“PRODUCTION FIRST, LIVELIHOOD SECOND”

The Life and Death of Worker-Peasant Model Villages in a Chinese Oil Field

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European and American researchers often associate oil with consumerism and middle-class suburban lives. However, China’s entry into the hydrocarbon age was marked by revolutionary, anti-imperialist, and nationalist struggles. The Chinese official oil narrative depicts an emerging Chinese working class and a young socialist state that prioritized production over consumption—as in the slogan “production first, livelihood second” deployed by the leaders of Daqing Oil Field, the largest oil field ever discovered in the People’s Republic of China (PRC). In 1963, three years after the field’s discovery in northeastern China, the country gained oil independence. At the time, the People’s Republic had barely recovered from the nationwide Great Famine (1958–1962) and was threatened with war by both world superpowers—the US and USSR. The distinctive feature of oil exploration and production in China is that it was state-sponsored and centrally planned.

China’s hydrocarbon modernity was inevitably tied to a nationalist narrative and national power struggles. The process of oil discovery, which is technologically and financially demanding, requires the ability to mobilize resources and navigate political institutions (in this book, see also Peyerl).¹ To guarantee the timely completion of state industrialization goals, the central authorities channeled national resources in a way that concentrated on key projects and strategic locations. Through regional planning, the socialist regime sought to integrate projects of oil exploration and industrial construction. This enabled the fast expansion of an industrial landscape in China’s oil-rich basins in the northeast in the 1960s, then to the hinterland in the 1970s. Furthermore, during these two decades, the great success of the petroleum industry empowered oil cadres to reform the formerly Soviet-modeled state planning machine.

In this sense, the oil industry not only shaped the “petroleumscape”² of oil exploration, extraction, transportation, and refining, but also reshaped national standards of ancillary “nonproductive” construction—such as public housing, schools, and hospitals—that profoundly impacted people’s daily lives as well as the national landscape.

Wars, Campaigns, and the Discovery of Oil

Transnational corporations became important actors in the history of oil before the establishment of China's communist regime and long before oil was discovered in mainland China in the twentieth century. The use of kerosene for illumination had been introduced to China in the mid-nineteenth century, after the first Opium War, when China was forced to open its domestic market to foreign trade. In 1870, the Standard Oil Company extended its business into China not long after it was founded by John D. Rockefeller in Cleveland, Ohio. It quickly stepped up sales to become the largest American company operating in China. A few decades later, Texaco Petroleum Company—another American company—and Asiatic Petroleum Company, the Far Eastern branch of the Royal Dutch-Shell Company, became the two other most competitive companies to enter the Chinese market.³ By the end of the nineteenth century, imported kerosene had become part of Chinese everyday life in both the cities and the countryside.

As the Chinese state and society realized the value of crude oil, they began the search for domestic oil fields. However, the spatial distribution of oil deposits in China is very uneven. Early discoveries were all in the Northwest, thousands of miles from China's industrial centers, which posed problems regarding transportation and communication in a country lacking a modern infrastructure. The Japanese invasion of Manchuria in 1931 marked a turning point with respect to China's oil consumption and exploration. By the 1930s, although private ownership of cars was rare, gasoline had replaced kerosene as China's most important petroleum product.⁴ Oil had become not just a part of people's everyday lives, but a strategic national commodity. At the time, China's consumption of oil was still highly dependent on the three global companies.

Imported oil was first stored in the coastal treaty ports, including Shanghai, Tianjin, Ningbo, and Guangzhou, and then was delivered to the hinterlands mostly by ship. The Yangtze River was the main transportation corridor for the oil trade. After the Japanese army seized control of key cities along the major communication links, including the Yangtze River, China's foreign oil supply was almost completely cut off. The National Defense Planning Commission, later renamed the National Resources Commission, was established to make national defense preparations that involved rigorous efforts to obtain a domestic supply of oil.⁵ In the late 1930s, the commission succeeded in discovering oil deposits sufficient for industrial production, first in Yanchang and then Yumen (Figure 11.1).

These early discoveries helped China survive its wartime energy crisis, but could hardly meet the country's needs for a massive societal transformation. At the start of the communist regime, the state's plans for industrialization mandated heavy use of energy, and a tense international situation required self-sufficiency in oil production. In the 1950s, the Ministry of Petroleum Industry turned oil prospecting into labor-intensive campaigns and imported modern geological surveying technologies and equipment. The 1960 discovery of Daqing's rich oil deposit right at the center of China's most industrialized region resulted from years of effort and careful strategy, but it was also a matter of luck. In the late 1960s and the early 1970s, the ministry discovered other major oil fields—Shengli, Dagang, Zhongyuan, and Huabei in North China, Jiangnan in the Southwest, Liaohe and Jilin in the Northeast—one after another (Figure 11.2). From 1968 to 1978, China's crude oil production maintained an astonishing annual increase of 20 percent. Within a decade, China was transformed from an oil importer to an oil exporter.

FIGURE 11.1 The spatial distribution of oil fields in China. Drawn by the author.

FIGURE 11.2 The Yumen Oil Refinery, located in the mountains, with a dormitory at the middle right, year unknown. Photo courtesy of China Petroleum Corp., Limited (Republic of China).

Planning the Daqing Petroleumscape: The Pursuit of Egalitarian Industrialism

By the end of the first decade of the People's Republic, the Chinese economy faced a series of setbacks and complications. The difficult task of building a balanced relationship between industry and agriculture, production and livelihood, had seemingly come to a dead end. Shortages of both capital and labor inputs limited the growth of agricultural production, which in turn curtailed industrial construction. At the same time, the implementation of the state's industrialization plans triggered extensive urban growth. Massive movement took place back and forth between the cities and the countryside. The deficiency of the newly established planning economy eventually led to extreme scarcity of construction materials and also, in the end, to fatal food shortages.

In this situation, the ancillary facilities, which were considered a constituent part of "nonproductive construction," such as housing and urban amenities, were strictly controlled and often were the first to be cut. The state spent most of its revenue reinvesting in "productive" units. Capital accumulation, referring to the revenue returned to production instead of using for urban construction, was maintained at a high rate and urgent social needs were ignored. Chinese urban planners faced waves of criticism for their "excessive spending" of state investments in urban construction, which left little for the construction of urban housing, transportation, education, or other aspects of public welfare.⁶ The state promoted frugality, austerity, and self-sufficiency and people were asked to curb consumption and leisure in order to achieve higher rates of economic growth.

In 1960, as a pragmatic solution, the Ministry of Petroleum Industry built mud huts for oil workers and their families. On the Daqing prairie, winter comes as early as October and the ministry could not fulfill its mission if the labor force had to retreat to nearby cities for the long winters. The ministry was hoping to put the oil field into production within a year. In 1960, the shortage of oil had slowed industrial production and threatened national security. China was importing more than half of its crude oil, mostly from the Soviet Union. With increasing tension between the PRC and USSR, further imports from the Soviets were not guaranteed, and the state faced significant financial difficulties due to its huge foreign currency payments. For fuel, the military relied almost entirely on imports, so large-scale operations that required substantial supplies of fuel became increasingly difficult to maintain. The serious shortage of fuel even influenced pilot training and the daily operation of the air force.⁷

Daqing Oil Field was surrounded by an unusually fertile area that was perfect for grain production. In the famine years, many oil field workers had to share their limited grain with wives and children who had followed them to the field. Housewives who came from peasant backgrounds picked up their hoes and began reclaiming the nearby land in order to ease the burden on their families and to provide food for their hungry children. More families began taking part and their actions were welcomed by the Daqing leaders. The Oil Field Headquarters organized the unemployed women in collective farms, and before long most mud hut villages were surrounded by farmland. In Daqing's exploratory years, the petroleum workers tended to be quite young, either fresh graduates or the veterans back from the Korean War. The harsh conditions encouraged the young men and women to live communally; they not only worked and lived together, but they also built their houses and worked together to obtain food. The physical and human constraints and scarcities

contributed to the community's solidarity. Many first-generation Daqing people remembered this period as a utopian moment, representing a primitive form of communist life.⁸ Every individual was mobilized and integrated as part of the group, becoming both objects and agents of revolutionary change. Although the nationwide famine cast a huge shadow on the young People's Republic, the struggling central leadership perceived the Daqing campaign as a source of light and Daqing's unique landscape an ideal representation of the resilient Chinese socialism.

At the regional planning level, Vice Minister of Petroleum Sun Jingwen, formerly the head of the state's Urban Construction Bureau, decided against building an oil city in Daqing. Drawing on lessons learned in the 1950s, Sun insisted on a dispersed, production-oriented development model. He further summarized the pattern as one that represented the ideal of an "integration of industry and agriculture, integration of workers and peasants, integration of town and countryside."⁹ Such a philosophy of construction was backed by the other ministers of oil, Yu Qiuli and Kang Shi'en, and then was highly praised by the central leaders, first Prime Minister Zhou Enlai, later President Liu Shaoqi, and then Chairman Mao. They saw the approach as having helped achieve a level of industrial productivity needed to conquer material scarcity. Furthermore, it could embody the ideal communist society described by Karl Marx because of its efforts to eliminate the three great gaps: between town and countryside, between workers and peasants, and between mental and manual labor.

The Daqing settlement construction plans were both pragmatic and ideologically appropriate at a time when petroleum leaders' influence was rising. Consequently, Daqing's petroleum landscape became the hallmark of the new socialist country's industrial spirit. Architects in Daqing were required to develop a "scientific gandalei" model for a rammed earth house that combined local building techniques and modern innovations (Figure 11.3). In addition to sun-dried pounded blocks of mud and straw, the Daqing gandalei design team used other locally available construction materials. Small pieces of wood provided support for a curved roof. Bitumen (also known as asphalt), a by-product at the oil refinery, was mixed with the mud and hay for insulation and to provide a water-resistant layer for the roof. One of the difficulties was to design a foundation for a house that could be built quickly and function well in the northern climate. The region's traditional houses frequently encountered structural failures as a result of humidity or thawing in the spring. After several tests, the foundation was finally set at 30 cm deep, covered by a 5 cm layer of bitumen and mud mixture at a ratio of 1:5, along with a building skirt around the outer wall. Ventilation and heating systems were carefully designed to avoid fire hazards and to introduce adequate fresh air. Compared to the typical local mud houses, the walls of the "scientific gandalei" houses were thinner and the roofs were elevated so as to increase the internal space.¹⁰

In the spring of 1964, large-scale construction began on decentralized settlements in the vicinity of the Daqing oil field (Figure 11.4). Architects and workers labored together to build the first worker-peasant village in Saertu. The headquarters hosted an on-site conference on gandalei building. All the work units sent representatives to study the new model and to begin their own construction projects. Communal building housed the majority of the oil labor force, more than 200,000 people, under this single design. The locations of the settlements followed the expansion of oil exploration and production. Master plans of the oil settlements called for barrack-like structures with unadorned empty ground, ideally surrounded by farmland. The entire Daqing landscape became a flowing assembly line for

houses as well as the agricultural-industrial integrated lifestyle. The decentralized villages with their identical houses were also seen as indicative of an equal society, but the rules were imposed from above. With the rise of Daqing as a national industrial model, in December 1964, Minister of Petroleum Yu Qiuli, with Mao's backing, replaced State Planning Commissioner Li Fuchun and began drafting state planning strategies. During the last several days of 1964, oil cadres in Daqing received Yu's instructions that all headquarters—meaning all administrative offices—were to remain in their humble gandalei houses, and the brick buildings were only to be used for public services. Unlike in most countries, the administrative centers in Daqing Oil Field were devoid of monumentality and did not have higher standards than the workers' living compound. Now, no more multistory buildings were to be constructed. Planning for the Daqing headquarters in Ranghulu came to an abrupt halt. The economic logic of Daqing's petroleumscape had become politicized. The struggle between different development strategies was represented as mud versus brick or single-story buildings versus multistory buildings.

With the introduction of the Daqing model nationwide, the late 1960s and 1970s saw continuous diffusion of the urbanization that had begun in the 1950s. Industries along the coast were moved inland. Investment that had been concentrated in the north was diverted to the south. Population growth in the large cities was strictly controlled, even leading at times to negative growth. The 1960s and 1970s witnessed the emergence of numerous mining districts and factory complexes that statistically were not large enough to be counted as cities and whose populations were engaged in more than just mining and manufacturing. This dispersed pattern of development marked the physical landscape throughout the country, accompanied by a quickly increasing national population—it grew 300 million in fifteen years—and the extension of inhabited areas. The decentralized model was also favored because the country faced the threat of war: under this model, it would be more difficult for the enemy in the air to distinguish urban from rural areas, industry from agriculture, centers from peripheries.¹¹

The Settlements

The Oil Headquarters divided Daqing's belt-shaped oil field, stretching 140 km in a north-south direction, into several oil extraction fields, following the sequence of their development and a division of labors. No. 1 Oil Extraction Factory was the area centered around the Saertu Railway Station. No. 2 Oil Extraction Factory was located several miles to the south of Saertu, and No. 3 Oil Extraction Factory was to the north. No. 4 and No. 5 Extraction Factories were farther to the south, near Datong, where the region's oil was first discovered. No. 6 Factory was located in the far northwest of Saertu, at the Lamadian Oil Field. Other ancillary departments were located relatively close to Saertu, but still at some distance. For example, the construction headquarters was in Hongweixing (literally, Red Satellite) Village, northwest of Saertu, and the transportation headquarters was in Chengfeng (literally, Riding on the Wind) Village, 20–30 km to the south of Ranghulu.

The Master Planning Division at the headquarters and the production units picked the settlement sites together. Then, the workers and their families built the houses with some assistance from professional building teams. There were three types of locational choices. First, for those work units that had fixed but dispersed working sites, such as an oil extraction factory, scattered "settlement points" were selected close to their production unit.

Second, for work units whose locations were fixed and concentrated, such as oil or water pump stations or research institutes, larger-scale "central villages" were built together with the work unit. Remote settlements in the peripheral areas might be built to meet the farming needs of the dependents in these work units. Third, for highly mobile construction and drilling teams, a living base was built near the oil exploration frontier. There was no viable map for locating these settlements until 1966, so planners determined locations by investigating on-site. They usually chose higher places (if available) near the work units, as every spring the plains encountered serious flooding problems.

Under the industrial master plan, these villages and settlement points became linked to roads and electric grids as oil field construction continued on the plains. Every settlement had its own water station in the middle, providing piped and hot water, and a public earth toilet on the periphery. The central village might have a few more daily service facilities, such as a grocery shop, a grain station, a barbershop, a bathhouse, or a clinic. Daqing planners added elementary and middle schools in the villages in the late 1960s and early 1970s, as the first baby boomers in the oil field reached school age. As rammed earth houses could not meet the requirements of large public spaces for school buildings, professional teams made schools out of brick. The brick school buildings became conspicuous landmarks, surrounded as they were by clusters of low mud houses. The so-called "scientific gandalei" house was the standard housing type in Daqing for all residents regardless of occupation, age, or family size. Young couples and singles usually shared two bedroom units, whereas families with children might occupy an entire unit. With the adoption of this standard form, architects could save their time and energy for designing the oil field's industrial structures.

By the late 1960s, the petroleumscape of the Daqing Oil Field consisted of (a) three small towns—Saertu, Ranghulu, and Longfeng—in the north along the Binzhou Railway, all within 5–10 km of each other; (b) an intermingling of oil wells, dwellings, and farmland in the belt-like oil field stretching from the railway to the south; (c) dispersed industrial facilities associated with oil extraction and processing; and (d) a grid pattern of roads linking the gandalei settlements and the production points. According to the "three-integration" planning principle, the industrial, administrative, ancillary, and infrastructural components were closely integrated. This landscape presented a decentralized cellular pattern, in which each cell was self-sustained and multifunctional. For more than a decade, Daqing People's Hospital and Daqing Design Institute were the only multistory buildings, serving as landmarks for new arrivals—and perhaps convincing them that they were no longer in the middle of the countryside.

The First Model Village: Red Satellite

Red Satellite Village (Figure 11.5) was Daqing's first model village. It was the site of the Daqing Oil Field Construction Headquarters—in charge of all of the oil field's building and construction—as well as a base for workers and their families. The site comprised one central village and four settlement points (Nos. 2, 3, 4, and 8). The central village had about 600 households, and each settlement point varied from one hundred to 300 households. The settlement points centered around the village at almost equal distances; Nos. 2, 3, and 8 were all within 1 km, whereas No. 4 was about 2 km from the village. The central village was developed at the intersection of two main roads, with branches of the road linking the settlement points, while the settlement points also had their own links to the roads. The

FIGURE 11.5 Master plan for Red Satellite Central Village. Daqing Design Institute, 1964.

offices of the three Basic Construction Teams belonging to the Oil Field Construction Headquarters were located either at the periphery of the village or facing the village across the road. Public services could be found at the center of the village, and the schools occupied a relatively quiet corner, away from traffic. Structures serving agricultural production were located midway between the village and the farmland.

Settlement layouts consisted of a simple and universally applicable matrix. Identical mud houses were lined up at equal distances. Black curved oil-painted roofs, brown mud walls, blue wood eaves, doors, window frames, and green, naturally grown poplars surrounding the village constituted the uniform landscape for all the settlements. Inside the settlements, there were no paved roads. Instead, roads consisted of pounded earth. A grid of electricity poles, cables, and gas pipelines provided every household with electricity and natural gas. A public water station provided cold and boiled water to the residents. This was also where the residents did their laundry and engaged in conversation. Sewage was collected through an open trench that led to local rivers and ponds, similar to the situation in other rural areas. The planned villages were similar to traditional rural ones in the Northeast, except they featured an orderly design and better infrastructure. Despite its designated status of being a “worker-peasant village,” in 1978, Red Satellite provided accommodations for 7,628 residents, a scale equivalent to that of a small town at the time.¹²

The “Dependents”: Pioneer Village

In Chinese, “dependents” refers to family members, including housewives, without permanent jobs and those households classified as agricultural. The oil extraction industry was dominated by young men. In 1964, the female staff constituted only 10 percent of the total employees at Daqing Oil Field, representing a reality in many heavy industries.¹³ In Daqing,

farming not only solved the problem of the food crisis, but it also helped to organize rural women into agricultural collectives, transforming them from "consumers" at home to "producers" in the field. During the later years of the Daqing Exploration Campaign, an increasing number of dependents were persuaded to join the collective agricultural teams. Among them, the wives of oil drilling workers from Pioneer Village often were portrayed as role models for dependents coming from rural backgrounds.

Pioneer Village, a model worker-peasant village built mainly by family dependents, was an early settlement built in Daqing. It was named after its residents, who were the pioneers of collective farming during the explorative years. The site was 35 km from the Saertu headquarters, and was built as a base for drilling workers and their dependents. In many ways, this was a female-dominated community, because 80 percent of the husbands in these families worked on the oil-drilling frontier and would only occasionally return to the village for a short break. While the men were away, their wives took over building and running the homes. Most of the gandlei buildings in Daqing were built with the dependents providing homemade mud bricks and then professional male teams helping to erect the houses. Some women in the village were reported to have become skillful carpenters, tilers, welders, or glaziers—jobs traditionally performed by men.¹⁴ The women also received military, political, and technical training. With the rapidly growing need for laborers, many of the younger dependents were recruited as temporary workers, building infrastructure and houses, serving in the canteens, and working in the shops. Some daring young women who were willing to challenge the limits of human endurance and to compete with the men worked on the oil front as "iron girls," mostly engaging in oil extraction. And the elderly women set up cooperative nurseries to offer basic childcare for the working mothers (Figure 11.6).

Pioneer Villages, like Red Satellite, consisted of a cluster of settlements, with one central village and four smaller settlements: Pioneer Village No. 1 to No. 4. The average distance

FIGURE 11.6 Dependents walking on the unpaved main road in Pioneer Village, with houses on either side, 1977. Daqing Archives.

between the central village and the other settlements was about 1.5 km, with farmland in between. The central village was located at the geometric center and linked to the four settlements by paved radius roads. Until 1978, the Pioneer Villages as a whole had 2,255 inhabitants in 667 households, about one-fourth the population of Red Satellite near the central headquarters.¹⁵ Pioneer Village No. 1 and No. 2 each had about 100–200 households, whereas the other two settlements were slightly smaller. The central village was a miniature version of Saertu: the courtyard of the headquarters was located to the north of the main east-west road, facing a grid of mud houses to the south. The open space bordering the public buildings was reserved for large public meetings and for use as an open-air theater.

Far away from the base town, the Pioneer Village complex attempted to achieve a high level of self-sufficiency. It provided cradle-to-grave services to its inhabitants so as to limit the need to commute. Every settlement had its own childcare facilities, a barefoot medical station, boiling water stations, and a public toilet. The central village hosted most of the public services, including an administrative office, a health clinic, elementary, middle, and high schools, a general store, a grain shop, a financial services team (which also served as a post office, a place to make deposits, and a reading facility), a general services team (barber, bathroom, tailor, and repair shop), and a food-processing workshop (producing baked goods, soy sauce, vinegar, and wine). In terms of agricultural production, each village was a full-scale cooperative commune. It provided grain to all dependents, and livestock, fishery ponds, orchards, and vegetable fields offered extra nutrition for both the families and the drilling workers on the front. The village also offered agricultural production services, such as stations for agricultural research, collective agricultural machines, a weather observation station, and veterinary services.

The Daqing dependents performed their productive lives in the new socialist culture, both in reality and on stage. “The Rising Sun” is one of the most well-publicized dramas performed by the Daqing dependents; it was directed by Sun Weishi, chief director of the Central Experimental Theater, to audiences of tens of thousands in Beijing.¹⁶ In the local gazette *Daqing Women*, most of the dependents who lived in No. 2 Pioneer Village claimed they had not left the village for years, asserting they had been able to meet all their needs locally.¹⁷ Pioneer Village and Red Satellite Village were the most visited and propagandized gandalei villages in Daqing. Visitors became part of the villagers’ daily lives in the 1960s and 1970s. Images of these mud houses arranged in such an orderly fashion in the midst of oil wells and farming land had become the symbol of an exceptional socialist way of life after China deviated from the Soviet model of socialist construction.

A Basic Production Unit: Strengthening Village

Strengthening Village is the living quarters for the No. 2 Oil Extraction Factory. It is typical of the settlements built parallel to the oil production sites. The No. 2 Oil Extraction Factory was established in November 1964, one of the earliest. The numbering of the factory represented a development sequence; this was the second production site developed in Daqing. The oil extraction terrain was a bit south of the Saertu railway station. As soon as the location of the factory headquarters was finalized in April 1964, about 150 workers were drawn from the construction team of the No. 1 Factory to build one hundred units of gandalei houses, totaling 7,965 m², within a period of six months. By November, the cadres and workers had begun to move in. There were attempts to build multistory offices and

headquarters. For example, during the winter of 1964, the factory hired the Heilongjiang No. 3 Construction Company to build offices, dormitories, a canteen, and a bathhouse made of brick and wood in the middle of Strengthening Village, estimating a total of 4,966 m². In the middle of the construction, Daqing was promoted as a national model. Then the Minister of Petroleum Industry ordered the factory to stop constructing brick office buildings and to cover the completed brick buildings with a mud facade.¹⁸ All ancillary buildings under construction were provided with curved mud roofs, conforming to the existing gandlei houses in the village. The professional construction team was replaced by local peasants. The administrative office (or "the headquarters," as Daqing widely used the military term) remained a humble courtyard house.

The No. 2 Factory was further divided into several mining units. The size of mining units varied from place to place, depending on the labor force required for oil production. The central villages contained three hundred to five hundred resident households. New Village, built in 1965 where the oil storage tank was located, consisted of twenty-two gandlei buildings. The seats of the No. 1 and 9 Mining Districts consisted of ten mud houses. The most remote settlements might consist of only a single family, which would watch over the so-called "husband-and-wife wells." In the mining field, housing and utilities were free, and public services, such as childcare and the canteens, charged minimum fees. The gandlei houses required yearly maintenance and the residents assumed full responsibility for such maintenance—they could apply for a one-week leave per year for housing maintenance. The demands and features of oil production defined the spatial pattern of the village and the daily life of the villagers, and would continue to do so in the following years.

Redefining the Purpose of Socialist Production

The oil field saw its first great baby boom in the early 1970s and with it an increased demand for housing. Large-scale housing construction was prohibited. Housing increased with self-built additions and piecemeal expansions of existing settlements. With the improved economic situation and fewer political mandates, the villages grew larger, with new houses primarily made of brick instead of mud and straw. Many of the remote single-household settlements were abandoned when shuttles became available. Schools were filled with children, and hospitals, shops, and buses were ever more crowded.¹⁹

Riding the wave of the dramatic rise in world petroleum prices, oil became China's most important source of foreign revenue. From 1975 to 1978, 10 million tons of crude oil were shipped abroad, which accounted for about one-tenth of national extraction.²⁰ Nevertheless, despite the profit that Daqing produced for the country, in Daqing, the ban on building multistory housing remained. It had become the symbol of the Daqing spirit. The self-reliant, decentralized, "new socialist industrial-mining districts," which integrated industry with agriculture, became a model for all types of Chinese work units. Even in Beijing, one could find gandlei houses and urban agriculture in the very center of the city. Large-scale planned state housing construction was replaced by cheap self-built housing with the assistance of the work units.

In early 1978, the Office of Political Research, led by economist Yu Guangyuan, conducted a survey of living conditions among Chinese workers.²¹ The survey report, which argued that poor living conditions had seriously dampened labor productivity, was circulated to the central leaders. According to data from the Ministry of Building Construction,

the average living space per person (of state employees) had dropped from 4.5 m² in 1952 to 3.6 m² in 1978. In 182 Chinese cities, 35.8 percent of urban households were in urgent need of housing.²² After twenty years of the “production first” strategy, cities were suffering greatly from a lack of investment. In the field of philosophy, rising humanist concerns were voiced, criticizing the practice of treating people as a means to achieve state goals rather than as an end in themselves.²³ *People’s Daily* published articles by Yu Guangyuan and many others advocating a more balanced relationship between production and livelihood. Three major oil papers—*Daqing Daily*, *North China Oil Paper*, and the *Petroleum Industry Newsletter*—reacted strongly to such criticisms. Two articles were published on November 17 and November 19, 1979, respectively, written by the Investigation and Research Office of the Ministry of the Petroleum Industry: “Less Empty Talk, More Solid Work” and “Improve the People’s Livelihood on the Basis of Developing Production.”²⁴

By the end of 1979, despite the great pressure for continuous growth, crude oil production in China had stagnated. No major new discovery of oil fields occurred after that point. Total output dropped for the next two years. Contracts for crude oil exports could not be met. On August 26, 1980, Minister of the Petroleum Industry Song Zhenming wrote a self-criticism that appeared in all the major newspapers taking responsibility for covering up the sinking of an oil rig, Bohai No. 2, during a storm in November 1979, and he was relieved of his position. Kang Shi’en, the former commander-in-chief of the Daqing Oil Campaign, was also relieved of his position as vice premier and was reprimanded. Vice Premier Yu Qiuli was shuffled out of the State Planning Commission. This marked a halt in the rising power of the “Petroleum Group” in the Chinese central government.

The Disappearance of the Daqing-Modeled Petroleumscape?

In the early 1980s, large-scale housing construction resumed throughout Chinese cities. Mid-rise planned residential districts with brick structures have gradually replaced former villages; urban farming and chicken coops in the cities have gradually disappeared, along with the end of Daqing-modeled construction throughout China. After four decades of extensive urban construction, the older petroleumscape represented by gandlei housing is scarcely visible today. Many of the dispersed settlement points have been abandoned. Daqing is seldom mentioned. The Northeast, the land with rich natural resources, the most important heavy industry base for Japan’s colonial empire and then the young socialist republic, has now become China’s rust belt.

The historic metamorphosis of Daqing’s petroleumscape marked an unusual episode for China and epitomized the major threats and changes experienced by the Chinese state and society since the 1950s. The political aspirations of the socialist regime have shaped the meanings of petroleum production and spaces in many ways as well as many aspects of the everyday lives of ordinary Chinese. The discovery of Daqing Oil Field contributed to creating a domestic oil supply in China for the first time in the modern era. However, with increasing globalization and the marketization of oil industries in China, China has become the No. 1 crude oil importer of the world. But still, the spatial pattern of Chinese oil industries is heavily influenced by the regional planning that took place in the Daqing era when oil infrastructure was laid out: pipes, ports, refineries, oil institutions, and skilled laborers. It is especially evident in North China. The Daqing-modeled petroleumscape has not disappeared.

Notes

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