Chapter 11
Chinese Societies During the Mao Era: Work and Life in the "Shanghai Small Third Front"

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Abstract Several million workers and engineers moved inland from the coastal and northeastern provinces during the 1960s for the construction of the "Third Front"—a vast geographical area in China's interior where basic and military industries were developed and constructed. They experienced the most drastic changes in their lives because the factories were situated in the valleys of mountainous regions in inland provinces to conceal them from airstrikes. This chapter explores the work and life of those who moved from Shanghai to the "Shanghai Small Third Front," which was a huge military industry complex located in Southern Anhui province having 81 factories and facilities and 67 thousand employees. It was an isolated enclave of Shanghai in the mountainous region of Anhui province, and therefore the employees depended heavily on their firms for the provision of various services and means of living, such as residence, food, entertainment, education for children, medical care, public security, and even spouses. This chapter describes how the complex operated, how people lived there, and how the complex was closed.

Introduction

Chinese societies during the era of Mao Zedong (1949–78; hereafter, the Mao era) are often characterized as "static and closed" (Hishida, 1989). An important factor that incited such characteristics was the introduction of the household registration system in 1958, which divided people into "agricultural households" and "non-agricultural households." This system restricted people's liberty in selecting jobs and places to live. Those born in agricultural households were destined to become peasants, while those born in non-agricultural households were destined to become factory workers or clerks when they reached adulthood.

However, this static image is only one aspect of Chinese society during the Mao era. It was also true that various government policies forced many people to change

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their jobs and places to live. For example, beginning in 1968, most junior and senior high school graduates in the cities (the so-called "educated youths" or "*zhiqing*") were sent to the countryside to work with the peasants in people's communes. This movement lasted for approximately ten years. In addition, millions of urban bureaucrats and teachers were sent to "May 7th Cadre Schools" in the countryside, where they engaged in farm work and received "re-education to become revolutionaries."

Another important policy that led to large scale migration during the Mao era was the construction of the "Third Front"—a vast geographical area in China's interior where basic and military industries were developed and constructed (Marukawa, 1993, 2002). This policy was initiated in 1964, when US air forces began attacking North Vietnam, and China felt the threat of getting involved in a large-scale war against the US. Mao Zedong warned that the possibility of entering into a war against the US was very high. He required that the factories that produced munitions and machinery, and their main inputs in the coastal and northeastern provinces, be moved to inland China, including Sichuan, Guizhou, and Hubei provinces. In response to Mao's direction, more than two thousand factories and research institutes were built in the inland and several million workers and engineers moved inland from the coastal and northeastern provinces (Zhang, 2020).

Generally, populations shift from the countryside to cities in conjunction with economic development, and people move upward in the echelons of social strata along with an increase in income. During the Mao era, however, the government intentionally reversed this tendency by moving people from cities to the countryside, from the more-developed coastal and northeastern provinces to the less-developed inland provinces, and from the upper and middle social strata (cadres and workers) to the lower social strata (peasants).

Employees sent to factories in the Third Front experienced the most drastic changes in their lives because the factories were situated in the valleys of mountainous regions in inland provinces to conceal them from airstrikes. They were required to move from coastal cities to isolated districts in the inland, which entailed various difficulties in daily life and degradation in social status (Zhang, 2020).

The purpose of this chapter is to explore the living conditions of those who moved from Shanghai to the Third Front, with a focus on the "Shanghai Small Third Front." The construction of the Third Front can be subdivided into the "Big Third Front (*Da sanxian*)," which included the bases constructed by the central government ministries, and the "Small Third Front (*Xiao sanxian*)," which comprised bases constructed by local governments. Large-scale iron and steel, chemical, and munitions factories built in the western regions, such as Sichuan, Guizhou, and Hubei provinces, belonged to the Big Third Front. In addition, each of the 28 province-level local governments built its own Small Third Front (STF). In most cases, the STF projects consisted of a few weapon factories constructed in the mountainous region of each province. Even Sichuan, which accepted many Big Third Front projects, built two STF factories within its boundaries (Xu, 2018). The strategic merit of adding two small factories to the Big Third Front projects in Sichuan is dubious. This instance suggests that local governments often implemented STF projects simply to demonstrate their obedience to Mao Zedong's order rather than to achieve a strategic goal.

The Shanghai STF was an exception among the STF projects, because the Shanghai City government poured a considerable amount of human power and resources into its construction, which contributed to the supply of weapons to the People's Liberation Army (PLA) during a certain period. In total, province-level local governments built 268 factories and facilities with 256.5 thousand employees for STF projects throughout China (Xu, 2018). The Shanghai STF alone had 81 factories and facilities and 67 thousand employees, accounting for one-fourth of the national total. The Shanghai STF was not located in Shanghai but was scattered across a vast region in the southern Anhui province. Most of the workforce came from Shanghai and had a non-agricultural household status. The building of the Shanghai STF entailed drastic geographic and social movements of people, similar to the movements that corresponded with the building of the Big Third Front.

This chapter describes the work and life of the Shanghai STF using oral histories (ZGSH, 2013; ZGAH, 2018; ZGCZ, 2017. See the References for the details of these abbreviations.) dictated by people who worked and lived there. This study is intended to be a case study of urban society during the Mao era. The readers may question the validity of calling a society located in the mountainous regions of Anhui an "urban society." The Shanghai STF was an enclave of Shanghai, where the residents could enjoy the same benefits as the non-agricultural households in Shanghai; therefore, the features of urban societies could be observed.

A common feature of urban societies during the Mao era was people's dependence on their firms for the provision of wages as well as for various services and means of living, such as residence, food, entertainment, education for children, medical care, public security, and even spouses. In short, people depended on their firms in all aspects of their lives; therefore, I will refer to them as "firm societies" in the remainder of this chapter. This feature was even more evident in the Shanghai STF because it was an enclave of urban society in a rural mountainous region.

This feature of urban firm societies in China has been pointed out by several authors (Chen, 2000; Lu, 1989) who use the term "*danwei*" or "*danwei* society." These terms derive from *danwei* (units), the word used to refer to workplaces in China. However, it is inappropriate to use a Chinese term when similar types of firms may be identified in other countries. Thus, instead of using "*danwei,*" I propose referring to such a society as an "isolated society." This means that the workplace (firms and institutions) is isolated and self-contained in its productive activities and various aspects of life from the surrounding society. Of course, no firm society can sustain its production and the lives of its employees in absolute isolation. All firm societies require an input of materials for production and food to feed their employees. Isolation can be measured in relative terms, such as the degree of isolation measured by the percentage of productive input produced in the firm, or the degree of isolation in family relationships, such as the percentage of spouses or children working in the same firm. If the degrees of isolation measured by these indices are high, the firm can be regarded as relatively isolated.

This chapter is structured as follows: The following section introduces important works that report and analyze isolated societies in China. The third section describes the brief history of the Shanghai STF from its building to its closure and its isolation

in its productive activities. The fourth section analyzes the isolation of people's lives in the Shanghai STF, focusing on their marriages, food supply, and relationship with the local rural society. The fifth section briefly describes the firms and employees after the closure of the Shanghai STF, which is followed by concluding remarks.

11.1 Isolated Societies During the Mao Era

Baotou Iron and Steel Corporation (hereafter referred as "Baotou") was built in the middle of a vast steppe in Inner Mongolia during the 1950s. Because it was located far away from any other city, it formed an isolated community and its employees depended heavily on the firm in their daily lives. When the factory started operation, most of its employees were male, because the heavy workload in steel production was regarded as suitable for men. However, soon thereafter, the employees began complaining about their lack of spouses. In response, the government built a cotton textile factory near Baotou, where most of its employees were female, to provide candidates for becoming the wives of workers in Baotou. Many employees of the two firms soon got married and lived in apartments provided by Baotou. When the couples began to have children, Baotou built kindergartens, elementary schools, and high schools for them. When the children graduated from high school in the 1970s, they could not find anywhere to work. It was difficult for Baotou to expand the size of its employment, therefore, the firm allowed its incumbent employees to retire before the official retirement age and give their positions to their children. The retirees would remain in the firm's apartments and receive pensions from the firm. In this way, inbreeding of employees became very common in Baotou, which led to the deterioration of production efficiency and high costs. Fei Xiaotong, a famous sociologist, visited Baotou several times beginning in 1984 and pointed out these problems (Fei, 1986). He commented that Baotou had lost "human-ecological balance." His prescription for revitalizing Baotou was to strengthen its connection with the local economy and rectify its isolation from the local community.

Lu Feng, a political scientist, asserted that the problems that Fei Xiaotong observed in Baotou were common in China's urban societies (Lu, 1989). He wrote that the firm societies ("*danwei*") in China had political, as well as productive, functions through the party organization in the firms and social functions of providing medical care, education, and other public services to the employees and their families. People could not register for marriage, stay in hotels, or travel by air without permission from the firm society. Urban citizens depended heavily on the firm society in many aspects of their lives, making it difficult to live without. In turn, the firm society relied on the state for the provision of resources. Lu insisted that the firm-society system should be reformed because it led to the low efficiency of firms and people's dependence on it.

Lu was apt to point out the problems of urban societies, but he failed to view such societies in China from a comparative perspective. People's dependence on the firm society did not occur solely in China. The former Soviet Union had hundreds of

"monotowns"— cities that depended on a single firm. Even in Japan, large corporations maintain various welfare facilities for their employees, and in-house marriages are common. In China, the degree of employee's dependence on the firm society differed between regions. Baotou's case should be regarded as an extreme case of an isolated society. In cities like Shanghai, Tianjin, and Guangzhou, which had a long history of urban development, there were many citizens who did not rely on the firm society for the provision of housing and public services. Not all firm societies were able to provide sufficient housing for their employees, and therefore, many employees lived outside of the firms' premises. Such residents, governed by sub-districts (*jiedao*) and resident committees (*jumin weiyuanhui*), relied on the firm societies for certain aspects of their lives and on the sub-districts and resident committees for other aspects (Whyte & Parish, 1984).

On the one hand, there were closed and isolated firm societies, such as Baotou, where employees depended heavily on the firms, and on the other hand there were less isolated firms where employees' dependence was light. The Third Front firms, including the Shanghai STF, which constituted urban enclaves amid rural society, were likely to become isolated societies. However, as we will see in the remainder of this chapter, there were interactions with people living outside the premises of Third Front firms. While the Third Front firms were largely isolated from the local community, they were not completely isolated.

It seems appropriate in the case of China to consider the following points to gauge the level of isolation of a firm society. First, the marriage of employees and the employment of their families must be considered. If a large proportion of employees get married to other employees of the same firm and if most of the employees' children are employed by the same firm, then the firm society can be regarded as highly isolated. Second, the supply of food, housing, medical care, entertainment, and education must be considered. If employees are highly dependent on the firm for their supply, then the firm society is regarded as highly isolated. The supply of these basic necessities is mostly conducted through rationing in a planned economy. If the supply comes from the firm, then the employees will become highly dependent on the firm. The third point relates to the firm's relationship with the local economy in terms of industrial input and output. As pointed out by Fei Xiaotong's analysis of Baotou, the societal isolation of a firm society from the local community is closely related to its industrial isolation from the local economy. If the firm starts procuring inputs from the local economy, it is likely that its societal isolation will decrease accordingly.

Based upon these three points, Third Front firm societies, erected in remote mountainous areas of the inland provinces, were the most isolated. With regard to the first point (marriage and employment of family), Zhang (2002) reports the situation of a Third Front firm constructed in the western part of Guizhou province. He recounts that its employees created informal groups through marriage and inbreeding, which began to influence the firm's management. When the firm was established in 1966, 700 workers were sent to the firm from a machinery manufacturer in Jiangsu province. In the same year, 150 technicians were sent from Liaoning province, and 300 local workers, who also worked in local people's communes, were added. When Zhang

conducted fieldwork at the firm, 62% of the workforce had spouses who were also employed by the firm, which ran elementary and high schools for the employees' children. Nearly all of the employees' children were educated there, and most of them were employed by the firm after graduation. Therefore, all employees had one or more family member employed by the firm. Forty-six percent of the employees had six or more and 10% had 15 or more family members employed by the firm. When the firm was in the process of construction, some interactions with the local community occurred through the employment of temporary construction workers. However, such interactions became scarce after the completion of the firm's facilities.

It was costly for the firm to build and run the facilities to provide housing, medical care, and entertainment for its employees. Many state-owned enterprises that provided such facilities were forced to downsize the scale and scope of services for employees during the 1990s, because their economic performance did not allow them to provide such luxury. Li (2019) describes the process of the collapse of a Third Front firm located in Jiangyou, Sichuan, which previously offered a full range of facilities for its employees. As the firm's economic performance deteriorated during the 1990s, the firm had to close its cultural and entertainment facilities due to maintenance costs. In 1997, the Sichuan provincial government replaced the firm's manager and ordered him to reduce its workforce from 30,000 to 10,000. Employees lost hope in the firm's future. Employees' embezzlement and theft of corporate assets became rampant. Managers and engineers who earned relatively high salaries bought apartments in nearby cities and moved out of the firm-owned apartments, which became dilapidated due to the lack of maintenance fees. Only low-salaried workers remained in firm-owned apartments.

11.2 The Construction of the Shanghai Small Third Front and Its Production

11.2.1 The Plan

In October 1964, Mao Zedong ordered the coastal and central provinces to build their own small third fronts (STFs) to prepare for the ensuing war with the United States. Based on Mao's order, Premier Zhou Enlai, the Vice Premier and PLA's Chief of Staff Luo Ruiqing provided detailed directions on the construction of the STFs (SHHF, 2017). In February 1965, Luo Ruiqing designated 14 locations as sites for constructing the STFs of coastal and central provinces. Per Luo's arrangement, the STFs of Shanghai and the other eastern provinces would be built in the mountainous region that encompassed southern Anhui, western Zhejiang, northeastern Jiangxi, and southern Jiangsu. The East China Bureau of the Central Committee of the Chinese Communist Party arranged the Shanghai's STF to be positioned in the region that encompassed Huangshan, Anhui Province and Tianmushan, Zhejiang province.

In response to the Central Committee's policy, Shanghai City's Party Committee developed a plan for its STF, which consisted of warehouses to store important documents on administration and technology, cultural assets, and important materials. In addition, Shanghai planned to establish research institutes and experimental factories in its STF so that they could supply new materials and equipment when a massive war erupted. At that time, Shanghai had no plans to produce weapons in its STF, because none of the factories under the jurisdiction of the Shanghai City government had experience producing them.

Dissatisfied with this plan, the East China Bureau urged Shanghai to change it per Mao's direction. Mao required that STFs become the basis for producing weapons to be supplied to the front line of war. In addition, he stipulated that the STFs should have their own iron and steel mills. In January 1967, the so-called "January Turmoil (*yiyue fengbao*)" occurred in Shanghai, during which the city's leadership was usurped by the "rebel faction" (*Zaofanpai*) that pledged loyalty to Mao. Under their leadership, the Shanghai STF's original plan was discarded and replaced with a plan to construct a weapon production base.

From March to May 1968, the Defense Industry Office of the State Council, the State Planning Commission, and the State Construction Commission organized a nationwide conference in Beijing on the construction of STFs. The outcome of the conference determined that the STFs should focus on the production of anti-aircraft guns, radars, and gunsights. Based on this decision, Shanghai City decided to produce anti-aircraft guns and their artillery shells in its STF. In February 1969, a detailed plan of the Shanghai STF was finalized to include factories for anti-aircraft guns and shells, casted and forged metal parts, explosives, and cement. The plan also entailed the construction of ancillary facilities, including four hospitals, five high schools, transportation facilities, power plants, and substations.

11.2.2 Construction of Factories and Production

In the central government, the Fifth Ministry of Machinery Industry was responsible for the production of conventional weapons such as anti-aircraft guns and grenades. However, there was no corresponding division in the Shanghai City government because weapons were not produced by firms under their jurisdiction. Therefore, Shanghai mobilized its Bureaus of Light Industry, Chemical Industry, Machinery and Electric Industries, Instrument Industry, and the firms supervised by these bureaus to produce weapons in the STF. In addition, Shanghai's Bureau of Building Materials Industry erected a cement plant in the Shanghai STF to supply cement to its construction sites. The Bureau of Metallurgical Industry built the "Bawu (Eight-Five) Steel Factory," which smelted steel scrap with an electric furnace and produced cast and forged weapons.

The factory's name likely derived from a state-owned enterprise that contracted its construction—Shanghai's Fifth Steel Factory—however, it remains unusual to name a casting and forging factory as a "Steel Factory." This name may have been chosen

to deceive Mao and his ardent followers who dominated Shanghai. Mao demanded the construction of an iron and steel mill in each STF. However, the planners of the Shanghai City likely believed that it was economically unfeasible to erect an iron and steel mill in STF. They must have remembered the disastrous result of erecting small backyard furnaces during the Great Leap Forward (see Chap. 2). By naming a casting and forging plant a "Steel Factory," the planners feigned the fulfillment of Mao's requirements. Fortunately, no political leader in Shanghai paid attention to this unusual name.

The construction of the STF required the Shanghai City government and the firms under its jurisdiction to engage in weapon production, for which they had no prior experience. For example, a soft drink manufacturer was responsible for the assembly of artillery shells. The manufacturer had to make special equipment for the required task. The Shanghai City government reorganized its bureaus to adopt the task of producing weapons. Around 1971, the Defense Industry Office, which acted as an intermediary that conveyed orders from the central government's Fifth Ministry of Machinery Industry and the PLA to the Shanghai STF, was established in the city government. The Nanjing Military Region of the PLA determined the types of weapons that would be produced in the Shanghai STF (ZGSH, 2013: 97, 185). Weapon production in the Shanghai STF was conducted under PLA surveillance. Representatives of the PLA resided in each factory, and the factories' gates were guarded by soldiers (GCQW, 2018, p. 73).

The Shanghai STF consisted of 54 factories and 27 facilities scattered across 12 counties in southern Anhui province and Linan county of Zhejiang province. The entire area of the counties where the Shanghai STF factories were located encompassed 20,000 km^2. Each bureau that assumed responsibility for a specific part of the Shanghai STF built one or two clusters that consisted of a few factories and ancillary facilities. The Chemical Industry Bureau constructed three explosives factories in Dongzhi county, the Light Industry Bureau built artillery shell factories in Jixi County, the Machinery and Electric Industries Bureau constructed artillery shell, grenade, mortar, and anti-aircraft gun factories in Ningguo and Guichi counties, the Instrument Industry Bureau erected radar factories in Tunxi County and gunsight and searchlight factories in Jingde County, the Building Materials Bureau built a cement plant in Ningguo County, and the Transportation Bureau erected a truck repair workshop in She county.

The location of the factories followed the general policy of the Third Front, which was to "locate them near the mountain, scatter them, and hide them," but to also consider the availability of water supply (GCQW, 2018, p. 4). The chosen locations focused too much on hiding the factories from the enemy's airstrikes, and therefore led to difficulties in transporting intermediate goods to and from factories. The aforementioned Bawu Steel Factory, a factory that produced weapon components with 5400 employees, was located 35 km from its nearest port by the Yangtze River. More than 20 trucks had to travel two or three times a day between the port and the factory to transport materials, food, and daily commodities to its employees. As the factory was situated in the mountains, the trucks needed to pass through narrow roads. Many local peasants were injured and killed by traffic accidents caused by

trucks (ZGAH, 2018: 95–97). Factory locations with too much emphasis on defense were the primary reason for the isolation of the Shanghai STF factories.

The 54 factories that constituted the Shanghai STF maintained a specific division of labor among themselves, but had almost no connection with the local industries in Anhui province, except for the procurement of pebbles, bricks, and tiles from local producers during the initial stage of construction. Most of the workers in the factories and facilities were dispatched from firms in Shanghai that managed the construction of the STF or were new recruits from Shanghai. Construction workers employed temporarily during the construction period and those employed as compensations for the appropriation of land from the local people's communes were the only employees who originated from the local community. Thus, the Shanghai STF was almost completely isolated from the local economy in terms of industrial linkage and employment.

The economic function of the Shanghai STF was to produce several types of weapons. In the original plan, the Shanghai STF's main product was supposed to be the 57-milimeter anti-aircraft gun, but the PLA refused to purchase it due to its poor quality. Strangely enough, the Shanghai STF continued to produce 562 anti-aircraft guns until 1980. In contrast, high-explosive shells that would be launched by anti-aircraft guns made by the Shanghai STF were approved by the PLA and the Fifth Ministry of Machinery Industry, and their mass production began in 1971. The cumulative amount of shells produced in the Shanghai STF was four million shells by 1985.

During the military confrontation at the Sino-Soviet border in 1969, conventional anti-tank rocket launchers turned out to be ineffective. Thus, the PLA began developing a new type of 40-milimeter rocket launcher, which was named "Type 69." The Shanghai STF was designated as one of the main production sites for the production of Type-69 rocket launchers, and its mass production began in 1970. The Shanghai STF produced 520,000 launchers between 1970 and 1980 and 1.9 million rockets between 1970 and 1985. From 1981 to 1986, it produced improved "Type 69-I" rocket launchers which totaled 20,000 launchers and 105,000 rockets. Rocket launchers were used in the Cambodian Civil War in 1972 and the Sino-Vietnamese War in 1979. When the Soviet Union invaded Afghanistan in 1979, the United States purchased Type 69-I rocket launchers from China and Pakistan and supplied them to the mujahideen (Rottman, 2010, p. 64).

In addition, explosives produced by factories built by the Bureau of Chemical Industry in Dongzhi County were used in the Sino-Vietnamese War. "Type 65" 82-milimeter recoilless guns and "Type 67" grenades were also products of the Shanghai STF.

In 1966, the Shanghai City government established its branch office in Tunxi, Anhui province, to supervise the construction and operation of the STF, which was named as "the 229 Construction Command Office." In 1969, Shanghai erected another office in Guichi, Anhui province, which was named as "the 507 Construction Command Office," to supervise the firms that were arranged to produce anti-aircraft guns. The two offices merged in 1973 and were renamed "the Shanghai Interior Base Party Committee." Although it bore the name "Party Committee," in reality, it

was an administrative entity that supervised the production, construction, and party affairs in the Shanghai STF. This Party Committee supervised the Machinery and Electric, Light Industry, Instrument and Electronics, and Chemicals Corporations, which governed the firms in the Shanghai STF that were constructed by the bureaus of Shanghai City. Because these corporations were named after the bureau that oversaw the Shanghai STF's construction, their names did not necessarily correspond to the products produced by the firms in the corporations. The Light Industry Corporation, for example, produced artillery shells. The bureaus in Shanghai managed the production plans and financial accounts of the STF firms they had constructed and arranged the supply of materials to them (ZGSH, 2013: 428). The STF firms resembled fetuses connected to Shanghai's bureaus by umbilical cords, through which production orders, money, and materials were transported to them from Shanghai.

11.2.3 Difficulties and Withdrawal

The Shanghai STF performed a certain economic function by supplying a considerable number of weapons to the PLA between 1972 and 1980. Table 11.1 shows the production values and profits of the Shanghai STF. Because the prices of weapons were determined to ensure that the manufacturer earned a 5% profit (GCQW, 2018: 7),

Table 11.1 Production value and profit of the Shanghai STF

		(Million Yuan)	
Year	Production value	Profit remitted to the state	Profit
1972–77	1,759		129
1978	465		63
1979	480	68	
1980	410	30	
1981	323	2	−2
1982	280		2
1983	337		9
1984	365		24
1985	356		40
1986	230		24
1987	276		47

Source SHHF

Notes The profit of 1987 can be mistaken in the original source. It is written in a passage that profit in 1987 was "116% of 1986," which is 28 million yuan. This latter figure is consistent with the production value

the Shanghai STF earned profits nearly every year. However, this does not necessarily imply that it was efficient.

The peak of the Shanghai STF's economic performance occurred in 1979, when the Sino-Vietnamese War and the Soviet invasion of Afghanistan increased the demand for weapons. The favorable performance of the STF prompted Shanghai to establish a new bureau, named the "Interior Base Administration and the Fifth Bureau of the Machinery Industry," to specialize in weapon production in 1979. It was supposed to manage all of the firms in the Shanghai STF instead of the conventional bureaus (light industry, machinery, electric industry, etc.) that had constructed and taken care of STF firms until then (ZGSH, 2013: 431).

However, the Chinese government started to reduce military expenditures in 1980, which led to a decline in the demand for weapons. In the 3rd Plenum of the 11th Central Committee of the Chinese Communist Party, held in 1978, the Party declared the start of the policy of "military-civil fusion (*junmin jiehe*)." This meant that military industry complexes, such as the Shanghai STF, should start to expand the production of civilian goods to compensate for the decrease in orders for weapons from the PLA. However, the newly established bureau, which specialized in weapon production, was unable to gather the orders for civilian goods and organize their production in the Shanghai STF.

Thus, the Shanghai City government rearranged the administrative jurisdiction of the Shanghai STF in 1980 and returned the STF firms to conventional bureaus. Those that belonged to the Light Industry Corporation were returned to Shanghai's Light Industry Bureau, and those that belonged to the Machinery and Electric Corporation were returned to the First Bureau of Machinery and Electric Industries. While these bureaus arranged production planning and material supply of the STF firms, the Interior Base Administration, established in 1979, oversaw the political aspects and daily lives of employees in the STF. The conventional bureaus that managed civilian goods production could place orders for parts and components for civilian goods to the Shanghai STF. The Light Industry Bureau, which oversaw electric fans, watches and clocks, and bicycles, placed orders for their components on the STF. The First Bureau of Machinery and Electric Industries placed orders for air conditioner motors and parts of textile machines. The Bawu Steel Factory, supervised by the Bureau of Metallurgical Industry, received orders for steel to make ball bearings, wire rods for making sewing needles, and low-carbon wire rods. Thus, the Shanghai STF attempted to transition to the production of civilian goods with the assistance of the Shanghai government bureaus.

However, the increase in civilian goods production was not enough to compensate for the loss of demand for weapons. As indicated in Table 11.1, the production value of the Shanghai STF decreased sharply until 1982. In 1981, the Shanghai STF recorded a deficit. Only 24% of the STF firms maintained normal operations while the operation rates of the other firms were less than 70%.

STF employees began to express their dissatisfaction with being isolated in the mountains since 1979. In March 1979, a demonstration involving 2000 employees erupted in the Shanghai STF, which led to the suspension of production in some factories. The news of Guangdong province's STF moving out of the mountains caused

Shanghai STF employees to want to return to Shanghai. If weapon production was less important in the operation of the STF, there was no point in hiding the factories in the mountainous region. However, the government's policy on STF factories was indecisive. The plan made by the Planning Bureau of the Defense Industry Office, State Council, in October 1980 on the adjustment of STFs disappointed the people living in STFs. It stipulated that the STFs should shift their focus on civilian goods production, but also emphasized that they should maintain the capacity of weapon production in preparation for a war. This plan meant that the STFs would maintain their military functions and, thus, remain in the mountains.

The proportion of civilian goods production at the Shanghai STF started to increase in 1980 and reached 88% in 1984. This is why the Shanghai STF's production value and profits increased in 1983 and 1984 (Table 11.1). In 1983, the first initiative was undertaken to relocate the Shanghai STF from Anhui back to Shanghai. Realizing that there was a plan to build a ship-recycling workshop on Chongming Island, which lies in the Yangtze River Delta and is a part of Shanghai City, the factory managers of the Bawu Steel Factory notified the State Council and the Fifth Ministry of Machinery Industry, asking them to allow the factory to move to Chongming Island and assume the task of ship recycling. They appealed that by using the Factory's equipment and personnel, the workshop could begin production immediately and save the cost of investment. In addition, they argued that the living conditions in the current location were terrible and that the Factory faced managerial difficulties. The Shanghai City government became angry with the Factory's neglect of correct administrative procedures for communicating with the high echelons of state bureaucracy through its superiors. The city government ordered Bawu's management to stop thinking about moving to Chongming and to consider collaboration with Maanshan Steel Works in Anhui Province. In the same year, the Defense Industry Office of Shanghai City advised the vice mayor to rotate employees in the STF after working for seven or eight years. This mediocre remedy might alleviate the dissatisfaction of the STF workers, but it did not address the fundamental problem that the STF no longer had a reason to remain in the mountains.

During a visit to Hunan province in March 1984, Premier Zhao Ziyang made a remark that paved the way for the withdrawal of all remaining STF firms. Zhao advocated for offering STF firms the right to make decisions regarding their future. He stated that STF firms should pave their way through their own efforts and that they should shut down if unsuccessful after several years of effort. He did not officially talk about withdrawal, but local governments interpreted his remarks to mean that they could make decisions on the withdrawal of the STFs on their own (ZGSH, 2013: 339). In July 1984, Shanghai's Defense Industry Office proposed a withdrawal. The STF firms were either transferred to Anhui province, moved to Shanghai, or closed. The employees who had gone to the STF would move back to the suburbs of Shanghai, and those employed in Anhui would find new jobs in Anhui. Shanghai City's Party Committee accepted this proposal, and in August 1984, when the State Planning Commission and the National Defense Science Industry Commission held a conference on STFs in Beijing, Shanghai's policy was reported and approved.

In January 1985, Shanghai City began negotiations with Anhui Province on the transfer of the STF firms. Perhaps Anhui province recognized that the employees of the Shanghai STF dearly wanted to return to Shanghai. Anhui took a tough position in the negotiation, and Shanghai agreed to transfer all the STF firms and facilities to Anhui without any payment in return. During October 1986 and August 1988, 81 firms and facilities, which had a total fixed asset value of 561 million yuan and 79 million yuan in cash, which had been owned by the STF firms and facilities as current capital, were transferred to Anhui. Among the 67,000 employees in the Shanghai STF, 1568 were former peasants who had been employed in Anhui. They were dismissed in exchange for 9000-yuan compensation per person and left in Anhui. There were also some employees who came from and had household registration in Shanghai, but preferred to stay in Anhui. In such cases, Shanghai City paid 2000 yuan per person to the firm in Anhui, which accepted such employees (ZGAH, 2018: 27).

11.3 Life in an Isolated Society

11.3.1 Marriage

Although the author could not find any statistics on the age structure of employees in the Shanghai STF, oral histories suggest that a large proportion of them were in their 20 s and 30 s. Therefore, difficulty in finding a spouse was significant, similar to the case of Baotou. However, unlike Baotou, the Shanghai STF was surrounded by counties with rural residents, thus, marriages between the male employees of the Shanghai STF and local women were possible. For the rural women in Anhui, the STF was an enclave of Shanghai City, therefore, marrying a person employed in the STF meant an upward shift in their social status. However, for employees in the STF, marrying a local woman might entail a risk of not being able to return to Shanghai with their wives when allowed. Therefore, most employees from Shanghai preferred to marry an individual from Shanghai.

When the Shanghai STF withdrew from Anhui, it turned out that the wives of STF employees who had agricultural household registration in Anhui, which amounted to 500 people in total, were also allowed to move to the suburbs of Shanghai on the condition of not changing their household registration status (SHHF, 2017: 393). In addition, there were 1000 people who preferred to stay in Anhui when the STF withdrew because they had married a local person in Anhui. Judging from the number of employees (67,000), the number of married couples in the Shanghai STF could have been around 30,000. The number of couples between employees from Shanghai and those with local household registration can be calculated as 1500 from the above figures, which means that only 5% of the couples had different household registration statuses. Most couples comprised individuals with Shanghai household registration. In this regard, the Shanghai STF was a highly isolated society.

As the Shanghai STF focused on weapon production, the majority of its employees were male, making it a challenge for them to find spouses. In 1980, there were more than 700 unmarried men who had already reached marriageable age in the Bawu Steel Factory, which had 5400 employees in total. There were nearly 8000 unmarried male employees looking for spouses in the Shanghai STF. This imbalance led to several incidents such as infidelities, suicides, and homicides.

Consequently, the Communist Youth League of the Bawu Steel Factory decided to ask *Shanghai Youth News*, a newspaper published by the Shanghai Communist Youth League, to post advertisements that the Factory was searching for women who would marry its employees in 1981 and 1982. The condition was that the woman had a non-agricultural household registration status and was working in a state-owned or collective-owned work unit. If the woman married an employee from the Factory, she would be employed by the Factory and would be able to return to Shanghai every year during holidays. In response to the advertisement, applications flooded into the factory, and the Youth League succeeded in matching more than 600 couples. The applications did not come from Shanghai, but from the "educated youths," who had been sent from Shanghai to rural areas or to the interior provinces. They thought that the Shanghai STF had better living conditions and was located closer to Shanghai compared to their current locations.

The spouses with non-agricultural household registration statuses, who came to the Shanghai STF for marriage, were offered jobs in canteens, retail shops, and transportation facilities. The spouses coming from the countryside with agricultural household registration statuses were offered less privileged jobs such as cleaning toilets, and were given the status of collective-owned firm employees, which was inferior in wages and benefits than the regular state-owned firm employees. There was a discrimination in employment status based on the household registration status.

It is a widely observed fact in contemporary China that marriage occurs between two people belonging to the same social stratum or between a man belonging to a higher stratum and a woman belonging to a lower stratum, but rarely between a man of a lower stratum and a woman of a higher stratum. In consideration of this rule, the above-mentioned stories about marriage in the Shanghai STF suggest that the structure of social strata was as follows: living in Shanghai and registered in Shanghai > (superior to) living in the STF and registered in Shanghai > living in the interior or the countryside and registered in Shanghai > living in the STF and registered in rural Anhui > living in the countryside and registered in rural Anhui. The most preferred marriage was between a Shanghai-registered couple. However, due to the shortage of women in the STF, women of lower strata were called in to marry male employees in the STF. Marriage between a Shanghai-registered female employee of the STF and an Anhui-registered man was rare. In one instance, a female employee who had household registration in Shanghai committed suicide because her parents did not allow her to marry a man from Anhui (ZGCZ, 2017: 212). When the couple belonged to different social strata, marriage between adjacent strata was preferable. Otherwise, the spouse belonging to the lower strata faced harsh discrimination.

11.3.2 Food Supply

In the previous section, the Shanghai STF firms were compared to fetuses connected to Shanghai's bureaus by umbilical cords. For the supply of food and consumer goods in particular, the STF firms depended heavily on Shanghai. Trucks loaded with consumer goods for employees arrived at the STF from Shanghai every day. When the Shanghai STF existed, consumer goods were distributed mainly through the planned economy system. Grain, meat, fish, tobacco, sugar, detergent, and soap were rationed as they were not usually available from other sources during the planned economy period. Shanghai STF employees were treated more favorably than workers in Shanghai in the ration of meat and fish.

However, living with only rationed food was not possible. The residents in Shanghai made up for the shortage of vegetables, eggs, poultry, and pork by buying these items in the free market, which sold the produce provided by suburban peasants. However, such free markets did not exist around the Shanghai STF in its initial stage, thus, employees had to reclaim the land around the factories and grow vegetables or raise pigs. Nearly all firms in the Shanghai STF maintained their own vegetable farms, orchards, pig farms, and fish-raising ponds. In 1978, the total area of fields owned by the Shanghai STF firms amounted to 200 hectares, which produced 8600 tons of vegetables, and raised more than 20,000 pigs (SHHF, 2017, p. 348).

The transactions of commodities between the Shanghai STF and peasants in the surrounding area developed gradually. Free markets that sold vegetables and poultry produced by local peasants began to appear in the central township of nearby counties, where STF employees ventured to procure food. On some occasions, STF employees brought tobacco, sugar, and soap, which they acquired through rationing, and exchanged them for eggs and poultry brought by the peasants.

11.3.3 Relationship with the Local Society

When the Shanghai STF was still under construction, construction engineers and workers stayed at local peasants' houses. Many local peasants were employed as temporary construction workers. They welcomed the opportunity to earn cash, but they were not informed about what the factories were going to make. As the peasants were not familiar with handling dynamite, some were injured or died from accidents (GCQW, 2018).

Except for the Bawu Steel Factory, which had 5400 employees, most of the firms in the Shanghai STF were mid-sized with several hundred employees. Each firm had its own canteen, workers' apartments, and an elementary school for the employees' children, but most were not large enough to run high schools and hospitals. Each corporation, which constituted clusters of a few factories supervised by the same bureau in Shanghai, had its own high schools and hospitals. Each cluster under the corporations formed an isolated firm society with a full range of service facilities.

The cultural and economic gap between the employees of the Shanghai STF and the peasants living in the surrounding area was significant. The peasants had never seen trucks before the Shanghai STF came to Anhui; therefore, when they first saw trucks, they asked why the trucks could run so fast and have such power without eating fodder. As they were not accustomed to automobile traffic, they were often injured by traffic accidents. In one year, 33 local residents were killed in traffic accidents caused by automobiles traveling to and from the Shanghai STF.

The Shanghai STF made several efforts to improve its relationship with the local society. First, local peasants were employed in exchange for appropriating local farmland. For every 20 are (=3 *mu*) of farmland, one job post was offered to the local production team. This team then selected a person to work at the STF firm. According to a peasant who worked in an explosive factory in the Shanghai STF, he was not informed about what the factory was producing before he went to work there. Aware that many soldiers had visited the factory, he did not want to go there because he thought that he would be sent to war if he did. After a few years of the factory's operation, however, the local society gradually became aware of what was going on inside the factory and appreciated the opportunity to work there (ZGAH, 2018). The workers who were employed in exchange for land appropriation were treated as regular employees—they received the same amount of wages as those coming from Shanghai and were allocated the same amount of food and daily goods. However, when the Shanghai STF withdrew from Anhui, they were dismissed by the firm in exchange for severance payments and remained in Anhui.

During the season when the local peasants were busy harvesting and rice planting, the Shanghai STF firms sent their workers to help the peasants. The STF provided building materials such as steel rods and cement when the local community was building dams and water channels, because the STF enjoyed an ampler supply of such materials compared to local societies. The Shanghai STF also provided funds and materials to erect small chemical fertilizer plants in local regions in Anhui. Before the Shanghai STF was built in Anhui, there was no supply of electricity. The STF had its own power plants and substations and supplied electricity not only to the STF firms and their ancillary facilities, but also to the local farm houses without asking for payment. In addition, schools and hospitals run by the STF firms accepted local children and patients (GCQW, 2018, p. 11, 72; ZGAH, 2018, p. 137, 151).

Despite the extensive assistance and generosity offered by the STF, there were several conflicts between the STF and local peasants. On one occasion, dissatisfied with the amount of materials the STF provided the local community, the peasants dug a ditch in the road to impede traffic to the STF. On another occasion, a chemical factory in the STF built a water purifying plant and supplied water to its own factory and local farms. When the plant was unable to deliver sufficient water to the local farms due to a shortage of rainfall, peasants plundered water by destroying the conduit.

When the Shanghai STF was under construction during the 1960s, the Shanghai City government sent only politically qualified people to Anhui, because the STF was a highly classified project. When the STF began mass production of weapons in 1972, Shanghai City began to send new recruits without strict screening. The young

workers from Shanghai then began to cause trouble with the local community by, for example, stealing chickens from farm houses or participating in fights with peasants.

The Shanghai STF firms held outdoor movie screenings every week on their premises, and local peasants came to watch them. In September 1975, an STF firm asked peasants who came to watch movies to pay entrance fees. The peasants refused to pay and had a large quarrel with firm employees. A leader of the local production brigade came to mediate the quarrel, but was seriously injured and conflict between the firm and the local society further escalated. Two months later, the conflict was finally settled by the intervention of the Party Committees of Anhui and Shanghai, and the leaders on both sides were held responsible (SHHF, 2017, p. 347). After the conflict, the entrance fee of outdoor movie screenings was set at 0.1 yuan for the employees and 0.05 yuan for the local peasants.

11.4 After the Withdrawal

After the Shanghai STF firms were transferred to Anhui province between 1986 and 88, the Shanghai City government had to arrange jobs and places to live for the 60,000 returnees. The government invested in township and village enterprises in the suburbs of Shanghai and started new businesses there, such as the production of power generation equipment, motors, television sets, soft drinks, glass products, cameras, bicycles, and electrocardiograms. These industries belonged to the jurisdiction of the Bureaus which supported the STF firms. The workers of the Bawu Steel Factory were reemployed by Shanghai's Fifth Steel Factory, which was under the supervision of the Bureau of Metallurgical Industry. These gestures indicate that the Bureaus, which oversaw the construction and operation of the STF firms, took further care to provide the returnees with jobs. According to Table 11.1, both the production value and profits of the STF increased in 1987. These figures include the production and profit of firms that returned to Shanghai from Anhui.

Returnees were arranged to live in the suburban counties of Shanghai, such as Pudong, Minhang, Qingpu, and Songjiang. It is likely that most of them lived in the inner districts of Shanghai before they went to the STF. For such people, living in these counties may seem to be a degradation of status. Considering the congestion in Shanghai's inner districts during the 1980s, the city government had no choice but to situate the returnees in suburban counties. The city government built 3 million square meters of housing for returnees.

The firms that were transferred to Anhui ceased to produce weapons. Five factories in Guichi County, which produced weapons when the Shanghai STF existed, were disbanded and their equipment was sold to private companies that produced sewing machines, machine tools, and bearings (GCQW, 2018, pp. 18–19). The only factory that somehow retained its original shape was the former Ziqiang Chemicals Factory, which produced explosives. After being transferred to the Dongzhi county government, the factory faced a serious financial difficulty in 1995, but Dongzhi County saved it by selling the assets of the other ex-STF factories. In 1999, however,

the factory experienced another crisis, and was bought out by 53 employees. After being privatized, the factory received an investment from a wholesaler, after which it was renamed the Anhui Huaertai Chemicals Co. The company has been on the development track since then and currently produces nitric acid and other chemical materials (ZGCZ, 2017, pp. 298–303, Chen, 2018). The cement factory established by the Bureau of Building Materials Industry was transferred to Anhui province in 1985 and was later acquired by the Ningguo Cement Factory (ANDF, 1996: 4–5, 8–10), which was established by the State Bureau of the Building Materials Industry in 1978. Ningguo Cement Factory used the same mountain limestone as the STF factory and became the largest cement manufacturer in China.

Conclusion

This chapter has characterized the urban societies in China during the Mao era as "isolated societies" and describes in detail the production and life of the Shanghai STF, which was an extreme case of an isolated society. With regard to industrial linkages, the Shanghai STF relied heavily on the Shanghai City government for the supply of materials, and the division of labor was confined within the STF firms and Shanghai, having no industrial linkage with the local economy. Most employees preferred to marry a spouse with household registration in Shanghai, and marital linkages with the local society were scarce. From its conception in 1966 to its final withdrawal in 1988, the Shanghai STF existed for only 22 years. If it had existed for a longer period, it is likely that the children of STF employees would have graduated from high schools and been employed by the STF firms. The isolated society would have reproduced itself by inbreeding, as was the case in Baotou.

However, it is also noteworthy that interactions with local peasants occurred through several routes. Local peasants were employed as temporary construction workers when the STF was built. They sold vegetables to STF employees and exchanged poultry and eggs for the employees' rationed products in free markets. Peasants came to see movies at the STF firms, and attended schools and hospitals run by the STF firms. The STF maintained no relationship with the local economy in weapon production and food rationing, which were the realms governed by the planning system. Transactions with the local community took place in realms that were not managed by the planning system. The human connections created between STF employees and local peasants during the time when the Shanghai STF existed remained in the 1980s, and more than 10,000 peasants from Jingde County later migrated to Shanghai to work using such connections (ZGSH, 2013, p. 213). The Shanghai STF should have been one of the most isolated societies during the Mao era, but even in such an isolated society, connections with the local community were established.

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