

## The social structure and physical form of the state-owned farm in North-East China

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**Abstract.** *The northeastern state farms, as the state farm group with the biggest size and the largest number in China, play an important role in cultivation and guarding the frontiers. As a special enterprise with the nature of socialist ownership by the entire people, state farm has been influenced greatly by national policies in spatial form evolution and has formed a special evolution mechanism. In this study, 290 Farm was taken as the example, with policies and system at different historical periods as the clue, to discuss farm spatial form evolution under the influence of policies and systems. It has been found that at different historical stages, policies and systems influence the plane layout, form of residential area and division of farmland by influencing population quantity and distribution, land usage right affiliation, land use and allocation of the farm.*

*Keywords: state-owned farm, policy, social structure, physical form, urban morphology.*

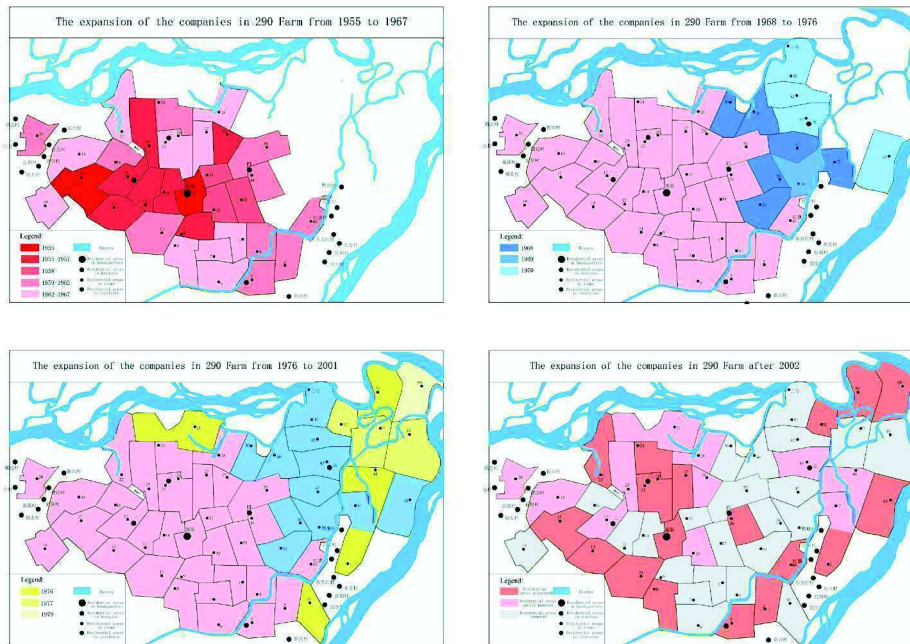
### Introduction

*Alnwick, Northumberland: A Study in Town-Plan Analysis* occupies an important position in the history of geography. The theories and methods in this book fundamentally illustrate some common laws of urban morphology and build an outstanding framework for the analysis of townscape. Subsequent studies also proved that this theoretical framework can be successfully applied to cities with larger scale and more complicated history.

Although Conzen's theory is highly adaptable in the study of some western cities, the urban morphology with different background of culture and institution varies a lot. Therefore, it is necessary to do some research on cities with different background to enrich the theory of urban morphology.

M.R.G. Conzen has mentioned the importance of the morphological studies of Chinese cities in his article called *Notes on Urban Morphology: Its Nature and Development*. "China is important because

it has had such a long run of urbanism going back very far into the past, and because of its peculiarity in political history", he said. From feudalism to socialism, China shows its differences of in two aspects: culture and institution. As the object of this study, the state-owned farm is one of the typical cases in spatial socialism practices of China. It is a specific settlement with public ownership and the organization form called danwei (danwei, a special Chinese unit). In the farm, workers are engaged in agricultural production under the guidance of the national government. And the government would adjust the policies according to the development of society and economy, leaving this influence in the morphology. This paper takes the state-owned farm as the object and analyzes the policy changes and morphological evolution of the 290 farm after 1949 to explore the morphological features and action mechanism of Chinese socialist spatial practices. It is of great significations to the confirmation and extension of the theoretical method of urban morphology.



**Figure 1.**  
**The Expansion of the 290 Farm**

## The Study of the 290 Farm Case

### The Period of the Construction of Farm

### Policy Evolution

In 1952, the national government put forward a basic policy which stated that agricultural development was a fundamental prerequisite to ensure industrial development and the accomplishment of all economic plans in the First Five-Year Plan. In March 1952, the Central Committee issued an order that transformed part of military forces into agricultural construction troops, requiring them to “standby for agricultural production”. According to the order, the troop serial number of the No. 5 Regiment of the No. 97 Division of the No. 1 Field Army of CPLA was formally altered into No. 5 Regiment of No. 2 Agricultural Production Division of CPLA. In October 1955, No. 290 Regiment was transformed into the 290 Farm, and remained its military organization.

In 1955, the National Defense Force implemented the three major institutional reforms. As a result, the task of the entire No. 2 Agricultural Production Division was changed

and they were sent to develop the Great Northern Wilderness. In addition, the former battalions were transformed into farm branches and former companies were transformed into production teams. Meanwhile, organizations of former battalions were reformed into corresponding organizations of state-owned farms.

In the course of the Cultural Revolution, the national government issued the Establishment of the Shenyang Military Region, Heilongjiang Production and Construction Corps instructions in 1968. To build the army, 290 Farm was converted into N0.2 division No.8 regiment in March, 1969. The branches of the farm were transformed to battalions and the production teams were transformed to companies. Be affected by Cultural Revolution and the tensions between China and the Soviet Union at that time, the government thought that the main task of the corps was to cultivate the garrison. As a result, they decided to take the road of political construction, denying the original experience. The army form disrupted the original production command system of farms. Farm production was evolved into a militarily unified command. The farm didn't pay attention to economic efficiency,

which brought great losses to the agricultural construction.

In 1973, problems in the system of the Heilongjiang Production and Construction Corps gradually got government's attention. In October 1973, Heilongjiang Production and Construction Corps got out of the People's Liberation Army, but it retained the paramilitary system. In February 1976, the government issued the Implementation Plan for Reforming the Production and Construction Corps System. It clearly pointed out that the Corps were reformed to farms. In April 1977, the No.8 regiment of the Heilongjiang Production and Construction Corps was revoked and changed to farms. Finally, the farm system was restored.

### Land Expansion

Before the arrival of the officers and soldiers, the land of the 290 Farm was wasteland. The troops get stationed and selected some highlands and other locations with favorable conditions as reclamation points, and they carried out the reclamation around the points. They firstly established headquarters and the No. 17 Company. Then they selected appropriate lands to be reclamation points around the headquarter area and reclaimed around the points. The "Headquarter-Company" system formed on the whole.

In 1958, more than 1150 soldiers of Chengdu Military Region and their families came to the 290 farm. And they selected the wasteland in the eastern part of the residential area to start reclamation. After the establishment of People's Commune in 1959, Fujin County placed fourteen production teams under the management of the 290 Farm. Some of them were transformed into all-People-Ownership, while some remained their Collective-Ownership. Therefore, there were two kinds of ownership within the farm. In order to facilitate the management, No. 5 Branch and No. 6 Branch were established. In 1962, those who joined production teams returned to Fujin commune again. After the Farm bowed out of Collective Ownership, the six branches were cancelled soon. From 1961 to 1967, land reclamation was mainly conducted around the existing residential area and spread into

the surrounding area. And reclamation on the western part of the Farm was basically completed in 1967.

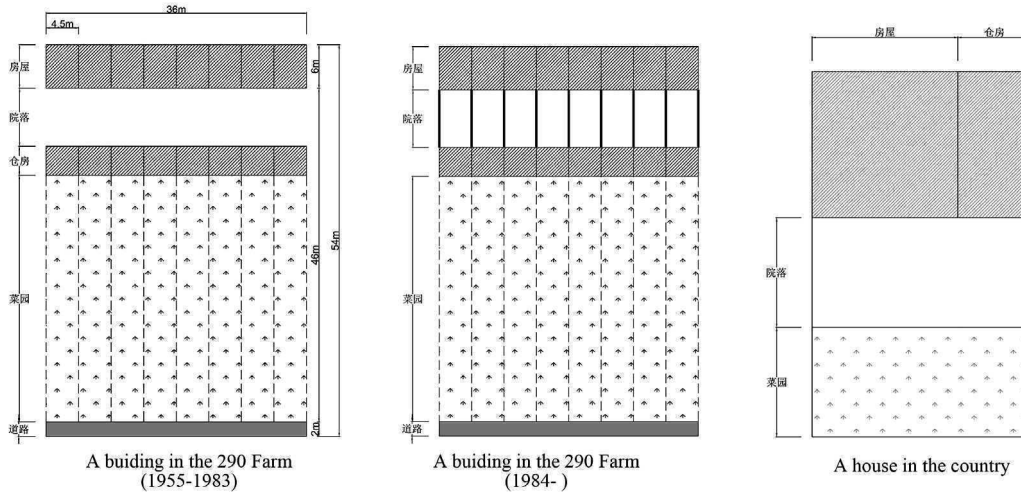
During this period, land expansion was conducted around the branches. Reclamation tasks were mainly conducted westwards, southwards and northwards, while eastwards reclamation was comparatively less conducted.

During the Cultural Revolution, reclamation and guarding of the frontier was the main task of the crops. So the speed of land expansion improved a lot during this time. On the one hand, the crops set up new companies. On the other hand, some companies continued to carry out land reclamation. Until 1970, crop's westward expansion gradually stopped, but some companies' own reclamation expansion is still ongoing. During this period, when the new companies and the expansion of the companies are in the process, the scope of the company was gradually determined. The study found that the scope of each company will be subject to the following conditions: natural barrier (such as rivers, trees, deep ditch and other natural obstacles), artificial barrier (such as roads and drains), restrictions on existing settlements and policy restrictions.

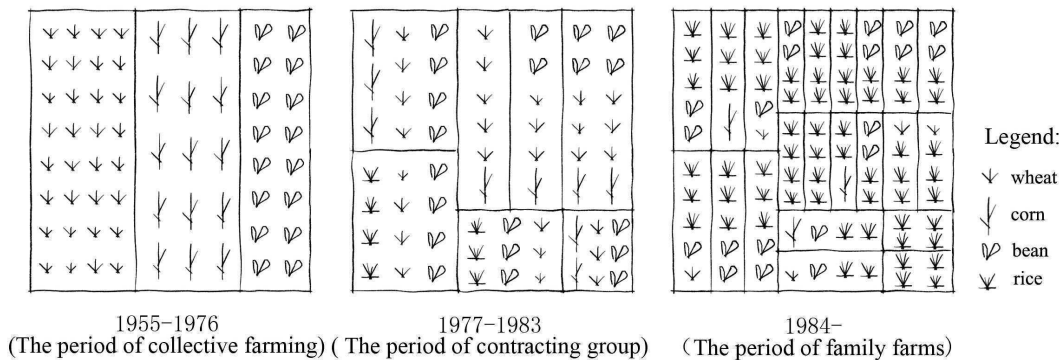
From 1976 to 1979, the farm continued to expand to the northeast. After this expansion, five fields' area was greatly increased. The total farm area reached 801 square kilometers. Hereto, the farm's land expansion is basically over.

### Residential Areas

The statistics found that some of the company's settlements were in the central part of the company, facilitating the contact between the settlements and farmland. But some settlements were on the edge of the companies. This is because the reclamation points were determined through reconnaissance. The troops preferred to choose favorable conditions as the reclamation point and settled down here. In other cases, there are some settlements or the remains of the settlements before they came here. While these settlements were assigned to the 290 Farm, some soldiers settled down and reclaimed the wasteland here. As what mentioned above, the companies formed different boundaries



**Figure 2.**  
**Residential Buidings in the 290 Farm and Neighbor Countries**



**Figure 3.**  
**Change of Land Division in the 290 Farm**

according to natural barriers, artificial barriers and existing residential restrictions in the process of land reclamation, which results in the different forms.

As land expanding, the residential buildings of companies were built in rows. Dong (one building which consisted of 8 houses) was the basic unit of residence and each Dong comprised eight houses, in which eight families resided. Two adjacent units were 48 meters away from each other. Most of the buildings face the south. Every building was 36 meters long and 6 meters wide. There was a storehouse and a vegetable garden on the south side of each building. The storehouse stored agricultural equipment and other household items, and the gardens were used to grow daily vegetables. The storehouse was adjacent to the garden and there was an open courtyard

between the house and storehouse, which was shared by eight families. The courtyard became a place for the neighborhood to communicate with each other, and some of the courtyards played the role as roads.

The basic unit of residence in village also consists of a house, a vegetable garden and a courtyard, but it is quite different from that of the Farm on the form. Each unit is mutually independent because it is built by one family. There would be wall or narrow space between adjacent houses. Residents decided the size and pattern of housing by themselves.

#### Farmland Division

Before the Cultural Revolution, the same kind of crop tends to be planted in contiguous areas densely. Besides, all companies divided their

members into different roles according to work types, such as sowing workers, machinery workers, transplanting workers, reapers. Each role undertook different work in different period of farming, and was responsible for one link of the whole land cultivation. They cultivated all the lands of the company together. So during this time, the land division presents large plots.

In 1969, as the original experience of the farm was completely negated, stationed in the garrison was the main task of the farm. During this period, the production and management of the farm had evolved into a unified command. The farm was managed regardless of cost and income. A large number of water conservancy facilities were constructed in the farm without adequate design and planning in each company, which exerts notable influence to the land division of the farm.

#### Road Pattern

After the troops stationed the district in 1955, they first repaired two original roads. In 1956, road which connected Hezhu Village with the headquarters was accomplished. In 1957, the road which connected Suidong Village with the headquarters was built. Roads which connected companies and the farmland were relatively sparse.

In 1963, the 290 Farm began to build roads in accordance with the national standards. Meanwhile, the Farm started to pave the roads which connected headquarters and the companies, and the roads which connected companies and the farmland. The field road also developed at the same time. Since then, “arterial road, sub-arterial road, field road” pattern gradually formed. The road plays a key role as a morphological framework in the morphological changes of the farm. During the expansion of settlements, field road tends to be transformed into the new road of the residential area. Besides, the original farmland boundary becomes the boundary of the plan-unit during the expansion of the settlements and the road system won't be erased.

#### The Period of Worker's Family Farm (since 1984)

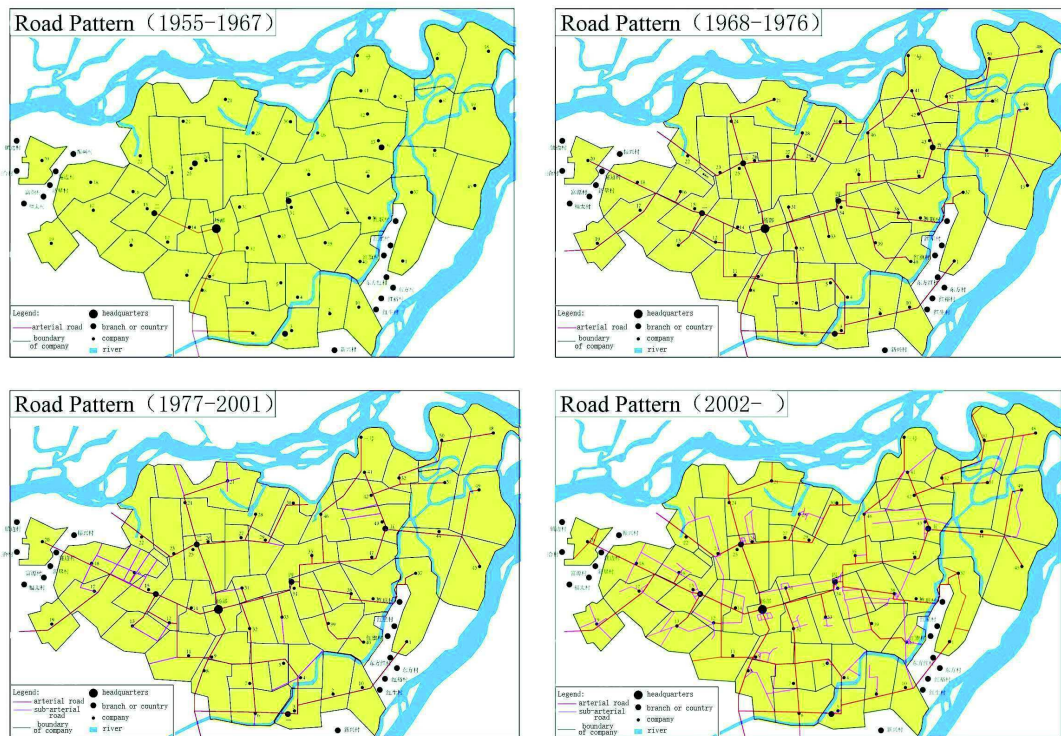
##### Policy Evolution

In the course of social development and the spatial practice of socialism, the public ownership is also reforming.

From 1979 to 1983, the government began to reform the management system of the state-owned farm. In 1979, the national government approved a document called Interim Provisions on Financial Contracts for Farmers' Enterprises, carrying out the financial responsibility system with Independent accounting, self-financing, profit retention and losses without compensation. And in 1981, the distribution on the basis of labour was carried out. Then the farm published several policies to develop both collective and individual economy. And in 1982, the farm begun to implement various forms of contract, including team contracting, joint household contracting and professional-group contracting, which laid a foundation for the worker's family farm. This period is called the “transition period” or “contracting group period”.

In November 1983, the state published the Opinions on the Establishment of Farmers' Households on State-run Farms. And in 1984, the document called Articles of Association of State on the Worker's Family Farm (Trial Draft) stipulated that workers' family farms should be under the leadership of the state-owned farms and they should be based on household units. They were economic entities with family business, fixed taxes and self-financing. In December 1984, the 290 Farm issued the Trial Contract Responsibility System in 1984 and begun to construct the worker's family farms. Since then, the two-tier management system of “Big farm and small farms” in combination of centralization and decentralization was gradually established.

In 2002, State Economic and Trade Commission issued Reply to Agreement on Setting up Heilongjiang Great Northern Wilderness Agriculture Limited Liability Company, and 290 Branch of Heilongjiang Great Northern Wilderness Agriculture Limited Liability Company was officially



**Figure 4.**  
**Change of Road Pattern in the 290 Farm**

established. The farm and the branch company were separated in terms of institution, functions, staffs, assets and finance. The farm is the administrative unit, which is in charge of management of the farm, and the branch office is the state-owned enterprise.

#### Land Expansion

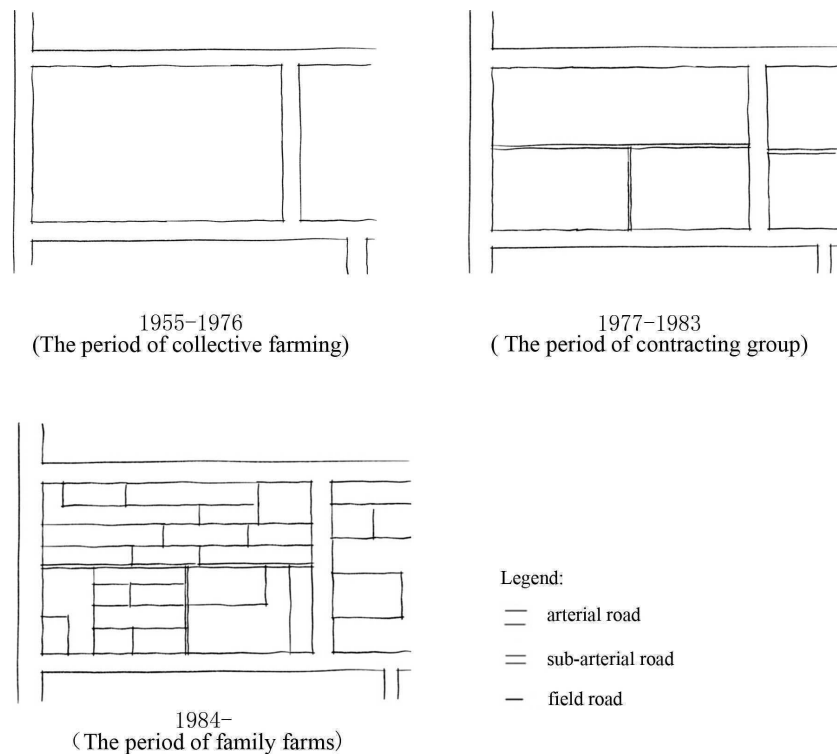
As for the land recession, because of the large gap among the headquarters and some companies in economic development, a large number of residents moved to the headquarters in 2009-2012, leaving some residence deserted. The removal was also encouraged by policies. Since most buildings in companies were dilapidated and out of repair, the government issued several policies such as the Policies of the Renovation of Dilapidated Houses, Integral Moving Plan and Implementation Project, Construction Plan of New Residence Area and so on. As a result, 29 residential areas have been abandoned or transformed into farmland by 2012.

#### Residential Areas

As for the Residential areas, after the reform of worker's family farms, the independence and autonomy of the family were highlighted, which could be reflected in the building form. One of the most obvious change was that some workers built walls on both sides of the open space between their houses and warehouses to stop others from passing through the space, thereby strengthening the privacy and independence of their own courtyards. Besides, building form may also be changed. On the one hand, some residents did some additional construction or renovation in their courtyard. On the other hand, new houses were no longer strictly in accordance with the standard size. It made farm's forms become much richer. However, the farm's residential areas were still relatively uniform compared with the village.

#### Farmland Division

As for farmland division, the reform of the worker's family farms had brought great



**Figure 5.**  
**Change of Field Roads in the 290 Farm**

changes in the way of production of the farm. It required the farm to redivide the land and reallocate them to the worker's family farms. And the family farms further divided the land and planted different crops. As a result, the farmland became more fragmented and the same crop is no longer distributed in continuous land. What's more, the field roads increased rapidly due to the fragmentation of farmland. In return, field roads made land division much clearer.

In addition, the plantation structure has also changed. In 1983, with the reform of the worker's family farm and the improvement of the worker's autonomy, people preferred to grow rice and other crops with high profits. So the farm transformed some dry farmlands to paddy fields. It is noteworthy that in the process of land redistribution, paddy fields' borders and layouts did not change, but it made new boundaries of some dry farmlands. The second change happened around 1995. Rice production developed rapidly to make a higher output. To promote the growth of paddy fields, the farm constructed many canals. The canals deepened the boundaries of the farmland blocks

and some canals may become new boundaries of blocks.

#### Road Pattern

As for road pattern, the number of roads increased constantly. And reconstruction of the exiting roads also continued, increasing the farm's traffic capacity. However, the main road pattern remained unchanged and still played an important part in the morphological evolution of the farm.

#### Conclusion

Conclusion 1: under the different culture and institution background, the urban form of different countries has a great difference.

As China is a country of socialist public ownership, there are many differences in culture and institution between China and other cases (such as Alnwick), such as the "Dan Wei", state-owned land, collective farming and so on. These differences are reflected in the form of residence, farmland and road pattern, which

is a significant addition to urban morphology study.

Firstly, the farm had a unified planning and fixed mode at the beginning of construction. As a result, the building fabric and farmland pattern of farm are quiet orderly, which are different from western cities.

Secondly, morphological evolution of the farm is influenced by policy and system to a large extent. Some common laws which were illustrated in other cases of other countries, such as “Burgage cycle”, “Residential repletion”, may not be applicable. Even though some phenomena seem similar, the inherent causes may be different. For example, in Alnwick, building coverage would decrease at the recessive phase of burgage cycle, due to an economic recession. In 290 Farm, there was also a massive relocation in 2008, making several residential areas deserted. However, this is because of the large gap among the headquarters and some companies as well as encouraging policies.

Thirdly, because of the sudden change of national policies, the form of farm always changed suddenly.

Conclusion 2: as the institution in different periods, the urban form in one country differs a lot.

In the long-term spatial practice in China, the institution also changes constantly due to the development of social productivity. Then, the changes of institution and culture influence the morphology. So it is necessary to divide morphological period on basis of institutional factors when analyzing the farm’s morphology. And the theoretical framework that was built in the study of Alnwick is still of great significance under the background of public ownership in China.

In the case of the 290 Farm, at the first stage, the 290 Farm was gradually constructed. As the land expanded rapidly, a large number of houses were built in rows. As a result, the farmland division was tidy and the pattern of road preliminary formed. At the second stage, the worker’s family farm was established. In terms of morphology, some residential areas were deserted; the residence’s form became richer; the farmland division became

more fragmentized and the number of roads increased.

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