provide a site with prepared condition)
In the process of danwei expropriation, it has been considered that a certain part of the approved land will be used as 'road compensation land'. It indicated that the form of block and the building layout has been reconsidered in urban planning. In this case, some part of the approved land was contributed to the widening project of Zhenghong St and some was contributed to the new-formed urban pedestrian plaza inside the block.	The archives of Workers' Cultural Palace showed that the land use right has been transferred in form of transfer payment, and has been granted by 'The certification of land use of the PRC.	With leasing the part of land use right and transferring the building function to commercial, the symbolic meaning of the Workers' Cultural Palace has been diluted.	The main functions of serving the society are preserved and the other functions social services was broken down into other commercial buildings. The functions of provide services (such as staff canteen) were removed and accordingly few plots were formed. At the same time, the renovation projects within danwei were try to meet the needs of the time. For instance, the new workers cinema was rebuilt and a profitable function of hotel was provided.	The construction of the Zhenghong shopping center was built through 'cooperation', which means that the project was paid by one side for land and another side for money. Thus the property right was common. This was the special at that time. The design guidance in project planning mentioned: "The building retreat from road and site boundary as shown in map. At the intersection of Zhenghong St and Pobyung St, an outdoor square not less than 300 square meters and an indoor square with 600 square meter should set aside.	The investment mode of the state economic plan for danwei has changed. The danwei needs to be able to profit to bear part of its operation, which brings about a fundamental transfer in danwei's function.	In the ear of furious development, there are only one building left in danwei of Workers' Cultural Palace, which realized two social functions of 'workers' cinema' and 'Hotel'. All other functions of the former workers' Cultural Palace were almost completely lost.	The local government has been aware of the value of land in city center, and began to consciously carry out the functional transformation of the urban central area. The newly created plots, which was separated from the original Workers' Culture Palace, are planned land utilization composed of 3 parts: commercial office (hotel) mixed with serviced apartment, road land, and green space.	A special state has been formed. The traffic passage of Tianfeng Hotel borrows the another two adjacent plot.	In the era of economic development, the importance of spiritual value was emphasized. The service function and the symbolic meaning of Workers' Cultural Palace are realized again.	The site of the New Workers' Cultural Palace located far from the Xinjiekou city center. It means the urban function which could get more commercial benefits will be located in the central area of the city.	The New Workers' Cultural Palace has taken an intensive way of using land. The New Workers' Cultural Palace was a complex, serving a few functions, and reduce the occupation of urban construction land.
											
1996	2002	2006	2017								

Historical investigation based on the construction archivers

In 2015, the Nanjing municipal government issued a conference summary on the construction of New Nanjing Workers' Cultural Palace. It mentions that the site of former Party School around Baixia road was allocated to the Nanjing Federation of Trade Unions for the construction of new Nanjing Workers' Cultural Palace, and the real estate and buildings' property of the old palace will be sold. The function of new version of Nanjing Workers' Cultural Palace has also changed, which is mainly composed of three parts: cultural center, sports center and homes of the workers. It is under construction and the new building is expected to be put into use in 2019 (Fig. 4).

The impact of policies on urban physical form

When we try to explore the impact of policies on urban physical form, we need to answer the following two questions. Firstly, what are the problems revealed in the facts of historical-morphological transformation? Secondly, how do these problems relate to the policy level?

In case of Workers' Cultural Palace, when we understand the changes of urban physical form through morphological evidences and literal descriptions, we could see the relationship between urban physical form and social and economic policies. It includes three steps. First of all, what facts (evidence) are presented in each stage of morphological changes? The second step, what is the problem that these phenomena reflect. The third step, what are the policy factors that lead to these problem? Therefore, we can see how the development processes of urban blocks are related to the policy level.

The analysis shows that although the transformation of social and economic environment is not a direct factor, it in nature affects morphological changes of danwei (Fig. 5). Special policies under the social-economic environment, such as national guidelines, national economic planning, land disposition system, and urban planning, implemented different strategies in different period time. Those policies have gone through the process of changing rules. The transformation process of Workers' Cultural Palace has revealed that specific policies ultimately acted on urban physical forms through the function of danwei. Danwei is actually a social unit of policy implementation and a carrier of urban form transformation.

Conclusion

The study in this paper is beneficial to prove the following three conclusions.

First, it is a complex system that affects the formation of block pattern. At the macro level, the factors include social background, economic environment and cultural tradition. At the middle level, the factors include national guidance, national economic planning management, land disposition system, policy orientation of urban planning, cultural demand of urban landscape. At the micro level, block pattern controlling factors include the construction rules on consideration of the urban street landscape, city security, urban traffic, etc. It also includes the site indicated on the implementation stage of urban planning, and cultural differences in architectural types. These factors that influence physical form of the blocks actually form a generative system composed of the main line of policy and culture (Fig. 6).

On a top-down perspective, these policies and cultural demands affect the decision making of construction units and designers. In the process from the planned economy to the socialist market economy, both the middle and micro policies have taken place important changes. In 1978, the policy of reform and opening up was launched, and the state's economic planning management system began to be gradually adjusted. In 1988, the urban land distribution system was formally changed from government requisition or appropriation of the land to the land use right into the market. From 1984, urban planning in Nanjing began to focus on the level of blocks. The case study of Workers' Cultural Palace has proved that these specific policies together with social and economic environment of the time affected the development of plots and the changes of their physical form. The case study has also shown that the policy factors are very important on understanding block pattern development and transformation.

	block form generating system	
	policy	culture
macro level	social background	cultural tradition
	economic environment	
middle level	national guidance	cultural demand of urban landscape
	national economic planning management	
	land disposition system	
	policy orientation of urban planning	
micro level	construction rules on urban street landscape	cultural differences in architectural types
	construction rules on city security	
	construction rules on urban traffic	
	site indicate on the implementation stage of urban planning	

Figure 6. Factors that influence physical form of the blocks (those on gray are the factors that have been discussed in this paper)

Secondly, danwei has played different roles at different stages of urban development. In period the period of planned economy, national policies acted on urban physical forms through danwei system. Danwei is actually a social unit of policy implementation and a carrier of urban form transformation. In the socialist market economy period, with a gradual withdrawal of danwei system, the development planning of the city could directly act on the plots. Thus, the plots accessed to the market circulation one by one. In the case of Workers' Cultural Palace, due to the nature of its public cultural facilities, its plot has gradually approached the market after the end of the 20th century.

Thirdly, the land operation through danwei system in China since 1949 has brought a series of differences between the meaning of morphological elements in the Chinese cities and the meaning of morphological elements in former western studies. For instance, the plots have been given a special meaning, characters and changing purpose for the Chinese urban development in different stage of economic system. In the planned economy system, the 'plot' is a territory of institution namely 'danwei' rather than the ownership of properties. In this system, transformation of the plots, either expansion or contracting, were not all in the best interests of urban development, but matched the internal requirements of 'danwei'. However, in the subsequent market economy system, any changes of plot size and plot pattern represented the market forces and related with capital movement. Another example is that there are also differences in the sequence of hierarchy leading. In the planned economy period, the block development was realized by the development of danwei. Thus, the plot has become a leading element in the block development, and even has broken through the limitation of its block-street. However, with an increasing role of urban planning on the level of block development and gradual withdrawal of danwei system, block-street has become a primary element for the development of control, which turned to be an absolute limitation on the plot development. This shows that the meaning transformation of morphological element is a profound significance on understanding urban block transformations.

Acknowledgements

This research has been funded by the Doctoral Creative Project of Jiangsu (Program No. CXZZ12_0059).

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