

Beyond Cycles of Extraction: Rethinking Development, Decline, and Revitalization in
Late Industrial Fushun

by

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Duke University

Defense Date: April 1st, 2025

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Thesis submitted in partial fulfillment of the requirements for the degree of Master of
Arts in the Asian/Pacific Studies Institute in The Graduate School of
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ABSTRACT

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Abstract

Fushun, once a cornerstone of China's coal industry, is now frequently framed as a city of resource exhaustion and decline. Particularly, its West Open-Pit Mine, which was the largest throughout Asia, has long shaped the city's socio-economic and geographic landscape. However, rather than viewing Fushun through the conventional boom-and-bust narrative, my thesis argues that its transformation should be understood as ongoing processes of spatial reconfiguration and redevelopment. The depletion of coal reserves and the dwindling coal industry have not led to a straightforward decline but have instead opened opportunities for new forms of industrialization, real estate speculation, and ecological infrastructure projects that continue to shape both the city and its inhabitants.

Drawing on ethnographic fieldwork and archival research, my thesis challenges the teleological framework that ties Fushun's fate to the life cycle of its extractive industries. By examining the rise of its coal industry, demographic shifts, corporate restructuring, and urban redevelopment led by state-owned enterprises (SOEs), I illustrate how different social groups, including technocratic elites, young people, and former workers, navigate the uncertainties of economic transformation. While some benefit from new industrial and financial investments, many others face increasing precarity shaped by intergenerational accumulation of socio-economic instability. My thesis thus reveals the uneven distribution of prosperity and hardship at a critical moment when Fushun emerges as a late industrial frontier, where new forms of governance and citizenship are being negotiated.

Dedication

To my grandmother,
with gratitude.

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Acknowledgements

Although this thesis is imperfect and has many shortcomings, I am satisfied that I have finally completed it. It is a gift for my grandmother. My grandmother, Zhang Lijun, was born in 1937 in Manchuria during the Japanese occupation. She was raised up in a local gentry family. Her ancestors had originally fled famine in Shandong and sought for a better life in Manchuria in the late 19th century. Through relentless effort, they managed to establish a local business and build a family legacy, although the family lineage had been disrupted by a few political upheavals and revolutions. My grandmother rarely spoke about her childhood, so my understanding of her past did not come from the conventional forms of family storytelling. Rather, from an early age, I noticed that she had frequent nightmares, often with terrifying cries from her room at night. Although often her voices were indistinct, I could from time to time recognize phrases like “Don’t come near me.” Later when I asked my mother about that, she told me that when my grandmother was a kid, bandits had broken into her house while she was alone. They tied her up and tortured her, and forcibly asked her where the family’s fortune was hidden. For she was unable to withstand the pain, my grandmother eventually gave in, but the fear of that moment mixed with guilt stayed with her for the rest of her life. Perhaps because of this, dreams became one of the many critical aspects of my fieldwork. Coincidentally, the day I completed the first draft of this thesis was also the third anniversary of my grandmother’s passing. In many traditional customs across China, the third anniversary of a deceased person is regarded as the time when that person’s soul returns or reaches a state of peace. So, I printed out this thesis and burned it to send this

gift to her. I am grateful to her companionship and care, as well as the happiness and joy she brought to the entire family. She has taught me a lot about dignity.

During my two years of master's studies and fieldwork travels between Durham and Fushun, I received help, inspiration, and support from many people. First and foremost, I want to thank the organizers and all the members of Fushun Shuxiang, especially Lin, Yang Mu, and Li Xiang. Without their help, I would not have been able to connect with so many great people and access many rich materials. I am thus grateful to everyone who agreed to be interviewed and provided me with valuable information and their personal histories. I do hope these relationships will continue to grow in my future fieldwork.

I would also like to extend my greatest gratitude to everyone who has offered suggestions and support for my research and thesis. In particular, I am extremely grateful to my advisors, Professors Ralph A. Litzinger and Engseng Ho. Without their theoretical and methodological guidance, I would not have been able to complete my ethnography. They generously dedicated their time and effort to helping me finish this thesis and supporting me throughout my Ph.D. application season. I am thus truly thankful for their mentorship and feel extremely fortunate to have them as my advisors forever. Additionally, I would like to thank my other two committee members, Professors Prasenjit Duara and Christine Folch. Their feedback on my thesis and our repeated meetings helped me refine the thesis to make it more in-depth. I also want to thank Professors Leo Ching, Eileen Chow, Carlos Rojas, Aimee Kwon, Bret Gustafson, Zhao Ma for their enduring support and inspiration, as well as academic inspiration from Professors Limin Teh and Victor Seow. Last but not least, I want to extend my special

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Last but most importantly, I want to express my gratitude to my family and friends. My parents have devoted tremendous effort to my upbringing and education. However, they never imposed any expectations on what kind of person I should become. Instead, they allowed and supported me to explore what I believe is right. I also want to thank my girlfriend, Pan Qianni, for her companionship and support have helped me through many moments of self-doubt and frustration. Additionally, my gratitude extends to my roommate, Chen Yongkang, who has provided me with both emotional and academic support. Finally, I want to thank my dearest little cat, Jura, for being the sweetest pet in the world. She accompanies me as I fall asleep peacefully every night.

Introduction: “Entering” the Company Town

Shenyang (the capital city of Liaoning Province) and Fushun are very close, yet the transportation between them is highly inconvenient, which has long been something that deeply frustrates me. I mean, a one-and-a-half-hour ride on the Lei Feng bus (雷锋号) for just 40 km?¹ I spent at least half that time complaining. This is not because I couldn't tolerate a bus ride with just a few stops, but because of the very fact that Fushun remains the last city in Liaoning without high-speed railway. This is something I simply couldn't comprehend.

It wasn't until the summer of 2024, on my way back to Fushun, that I realized my dissatisfaction might originate more from my complex feelings toward Lei Feng bus. In fact, I love taking intercity buses. Just like write Liu Zichao once wrote in his travelogue: “Travel is a journey along the earth's folds and into a realm of complete ambiguity. The greatest uncertainty is not arrival, but how one arrives.”² Yet ever since starting graduate school, I have lost the mindset to experience “how one arrives.” I have long forgotten that travel and movement are also parts of fieldwork because my mind has been completely occupied with who I need to meet and how to contact them.

Being forced to take the bus, however, has made me slow down. It also allowed me to recognize a fundamental flaw in my perception: that no community is closed off.

¹ The Lei Feng bus is named in honor of Lei Feng, the diligent soldier who sacrificed his life for the country while stationed in Fushun. This intercity bus serves as one of the primary forms of transportation for commuters traveling between Fushun and Shenyang.

² Liu, Zichao. 午夜降临前抵达: 中欧文化漫游 [*A Central European Odyssey*] (Beijing: 新经典图文传播有限公司, 2024).

Every individual move in different ways and to different extents. This shift in perception has enabled me to view Lei Feng bus through a new perspective. Basically, it grants people a mobility that is both limited and selective. Unlike the city buses in Fushun, which are always packed with elderly passengers, Lei Feng bus is almost exclusively occupied by young people in their 20s and 30s. They travel back and forth between Fushun and Shenyang. They return home at the start of the holidays, while leaving again when break ends. As summer ends, Fushun once again becomes a city where young faces are scarce on the streets.

While riding on the bus, the surrounding scenery has also gradually begun to unfold before me. I passed through the Shenyang-Fushun Demonstration Zone (沈抚改革创新示范区), where new high-rise apartments are being developed. Next came cornfields and massive half-abandoned buildings. Then came the industrial district of Wanghua (望花), with its workers' residences, commercial streets, and public bathhouses. Aunties danced joyfully in front of a shadowy, abandoned buildings, while their steps perfectly matched with one another. The streetlight panels had been replaced with Lei Feng's portraits on red panels adorned with embroidered red ribbons. Even the huge and artificial rock in the park carried Lei Feng's portraits. Overwhelmingly large advertisements followed, including ads for construction materials, stomach disease treatments, and cancer clinics. They were all printed into the walls by the railway bridges. There were also ads for overseas labor recruitment and furniture. Even billboards stating, "Advertising Space for Rent"! Before I could even finish scanning through them, the bus passed by a nightclub named "Dream Ballroom" (如梦舞厅) and a tobacco store, as well

as a children's photography studio with a sign mimicking Nike's logo that read "Mike Kids."

As the bus was halfway entering the urban districts, a mall, with its pale blue glass façade reflecting the dim light, appeared on the right-hand side and had a sign that read "Fushun Electronics City" (抚顺电子城). But there were no lights in that mall and no businesses as well. It was just an empty shell, as if the place had long since closed or been abandoned. Nearby residents wandered through the plaza in front of the mall, while children played noisily on the side.

The patience of the bus passengers was running out. Meanwhile, the air inside grew hot and stuffy. The space was filled with chatter. At long last, the bus reached its final stop. I then found myself in its interior filled with dizzying scents of air fresheners and cigarette smoke. I hailed a taxi for 8 *kuai*. As it turned left and drove straight ahead, I saw the old Fushun train station and the Wanda Plaza behind it, except the sign for "Wanda" remained partially unlit. It was the night of the Ghost Festival (中元节). Beneath a bridge, a father and a son were burning joss paper and fake gold ingots. I saw the firelight flickering in the darkness of the night. It was solitary and Glaring.

Chapter 1. Rethinking Development and Decline

Developing From Minus 420 Meter

For most cities, development can be relatively straightforward. It's akin to constructing high-rises on ground level, which means that construction would start relatively from zero elevation. But for Fushun, it is not so simple. "We have to start from a place of negative elevation," a culture preservationist in his early 30s named Yang Mu said through a WeChat video call. "But before anything else, we must fill the pit and restore the land."

It was at that moment that I truly grasped the challenge posed by the West Open-Pit Mine of Fushun. It is a colossal pit that stretches 6.6 km in length and 2.2 km in width. It also covers an area of 10.87 square km and plunges to a depth of 420 m. It is now around 100 years old and the largest open-pit coal mine in Asia. The pit was once heralded as a "limitless treasure vault" by Japanese visitors to Manchuria and later celebrated as a significant mark of energy self-sufficiency during Maoist China. Shockingly, the mine's massive contours remain distinctly visible from satellite imagery. It was once a testament to the technological and industrial triumphs of modernity. But unlike the wealth-generating inheritance that energy extraction seemingly promised, Fushun's open-pit is increasingly regarded as a negative inheritance, which in this context could be a burden that limits urban redevelopment, threatens ecological stability, and hinders economic progress.

Yang Mu is not the only one who sees the West Open-Pit this way. An auntie at the convenience store in the abandoned mining area who continuously fed strips of cloth

and low-quality coal from Shanxi Province into the stove while talking. A scrap collector. A young accountant at a petroleum plant who watches his monthly salary shrink before his eyes. People in Fushun seem to live in a place that has almost become a source of shame and a marker of decline brought about by resource exhaustion.

“It’s a curse,” an uncle once said to me. Those still living near the mine breathe its dust. Some developed lung disease and watched their neighbors pass away one by one, year after year, as their children left for college and never returned. Meanwhile, those who have left Fushun avoid revealing their hometown through their accent and are reluctant to expose their origins in unfamiliar places. And yet, in the quiet and late-night ride-hailing taxi after work, especially when they hear a familiar inflection in the driver’s voice, they could finally relax for a moment, while sighing with recognition: “*Shifu* (driver), you’re from Fushun, aren’t you?”

But is decline the only way to tell the story and understand this landscape? Whenever I talk with residents of Fushun about the aging demographics, youth outmigration, and resource exhaustion, I frequently encounter strikingly similar narratives. They are stories of Fushun’s trajectory as simply one of rise and fall. In public discourse and scholarly discussions of resource-dependent cities, the most pervasive framework is the boom-and-bust model, which ties a city’s fate to the unsustainable nature of resource extraction. From the 19th century and onwards, such patterns of extractive economies were widespread. A town would emerge due to resource exploitation and gradually experience economic prosperity. As its reserves diminished, it would then undergo economic decline, population loss, and eventually urban shrinkage. Fushun appears to fit this model seamlessly. During the early 20th century, it was Japan’s

energy heart under the management of the South Manchurian Railway Company (滿鐵 Mantetsu). During the Maoist era, it played a crucial role in sustaining China's energy security. In the 21st century, it became an often-quoted example of urban contraction and aging issue. But does this teleological framework truly capture Fushun's history? Or does it obscure more complex processes at play?

Let me provide two brief examples to illustrate why the boom-and-bust narrative should be problematized. While Fushun was officially classified as a resource-exhausted city in the second batch of such designations in China in 2009, nearly 30% of its coal reserves remain underground. However, these reserves lie beneath the city's main urban areas, and further extraction is not feasible due to subsidence risks. The West Open-Pit Mine and other major mines, particularly near Yulin, Xinfu, and Daojie areas, have experienced various degrees of subsidence throughout the history of Fushun. When I visited Yulin, I encountered rows of abandoned Khrushchev-style apartments from the 1950s and collective housing from the 1980s. I saw several-meter-wide cracks running across the walls of these buildings. Additionally, some old single-story houses in the area had long been submerged and gradually turned into ponds, where former miners now fish. The government had anticipated these risks and calculated the costs of "abandoning the city for mining" (弃市挖矿). Eventually, the city government decided to gradually cease mining operations and had begun planning to develop the rural areas north of the Hun River in 1997 and subsequently relocate the governmental offices there. Commercial and real estate investments from major corporations such as Wanda and Evergrande soon followed this. At first glance, this shift seems to align neatly with the boom-and-bust

framework. The economy shrinks, and the city's center moves in response to coal depletion and subsidence.

Yet, a surprisingly similar event occurred over a century ago. Fushun's coal mining industry began in a small village named Qianjinzhai, which was located south of the Hun River and about 8 *li* (4 km) from the historic Fushun City of Ming and Qing Dynasty north of the Hun River. As coal mining motivated commercial activity, Qianjinzhai rapidly transformed into a thriving mercantile hub with the relocation of the Fushun County Office from the historic Fushun City to Qianjinzhai in 1911. By 1912, government institutions and other subsidiary facilities had all moved to Qianjinzhai. The town was systematically planned, with a well-developed commercial sector. By 1930, Qianjinzhai already “had four elementary schools, a girls' normal school, a 35,000-square-meter public park, and a three-story shopping mall and theater”.¹ However, Qianjinzhai was located directly above some of Fushun's thickest coal seams. To expand mining operations and further extract Fushun's coal reserves, Mantetsu relocated the town's entire population. Thus, much of the former Qianjinzhai town has been subsumed into the bottom of the West Open-Pit Mine.²

These two cases reveal that Fushun's historical transformations do not follow a simple boom-and-bust trajectory but rather processes of spatial reconfiguration in response to the changing extractive economies. Furthermore, what is often framed as “decline” could instead be understood as the emergence of new forms of extraction and

¹“古城子、千金寨和老虎台的来历（2）” (*The Origins of Guchengzi, Qianjinzhai, and Laohutai (Part 2)*), *FS7000.com*, accessed [Feb 26, 2025], http://www.fs7000.com/news/?9344_2.html.

² *Ibid.*

urban speculation. For example, the relocation of Fushun's government offices in the 1990s and 2000s was not merely a response to risks of subsidence but also an active project of real estate-driven urban restructuring. Perhaps most striking is that while discussions about Fushun's decline dominate public discourse, the city's urbanization rate had reached 79.57% by the end of 2023, which surpassed the national average urbanization rate of 66.16%. Moreover, the integration of Shenyang and Fushun (沈抚一体化), along with the construction of Shenyang-Fushun New City (沈抚新城) and the Demonstration Zone, has led to the transformation of vast farmlands between the two cities into urban space. Among the most phenomenal marks of this transformation is the 154-meter-tall "Ring of Life," which is a modern architecture constructed with a 1-billion-yuan investment from the Fushun Economic Development Zone Urban Construction Investment Co., Ltd. Interestingly like the Gateway Arch in St. Louis, this monumental structure symbolizes a new era of ambition for reindustrialization and redevelopment. In a sense, these cases together tell stories not of an inevitable fate of resource-dependent cities but of how carbon technocratic powers continually reorganize extraction, labor, and space even after traditional resource exploitation diminishes. It is in this process that decline becomes the prerequisite for redevelopment.

The blurring boundary between development and decline somehow led me to reconsider Yang Mu's words. "Filling the pit" is not simply about physical restoration but ideological and economic reconfiguration through various actors. Even as the mine is declared dead as a productive coal mining site, new industries, including waste-to-energy incineration plants, hydraulic projects, and ecological restoration initiatives, are repurposing the urban space within the context of China's efforts on decarbonization and

development of an “ecological civilization” (生态文明). However, the benefits of these reindustrialization initiatives are highly uneven. Former miners, working-class residents, and younger generations see little improvement in their livelihoods, while corporations and government-backed investors dictate the terms of redevelopment. Yet, what I aim to convey through my ethnography is a more pervasive sense of precarity that stems from the perception of “decline.” This is especially evident when I encountered not only former miners and working-class residents grappling with uncertainty but also executives of the massive energy enterprises that drive the local GDP scrambling to transfer assets, send their children abroad for education, and purchase properties in other cities and overseas. Even enterprises managers have begun to consider whether they should emigrate or switch careers. What the conceptualization of decline reveals is a structural anxiety that permeates different demographics in Fushun. To capture these complexities, I believe that a new analytical approach that moves beyond conceiving resource depletion as the defining end of urban vitality is needed.

Goals and Structure of This Thesis

In this thesis, I argue three key points. First, so-called prosperity and decline often coexist because what is framed as “development” has never been an evenly distributed process but one deeply contingent on the lived experiences of different social groups and classes. While some actors, such as state-backed enterprises and private investors, find new opportunities in reindustrialization, many others experience economic stagnation and displacement. Second, decline does not equate to disappearance. Instead, it operates as a narrative mode that transforms the fear of disappearance into tangible anxieties. If this is

the case, does the depletion of coal resources necessarily signify the city's death? Or does it instead signal a transition toward new power structures, spatial organizations, and social networks? Finally, severing the presumed connection between development and progress is important. The previously mentioned cases demonstrate that development has always come at varied and uneven costs. They range from ecological devastation to the precarity of resource-based economies and the sacrifices of the working class.

By shifting the focus to one that critically examines the uneven distribution of transformation and the ideological work of "decline," I aim to complicate dominant understandings of late industrial cities like Fushun. The city's future is neither a simple story of inevitable downfall nor linear recovery. It is a contested terrain where different forces struggle to shape the city's history and landscape. My thesis is thus not an ethnography of decline but one about decline as a genre of writing, a narrative of reindustrialization, and an ideology of urban redevelopment amid the seemingly ruinous landscape of industrial modernity.

Aside from the prologue and epilogue, my thesis consists of five main chapters. Chapter 1 introduces the major goals and structure of this thesis, as well as the varying methodologies I employed throughout my fieldwork and writing. Chapter 2 examines the rise of Fushun's coal industry, technocratic visions of earlier mining engineers, and projects to revitalize the regional economy of Northeast China in recent decades. Chapter 3 explores the issue of population loss over the past 30 years especially among youth due to industrial restructuring. Chapter 4 focuses on how former workers and cultural preservationists engage with Fushun's industrial transformation and ecological restoration following mine closures and resource depletion. Chapter 5 analyzes how

people imagine their lives beyond cycles of extraction within late-industrial spaces through inhabiting memoryscape and dreamscape. This includes how they perceive and respond to the urbanization and redevelopment processes that accompany industrial restructuring.

To place the question of labor (human resources) and environment (non-human resources) into the discourse of extractive economies, I consider Fushun's history as one of migration and mobilization. Fushun transformed from a small settlement into a city with a permanent population of over 1.7 million nowadays. Its inhabitants largely consisted of migrants from northern China and, to a lesser extent, from the south. They arrived in search of work and eventually settled for modern industrialization created employment opportunities and promoted expectations of economic stability. However, between 1990 and 2010, China's economic reforms led to state-owned enterprise (SOE) restructuring on a massive scale, thereby leading many industrial and mining workers to unemployment. Urban poverty and high joblessness thus became prevalent issues in the Northeast, where SOEs were heavily concentrated. Fushun was one of the cities that was heavily impacted.

One of the key consequences of these efficiency-driven SOE reforms was the growing power of technocratic elites and the simultaneous downsizing of the general workforce. These technocratic managers were able to impact key aspects of industrial planning, including recruitment, engineering projects, and investment strategies. In this way, they could consolidate their control and influence over capital, labor, and industries. This phenomenon is not unique to Fushun. Instead, it has increasingly become a common

feature of industrial and energy-dependent cities across the Northeast and other parts of China where SOEs operate.

For corporate entities, landscapes that appear to be in decline, exhaustion, or unproductive can be repurposed as sites of renewed economic value. Through the strategic management of capital, industrial chains, technologies, and labor, these entities are developing to convert aged industrial sites into new frontiers of development. In general, my thesis reveals not a wholly unprecedented political-economic structure but rather a system that continuously reconfigures itself, of which extracts value from both human labor and the environment in evolving ways.

Methodology

In terms of methodology, I employed literature review, archival research, and ethnographic fieldwork. In this section, I will explain how I approached each of these methodologies and how they intersect throughout my fieldwork.

First, regarding literature review, I focused on summarizing anthropological studies on company towns, late industrialism, energy and environmental politics, transitional societies, ecological urbanism, worker identity and consciousness, demographic shifts, and writings on Northeast China. Although my ethnographic fieldwork is centered in Fushun, during my research and writing process, I have also examined cases of urban transformation in resource-dependent and industrial cities. These cases include Pittsburgh, Detroit, and Chicago in the United States; the Ruhr region in Germany; and mining areas in Kitakyushu, Japan.

Additionally, I do want to point out that, as film studies scholar Dai Jinhua has pointed out in an interview, Northeast China should be understood as a method rather than being reduced to a flattened regional experience confined to a specific historical period.³ From the Bohai Kingdom to the rise of the Manchu during the Qing Dynasty, from Tsarist Russia's territorial expansion to the establishment of Manchukuo by the Japanese Empire, from Soviet-backed industrial development to the Ansteel Constitution and the Daqing Oilfield, and more recently, to the melancholic narratives of young writers recalling their parents' upsetting experience of layoffs, Northeast China is a product of multiple historical eras shaped by political, cultural, and economic forces.

In my thesis, Northeast China is both a historically constructed space shaped by the interactions of nation-states and a site of contested meanings where individuals define, reject, or struggle with their identities. In line with Derrida's discussion on the relationship between death and birth, I believe that the living inevitably inherits the legacies of the deceased. In a sense, the materiality of the legacies of nation-state politics in the region represents not only the extraction of physical labor but also various sovereignties' and large energy corporations' transformation of the environment.

From the aspect of Sino-Japanese relations, Northeast China also embodies what many Japanese scholars refer to as "negative heritage" (*fu no isan*),⁴ which represents not only unresolved issues of colonial violence but also a potential "gift" that various

³ Pan Wenjie, "戴锦华：丰富的东北文化还没有得到真正的复兴" [Dai Jinhua: The rich culture of Northeast China has yet to truly revive], *Jiemian News*, August 19, 2022, accessed March 6, 2025, <https://en.jiemian.com/article/7938811.html>.

⁴ For more information, see Yusuke Matsuura, "World heritage and the local politics of memory: the Miike coalmine and *fu no isan*," *Japan Forum* 31(3): 313-335; and Tze M. Loo, "Japan's Dark Industrial Heritage," *The Asia-Pacific Journal*, January 1, 2017, <https://apjpf.org/2017/01/loo>.

international political actors can appropriate for diplomatic negotiations and the restoration of multi-lateral relations. Such heritage aligns with anthropologist Yukiko Koga's concept of transnational and transtemporal memory (2016), which burdens Chinese, Japanese, Koreans, Americans, Russians, and others alike. In this regard, Fushun is an ideal site for examining the formation and transformation of company towns shaped by multiple nation-states, energy corporations, and migration flows.

In addition to literature review, I have also reviewed scholarly works, policies, government reports, and public discourse related to industrial transformation in Northeast China and urban transition in Fushun. This primarily includes a series of policies and economic revitalization plans issued by the Chinese government from the late 1990s to 2025, as well as discussions led by researchers from the Chinese Academy of Social Sciences (CASS) on corporate restructuring, worker layoffs, industrial transitions, and reemployment. Aside from that, I have examined Fushun's urban spatial planning proposals from the late 1990s to 2025, and analyses on Fushun's transformation as a depleted and declining resource-dependent city. I have also examined statistical data, official reports, and public complaints regarding urban environmental issues that are published by the municipal and district governments and petition offices. As for public discourse, I examined discussions on Northeast China's population loss and related public sentiments on Chinese social media platforms such as WeChat, Weibo, Xiaohongshu, and Zhihu. While I did not directly cite specific user comments or posts in this thesis, I aim to provide an analysis and summary of these broader social discourses and emotional trends.

For my archival research, I consulted both Japanese and Chinese-language archives. As for Japanese archives, I utilized the online resources of the National Diet Library of Japan to examine historical documents on the development of the Fushun coal mines from the beginning of extraction to Japan's defeat in World War II. These sources include materials recommended by historians Limin Teh and Victor Seow, as well as records of successive Japanese mine directors, whose experiences and perspectives Seow has discussed in his research.

I also reviewed non-fiction and biographical writings, including *Travels in Manchuria and Korea* (1910) by Natsume Sōseki (夏目漱石), *Manchuria Travelogue* (1930) by Yosano Akiko (与謝野晶子), and *Inner Fushun* (1979) by Matsumoto Tatsuo (松本辰夫), which was translated into Chinese by my friend, the Fushun-based writer Li Xiang (李想). Additionally, in late July 2024, while in Japan for language study, I visited the *Chūkiren Peace Memorial Museum* (中帰連平和記念館), a nonprofit organization in rural Saitama Prefecture. The museum was established under the *Chinese Returnees Association* (Chūkiren 中国帰還者連絡会 or 中帰連), an organization founded by former Japanese war criminals repatriated from the Fushun War Criminals Management Center. Currently, the museum is managed by Serizawa Nobuo (芹沢昇雄), a nearly 90-year-old curator who also handles public affairs at the museum. Mr. Serizawa, a former railway worker, became involved in Chūkiren's anti-war initiatives after learning about its efforts to expose wartime atrocities through news reports. He later dedicated himself to the museum's expansion and mission. During my visit, Mr. Serizawa warmly received

me and my friends. He provided us with valuable materials on Sino-Japanese relations and the history of Fushun.

For Chinese-language archives, I primarily relied on scanned editions of *Fushun Daily* available through the Harvard-Yenching Library's online database. Additionally, I accessed materials through interlibrary loan systems at Harvard and the library system at Duke University. These materials included local gazetteers, demographic statistics, and historical records on the Fushun Coal Mining Group and Fushun Petrochemical Company. However, it is important to note that, due to my inability to conduct in-person research at the National Diet Library of Japan and the Harvard-Yenching Library, I was unable to access certain primary archival materials on the Japanese colonial and socialist periods of Fushun's coal industry. Instead, I referenced archival materials cited or discussed in the works of scholars researching the history of Manchukuo and Fushun, as well as articles by researchers affiliated with Fushun's local Academy of Social Sciences. These sources are explicitly cited and documented in my thesis.

For my ethnographic fieldwork, I primarily employed methods like interviews, participant observation, and semi-structured surveys. As for one-on-one interviews, I conducted interviews with 30 individuals. Among them, four are elderly (aged 60 and above), five are middle-aged (40–60), and the remaining participants are between 18 and 40 years old. Except for one respondent from Shenyang and another who grew up in a county under Fushun and now resides in Shenyang, the rest are grown-ups from the city of Fushun. In terms of occupational and social identity, most of my interviewees are in the 20–30 age range and are predominantly university graduates or soon-to-be graduates preparing for civil service exams or job-hunting. Most of them lives in provincial capital

cities outside Fushun, while a small number of them are studying or working abroad. I primarily conducted these interviews via video or voice calls, though I also conducted in-person interviews during winter and summer breaks in Fushun. It is important to note that, while I did not interview many Fushunese interviewees living abroad (and I lack precise data on this demographic content), I infer that Fushun accounts for a significant proportion of transnational migrant workers from Northeast China. This trend is particularly pronounced among young people from rural counties under Fushun's jurisdiction. It is closely tied to the impact of human capital on social mobility. For young people from rural areas, even securing a foothold in Fushun's urban center can be challenging, let alone competing for white-collar jobs in first-tier cities. As a result, many opt for short-term language training and then seek employment in Japan, South Korea, Singapore, and other overseas destinations.

Another key factor influencing the outmigration of rural youth is land and education policies related to ethnic minorities. Many ethnic Koreans and Manchurians reside in the suburban and rural areas of Fushun. Compared to the latter, on the one hand, ethnic Koreans have a policy advantage when seeking employment in South Korea, a trend noted by June Hee Kwon in *Borderland Dreams* (2023). On the other hand, the past two decades of continued urbanization in Fushun have severely impacted ethnic Korean villages historically engaged in rice farming. These villages have faced environmental pollution, land dispossession, and economic decline. Additionally, ethnic Koreans in factories often experience discrimination and lower wages compared to Han Chinese workers. These factors have contributed to the necessity of seeking economic opportunities elsewhere. Furthermore, the rural areas of Xinbin (新宾), Qingyuan (清原),

and Fushun County (抚顺县) are not what I previously imagined as agricultural landscapes. Conversely, many of these so-called rural areas do not fit neatly into the common urban-rural dichotomy because their degree of industrialization is relatively high. Through my interviews, I found that Fushun as a company town has numerous satellite company towns in its outskirts and rural areas. These satellite company towns often relied on iron ore, sulfur, and other non-ferrous metal industries. Residents with rural household registration records in these areas follow a routine of commuting between factories and their homes while also engaging in some level of agricultural production. However, the closure of mines and non-compliant waste discharge practices have led to job losses and environmental degradation. Residents had little choice but to leave because the land had become unsuitable for farming and living. This process has been a major factor in the migration of rural labor to Fushun's urban center over at least the past three decades.

Among my interviewees in the 30–40 age group, most are married, have established families, and live middle-class lifestyles in the new urban center. Some work in oil shale plants, others in government agencies or educational institutions, while very few of them engage in more precarious work such as transportation services. It is worth emphasizing that my primary point of contact with this age group was Fushun Shuxiang (抚顺书香 Fushun Book Fragrance), a local cultural organization, of which is organized by people like Yang Mu. Initially focused on book discussion, Fushun Shuxiang has since expanded to include industrial heritage preservation activities and oral history projects. My interactions with its members gave me access to professionals working in SOEs and government institutions, most of whom belong to the local middle class.

However, because my access was primarily through this cultural organization, I had limited engagement with Fushun residents working in low-skilled manual labor or service sectors domestically or overseas. This limitation is largely due to the socioeconomic background of the communities I was able to connect with. On the other hand, those who have found stable employment in domestic or overseas cities often choose to settle there permanently, rather than return to Fushun.

The socioeconomic factors mentioned above also influence the demographic profile of my elderly interviewees. Most are either currently or formerly employed in SOEs, as well as government and public education institutions, which often provide relatively stable and well-compensated occupations with good pensions. This phenomenon is particularly evident in industrial cities like Fushun, where SOEs dominate the local economy. Conversely, private entrepreneurship and business development in Fushun remain relatively limited. The prevalence of informal transportation services (such as unregistered taxis and elderly taxi drivers) and street vending in the city reflects not only the precarity of laid-off workers but also the difficulties in attracting investment or establishing private enterprises on a large scale.

As part of my participant observation, I have been a long-term volunteer at Fushun Shuxiang. I assisted in editing articles for their public WeChat account and participated in their 2024 cultural heritage preservation workshop and the 2025 creative fair. These events provided me with opportunities to engage with core members of Fushun Shuxiang, whose concerns, anxieties, and aspirations regarding Fushun's economic development and urban transformation prompted me to conduct interviews and further reflect on how they perceive these transitions. Specifically, inspired by Sophie

Chao's ethnography (2022), I designed a "dream workshop" where participants shared visions for the city's future amidst industrial decline. As components of the workshop serial events, this dream workshop revealed tensions between ecological restoration initiatives, such as reclaiming coal mines, and the lived experiences of residents navigating urban and economic transformation.

Through these activities, I also connected with employees of SOEs, who offered valuable insights into the policy dimensions of industrial and urban transformation. I had the opportunity to visit their workplaces and observe their daily lives. Beyond these engagements, I also visited Fushun's mining areas, most of which are shut down already, while a few are undergoing ecological restoration. During these visits, I spoke with former workers and residents. I was able to gain a deeper understanding of their experiences and perspectives on the region's transformation.

For the semi-structured survey, I primarily recruited respondents through Xiaohongshu, which is a widely used social media platform in China. After obtaining consent, I distributed the survey to participants and reached out to those who expressed interest for further one-on-one interviews. Some of these individuals later became key respondents in my thesis and developed into close friends. It is important to note that Xiaohongshu primarily targets young urban middle-class users, which is different from more mass-oriented platforms such as Douyin and Kuaishou. As a result, my engagement was limited to a specific demographic, which prevented me from reaching other types of young people. Additionally, I followed and analyzed media content created by Fushun-based creators on social media platforms to explore the topics they are concerned with and gain insights into various aspects of their lives.

Chapter 2. Technocratic Visions and Revitalization

The Rise of Fushun's Coal Industry

In this chapter, I further analyze the relationship between development and decline in the context of extractive economies in Fushun. Over the past half-century, regions across Europe, the United States, and China have undergone painful but significant industrial transformations. Under various policies, initiatives, and government rhetoric, one of the most frequently employed terms is “revitalize,” which often connotes a call to restore regional economies to a previous state of prosperity. Yet, the concept of “revitalize” or “revitalization” is quite ambiguous. Over the past four decades of reform and opening-up, China has launched numerous macro-regional development initiatives, including the economic development of the Pearl River Delta (珠江三角洲), the Yangtze River Delta (长江三角洲), and large-scale projects such as the Western Development (西部大开发) and the Rise of Central China Plan (中部崛起计划). However, the framework for revitalizing the Northeast stands apart from these programs. Termed the Revitalizing the Old Industrial Bases in Northeast China (振兴东北老工业基地), the project urges for an alternative form of development of a region that various political powers have thoroughly developed since the early 20th century. In the Chinese context, *zhen xing* (振兴), which often translated as “revitalization” or “to revitalize,” carries layered connotations tied to nationalistic discourse and historical narratives of state-led economic rejuvenation against colonial and capitalist powers. In the following sections, I will explain: 1) how Fushun’s coal industry rose; 2) how Japanese technocrats envisioned development in and through

Fushun; 3) how narratives of revitalization have been employed by contemporary Chinese central and municipal governments to mitigate the paradoxical tension between development and decline to open new opportunities.

Approximately 33 to 66 million years ago, the site of what is now the Fushun coal mine was a large freshwater lake with rainforest in its vicinity. When the trees died, they fell and sank into the lake. As the basin continued to subside, these forests were buried under sediment. Under immense pressure, these organic materials eventually transformed into high-quality coal deposits (Seow 2021, 32).

Archaeological evidence suggests that human habitation in the region dates to the Middle Neolithic period (over 7,000 years ago) with traces of both coal usage and amber. However, large-scale coal mining did not begin until the early 20th century in the small town of Qianjinzhai in Fushun. In 1901, two local gentry merchants from Fushun applied to the Qing government for permission to extract coal. Initially, large-scale industrial mining was restricted due to the site's proximity (40 km) to Qing Yongling (the imperial burial site of Nurhaci's ancestors, the founder of the Qing dynasty). The Qing government feared that coal excavation might damage the sacred "dragon vein" (龙脉) of the state. However, under the growing geopolitical threat posed by the expanding Russian Empire and the Japanese Empire, the Qing authorities ultimately granted permission for coal extraction.¹

One of the gentry merchants named Wang Chengyao established the Huaxing Company in Qianjinzhai to extract coal, while the other mines in Yangbaibpu and

¹ “史料：抚顺城与千金寨” (*Historical Materials: Fushun City and Qianjinzhai*), *FS7000.com*, accessed [Feb 26, 2025], <http://www.fs7000.com/news/?11990.html>.

Laogutai (now known as Laohutai) were operated as joint ventures by merchants Weng Shou and Yan Zhile. However, these mining sites faced difficulties in expanding production due to insufficient capital and outdated mining technology. The following year, Wang Chengyao partnered with a Russian bank to establish Huaxingli Company, while Weng Shou collaborated with the Jifengtai Bank to establish the Fushun Mining Company and expand the scale of mining. In 1903, the Russian Far East Forest Company merged Huaxingli and Fushun Mining Company. Thus, the Far East Forest Company gained full control over the mining rights of Fushun's coal mines.²

After Japan's victory in the Russo-Japanese War (1904-1905), Russia was forced to sign the "Treaty of Portsmouth" in 1905. The treaty transferred Russia's railway rights in southern Manchuria to Japan. Japan thus took direct control of Fushun's coal mines and established the Fushun Coal Mining Bureau. The Mining Bureau operated the old mines for military purposes, which were later transferred under the administration of the Railway Department.³ In 1906 and 1907, the Japanese Empire established the Mantetsu to further exploit and expand the Fushun colliery by claiming that the mines had direct economic ties with the railway facilities (Matsumura 2003, 317). The daily coal output was about 500 tons and there were about 356 employees, not including the miners (317). Although the Qing government still held nominal sovereignty over Manchuria after the Russo-Japanese War, it was effectively powerless to interfere with Japan's economic expansion.

² “史料：抚顺城与千金寨” (*Historical Materials: Fushun City and Qianjinzhai*), FS7000.com, accessed [Feb 26, 2025], <http://www.fs7000.com/news/?11990.html>.

³ Ibid.

In 1909, the Japanese Empire and the Qing government signed the “Gando Convention,” through which Japan formally acquired the mining rights on the condition of paying taxes. Through this treaty, Japan gained official recognition from the Qing government to continue mining Fushun coal without needing direct approval. In practice, the arrangement to exchange mining rights for tax payments was a compromise, where Japan paid a portion of the coal tax to the Qing government. It helped to create a fact of “legitimate operation” under international law.⁴ This arrangement ensured Japan’s economic interests in Manchuria and helped avoid protests and diplomatic disputes from the Qing government. Additionally, due to the Qing government’s domestic financial difficulties, the government was unable to invest in the development of Manchuria’s coal mines and was forced to accept Japan’s terms to some extent.

In his study on Fushun’s coal miners (2003), the economist Matsumura Takao (松村高夫) cited *Recent Development in Manchurian Coal Mines* (最近満州炭矿事情), which was published by the Manchuria Mining Association (満洲矿业協会) in 1939. The book mentions that Fushun’s coal is high-quality bituminous coal with very few impurities and could serve as a valuable fuel resource suitable for industrial use, liquefaction, and other applications (316). By the time Japan was defeated in 1945, Mantetsu had extracted as much as 200 million tons of coal from Fushun’s mines. In the immediate aftermath of Japan’s surrender, the Soviet troops briefly occupied the mines before they were transferred to the Nationalist government (Kuomintang). Finally, on the

⁴ 史料：抚顺城与千金寨” (*Historical Materials: Fushun City and Qianjinzhai*), FS7000.com, accessed [Feb 26, 2025], <http://www.fs7000.com/news/?11990.html>.

eve of the Chinese Civil War's conclusion, the Chinese Communist Party took over the Fushun coal mines.

From the beginning of intensive coal mining over a century ago to the present-day depletion of energy resources, Fushun's coal mines have intermittently faced various challenges, including production disruptions, mining-induced earthquakes, flooding, collapses, explosions, and wartime conflicts. Nevertheless, these coal reserves have played a critical role in securing energy supplies for multiple political regimes. More importantly, these regimes inherited, adapted, and appropriated the corporate management models, forms of governance, and extraction technologies developed by their predecessors. Over time, they refined a systematic industrial chain encompassing mineral exploration, coal extraction, processing, coal recycling, waste disposal, and the reutilization of mining byproducts. As a result, Fushun became not only a hub of coal production but also a center for numerous subsidiary industries ranging from power plants, cement factories, ceramic plants, brickworks, and oil shale refineries, to excavator manufacturing. Regarding this comprehensive and large-scale industrial operation, Matsumura commented: "The colliery, which emerged in the early 20th century, quickly evolved into multiple mining sites and developed into an industrial complex integrating explosives, oil refining, coal liquefaction, iron smelting, chemistry, and machinery" (Matsumura 2003, 316).

Furthermore, the emergence and consolidation of a highly specialized division of labor, alongside the rise of technocratic elites proficient in engineering and scientific knowledge, transformed Fushun into an industrial city centered around coal production. Particularly regarding the structure of labor in Fushun, the General Affairs Division of

the Fushun Colliery under Mantetsu published descriptions in its *Coal Mine Reader* (炭礦読本) in 1937. According to Matsumura's summary of this material, Fushun's working demographics were primarily classified into members (社員) and non-members (非社員). Within the members, there were three hierarchical levels: staff (職員), employees (雇員), and workers (傭員) (Matsumura 2003, 326). The staff received a fixed monthly salary, while employees were paid wages per day or month based on the contract. Both positions were almost exclusively held by Japanese, with only a few rare cases of Chinese being employed in these roles (326). The highest position available to Chinese workers was that of a worker, essentially a foreman overseeing coal mining operations, but even these positions were predominantly occupied by Japanese (326). Normally, many Chinese laborers worked in roles below the member level. Their wages were calculated either on an hourly basis or a piece-rate basis (326). To strictly control wage distribution and prevent workers from escaping, Fushun Colliery began documenting workers' fingerprints on a large scale in the early 1920s. Workers were required to press their fingerprints each time they received wages. Fingerprinting thus served as a mechanism to restrict their mobility.

Additionally, the *Coal Mine Reader* and other Mantetsu documents reveal that many of the Chinese workers at Fushun Colliery came from Shandong Province (Mantetsu 1937, 98). For instance, Matsumura found that in a 1937 survey of 35,618 Chinese miners at Fushun Colliery, 26% were from Manchukuo, while the remaining 74% came from within China (Matsumura 2003, 335). Among the latter, 49% were from Shandong (335). This indicates that the primary labor force for coal mining relied on coolies from Shandong and its vicinity. As for workers who were from Manchukuo, most

of them were from regions near Fengtian (now Shenyang) and a few were from Rehe (a region north of the Great Wall). Notably, the mobility of labor was extremely high, and many of the workers were seasonal migrant farmers who arrived in spring and returned home in winter (Xie 2003, 537). They were paid a limited fraction of the wages of the Japanese employees. Scholar Xie Xueshi, who studies Sino-Japanese history and economics, notes:

“Heavy industry during the Manchukuo period continued to rely on low-wage labor, which was essentially tied to the high land rent system and the unequal exchange between agricultural products and consumer goods. As a result of this economic structure, land fragmentation spread from the south to the north of Manchukuo. Farmers could no longer sustain their livelihoods solely through agriculture and thus migrated to work in mines and industries. Under these conditions, wages from migrant labor became a crucial part of the rural household economies. Thus, for industrialists, employing workers at low wages became possible.” (556-557)

It’s clear that this economic development mode did not aim for local economic prosperity but instead used high land rents as a tool of exploitation to maximize the supply of resources and labor for Japan’s expansion and industrialization in Manchuria. Furthermore, during the Manchukuo period, large amounts of land were controlled by the government, Japanese settlers, financial groups, and landlords. As a result, Chinese farmers living in Manchuria had no choice but to rent land to farm. At the same time, they could not completely abandon agriculture because wages from migrant labor were unstable, and their families (particularly the elderly and children) still relied on subsistence farming for food.

Shockingly, under the unstable wartime labor conditions in Manchukuo, the workforce demographics even incorporated aging and youth labor, as well as vagrants and prisoners of war (Xie 2003, 531-540). Although Mantetsu established residential areas, which were equipped with schools, shops, hospitals, and other infrastructure, for

Japanese managers and technicians, most Chinese miners remained in extreme poverty. These Chinese laborers in general experienced high mobility and poor living conditions.

Throughout the first half of the 20th century, Mantetsu escalated labor recruitment and forced mobilization of the workforce, which thereby led to increasing labor mobility due to higher demand for manpower. Regarding worker mobility, Wang Boguang, a researcher at the Fushun Academy of Social Sciences, points out:

“An extremely abnormal phenomenon once occurred at the Fushun coal mine—each year, the number of workers who fled or left their jobs in passive resistance was nearly equal to, or sometimes even exceeded, the number of new workers recruited by Japanese administrators. For example, in 1927, Japan recruited 80,237 workers. Yet that same year, 80,505 workers left their jobs. The Japanese themselves admitted: ‘At the Fushun coal mine, the turnover rate of coal-mining laborers is extremely high...The number of people entering and leaving each year exceeds 30,000, with over a hundred arriving or departing daily.’ This place was practically a living hell.” (Wang 1995, 13)

Fushun’s urban population only began to stabilize after the communist government implemented the household registration (hukou) system in the 1950s. Many formerly highly mobile miners and industrial workers settled in Fushun and gained formal status from the SOEs. The labor structure also shifted from employing temporary labor to relying on formal employees. The rise of SOEs provided workers with long-term contracts and housing. Fushun thus transitioned from an unstable company town to an industrial city where people began to build careers and raise offspring.

Technocratic Visions

In 1909, the prominent Japanese writer Natsume Sōseki received an invitation from his old friend Nakamura Yoshitaka (中村是公), whom he had known since their university preparatory school days, to travel from Tokyo to Manchuria and Korea. The purpose of the trip was to document his observations while visiting the various industries

and facilities owned by Mantetsu. In that time, Nakamura had just taken over the management of Mantetsu from its first president, Gotō Shinpei (後藤新平), and become the company's second president. In Gotō's vision of development, Japan needed to enhance its ability to acquire and utilize coal and oil in resource-rich countries, especially when those countries lacked the capability to develop these resources themselves (Seow 2021, 157). Nakamura inherited this perspective and integrated it with an extractive economic model. Prior to becoming the president of Mantetsu, he had served as Mantetsu's vice president and had also worked alongside Gotō during the latter's tenure as a civil administrator in Taiwan. Nakamura had held various key positions in the Taiwanese colonial administration. For example, he had served as a government official in the Governor-General's Office and the director of the Temporary Taiwan Land Survey Bureau.⁵ Upon assuming the role of Mantetsu's second president, Nakamura continued to expand the company's colonial policies and intensify propaganda efforts in Japan while recruiting a large number of Japanese personnel and accelerating Japanese migration to Manchuria.⁶ At that time, Natsume Sōseki, who had previously taught English literature at Tokyo Imperial University, had resigned from his position two years earlier and joined *Asahi Shimbun* (朝日新聞) as a full-time writer. It was for this reason that Nakamura invited him to document his impressions of Manchuria, with the aim of using Natsume's writings to promote the colony within domestic realms.

⁵ Wang Cheng, “夏目漱石的满洲游记,” *Wenxue100*, 2006, accessed March 8, 2025, <http://www.wenxue100.com/baokan/860.shtml>.

⁶ *Ibid.*

During his journey, Natsume was repeatedly astonished and intrigued by Mantetsu's development in Manchuria. His travelogue documented the rapid expansion of Mantetsu's endeavors from railway construction, industrial product development, port construction, agricultural product processing, energy resource exploitation (such as electricity and coal), and urban planning, to comprehensive employee welfare programs. During his visit to Fushun, Natsume visited the coal mining area and urban center under the guidance of the colliery director, Matsuda Buichirō (松田武一郎). Natsume wrote the following account:

“Soon, Matsuda led us outside. Climbing up the earthen embankment of the reservoir, we could see the entire city at a glance. Although it was not yet fully completed, all the buildings were made of brick, and their architecture looked like something out of a studio set. It was hard to believe that they had been built by the Japanese. Moreover, the stylish houses each had their own unique charm, so much so that one could say there were ten different styles for every ten houses.

Among them, there was a church, a theater, a hospital, and a school. Of course, there were also residences for the mine workers, but every single building was something I wished I could transport to the Yamate district of Tokyo to admire. When I asked Matsuda, he told me that all of these had been designed by Japanese engineers.

Shifting my gaze away from the city and looking in the opposite direction, I saw two chimneys faintly visible beyond the undulating low hills. Both were at least a *li* (about 500 meters) away, meaning the coal mine must be vast. According to Matsuda, no matter where they dig, they find coal everywhere, and it would take a hundred or even two hundred years to exhaust the reserves. Even right where we were standing, [workers] were drilling shafts of 800 and 900 feet.”⁷

All these spectacular urban and industrial landscapes together formed a striking industrial sublime. The splendid and exquisitely designed residential buildings made Natsume feel as if this residential area was a condensed version of Tokyo. In contrast, the towering chimneys instantly reminded him that this was a massive coal-mining city located in Manchuria.

⁷ Natsume Sōseki, *Sōseki Kinjū Shihen* (Tokyo: Shun'yōdō, 1910), p. 284-287.

During the guided tour, Matsuda told Natsume that the coal reserves here were so vast and deep that it was nearly impossible to predict their boundaries, and he expressed immense pride in the Japanese engineers working in Fushun. Matsuda himself was an engineer who deeply revered science and technology. He graduated from Tokyo Imperial University and, upon completing his studies in 1883, joined the Mitsubishi Company. His first assignment was at the Takashima colliery, where he worked under the British engineer John Stoddart. Under Stoddart's instruction, he learned the most advanced coal prospecting technologies of the time. The skills Matsuda acquired there also made him one of the best candidates for coal prospecting across Japan. Matsuda then consecutively worked at the Chikuhō coalfield and Namazuta colliery. In 1908, after multiple invitations from Gotō Shinpei, Matsuda set off for Manchuria to assume the position of director of the Fushun colliery. In his technocratic vision, Mantetsu was developing the immense natural resources of Manchuria. To harness these riches, the most cutting-edge scientific methods and the greatest mechanical power had to be employed. Matsuda also believed that the barren lands of Fushun could be transformed through science and technology into a bustling mining hub, where thick smoke would fill the air and the rooftops of high-rise buildings would be packed so tightly that they would nearly touch each other. To expand mining operations and develop supporting infrastructure, Matsuda imported ventilation fans and automatic brakes for winding engines from abroad. He also commissioned the construction of surface facilities essential for mining, such as power plants, machine factories, water and gas pipelines, as well as hospitals, new urban districts, company zones, and schools (Seow 2021, 72-77).

However, not long after he assumed the directorship, Matsuda passed away due to illness. In 1911, he was succeeded by Yonekura Kiyotsugu (米仓清族), who had also graduated from Tokyo Imperial University. Like Matsuda, Yonekura had extensive experience in coal mining for he had worked in Hokkaido's coal mines for over 20 years before arriving in Fushun. Upon taking office, Yonekura launched the second development plan for the Fushun colliery. He not only developed three new subsurface mines but also upgraded various existing surface facilities. As a result, many mining equipment could now be produced directly by local factories rather than relying on the Mantetsu to import them from abroad. Interestingly, one of the most significant impacts Yonekura had on Fushun's landscape during his directorship was the introduction of hydraulic stowage technology to improve coal extraction efficiency. Basically, this method required altering river courses and excavating sand and gravel to provide essential materials for filling the mined-out tunnels (Seow 2021, 77-80).

After Yonekura stepped down as mine director in 1919, the position was succeeded by Inoue Tadashirō (井上匡四郎). Unlike Matsuda and Yonekura, Inoue was not a technocrat in the same sense. Inoue was an outstanding graduate of the engineering department at Tokyo Imperial University as well and had worked as a professor for twenty years after graduation. When Mantetsu appointed Inoue to oversee the Fushun colliery, they also assigned him to manage Anshan, which is a nearby city primarily centered on steel production. To facilitate large-scale and more efficient coal mining while simultaneously developing Fushun and Anshan into major industrial cities, Inoue invited engineers from Minnesota and Wisconsin in the United States who had comprehensive experience in open-pit mining. The two primary challenges they

addressed were expanding the open pit mine in the most economical way and relocating the urban areas above the coal seams. Under Inoue's management, the Fushun open pit mine began to take shape, and its landscape gradually transformed into something distinct from the era of Matsuda (Seow 2021, 80-87). The amazing landscape of Fushun coal mine was documented by various travelers after the great development. For example, in 1928, the Japanese poet Yano Akiko (与謝野晶子) and her husband, Yano Hiroshi (与謝野寛), traveled through Manchuria. Taking the train from northern to southern Manchuria, the couple proceeded to Fushun, where they were struck by the dramatic landscape:

“What shocked us most was the spectacular open-pit mining site in Fushun's old city. Our understanding of coal mining had always been that of deep, vertical shafts and horizontal tunnels. But this concept was shattered. Just stripping away a few meters of oil shale. The entire underground was coal. At first, I found this enormous, gaping maw of the earth terrifying and grotesque. But standing at its edge and descending slightly, I saw the terraces forming step by step, which appeared to be grander than the vast open-air theaters of the Roman era. Humanity, in its ability to harness nature, is a wise species of ant. Even the stripped-away oil shale was not discarded but was subjected to dry distillation to produce heavy oil. I was told that coal contained amber. Also, those traveling with us would occasionally smash nearby coal chunks against rocks. Oftentimes glimmering particles would be revealed.”⁸

The landscape of Fushun that Akiko encountered was undergoing rapid urban transformation, coal mine expansion, and energy sector development. As Japan continued its imperial expansion into Manchuria, an increasing energy demand appeared. In this process, Mantetsu continued to develop Fushun's energy reserves, which were buried beneath layers of green mudstone, oil shale, tuff, and basalt, into an extensive extractive industry (Seow 2021, 2). By 1933, Fushun contributed nearly four-fifths of Manchuria's

⁸ Yosano Hiroshi and Yosano Akiko, *Man-Mō Yūki* (Osaka: Ōsaka Yagō Shoten, 1930).

coal output and over a sixth of the total coal production across Japan and its colonies. It had become a significant marker in Japan's imperial energy infrastructure (2).

After Inoue, Kubo Tōru (久保孚) succeeded him as the mine director. Like his predecessors, Kubo was a graduate of Tokyo Imperial University, who specialized in mining engineering. Kubo served as the director of Fushun colliery from 1932 to 1937, and before that he was the vice director. The five years of his directorship was a crucial period of Japan's expansion and aggression in China. Following the Mukden Incident (1931), Japan seized control of Manchuria and established the puppet state of Manchukuo. It also installed the last emperor of the Qing dynasty, Puyi, as its emperor. Meanwhile, within Mantetsu, left-wing engineers who opposed the war faced increasing suppression. As a colonial enterprise, Mantetsu gradually came under the control of Japan's military authorities, who sought to use it to support Japan's expansion into northern and southern China. It was during this period that the Pingdingshan Massacre (平顶山大屠杀) shocked the world. The massacre was carried out by the Japanese military stationed at the Fushun colliery against civilians in Pingdingshan village and surrounding areas. The incident resulted in the deaths of approximately 3,000 villagers. Kubo was widely regarded as one of the key orchestrators of this massacre and was executed in Shenyang in 1948. As the mine director, Kubo was a huge advocate of mechanization, not only due to wartime demands but also because he realized that human power was limited after all. In his technocratic vision, to extract coal at the scale he envisioned, mechanization had to be continuously updated (Seow 2021, 89-94). In December 1937, in the preface to the *Coal Mining Reader*, published by Mantetsu, Kubo wrote:

“Does civilization bring happiness to humanity?”

If there were no coal, electric lights and electrical appliances would not exist. Would people, as a result, feel happy? In an era without coal, did people consider themselves unfortunate? What, ultimately, is the essence of civilization?

If people blindly pursue wealth and convenience while neglecting health and a natural way of life, will they eventually end up in misery? The prosperity of the coal industry has driven the advancement of civilization, but has it truly brought happiness to humanity? I deeply question this.

If civilization were to suddenly vanish due to foreign invasion, the survival of both the nation and its people would be thrown into crisis. Civilization is not merely a pursuit of happiness. It is a necessity for survival and the continuation of the Yamato race. Progress and efficiency are indispensable, and this book has been compiled precisely to promote progress and improve efficiency.”⁹

Kubo’s words reveal an inherent tension that often oscillates between critique and justification in Japan’s discourse on civilization during the early 20th century. The first half of the preface adopts a reflective tone. Kubo specifically questioned whether industrial progress, particularly the coal industry, genuinely contributes to human happiness or merely sacrifices natural living, health, and well-being for economic gain. This perspective is consistent with broader critiques of modernity at that time and was reminiscent of discussions on “civilization disease,” where technological advancement brings unintended social costs. However, the other half of the preface marks a stark shift, which frames civilization not as a pursuit of happiness but as a necessity for national survival. Under circumstances he claimed as foreign threats, efficiency and industrialization became critical tools for strengthening the nation. This ideological shift mirrored Japan’s historical trajectory. By 1937, with the full-scale outbreak of the Second Sino-Japanese War, wartime nationalism had subsumed intellectual debates on modernity and thus made industrial expansion a matter of national security. The contradiction

⁹ 南満洲鉄道株式会社撫順炭礦 (South Manchuria Railway Company Fushun Coal Mine), *Tankō Dokuhon* (Fushun: South Manchuria Railway Fushun Coal Mine, 1937).

between these perspectives reflects the broader transformation in Japan from the relative intellectual openness of the Taishō era (大正时期) to the militarized nationalism of the Shōwa period (昭和时期). Thus, Kubo's words captured the dilemma faced by Japanese intellectuals and technocrats at the time. Some of these intellectuals and technocrats continued to question the consequences of modernity, while others like Kubo, found themselves in the critical moment of national survival. Particularly, they saw technological progress and efficiency as the only viable path forward.

Revitalization of Northeast China and Late Industrial Urban Transformation

In the early 2000s, China launched an ambitious campaign to “Revitalize the Northeast Old Industrial Base” (振兴东北老工业基地) in response to the region's economic decline during the post-socialist period. In 2003, the Northeast, which is also often called China's “rust belt” due to shrinking heavy industries, was made a national priority by Hu Jintao (Dong 2005). There has been an assumption that Hu launched this campaign also because he wanted to mark his leadership with a different project as compared to the Western Development under Jiang Zemin's leadership. Initial policies often emphasized pouring funds into failing SOEs to keep them afloat. The first phase (circa 2003) turned out to be a massive bailout of debt-laden SOEs, with the central government rather unwilling to let the big factories fail (Craig 2018). Interestingly, this is rather distinct from the experiences of the U.S.'s rust belt cities. Taking Detroit as an example, the city lost 29% of its population between 2000 and 2016 (Craig 2018). Moreover, it was forced to declare bankruptcy in 2013, whereas this would never be possible in China (Craig 2018). While top-down policies and national subsidies prevented

the immediate collapse of the industries in the Northeast region, the revitalization project created very limited incentive for thorough structural change. As a result, only temporary stabilization was achieved instead of a true transformation that sought to revitalize the region's economy. By 2016, Liaoning, Jilin, and Heilongjiang had all fallen in relative economic rankings within China from the 4th, 5th, and 8th in 1978 to 12th, 15th, and 22nd (Craig 2018). These are continuing issues that still largely concern the central and municipal governments till nowadays.

In 2016, under Xin Jinping's leadership, Beijing launched a new round of Northeast China revitalization, which pledged 1.6 trillion RMB over three years aimed not just at supporting SOEs but at supporting private investment and structural reform in the region (Craig 2018). This new phase of the revitalization project marked a shift toward further encouraging entrepreneurship, light manufacturing, service industries (including tourism) to diversify industrial compositions beyond heavy industry. As for how to overcome the region's disadvantages for economic development, the World Bank's former Chief Economist Justin Lin noted that the region should probably learn from coastal provinces' low-wage manufacturing (Craig 2018). At the same time, other commentators noted that high labor costs and harsh climate in the Northeast could make everything much more difficult (Craig 2018). In practice, recent strategies have included attracting business, promoting innovation and high-tech industries, and resolving the deeply entrenched impact of inefficient SOEs and local governments. At the meantime, policies gradually moved from financial support to institutional reform to debonding workers from the SOEs. In result, massive layoffs continued through the 2010s with millions of steel and coal jobs lost (Craig 2018). The effectiveness of revitalization has so

far been rather limited. To some extent, economic growth has stabilized, yet the region still lags in private-sector development and suffers population loss, which will be illustrated in the next chapter in detail. The decline of the region caught attention of the national audience as the region itself becoming a popular cultural icon especially in the film industry, of which detective stories, crime scenes, and informal economy frequently appeared on screen.

As part of the Northeast region, Fushun experienced the blow of industrial decline and has been a focus of revitalization efforts. Particularly, the urban center was relocated to another place since the late 1990s away from the unstable mining zone as mentioned before. Alongside building new urban districts, the city also demolished its dilapidated worker housings. The city was among the first in China to promote large-scale “penghu” (棚户) ghetto clearance and resettlement programs in the 2000s (Chen et al. 2015).

Dilapidated miner and worker collective housings were torn down, and tens of thousands of residents relocated into improved apartment blocks. A post-project evaluation of Fushun’s worker housing redevelopment found it improved living conditions and infrastructure for residents, although at the cost of disrupting community networks (Chen et al. 2015). Aside from those, with coal mining largely stopped, Fushun has continued to develop new industries. The city, for example, has promoted petrochemicals and experimented with tourism based on its industrial heritage and natural reservations.

In terms of provincial and regional economy, in the 2010s, Fushun embraced a strategy of urban integration with the provincial capital Shenyang. The two cities were planned to grow toward each other. As previously mentioned, a “Shenyang-Fushun Reform and Innovation Demonstration Zone” was established on the city border, and a

joint Shenfu New City was constructed. This area, which built upon former farmland between the cities, was designated and targeted for high-tech industries and service sectors to come in. The integration was made to boost Shenyang's economic gravity to pull Fushun into a larger metropolitan economy, which perceives Fushun as an extension of Shenyang's suburbs in the long run. People have different reactions toward this development plan. Many of my interviewees were concerned that Fushun may one day disappear as a city and become a municipal district. Other than the Shenyang-Fushun merge, China's central government launched a pairing assistance program (Duhalde, Wong, and Chan 2019). For example, Liaoning was paired with the wealthier Jiangsu Province to receive investment and administrative support. Additionally, on the level of the enterprises in Fushun, reforms such as mixed public-private ownership of SOEs are being experimented to improve efficiency and attract capital (Duhalde, Wong, and Chan 2019). For example, Fushun Mining Group has sought to reform by using deeper mining techniques for remaining oil shale and exploring recycling industries (Duhalde, Wong, and Chan 2019). Despite these efforts, between 2010 and 2018, the city's industrial output value shrank by over one-third (Duhalde, Wong, and Chan 2019).

I conceive Fushun's transition as a fascinating example among all the late industrial cities, and many scholars have studied such transitions in different contexts. In her article "Ethnography in Late Industrialism," Kim Fortun (2012) characterizes the late industrial condition as one marked by chronic technological hazards, environmental degradation, and complex bureaucratic systems (446-447). She argues that traditional ethnographic methods must adapt to capture how communities navigate persistent industrial legacies and the new uncertainties these communities face (449-450). Her

perspective helps to frame Fushun's situation as not one of uncanny ghost town but a political economic issue that entangles with environmental and socio-economic concerns. In a different scholarly work on Chicago, Christine Walley (2013) provides a personal and ethnographic account of deindustrialization's aftermath in neighborhoods southeast of the city. Walley documents how the closure of steel factories in the 1980s impacted the livelihood of white working-class families, including her own, and how the communities continue to wrestle with the consequences decades later. Her work interestingly engages with themes of memory, identity, and class in a late industrial landscape. Particularly, as she noted, when an industrial way of life had vanished, people were captured by a sense of loss and disorientation, as well as the intergenerational impact on aspirations and social mobility (154-155). Walley shows that deindustrialization is a long process of cultural and social adjustment. In this process, there are nostalgia toward the past and uncertainty about the future.

Like Fushun, many former industrial cities throughout the world have been impacted by deindustrialization and have pursued various plans to revitalize their economies. For example, Pittsburgh, USA, stands right at the center of the American Rust Belt and has been known for its steel production. However, employment in manufacturing in the Pittsburgh metro area fell by about 23,000 jobs during the early 1980s alone when global competition, industrial decline, and the rise of service industries led to the collapse of the steel industry (Venkatu 2018). The city's population declined from about 677,000 to around 370,000 by 1990 as people left in searching for job opportunities elsewhere (Venkatu 2018). In response to decline, Pittsburgh reinvented itself around education, healthcare, and technology, which is a typical strategy known as

“eds and meds.” The city supported its universities like Carnegie Mellon University and University of Pittsburgh to promote growth in research, robotics, and software engineering. A Brookings Institute report noted that by 2015 Pittsburgh was home to over 100,000 jobs in advanced industries like automation, industrial machinery, and engineering services (Andes, Horowitz, Helwig, and Katz 2017). Meanwhile, unemployment, which had risen to 15% in the 1980s, fell below national averages in the 2010s. However, the benefits are rather uneven just like the ongoing transformation in Fushun because the city still faces challenges such as an aging population and racial disparities in employment, while the overall economy has relatively stabilized (King and Crommelin 2019).

Across the Atlantic Ocean, the Ruhr region in western Germany, with cities like Essen, Dortmund, and Duisburg, was one of Europe’s great industrial heartlands especially on coal mining and steel manufacturing. By the late 20th century, however, the Ruhr faced a drastic industrial decline due to depleted coal seams and a steel crisis. Hard coal production dropped significantly after 1957 and mines and steel plants closed one after another. By 1980 the coal mining workforce had shrunk to about 143,000 and by 2018 the last two coal mines in the region were shut down.¹⁰ Starting in the 1960s, the government collaborated with industries and labor unions to work on diversifying the region’s economy. They encouraged coal companies to manage the phase-out mines and retrained workers for new careers (Bryce 2017). From the 1980s and onwards, the Ruhr

¹⁰ “Germany: The Ruhr Region’s Pivot from a Coal-Mining Hub to a Green Industry and Expertise,” *World Resources Institute*, accessed March 10, 2025, <https://www.wri.org/update/germany-ruhr-regions-pivot-coal-mining-hub-green-industry-and-expertise>.

increasingly encouraged the development of service industries, technology, and environmental sectors. The region nowadays is one of the country's centers for the "green economy," with companies specializing in renewable energy technology, environmental engineering, and high-tech manufacturing (Bryce 2017). In the late 1980s, additionally, a renewal project titled the International Building Exhibition Emscher Park creatively repurposed the dilapidated industrial sites into parks, museums, and recreational facilities that later became cultural icons.

Back to East Asia, in Kitakyushu, southwestern Japan, where many of our previously mentioned Japanese engineers had worked, late industrial repurposing often has a strong aspect of environmental remediation. The city of Kitakyushu once was place for one of Japan's first and largest steel mills (Yawata Steel Works, established in 1901) and various chemical and cement factories. By the 1960s, although Kitakyushu had become the driving force behind Japan's industrial output, the region's air was filled with sulfur dioxide from steel and coal factories, and its Dokai Bay was polluted by factory leak-out. It was around the same time that women's groups in the region organized and demanded action for cleaner air and water.¹¹ Their social activism to some extent effectively pushed forward the local government and companies to confront the pollution the latter had caused. Their actions were remembered as one of the world's most famous stories, particularly often being described as going "from Gray City to Green City."¹² By the 1980s, pollution control equipment was installed, wastewater was treated, emissions

¹¹ "A Model City in Japan Is Helping Asian Cities Go Green," *United Nations Environment Programme*, accessed March 10, 2025, <https://www.unep.org/news-and-stories/story/model-city-japan-helping-asian-cities-go-green>.

¹² Ibid.

were regulated, and cooperation across government, industry, and citizens were promoted as well.¹³

Environmental remediation in Fushun is an urgent need but has lagged as compared to many other late industrial cities across the world. Decades of coal and oil-shale mining left a legacy of pollution that ranges from acidic runoff into waterways, heavy metal contamination of soil, to vast deposits of mining waste. As discussed, the city also suffers from land subsidence and sinkholes because of the extensive tunneling and extraction underground (Duhalde, Wong, and Chan 2019). The South China Morning Post reported that “little effort has been put into reversing the loss of biodiversity, erosion, the contamination of surface water, groundwater and soil” (Duhalde, Wong, and Chan 2019) in the region. In addition, the scale of Fushun’s environmental challenge is huge as well. The entire ecosystems were degraded and would require large-scale restoration such as reforesting tailings and treating polluted water. With all the current remediation initiative, however, many press described Fushun’s progress as slow especially when compared to the speed of its decline. Based on news reports and my own observation of the site, although there have been remediation initiatives, the continued presence of heavy industry reveals that some pollution sources remain rather active inside and outside the city.¹⁴

¹³ A Model City in Japan Is Helping Asian Cities Go Green,” *United Nations Environment Programme*, accessed March 10, 2025, <https://www.unep.org/news-and-stories/story/model-city-japan-helping-asian-cities-go-green>.

¹⁴ Fushun still has a petrochemical plant and some heavy manufacturing industries in the urban and rural area.

The previously mentioned cases across the world serve as examples of late industrial urban transformation. Sooner or later, it's highly likely that Fushun would be promoted as a would-be eco-city throughout China. However, weirdly, "going green" or "green economy" has become almost a new mode of industrialization or developmentalist vision enacted by many urban planners, policymakers, and engineers. As many scholars have shown (Walley, 2013; Seow, 2021; Ahmann, 2024), extraction and industrialization have shaped the future vision of modern nation-states and impacted the lives of millions of families. Yet, the complicity of carbon technocratic powers in the destruction of the environment and the precarity of lives is only now emerging a topic of scholarship, considering the fact that there is already countless discourse on eco-cities and late industrial cities. One striking through-line in Fushun's past and present stories is the role of technocratic elites in shaping the city, like the Japanese engineers in the early 20th century and redevelopmentalists under Beijing's leadership. By "technocratic elites," I mean those with technical expertise and administrative power, such as engineers, planners, industrial managers, and government officials, who impact major projects and policy makings. In both eras, there is a tendency to view the city as a laboratory for grand experiments, while an obvious continuity lies in the faith in expertise and large-scale planning.

To conclude this chapter, I think that the use of revitalization, or "zhen xing," in many policies and proposals reveals the fact that this term implicates both continuity and rupture. It interestingly echoes the historical rhetoric of development that shaped Fushun during the colonial era under Mantetsu's technocratic engineers and is still very much entangled with contemporary Chinese state policymaking. Moreover, the notion of "zhen

ing” is not simply about economic recovery or technological advancement. It is also an ideological construct that serves to reimagine the past, justify the present, and preserve a particular kind of future among the many ones that could have been imagined. The concern of this thesis thus lies in for whom revitalization is imagined and enacted. In the following chapters, I will carefully examine through ethnographic accounts of late industrial lived realities in Fushun to illustrate how people reinvent lives when the elusive promise of technocratic visions remains out of reach.

Chapter 3. “To Live Is To Leave Dongbei”: Precarity, Hope, and Aspiration of Out-Migrating Youths

Why “To Live Is To Leave Dongbei”?

When I talked to friends from Northeast China (东北 Dongbei) who were born between the late 1980s and early 2000s, I often asked why they left their hometowns. Yet, their answers varied: “Going outside for education” (去外面上学 qu wai mian shang xue) or “I left to find work” (去外面找工作 qu wai mian zhao gong zuo). Eventually, many shrug and say, with a touch of humor and resignation, “To live is to leave Dongbei” (嗜, 活着就是为了离开东北 hai, huo zhe jiu shi wei le li kai dong bei).¹ This phrase, though lighthearted, carries a heavy truth: their hometown is a place they feel compelled to leave, yet it is also one they cherish deeply.

¹ I use the Chinese term *dongbei* throughout this chapter to refer to northeast China because the term itself represents a place of home and intimacy for my interviewees. My intention is not to provincialize this vast space of diversity, and I acknowledge that northeast China has never been a static region. Among the various terms people have employed to address this region, including Balhae, Manchuria, Manchukuo, Outside the Pass (*guan wai*), and northeast China, *dongbei* has a distinct temporal-spatial implication to young people growing up there in the post-socialist period. The term implicates nostalgia for socialist industrial modernity and an unsettling sentiment toward the region’s industrial decline. However, the issue gets more complicated as I encountered more and more young people addressing the region by Manchuria (*man zhou*) to break away from the stigmatization toward *dongbei* as a declining industrial hub and no longer the “eldest son of the PRC.” By reclaiming the region as Manchuria, young people connect themselves with pre-modern and colonial history, which betray and reject a simplified narrativization of *dongbei* as a model for socialist industrialization and a contributor to the domestic economy. For more information on northeast China, see Mark C. Elliott, “The Limits of Tartary: Manchuria in Imperial and National Geographies,” *Journal of Asian Studies* 59, no. 3 (2000): 603–46; Prasenjit Duara, *Sovereignty and Authenticity: Manchukuo and the East Asian Modern* (Lanham: Rowman and Littlefield, 2003); Ruth Rogaski, *Knowing Manchuria: Environments, the Senses, and Natural Knowledge on an Asian Borderland* (Chicago: The University of Chicago Press, 2022). For discussion on entanglements of colonial and socialist memories, see Yukiko Koga, *Inheritance of Loss: China, Japan, and the Political Economy of Redemption after Empire* (Chicago: The University of Chicago Press, 2016).

But what compels so many young people to conceive leaving as the only way to live? And how does this desire for an “outside” (外面 wai mian) shape their conflicted relationships with home? Liu, a graduate student from Fushun, recalls her childhood in a city that once thrived: bustling streets, crowded malls, and even a revolving restaurant with panoramic views.² Today, those spaces are abandoned, dusty, and silent. Her story is one of transformation—not just of her city, but of a generation shaped by the decline of SOEs and mass layoffs (下岗 xia gang).³ For many families, these layoffs brought not only economic hardship but also the disintegration of the social networks centered around

² Liu, interview by the author, June 2024.

³ The term “laid off” (*xia gang*), or “off duty,” generally refers to a socio-economic status of workers who become unemployed. According to anthropologist Mun Young Cho, “Northeast China in general declined from a socialist industrial base to a moribund rustbelt amidst the market reform. Deng Xiaoping’s ‘opening’ market reforms transformed the militarized, self-sufficiency-oriented development processes that had once attracted socialist planners into liabilities. Because of its high concentration of state sectors, northeast China suffered tremendously under the drastic restructuring of state-owned enterprises (SOEs) initiated by then-premier Zhu Rongji in the mid-1990s. As increasingly inefficient SOEs became an enormous burden to the state budget, the central government allowed banks to permit more SOEs to go bankrupt and then sold them off to domestic or foreign buyers. The region experienced nearly a quarter of the 30 to 40 million layoffs suffered nationally by SOE workers.” See Mun Young Cho, *The Specter of “The People”: Urban Poverty in Northeast China* (Ithaca, NY: Cornell University Press, 2013), 27–28. See also William Hurst, *The Chinese Worker After Socialism* (Cambridge: Cambridge University Press, 2009), 41; Leslie T. Chang, David C. Lai, and Jae Ho Joo, “Rustbelt Recovery: A Comparative Study of Post-Socialist Northeast China and the U.S. Rustbelt,” *International Labor and Working-Class History* 75, no. 1 (2009): 109.

the factories.⁴ In Fushun, this transition has generated a pervasive sense of precarity within the region's late industrial context.⁵

Looking into the demographic data, I realized that the numbers reveal part of the story. Over the past two decades, Fushun has lost nearly 400,000 residents.⁶ Demographic data in Fushun has been consistently in a status of net outflow since 2015, with the outflow population being 1.9 to 3.7 times the inflow population.⁷ Additionally, while Fushun's urbanization rate in 2023 was relatively high at 79.57%, its birth rate (2.81‰) and natural population growth rate (-13.94‰) remain much lower than national averages (6.39‰ and -1.48‰).⁸ According to the Seventh Census report made public in 2021, the phenomenon of population loss in Fushun is evident from its high aging rate of 30.26%, currently the highest among prefecture-level cities nationwide.⁹ By the year of

⁴ In 2000, the urban unemployment rate in China was approximately 3–4% according to official statistics, while the unemployment rate in Fushun reached 32.85%, far exceeding the national average. The phenomena of layoffs and protests are not unique to Fushun but have been prevalent in dongbei and other industrial cities during the economic transition. For more information on worker protests and the manifestations of economic reform, see Ching Kwan Lee, "The 'Revenge of History': Collective Memories and Labor Protests in Northeastern China," *Ethnography* 1, no. 2 (2000): 217–37; "IV. Protest in the Northeast," Human Rights Watch (2002); "与抚顺工人谈话" ("A Talk With Fushun Workers"), *China Labour Bulletin* (2002); Biao Xiang, "You've Got to Rely on Yourself...and the State!" *Ghost Protocol*, August 4, 2016, 131–49; and Michael Zhang and Huiqing Liu, "The Social Marginalization of Workers in China's State-Owned Enterprises," *Social Research: An International Quarterly* 73, no. 1 (March 2006): 159–84.

⁵ By using the term "late industrial" instead of "postindustrial," I am referring to a series of scholarly debates on the afterlife of industrialism, particularly within anthropology. According to Chloe Ahmann and Alison Kenner, "To study late industrialism is to reject the idea that we are living in the twilight of a once ideal system, struggling to deal with unexpected glitches. Instead, we are living at a moment when industrialism's systemic harms have begun to spill out of our blind spots." See Chloe Ahmann and Alison Kenner, "Breathing Late Industrialism," *Engaging Science, Technology, and Society* 6 (November 10, 2020): 416–38; Kim Fortun, "Ethnography in Late Industrialism," *Cultural Anthropology* 27, no. 3 (2012): 446–64; and Kim Fortun, "From Latour to Late Industrialism," *HAU: Journal of Ethnographic Theory* 4, no. 1 (2014): 309–29.

⁶ Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Sixth National Population Census, 2010* (Fushun, 2010).

⁷ Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Seventh National Population Census, 2020* (Fushun, 2020).

⁸ *Ibid.*

⁹ *Ibid.*

2021, the proportion of the population aged 15-59 decreased by 13.23%, while the proportion of those aged 60 and above increased by 13.71%, and the proportion of those aged 65 and above increased by 8.6%.¹⁰

These demographic shifts suggest an industrial city overcoming economic difficulties, aging, and labor force loss. Particularly, the phenomenon of population loss has been prevalent among young people, yet the reasons for their departure remain inadequately understood. Although it might make some sense to attribute the population loss in Fushun and throughout Dongbei over the past two decades to changes in the political-economic structure of post-socialist China using push-pull theory and demographic statistics, data alone cannot adequately disclose the underlying reasons for the out-migration of young people from Fushun.

In fact, such an approach would, on the one hand, risk overlooking the complexities of the carbon footprints associated with colonial infrastructural development and energy extraction. It would also overlook the complicity of Maoist China's de-colonial, nationalistic heavy industrialization, which drew upon the legacies of imperial Japanese infrastructural construction and urbanization previously in Manchuria. The long-term manifestation of these industrial, infrastructural, and energy projects on the lives of people are becoming increasingly visible and apparent, as I will elaborate in the following sections. However, environmental degradation and the ecological experiences

¹⁰ Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Sixth National Population Census, 2010* (Fushun, 2010); Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Seventh National Population Census, 2020* (Fushun, 2020).

specific to intimate places like home have often been relatively overlooked in our current examination of outmigration from Dongbei and other late industrial contexts.

On the other hand, overlooking the ecological experiences of migration tends to obscure an understanding of the uniqueness of young out-migrants as compared to other generations. Specifically, although job and economic insecurity are obvious drivers of out-migration, the aspiration and mentality of outmigrants are different across various generations particularly regarding the deteriorating urban landscape they grown up with and the changing economic context of China and its involvement in global capitalism. Although the narrowing wage gap between domestic and overseas jobs has made working abroad less attractive to young people than it was to their parents twenty years ago, overseas labor remains one of the many visions young people have for their future as China's GDP growth slows significantly and securing a stable employment becomes challenging.¹¹ Additionally, as mentioned in Chapter 1, in June 2019, Fushun's largest and oldest open-pit coal mine officially ceased coal operations and was closed by the Fushun Mining Group Corporation as part of its plan to transition from extraction to remediation.¹² This transition has intensified competition and reduced job opportunities for young people hoping to work within local energy companies. Thus, behind its

¹¹ For more information, see "China's Economy Seen Slowing in Q2 as Stimulus Calls Grow," Reuters, July 14, 2024, <https://www.reuters.com/markets/asia/chinas-economy-seen-slowing-q2-stimulus-calls-grow-2024-07-14/>; NPR, "The Unemployment for Young People in China Hits a Record High in May," NPR, June 15, 2023, <https://www.npr.org/2023/06/15/1182520038/the-unemployment-for-young-people-in-china-hits-a-record-high-in-may>.

¹² "沿着总书记的足迹 | 西露天矿：生态复绿展新辉" [Following the Footsteps of the General Secretary | West Open-Pit Mine: Ecological Restoration Shines New Glory], Fushun Municipal Government, October 1, 2024. Accessed October 31, 2024.

humorous and ironic features, “to live is to leave Dongbei” arises within distinct political-economic, socio-environmental, and historical contexts for the young out-migrants.

This chapter examines how environmental and socio-economic precarity in Fushun influences young people’s decision to leave. It further illustrates that migration is both a survival strategy and a response to the emotional and ecological burdens of a deteriorating industrial landscape. Drawing on interviews with four individuals aged 20-40, I analyze how young people’s aspirations are shaped by a deteriorating urban landscape, the erosion of economic stability, and the legacies of colonial and socialist energy extraction. For many, “leaving” (离开 li kai) becomes a survival strategy to seek hope elsewhere, yet their connection to home remains quite unresolved.

By situating the experiences of these young out-migrants within the broader context of Fushun’s ecological and industrial history, I consider not only the socioeconomic factors driving migration, but also how the physical environment and collective memory shape aspirations. In doing so, I aim to deepen the understanding of how young people come of age in the ruins of late industrial life, and how hope itself is continually reshaped by the tension between “outside” (外面 wai mian) and “home” (家 jia). This chapter will start with an overview of the scholarly literature on precarity, youth out-migration, and company towns. It will be followed by an analysis of the interviewees’ decisions to stay or leave Fushun and will conclude with a reflection.

Identifying Precarity in Late Industrial Fushun

Precarity, Hope, and Aspiration

According to anthropologist Caroline Humphrey who studied the aftermath of disintegration of the Soviet Union, “the collapse of party rule, the ending of full employment...and the chasm of unbelief open after the rejection of the Soviet ideology all combined to cast people into a state of radical uncertainty” (Humphrey 2002, XVII). In this regard, precarity is the condition of post-socialist societies. However, as Humphrey has critically pointed out, it would be wrong to come to terms with precarity by employing over-generalized terms such as global capitalism, “actually existing socialism,” or globalization because the situated brittle economic life does not simply originate from a new socio-economic system but rather concerns the unmaking and re-making of life in a surrounding world where continuations and differences can be found (XVIII). Moreover, by perceiving people as participants rather than passive recipients of the societal transition (XVII), I believe ethnography could productively examine how people navigate hope within such uncertainty.

In her book *Prearious life*, Judith Butler (2004) differentiates precariousness, a universal condition of vulnerability, from precarity, which results from systemic and state-induced policies. Her framework demonstrates that precarity is not only about economic instability but also about disruptions to social meaning and belonging. In anthropologist Satsuka Shiho’s work on immigrant Japanese working as hiking guides in Canada, precarity refers to the economic meltdown in Japan during the bubble economy period and a degrading America as if it were “the source of a dystopic Japan” (Shiho 2015, 84). Anne Allison, drawing on her ethnography on unemployed and homeless

people in Japan after the financial crisis in 2008, characterizes precarity as “*ibasho ga nai*” (no good place / a sense of being out of place), referring to the incapacity to not only find a physical home or a stable employment but also to find a place to call home (Allison 2013, 47). Similarly, precarity in Fushun extends beyond material struggles to include a pervasive sense of displacement and insecurity.

In the context of precarity, hope and aspiration are not static qualities but are actively shaped and reshaped over time. Julie Chu has interviewed Fujianese immigrants in New York City’s Chinatown, calibrating “migrant aspirations to the textures and rhythms of bodies in transit” (Chu 2010, 111). Drawing on Chu’s works on immigrants’ overseas desire, Xiang Biao argues that “a mental status like aspiration needs to be constantly performed and reworked” (Xiang 2014, 185). As his work on out-migration in Dongbei has shown, we should not simply conceptualize aspiration as either fulfilled or frustrated because “what appeared to be desire for migration turns out to be many different things, sometimes completely unrelated to migration” (186). Conducting fieldwork in Dongbei, Yukiko Koga (2016) adds an important perspective in her study of Chinese female escorts catering to Japanese businessmen in Dalian, China. Koga emphasizes how young women use their work as a temporary exchange to achieve mobility, while strategically learning Japanese in the hope of one day living and working in Japan (162-163). These ethnographies underscore how hope, even in precarious conditions, is actively constructed, reshaped, and performed.

Company Towns, Young People, and Fushun

The decline of SOEs in post-socialist societies has devastated company towns like Fushun, which were originally built around extractive industries. The bankruptcy and restructuring of these SOEs not only triggered mass layoffs but also dismantled the social infrastructures tied to them. Anthropologists have examined the phenomenon of out-migration from post-socialist company towns through economic, historical, environmental, and cultural lenses. They offered “strong and convincing critiques of the ‘transition’ model of restructuring and development” (Pine 2014, S96). The gradual reduction in population has rendered these company towns on the brink of becoming ghost towns. Simultaneously, the concentrated and rapid growth of an aging population has led scholars to recognize that the present state of these company towns might foretell the future of other still functioning large industrial cities. These urgencies underscore the significance of studying company towns in the present context for insights into the future development of cities.

Due to limited job opportunities and low wages in company towns, out-migration to other cities or even overseas is perceived by workers as a “displacement of the present” (Xiang 2014, 186). Out-migration arises from people’s fear of the current situation and their anxiety to seize opportunities in the burgeoning era of the free market while they are young, often depicted as anxieties about catching “the last bus” (最后一班车) before opportunities diminish (191). Consequently, young people in post-socialist countries have become a recent focus for particularly anthropologists (Pozniak 2014). Their envisioned future and hope regarding mobility, as demonstrated by their departure from their hometowns, significantly differ from those of their parents and grandparents.

They pursue new kind of future that enables mobility and exhibit minimal nostalgia for socialism (Pine 2014; Pozniak 2014).

Some studies conceptualize the “coming-of-age” process of young individuals in post-socialist societies as “double transitions” (Roberts 2003; Burrell 2011; Burrell and Hörschelmann 2014). This term implicates the overlapping nature of the post-socialist “transition” with the contemporaneous process of youth transitioning from childhood to adulthood. This convergence of societal changes and shifts in their life trajectories necessitates young people to strategically negotiate and adapt to the evolving contexts in an unstable living environment, both ecologically and economically.

Studies of former socialist countries in Eastern Europe such as Poland and Estonia experienced rapid deindustrialization after the fall of communism suggest that young people often begin considering out-migration for education and employment opportunities early in life (Burrell and Hörschelmann 2014; Pine 2014; Nugin 2014). Others highlight an alternative pattern where some delay traditional transitions to adulthood, relying on parental support and embracing cynicism or a sense of “hopelessness” (Tomasik and Silbereisen 2012; Xiang 2014). These two tendencies (early planning and delayed transitions) are not mutually exclusive but represent aspects of the same decision-making process. Moreover, these decisions are fluid and continuously adapt to evolving socio-economic contexts (Nugin 2014).

The economic and social capital possessed by young people’ families often impact the extent of mobility available to them (Borges and Torres 2012; Pine 2014). Hence, on the one hand, young individuals who perceive out-migration as a means of personal development typically are raised in rather relatively affluent, middle-class

families (Nugin 2014). On the other hand, those from particularly impoverished backgrounds, who generally lack any local resources, are often compelled to out-migrate and seek livelihoods through their own efforts elsewhere (Nugin 2014). Yet, while industrial cities in Eastern Europe underwent transitions tied to post-socialist democratization, Fushun's decline is complicated by the persistence of a state-centered model within a nominally socialist system.

Additionally, in China studies, social capital is frequently denoted as “guan xi” (关系 social relationships) by scholars (Chen and Chen 2014; Fan 2002; Yang 1994). “Guan xi” embodies the network of social connections that can be activated and mobilized for securing employment and various other opportunities through gift economy. Notably, in my fieldwork, several participants mentioned “guan xi,” suggesting that while it may not directly help them secure stable local jobs in the SOEs, it certainly serves as a gateway to job opportunities, which might not be available to people who lack “guan xi.” Moreover, they emphasized that oftentimes gifts and “red packets” (红包 hong bao) are required to secure and maintain these connections. In Fushun, stable and dignified jobs are usually found in SOEs, yet these job positions are difficult to secure without strong “guan xi.” Securing a good job often depends on knowing the right people and having sufficient money. Some positions cost as much as 28,000 USD to 56,000 USD, merely as an entry ticket. This reliance on “guan xi” extends beyond the job market to education industries. It impacts young people's future in a significant way, which I will elaborate in the following sections.

The spatial divisions of residences in Fushun reinforce the role of “guan xi,” as access to resources and opportunities often depends on where one lives. Unequal resource

distribution, shaped by historical urban development and contemporary policies, limits the mobility of those in poorer and working-class neighborhoods (Nugin 2014; Borges and Torres 2012). Historian Limin Teh posits that Fushun stands as one of the distinct cases as compared to conventional company towns, and she particularly attributes its differentiation to historical legacies stemming from Japanese colonialism (Teh 2012). Specifically, she draws on the work of geographer J. Douglas Porteous to distinguish between two types of company towns, including the extractive ones as temporary pioneering devices for exploiting natural resources and the model ones built under utopian visions (Teh 2012, 69). The limitation of company towns, as she has argued, is that “the availability of natural resources usually results in their demise” (69).

Interestingly, Fushun is different from both two types of company towns. Teh argues that “the difference lies in the fact that the Japanese colonial state played a central role in both the formation and development of Fushun. Accordingly, the case of Fushun presents a possible third category to Porteous’ taxonomy: a colonial company town shaped by developmental rather than extractive motivations. And yet, despite Fushun’s rapid and sustained development, its economic, social, and urban structures illustrate unequal power relations rooted in Japanese colonialism, and not the paternalism or utopianism of the model company town” (70). The primary agent driving urban development in Fushun from 1905 to 1945 is the Mantetsu, as previously discussed in detail. Rather than solely extracting coal mine deposits, Mantetsu diversified and integrated Fushun “into larger transportation networks for better access to other markets” (71). Additionally, Mantetsu began oil shale refining in 1926 to diversify its commodities. The industrial sector in Fushun quickly expanded in the 1930s to “include

chemical and steel manufacturing” (71). The massive coal deposits and various oil-related commodities produced in Fushun helped to fuel Japan’s war in Asia and the Pacific Ocean (Seow 2022). Overtime, urban residents treated “Fushun as their permanent place of residence” (Teh 2012, 71). The demand for schools and various public facilities also increased as people began to settle in Fushun (71).

Later, the socialist takeover would heavily depend on these existing industrial and public infrastructure to continually extract coal and refine oil shale until reaching their limit. Now, according to historian Victor Seow, “while about a third of the estimated 1.5 billion tons of total coal deposits remain in the ground, mining these risks triggering landslides and subsidence that have caused infrastructure to crack and buildings to sink” (Seow 2022, 3). Consequently, Fushun’s contemporary spatial disparities implicate the unequal power relations resulted from the racial politics employed by Mantetsu a century ago as mentioned in Chapter 1.

A series of relocation of urban centers throughout Fushun’s modern history serve as examples of such spatial disparities. According to historian Fu Bo, excavation of the open pit began in April 1914, which targeted the coal deposits west of Qianjinzhai. In 1917, mining operations expanded to the deposits south of Qianjinzhai, with plans to open a third mine between the two (Fu 2012). The Japanese thus formulated the “Grand Open-Pit Mining Plan” (大露天堀計画 dairoten hori keikaku) to connect the three mines, while having to abandon and displace Qianjinzhai for coal mining.¹³ On May 20, 1920, Fushun Colliery held a press conference, where the head of general affairs, Norito

¹³ 京城日報, “満鉄と撫順炭鉱: 世界的一大工事: 十年間の継続事業: 大露天堀計画確定,” 第6巻, no. 57, May 26, 1920 (大正9年), p. 45, 石炭, 11.工業及鉱業.

Kohirayama announced the outline of the mining plan (Fu 2012). After the conference, conflicts arose between Fushun Colliery (or Mantetsu) and the residents of “Japanese Street” (日人街 ri ren jie) over specific issues such as compensation for relocation and the establishment of a new school in the new urban area, which eventually resulted in the mining authorities making compromises (Fu 2012). Gradually, the “Chinese Street” (中国人街 zhong guo ren jie) of Qianjinzhai faced the similar fate of removal as well and resistance against relocation projects broke out in 1926 (Fu 2012).

The relocation site for Qianjinzhai urban area had already been chosen by the Fushun Colliery before the Mukden Incident, which led to Japan’s occupation of Manchuria in 1931. Specifically, it was located on the south bank of the Hun River north of Qianjinzhai, where the mining corporation constructed a new urban center called “Xin Fushun” (新抚 new Fushun) (Fu 2012). Originally, this area was part of the Hun River’s course (浑河河道), but Fushun Colliery expanded territory by dumping coal gangue on the river’s “south bank” (河南 he nan), gradually shifting the river northward and flooding large areas of fertile farmland owned by farmers living near the “north bank” (河北 he bei) (Fu 2012). Eventually, Chinese residents were relocated to Daojie area (道街地区), which were neighborhoods constructed on top of coal gangue. In contrast, the Japanese residents were relocated to Nanbeitai (南北台), which was an upscale residential complex constructed by the Fushun Coal Mine. The latter was initially resided by Japanese higher managers, engineers, and their families. Additionally, western-style Japanese villas, city parks, gymnasiums, schools, and hospitals were constructed.

These spatial divisions were not erased during the socialist period but were rather repurposed, with government officials and SOE managers occupying the former Japanese residences. The collapse of SOEs in the 1990s brought these spatial divisions under regional attention, as subsidence and urban decay disproportionately affected neighborhoods like Daojie. For young people growing up in these areas, the crumbling infrastructure and lack of opportunity reinforce the faith that to secure a better future, they must do whatever they can to leave.

As briefly mentioned in Chapter 1, since the late 1990s, due to subsidence, the city government decided to build a new urban center in Shuncheng District (顺城区), which was previously a rural area on the north bank of Hun River. This new phase of urban redevelopment came along with factory closures, ecological restoration of mining areas, demolition of workers' residences, construction of incineration plants, and the promotion of economic projects to revitalize Dongbei. Consequently, middle-class families from Nanbeitai, who benefitted from their parents' managerial roles, were able to move to newer apartments in Shuncheng district. In contrast, families in neighborhoods like Daojie and other declining industrial districts such as Wanghua (望花) and Dongzhou (东洲), where coal tailings have caused severe displacement, faced relocation with fewer resources to help them adapt. Liu's experience of growing up in a neighborhood like this reveals the generational struggle. Particularly, the collapsing streets and abandoned factories are daily reminders of job insecurity and the city's histories of industrial extraction. As I will elaborate more in the following sections, her decision to leave Fushun is not just about economic opportunity, but about escaping a

landscape that seems to betray any promise of stability and dignity. Yet, the intimacy of the late industrial urban landscape makes her decision-making full of contradictions.

Other common patterns of out-migration are closely associated with family background and gender. In terms of family background, individuals with strong memories of their family's migration into their current home region a few generations ago exhibit a higher tendency to be willing to leave compared to those who feel deeply rooted in their home regions (Jones 1999; Nugin 2014). As for gender dynamics, men exhibit a higher prevalence of out-migration compared to women.¹⁴ In the case of Fushun, these observed patterns are reflective of its demographic landscape, where many families' ancestors were in-migrants. They fled wars and economic crises multiple times throughout China's pre-modern and modern history. The composition of in-migrants also included forced labor and other forms of unskilled labor recruitment during the colonial period as well.

Additionally, Fushun historically served as a heavily industrialized city where the predominant labor force consisted of males. The layoffs from the late 1990s to the early 2000s led to a substantial male out-migration seeking job opportunities in other major cities even until today. The gender ratio of the permanent population in Fushun shifted from 103.19% in 2000 to 98.42% in 2020.¹⁵ Although it appears at first glance that the scale of male population loss is greater, this does not mean that the impact on the female

¹⁴ Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Fifth National Population Census* (Fushun: 2000); Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Sixth National Population Census* (Fushun: 2010); Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Seventh National Population Census* (Fushun: 2020).

¹⁵ Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Fifth National Population Census* (Fushun: 2000); Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Seventh National Population Census* (Fushun: 2020).

population is any less significant. On the surface, heavy industries like coal mining and oil shale refining are male-dominated fields, which led to the commonsensical perception that men have been most affected by the decline of these industries. However, during the economic reform and structural adjustment of the SOEs, female employees in SOEs and affiliated “collective enterprises” (集体企业 *jiti qiye*) were more vulnerable in their positions. The baby boom of the 1960s and 70s further intensified this gendered vulnerability around 2000, which significantly affected their children through their own career shifts.

Other than the previously discussed patterns, there exist additional, relatively individualized reasons concerning the issue of out-migration (Nugin 2014). As mentioned earlier in this section, young people often undergo a process of “double transition,” which implies their continual effort to construct and develop their identity. Therefore, out-migration represents a project associated with self-improvement and growth, which often stems from a positive and anticipatory process in terms of its meaning and ideas (Xiang 2014). However, there are instances where out-migration are motivated by negative sentiments in both urban and rural areas of company towns (Nugin 2013; Xiang 2014). In such scenario, out-migration serves as means of escaping from one’s home. For individuals struggling with haunting and unwanted memories from their upbringing, places within their home region often evoke experiences they wish to forget. For example, “to live is to leave Dongbei”¹⁶ and “it’s a place entangled with death and memories”¹⁷ are sayings that I heard frequently from my interviewees. Hence, attaining

¹⁶ Alegra, interview by the author, September 2024.

¹⁷ Wang, interview by the author, September 2024.

mobility through out-migration becomes an ongoing process of achieving self-healing and securing hope for some of the young people at least. The out-migrants not merely “move away” but, more importantly, they want to “move forward” (Schäfer2007, 130-132). In the following sections, I will explain the out-migration patterns in more detail and delve into individualized motivations influenced by historical factors, memories, and the late industrial urban landscape.

Economic and Social Capital: “To Live Is To Leave Dongbei” and “Guanxi”

The layoffs in Fushun from the 1990s to 2010 dismantled the once-secure “iron rice bowl” (铁饭碗) of SOE employment and forced individuals to adapt to new socio-economic realities. The work-unit system, which had regulated workers’ professional and personal lives, collapsed, left many to pursue temporary or informal employment (Xie 2024, 118). This restructuring widened economic disparities, with those having strong “guan xi” or entrepreneurial opportunities benefitting disproportionately. Many workers, however, clung to hopes of SOE revival, missing critical opportunities in the emerging market economy.¹⁸

The role of “guan xi” remains central in navigating Fushun’s precarious landscape. Managers and skilled workers managed to secure better positions locally or in other cities by utilizing their “guan xi,” a resource not as readily available to ordinary and regular workers. Therefore, the process of layoffs served as a reshuffling mechanism and

¹⁸ In the context of company towns, the work-units are generally the SOEs. Additionally, Xie Wen articulated the emergence of welfare states contributed to the normalization and institutionalization of one’s life trajectories. In this context, one’s life in the future becomes very much imaginable and secure.

exponentially widened the wealth gap among individuals in Fushun. Many interviewees vividly recalled experiencing this process during their childhood, even though they did not fully comprehend its implications at that time. For instance, as articulated by Alegra, who's now in her late 20s:

“My mom was a workshop director at Fushun Petrochemical. Back then, earning a wage from working at the SOEs meant earning a decent income generally above national average. But during the layoffs, no matter how high the salary was, it wasn't enough to pay for insurance and support the family. So, more or less, you had to engage in some gray-area activities, something everyone knew and did but never talked about. When I was young, I saw many of my mom's colleagues being laid off, but our family wasn't particularly affected. Instead, we seemed to have some extra pocket money for buying food. Later, I learned that during that time, my mom and her colleagues secretly connected a private pipeline to the factory's oil pipeline and siphoned off some oil drops each day. Although the factory couldn't notice that on a daily basis, you can imagine that over a few months, it accumulated to a significant quantity, so my mom earned some money eventually. Those with 'guan xi' could grab a share when the factory was about to shut down, just by bribing the security guards with a little bit of cash. However, the lower the position, the smaller the gain.”¹⁹

Economic capital serves to consolidate and maintain social relationships, and reciprocally, social relationships can contribute to economic capital. This reciprocal relationship represents the operating rules of the world that Alegra learned from mother during her upbringing. In Fushun, the “guan xi” between individuals do not vanish with factory bankruptcies and worker layoffs. Instead, these connections transitioned into new social resources that assisted people in engaging in the informal economy and reemployment. However, this internal circulation of resources in Fushun remains accessible to only a few and cannot be sustained in the long term. People may rely on “guan xi” temporarily, but not for their entire lives:

“My mom is a very diligent person. She studied psychology in college, and after leaving the factory, she started her own small workshop, offering therapist counseling, which earns her a good amount. In Fushun, she's probably considered a minor middle-class figure. Since I was in middle school, she always bought those phone cards worth two hundred RMB each for me to give to teachers. Otherwise, how could the teachers

¹⁹ Alegra, interview by the author, September 2024.

possibly tutor me or even think of me if they're running a tutoring class? So, in Fushun, everything requires money to push things forward. Downstairs, there's this uncle who was laid off and started selling grilled chicken. He earned a lot of money and even sent his son to study in the United States for high school. Although my family can't compare to theirs, my parents believed I should pursue education abroad. Therefore, I went to Taiwan for my undergraduate studies and pursued my master's degree in Russia."²⁰

Alegra's recollection of her childhood and teenage years differs from the other individuals I interviewed, as she doesn't express as much pessimism or helplessness. Even though she didn't fully understand everything at that young age, she somewhat believed that during economic instability, if one could find the right opportunities, they could create wealth through connections and personal effort. While she often mentions the phrase "to live is to leave Dongbei" ironically, she still returns to Fushun during festivals and holidays. This frequent return is atypical compared to most of my other interviewees. It is not only because her family is very supportive and caring, but also due to her parents' economic capability and the intimacy of every corner of the city where she grew up, providing her with comfort and familiarity. However, for other young people whose families are unable to overcome the impact of layoffs, they often start realizing from a young age that leaving Fushun is a life decision that they must strive to achieve at all costs. As expressed by Wang, who's now in his mid-20s:

"Actually, I feel inside me there is this fear of poverty. I know I have very few resources, so I need to try to make better choices in every decision I make, to get the most advantage. That's how I can stand out in the crowd, live the life I want. So, I try to make each choice in a way that I can get better and richer returns. This sort of mentality is very low, cheap, and very pragmatic. I've always had it. It has been cultivated since I was young and supported me for a long time. If you live in a large collective, if you want more attention and love, you might need some distinct qualities. Your family can't provide this, so you have to make yourself outstanding or cater to the needs of those you want attention from. So maybe I have a bit of a people-pleasing personality. This part of my personality is actually a way for me to adapt to society, and sometimes it can be a bit extreme. But at the same time, there is a part of me that wants to help others and seek for justice, and both parts coexist within me."²¹

²⁰ Alegra, interview by the author, September 2024.

²¹ Wang, interview by the author, September 2024.

Wang, currently pursuing a graduate degree in religious studies at Tohoku University in Japan, realized since junior high that to have an opportunity to leave Fushun, he needed to secure admission to the best secondary school in the area. The emphasis on education is commonly found in workers' families like Wang's. However, his aspiration to enter the best high school was not fulfilled, and he ended up attending a school of the second best. Still, he noticed his classmates gradually losing hope, and he even described Fushun as a city slowly dying while its people continued their ways of living. This urgency intensified his desire to escape from school and Fushun. His father began working as a migrant worker in Beijing after being laid off but didn't earn much, which led Wang to acknowledge that his physically weak mother was primarily supporting the family. Realizing his parents couldn't provide further support, he understood that he had to rely on himself for the road ahead. His nostalgia for Fushun emerged from the tales his parents shared about the secure, dignified life of workers at the SOEs, but this way of living remained an aspiration for him, an experience he never lived through. Therefore, Fushun appeared to him as a shattered and despairing place of home.

Despite growing up in precarity, Wang consistently pursued studies in the humanities, theology, and psychotherapy. When I asked why he chose humanities instead of majors that can better help him to secure employment, he stated that his intention to leave Fushun was never about making money, but "solely about leaving" (只是为了离开 zhishi weile likai). For the future, his aspiration is merely to sustain himself and that's it. Xiang Biao coined the term "displacement of the present," which refers to out-migration (overseas labor in particular) as a decision made by laid-off workers who worried about

the economic circumstances during layoffs and were anxious about missing out on immediate opportunities before they had to unwillingly pursue low-paying jobs in the emerging domestic labor market in the 2000s (Xiang 2014). Workers affected by layoffs came to realize that with increasing effort at the present, they could potentially turn away future hardship for themselves and their families. Wang's father was one of these people who "gambled" their present for the future after he got laid off and began working in Beijing since 2003. However, witnessing his father's struggles and impoverished state, Wang understood that this opportune window had passed and, consequently, earning money wasn't his priority.

Family Background and Gender: "When There Isn't a Male Role Model Within a Family, Yet the Household Continues to Function Adequately, It Implies That the Females Within That Family Carry a Significant Amount of Responsibility"

As mentioned earlier, Fushun is populated primarily by descendants of in-migrants who were refugees, peasants, forced laborers, and small business owners, particularly during periods of economic crisis and wars in other parts of China since the late Qing Dynasty. Historically, Fushun was a heavily industrialized city with a predominantly male labor force. During layoffs, many laid-off male workers left their families in Fushun in search of job opportunities elsewhere. According to the 6th and 7th National Population Census of the People's Republic of China, in 2010, there were 1,080,753 males, which accounts for 50.55% of the total population in Fushun, and 1,057,337 females, which makes up 49.45% of the total population.²² By 2020, the male

²² *Zhongguo 2010 Nian Ren Kou Pu Cha Zi Liao* (Beijing: Zhongguo Tong Ji Chu Ban She, 2012); *Zhongguo 2020 Nian Ren Kou Pu Cha Zi Liao*(Beijing: Zhongguo Tong Ji Chu Ban She, 2022).

population had decreased to 923,275, which represents 49.6% of the total population, while the female population decreased to 938,097, which comprises 50.4% of the total population.²³ The reduction in the resident male population implies that women may bear more household labor. Moreover, Liaoning Province's high divorce rates (65.83% in 2020 and a national average rate of 39.33%) in China suggest that divorced women often have significant economic burdens, as well as caring for children and elderly family members. During their upbringing, many children had limited contact with unemployed or migrant-working fathers. This phenomenon led to an absence of males in many of the families I interviewed. The phenomenon of male youths having negative perceptions of fathers, uncles, and brother is prevalent as well. This phenomenon is particularly noticeable in Wang's family:

“For instance, my paternal uncle was a rural worker, a laborer in the countryside, but he passed away a while ago. He had some unhealthy habits. People from the Northeast eat a lot of salty pickled vegetables, you know? Then, my second uncle, after the economic reform, there was no land to farm because of land acquisition, so farming wasn't profitable. He worked as a contractor, but eventually, he accrued a lot of debts, even indebting the entire family. My older brother has an alcohol problem. My aunt's husband drives a taxi, but he also has an alcohol problem. Everything is very chaotic. So, you see, all the male figures in our family are quite chaotic. On one hand, they tried to follow the trend of the times but couldn't catch up. On the other hand, when the era arrived at that juncture, they needed to go out and make a living, but their lives aren't going well.”²⁴

Wang further added:

“When there isn't a male role model within a family, yet the household continues to function adequately, it implies that the females within that family carry a significant amount of responsibility. The issue lies in the fact that a single individual cannot bear all those responsibilities alone. When someone is compelled to assume such responsibilities, they face considerable pressure, which could lead to considerable mental instability. Thus, in our country, particularly in our Dongbei, among the older generation of women, there may be numerous strong women. However, they often exhibit intense neurotic characteristics due to the unstable nature of life. They must carry a heavy burden, remain resilient, yet maintain a sense of dignity in their character, don't they?”²⁵

²³ *Zhongguo 2020 Nian Ren Kou Pu Cha Zi Liao* (Beijing: Zhongguo Tong Ji Chu Ban She, 2022).

²⁴ Wang, interview by the author, September 2024.

²⁵ Ibid.

In my conversations with him, Wang often conceptualizes his mother as a strong yet somewhat neurotic woman due to the immense responsibility and pressure she carried. This indirectly influenced Wang's decision to study the revitalization of religious practices in post-socialist societies and also pursue studies in psychotherapy and chaplaincy because he initially hoped these professional skills could assist his mother. He frequently mentions that the most respected person in his entire family is his mother because she single-handedly supported the entire household. In fact, his mother became a role model for him, as his father's professional failures and the decline of the paternal figure's halo in Fushun led Wang to lose hope in the male members of his family. However, as he matured, he realized that his deep emotional ties to his mother became a factor influencing his determination to leave Fushun. The knowledge he acquired also influenced his conceptualization of the decision-making process:

"I asked [father], 'Have you ever read a page about how to raise children in the process of parenting?' He said no. Indeed it was like that. There's a passage in Jung's book, and his theory is that the archetype of parents and the impression of parents are so powerful that we easily invest our real-life expectations of parents into the actual living individuals who are our parents. So, the viewpoint is somewhat like this: when you no longer perceive your parents solely as parents but instead regard their words as those of an independent, concrete person, that's when we truly achieve separation from our parents."²⁶

For Wang, leaving Fushun doesn't simply mean a physical departure. It entails completely freeing himself from all the influences of Fushun. Only in doing so can he become an independent individual and confront his parents as they truly are, rather than living within his own expectations and imaginations of them. However, 'moving forward' isn't a one-time thing nor a forever concluded process. As Wang urgently tries

²⁶ Wang, interview by the author, September 2024.

to distance himself from Fushun, he discovers that his entanglement with the city runs so deep that without figuring out certain issues, he can never truly “move forward.” Thus, he began using his vacation time to return to Fushun and interviewing local elders who started embracing religious beliefs in the post-socialist era. He seeks to understand the factors influencing people to continue living in Fushun.

For Wang, his determination to leave the physical home and his feeling of unfinished mission with his hometown have to do with the dismantling of the “iron rice bowl.” While his father and grandfather miss the Maoist era when SOE workers enjoyed dignity, Wang embraces this notion with despair and struggling. In his conceptualization, the “iron rice bowl” implicates a moral and dignified socialist citizen, who is supposedly the ideal father figure that should represent from the nation to the industrial hubs of Dongbei and to his biological father. Yet, what the precarity of layoffs entails is anxieties over the meaning of life, where such empowering and overarching father-figure has rather been castrated. Moreover, the haunting urban landscape and environmental degradation of Fushun further attest to his belief that what the socialist industrialization manifested is not an honorable transformation of the landscape but rather a betrayal of the promise of communism for the prosperity of economic life that’s unevenly distributed.

For another interviewee, Liu, leaving Fushun means departing from her beloved family, and her emotional ties to her mother cannot be severed. The ties serve as her motivation for future life endeavors:

“When I was very young, my mom went to work in Japan. It’s been almost twenty years since she left. Due to her job, she could only come back once or twice a year, staying at home for a few days before having to return to Japan to continue working. It hasn’t been easy for my mom to support our family, and I don’t blame her for not being around as I grew up because she provided me with a relatively comfortable and affluent life. My only hope is that during her short visits, I can do various mother-daughter activities with her. I really want to go to Japan to live with her. That’s why I self-studied Japanese during my

undergraduate studies, hoping to work or pursue further studies in Japan in the future. In this way, I can be with her and make up for her absence of the past twenty years.”²⁷

Liu attended college in Beijing. However, she has no desire to stay. In her view, Beijing is a cold and stressful city for outsiders. Consequently, she often vacillates between leaving or returning to Fushun at major moments in her life. She longs for the companionship of her family and sometimes even considers taking the civil service examination and become a civil servant officer in Fushun, where the pay might be less but at least she could be with her family. Moreover, Fushun is a city she is familiar with and fond of. She frequently tells me that while walking on the streets of Beijing, she doesn't feel that any corner of the city could accommodate or belong to her. However, when she returns to Fushun and walks on the streets, she feels that every inch of land beneath her feet belongs to her. Fushun is a place that is safe and warm.

For Liu, her place attachment to Fushun always makes her yearn for the city when she is alone elsewhere. In Beijing, she must strategically create new place attachments to adapt to the city's environment. She mentions that whenever she returns to her ten-square-meter rented apartment in Beijing, she feels she finally possesses a small space of her own, but this sense of security is not enduring. This lifestyle in Beijing is unsustainable for her. Another place attachment she has formed in Beijing is in the Summer Palace. While walking with her there, she mentioned her fondness for rowing on Kunming Lake because the boat and the lake separate her from everything around. The lake has become one of the few quiet and comfortable corners for her.

²⁷ Liu, interview by the author, May 2024.

Whether leaving or staying in Fushun, these choices repeatedly emerge throughout the transitions to adulthood, and the projects of out-migration have never been final. Even upon physically departing Fushun, factors such as family, gender, memory, and socio-economic elements consistently pull young individuals back into the decision-making process. Fushun remains a ghost of memory, yet simultaneously serves as the starting and ending point for these young people's dreams about future life.

Haunting Memory: "My Body Started Trembling Involuntarily"

Aside from the aforementioned factors that influence young people to out-migrate or stay, unwelcoming memories represent another significant factor. During the period of layoffs, a vast number of unemployed workers fell into despair and emptiness. Alcoholism, crime, prostitution, and gambling became widespread phenomena. Laid-off workers in Dongbei became gradually stigmatized as "morally deficient" and "criminals." For the young individuals who grew up witnessing their fathers gradually getting unemployed and descending into despair, they find difficulties forgetting these memories. Hence, "to live is to leave Dongbei" also implicates overcoming experiences of upbringing:

"My father was laid off and used his savings and borrowed money to start a six-story business hotel in Fushun. In fact, at that time, no one knew why he did this because Fushun was not a place where businesspeople frequently visited. So, his hotel closed shortly after opening. Although I was only two or three years old at that time, for some reason, I have vivid memories of that hotel. When I was a child, sometimes my father would take care of me, and during those times, he would take me to his hotel. In my memory, that hotel was deserted, with dim, pale, blue-tinted glass windows, giving the place a spooky appearance. It's a memory that has stayed with me. As I grew up, I was determined to strive for the college entrance examination and leave Fushun. I wanted to go anywhere but here. So, I went to study for my undergraduate degree in Dalian. Once,

while walking on the streets of Dalian, I saw a building with those pale, blue-tinted glass windows, and inexplicably, my body started trembling involuntarily.”²⁸

When I asked Meng what kind of person her father was, she would always hesitate for a while and then tell me she didn’t know how to view her father because she felt that her father was a demon. Meng mentioned that her father took absolutely no care of the family, was disliked by relatives and friends, and carried a significant amount of debt. Her parents’ marriage was also unhappy. After her father had an affair and neglected the family, her parents got divorced. Hence, during her childhood, Meng was frequently looked after first by her mother and then by her father. Her mother had strict demands of her and often expressed many expectations directly to her. Meng’s mother hoped that Meng would study well, find a good job, and then take her away from Fushun. One of the few moments Meng felt happy was when her aunt looked after her because her aunt would cook various delicious dishes for her and would secretly stuff her pockets with lots of snacks when she left. For Meng, her aunt played a role like that of a mother figure, while Meng often have fights with her mother and couldn’t stay with her for too long.

Additionally, Meng likes reading history books and novels, and her understanding of Fushun’s history is the most comprehensive and profound among all the interviewees I encountered:

“Fushun, due to its substantial coal production, was once covered by forests, which were later cut down extensively for coal mining. During the Japanese invasion of China, there was massive mining activity in this region. Why was the Lushun Massacre severe? It’s because there might indeed be evidence of people being subjected to massacres. Fushun had similar stories. We have a memorial hall in Pingdingshan, but why did many miners die? The mining technology wasn’t very advanced at that time. There were minor mine accidents, or something happened, and the Japanese would seal off the mine shafts. As a

²⁸ Meng, interview by the author, September 2024.

result, the miners were trapped inside and couldn't get out. If there was a gas explosion or something similar in the end, you wouldn't find any corpses.

It seems that many buildings in Dongbei are Soviet-style and Japanese-style architecture. I used to live in a 'ri ben lou' (Japanese building). Then, in my childhood, we also lived in buildings somewhat resembling Soviet architecture, with exterior walkways. These old houses were later demolished, and I can't find those houses anymore."²⁹

Memories are deeply embedded within the fabric of the city and revealed through day-by-day urban degradation, demolition, and renewal. The materiality of the urban landscape evokes memories of despair, sadness, and unhappiness for some and comfort for others. These recollections encompass not only the personal experiences of young people but also post-memories they inherit from their parents and grandparents. Fushun, in its present state of decline, conceals itself deeply within the memories of the youth, while constantly resurfaces as young people out-migrate.

In Fushun, the conflict between young people's pursuit of mobility and their desire for stability generates a pervasive sense of disorientation. On one hand, mobility allows them to access better education and job opportunities outside of Fushun. On the other, it gives them the capability to ease the tension between themselves and their hometown. However, this constant, ongoing pursuit of mobility and sense of directionlessness exactly implicates the precarity they are experiencing. Sometimes, young people can alleviate the feeling of crisis and directionlessness brought by experiences of precarity through creating new place attachments or achieving economic affluence. But when they lack the means or "guan xi" to adapt to the ever-changing economy and job market, this sense of disorientation instead makes them realize that any stability is only

²⁹ Meng, interview by the author, September 2024.

temporary. Eventually, they got exhausted in their attempts to escape the precarity in their lives.

In a sense, mobility implicates one's instability that ranges from material to psychological levels. In Fushun, non-mobility, on the contrary, implies stability and economic affluence. It means having a stable, sustainable job within the SOEs. The future is also relatively predictable, where one can retain their jobs and retire with a pension higher than other non-SOE employees. However, a new wave of industrial transition is impacting Fushun's landscape of employment. With the closure of the West Open Pit in 2019 and the beginning of ecological restoration, Fushun's main industries have shifted toward oil shale refining and other petroleum-related products, along with other clean and renewable energy projects. Yet, these industries and energy transitions have not created more jobs for young people because automation and digitized management have eliminated many manual positions.

Some of my interviewees who work in the SOEs mentioned that Fushun Petrochemical plans to cut one-third of its workforce within the next five years. Additionally, their salaries have shrunk by nearly a third over the past two years. Some of them are already considering resigning from their jobs and using their savings to emigrate to Southeast Asian countries. This implicates that the precarity experienced by young people in Fushun is multi-dimensional. It impacts not only those at the bottom of the social hierarchy but also the middle class, who are now facing economic instability as well.

Concluding Remarks

The decision to leave Fushun is more than a quest for better jobs or a stable future. Instead, it's a response to a layered precarity shaped by the city's history. Fushun's developmental trajectory has left behind not just environmental degradation, but an industrial complex woven with memories of extraction, exploitation, and decline. In a city where the landscape bears the scars of industrial extraction, colonialism, and socialism, young people's lives are shaped by more than just economic hardship. They're shaped and reshaped by memories, anxieties, and a sense of a home that feels like it's falling apart. For many, "to live is to leave Dongbei" is a survival strategy and a way to humorously imagine a different future beyond the crumbling neighborhoods of their childhood.

Yet leaving isn't a simple act of escape but rather a process of decision-making filled with contradictions. The polluted air, the abandoned mines, the half-forgotten histories. These are not just relics of the past. These are what young people interact with in their everyday practices of space-making and pursuit of social mobility. This chapter shows that migration is as much about wrestling with these late industrial elements as it is about finding opportunity elsewhere. Even when young people choose to leave, they carry Fushun with them: in their memories, in their dreams, and in the hope that something better might still emerge from the ruins.

Migration is more than physical movement. It's a negotiation with identity, memory, and the toxic landscapes of home. Young people in Fushun are caught between nostalgia for the promises of industrial modernity and the harsh reality of a decaying city. Their departures reflect both hope for something better and a reckoning with a place that

has become unlivable. By situating Fushun's out-migration within broader discussion of late-industrial precarity, I believe it is important to understand the historical and ecological dimensions of migration. Fushun's story is one that resonates with other company towns around the world where industrial restructuring has left marks on both the land and the people. However, the colonial and socialist legacies make this city a unique case study for examining how histories of industrial extraction shape contemporary experiences of migration.

In the following chapters, I will illustrate a few major questions: How do those who stay adapt to Fushun's changing landscape? How do contemporary politics of ecological restoration and urban redevelopment intersect with these histories, and what new inequalities and displacement do they produce? These questions are critical for understanding how late industrial communities might reimagine and rebuilt their futures beyond historical trajectories of industrial extraction and reliance on technocratic visions. In Fushun, the aspirations of its people reflect an ongoing struggle with its troubled industrial past. However, as my ethnographic accounts will demonstrate, even amidst the city landscape shaped by colonial exploitation and socialist industrialization, the possibility of different futures remains fragile but alive.

Chapter 4. Coal Tailings and Contemporary Ecological Restoration in Fushun

Introduction

At the start of 2023, news that Fushun Petrochemical Company was demolishing its No. 1 Refinery provoked outrage and fierce opposition from local industrial heritage preservation volunteers. This refinery was originally built in 1928 by Mantetsu to extract oil from kerogen shale, with the intention of fueling the war efforts in Manchuria and the Pacific Ocean. During the Korean War, China faced severe shortages of petroleum, and Fushun's abundant coal and oil shale became major sources of synthetic oil. By 1959, Fushun's shale oil production reached 721,800 tons, accounting for 80% of the nation's artificial petroleum output. However, starting in the early 1990s, the refinery faced subsidence due to its proximity to the expanding open-pit coal mine, and in 2011, the refinery was relocated, while the colonial era and Maoist industrial relics were left unclaimed.¹

As workers and demolition equipment moved into the old factory area and trucks loaded with steel rumbled away, industrial heritage enthusiasts from both within and outside Fushun quietly climbed over fences and snuck into the overgrown, abandoned site to capture its final moments through photography.² Even a Fushun television reporter produced a documentary showcasing the factory before and after demolition, and

¹ Li, Xiang. “城市发展背后的困局：抚顺的前世今生” [The Dilemma Behind Urban Development: The Past and Present of Fushun]. https://www.sohu.com/a/728627934_121375387.

² Ibid.

eventually released it on short video platforms.³ This unexpected public exposure quickly caught the attention of the city's cultural and tourism bureau, the municipal government, and the Liaoning provincial government. In May 2023, the Fushun Municipal Bureau of Culture and Tourism fined Fushun Petrochemical Company 300,000 RMB.⁴ This incident led industrial heritage preservationists to unite in drafting legal documents to petition the provincial government, advocating for the preservation and conversion of industrial heritage into tourist attractions.⁵ They envisioned this as an important part of Fushun's urban redevelopment to mitigate the economic decline and population loss caused by the depletion of coal resources.⁶

While volunteers were focusing on preserving industrial debris or as tourists were drawn to the city's West Open-Pit, photographer Li Yong turned his attention to the hills surrounding the mining area. These hills were quietly and rapidly being transformed into sites for waste incineration plants, photovoltaic power plants, and reclamation bases. Li Yong, the son of a worker, was a teacher of computer science at a local middle school and now an art teacher, but over the past 20 years, he has been documenting the changes in Fushun.

In this chapter, I examine the history of coal tailings and contemporary ecological restoration of these toxic landscapes in Fushun by exploring the civic actions of industrial heritage preservationists, artistic works, and widespread phenomenon of urban farming

³ Yang, interview by author, Jan 2024.

⁴ "Administrative Penalty Against Fushun Petrochemical Company," *Official Website of the Fushun Municipal Bureau of Culture, Tourism, Radio, and Television*, May 30, 2023, <https://whly.fushun.gov.cn/zwgk/002006/002006002/20230530/d0c5ac2d-10e6-4a83-b325-de2b8e0ee5bb.html>.

⁵ Lin, interview by author, May 2024.

⁶ Ibid.

particularly on restoration sites. These grassroots actions, though distinct from one another, reveal residents' practice of space-making during a critical moment of urban redevelopment and energy transition. Moreover, by comparing these actions with government-led and corporate-led projects of restoration and urban greening, I demonstrate how alternative, civic forms of restoration of toxic landscape enable us to reconsider the intersection of human, nonhuman, and environments. Last but not least, by employing archives, blog posts, art publications, interviews, and government reports, I aim to showcase how people, who engaged in this process of transformation, consider and reflect on their actions of space-making, documentation, and preservation.

A History of "Shechang" in Fushun

The hills in Li's photography are tailings that formed over a hundred years from accumulations of coal gangue, low-grade ore, and shale. Mining often produces waste materials, primarily coal gangue, a hard, carbon-poor gray-black rock that accompanies coal seams during formation. Though the carbon and sulfur in coal gangue make it difficult to burn, under pressure and friction, it can undergo smoldering combustion, generating heat that can be felt even in the absence of visible flames.

Fushun has four tailing hills, known as Xishechang (西舍场), Dongshechang (东舍场), Wangliangshechang (汪良舍场), and Ganzishan (矸子山).⁷ The combined area of the first three covers 22.4 square kilometers, with Xishechang, the largest, spanning

⁷ Editorial Committee of Fushun Mining Group Co., Ltd., *Fushun Mining Area Gazetteer 1986-2006*. Published in 2008.

11.44 square kilometers.⁸ It was also the inspiration for the title of Li Yong's photographic series. The first to be constructed among the four was Ganzishan, constructed by the SMR in 1925, but it was abandoned in 1937 due to the expansion of the open pit.⁹ The other three tailing sites were constructed between 1933 and 1938.¹⁰

The Chinese term “shechang” (舍场) originates from the Japanese word “suteba” (捨場), referring to a place for dumping waste, with common usages like “tuchi-suteba” (soil dump 土捨場) or “yuki-suteba” (snow dump 雪捨場).¹¹ However, in the Kamakura period, the term took on other meanings as “ushi-suteba” (ox dump 牛捨場) and “uma-suteba” (horse dump 馬捨場) emerged.¹² When farmers' cattle or horses died, people did not know how to properly dispose of these animals, and there was a belief that handling such animals could result in contamination with impurity (kegare 汚れ), preventing individuals from approaching deities after they die.¹³

Thus, people would place aged or dead livestock in designated sites, leaving them there to die and decompose naturally. Additionally, although there was a taboo against eating cattle and horses at that time, their hides and meat remained valuable to people.

⁸ Editorial Committee of Fushun Mining Group Co., Ltd., *Fushun Mining Area Gazetteer 1986-2006*. Published in 2008.

⁹ 撫順炭鉱読本 [Fushun Coal Mine Reader], 監修: 満鉄会 [Supervised by Mantetsu Association], 南満州鉄道撫順炭鉱昭和 14 年度版 [Southern Manchurian Railway Fushun Coal Mine, 1939 Edition]. Reprinted in 満鉄史料叢書 1 [Mantetsu Historical Archives, Vol. 1], 龍溪書舎 [Ryukei Shosha], January 1986, pp. 504–507.

¹⁰ Ibid.

¹¹ “賤民とは何か” [What is a Pariah], 河出書房新社 [Kawade Shobo Shinsha], first edition published March 30, 2008; originally published in 歴史地理 [History and Geography], vol. 43, no. 5, May 1924. Prepared by Takashi Kawayama and proofread by Hiroshi Kadota. Created January 19, 2013, as an *Aozora Bunko* file, accessible at Aozora Bunko: <http://www.aozora.gr.jp/>.

¹² Ibid.

¹³ Ibid.

Therefore, butchers began frequenting the “ushi-suteba” and “uma-suteba” sites to slaughter, skin, and consume the animals, and some marginalized people even survived by scavenging leftover meat at these locations. The formation of the “suteba” as places for discarded materials was thus intertwined with societal and folk beliefs regarding the dual marginalization of human and non-human subjects.¹⁴

The processes of coal sorting, washing, and disposing turned coal gangue, low-grade ore, and shale into tailings. Over time, the abandoned tailing hills were transformed into what now appears to be a natural landscape without any obvious human trace. The lack of records or archival images has made it nearly impossible to document their history. These hills are almost “dirt,” in the sense proposed by Mary Douglas in her book *Purity and Danger* (1991). Dirt, according to Douglas, is not merely physical filth, but refers to anything that is “out of place” (35). She uses the example of shoes, which are not inherently dirty but become so when placed on a dining table (35-36). Similarly, the making of these tailing hills aligns with her concept of “out of place.” The tailings are the byproducts of coal extraction and have been deemed valueless in industrial production. By 1986, Xishechang still had 13 discharge lines coming from the open pit, which deposited 16 million cubic meters of waste per year.¹⁵ However, by the end of 2000, all the discharge lines were decommissioned, and any new tailings were disposed within the mine itself.¹⁶

¹⁴ “賤民とは何か” [What is a Pariah], 河出書房新社 [Kawade Shobo Shinsha], first edition published March 30, 2008; originally published in 歴史地理 [History and Geography], vol. 43, no. 5, May 1924. Prepared by Takashi Kawayama and proofread by Hiroshi Kadota. Created January 19, 2013, as an *Aozora Bunko* file, accessible at Aozora Bunko: <http://www.aozora.gr.jp/>.

¹⁵ Editorial Committee of Fushun Mining Group Co., Ltd., *Fushun Mining Area Gazetteer 1986-2006*. Published in 2008.

¹⁶ Ibid.

The tailings are not just physically discarded but are also marginalized in a social and cultural sense, becoming almost imperceptible and disconnected from human activity and history. Anthropologist Marc Augé describes spaces unrelated to human activity and lack of historical or affectional connections as “non-place” (1992). These non-places are transitional spaces where individuals pass through anonymously, without forming any intimate associations (78-81). Typical examples of such spaces include airport terminals, hospitals, cinemas, and shopping malls, where close social interactions rarely occur (79). Therefore, “non-place” is defined in opposition to “place,” which, according to Augé, are characterized by their relationality, historical significance, and close ties to individual and collective identity (87). However, non-place and place are not mutually exclusive. As Augé points out, even a non-place can become a place due to certain events or actions (80-81).

The “out of place” of tailings and the ambivalence of tailings oscillating between non-place and place, as Mary Douglas would say, pose a threat to social order and classification systems. Dirt, in Douglas’ view, exists at the boundary of value judgments, thereby blurring lines and challenging classification rules. This ambivalence reveals that mineral waste is not a static entity. Rather, industrial production chains “wastize” them into tailings. According to Marx (1978), waste is excess, which are products no longer needed by the market. In mining and oil refining, the value created by workers is largely appropriated by companies in the energy sector, while the workers themselves become alienated from the production process. The formation of tailings is a continuation of this process. While workers labor to extract valuable ores, the waste materials, which have been deemed worthless, accumulate in these tailings. These tailings are thus the discarded

labor and undesirable products of the industrial system. They no longer hold any economic value and instead becomes a “burden” for projects of both mining expansion and urban redevelopment.

Waste, Subjunctive Politics, and Urban Redevelopment

Anthropologist Chloe Ahmann, who studies industrial transitions in Baltimore, notes: “Because [waste] cannot be reabsorbed into a system of exchange, it suggests that something in the capitalist scheme has run amok. Waste, in other words, can undermine whole value systems. This quality makes waste an anxious object” (2019, 331).

Ironically, as Ahmann further points out, in Baltimore’s Curtis Bay, elderly retired workers began to reignite their hopes of economic prosperity after learning of plans to build the largest waste incineration plant in the United States (329). Just as they once regarded the dust from factory smokestacks as a symbol of wealth in their youth, garbage was now seen as money when incinerated to generate electricity (329). When technological advancements allow waste to be transformed into resources, waste itself becomes an alluring gem within the capitalist system. In this process, anxiety is converted into a controllable risk. The issue, however, is that transforming waste into resources comes with significant environmental costs, and technological advancements often obscure the destructive aspects of this conversion process, which oftentimes encourage short-term focus on economic gains (332).

Between the 1920s and the outbreak of the Mukden Incident in 1931, the Fushun Coal Mining Company, managed by the Japanese, expanded the northeast corner of the open pit, leading to the displacement of both Japanese and Chinese residents nearby. The

Japanese moved to nearby hills, where they built upscale residential areas, while the Chinese were forced to relocate to the Xinfu district on the south bank of the Hun River. Originally part of the river's channel, the south bank was filled by the Company with coal gangue. As a result, the river was pushed further north and flooded large areas of farmland belonging to farmers living by the north bank.¹⁷ Coal gangue was in fact unsuitable for use as construction foundation material. Today, walking through the streets of the Xinfu district, one can often see cracks in the ground and buildings due to subsidence caused by mining activities. Elderly workers living in the area often joke that the temperature in the Xinfu district is slightly higher than in other parts of Fushun because the coal gangue beneath continues to react and release heat.¹⁸ The heat, which represents the material outlet of anxiety and risk, serves as a constant reminder of the heavy and often imperceptible historical burden borne by a city in transition.

In 1999, the Fushun Municipal Government released a comprehensive urban redevelopment plan.¹⁹ Specifically, the plan proposed that the city center be gradually shifted from the southern bank of the Hun River to the eastern new district on the northern bank over the next 20 years.²⁰ From 2004 to 2014, Li Keqiang, who served as the secretary of the Liaoning Provincial Committee before becoming China's Premier, visited Fushun multiple times to examine the renovation and relocation of residences in

¹⁷ Fu, Bo. “抚顺历史上第一座现代都市的崛起与沉没” (The Rise and Fall of Fushun's First *Modern City*). Fushun Evening News, March 2012. <http://fs7000.com/news/?2700.html>.

¹⁸ Jiang, interview by author, May 2024.

¹⁹ “抚顺市第三部城市建设总体规划” [The Third Comprehensive Urban Construction Plan of Fushun], 抚顺七千网 [Fushun Seven Thousand Network], <http://www.fs7000.com/news/?12021.html>.

²⁰ Ibid.

the subsidence areas.²¹ Around 2009, Fushun was designated as a resource-exhausted city,²² and by 2014, Fushun Petrochemical Company had become one of the most loss-making subsidiaries within the China Petrochemical Corporation.²³ Meanwhile, to address the sulfur compounds decomposed by rain and atmospheric activity from the tailings into urban and rural soils and air, the Fushun Mining Corporation has, over the past 20 years, planted 15,000 mu (around 1,000 hectares) of alfalfa on Xishechang, as well as sumac trees. The latter are a North American native species known for its drought resistance and strong root systems, which help stabilize slopes.²⁴ The reclamation base on Xishechang also employs migrant workers from Jilin and Heilongjiang provinces to work on commercial farming.²⁵ Shale brick factory, ceramic factory, and cement factory have also been established at the foot of the tailings.²⁶ Descendants of Japanese who once lived in Fushun have returned and brought their companies to help produce clean coal.²⁷

²¹ “组图：2004-2014 李克强数次考察棚户区” [Photo Series: Li Keqiang’s Multiple Inspections of Shantytowns, 2004–2014], published by *People’s Daily Online* on the website of the State Council of the People’s Republic of China under the section *State Council Leadership*, March 27, 2014, https://www.gov.cn/guowuyuan/2014-03/27/content_2648250.htm.

²² “国务院确定第二批资源枯竭城市抓紧完善转型规划” [The State Council Designates the Second Batch of Resource-Exhausted Cities to Expedite the Refinement of Transition Plans], origin: Revitalization Northeast Network (振兴东北网), published on the website of the Central People’s Government of the People’s Republic of China (中华人民共和国中央人民政府) under the section “Department Information” (部门信息), March 5, 2009, https://www.gov.cn/gzdt/2009-03/05/content_1250904.htm.

²³ “中石油抚顺石化 3 年亏 187 亿” [PetroChina Fushun Petrochemical Loses 18.7 Billion Yuan Over Three Years], published on Yicai (第一财经), July 21, 2014, <https://www.yicai.com/news/3996071.html>.

²⁴ Fushun Mining Group Co., Ltd., “抚顺西露天矿 一座百年老矿的昨日今朝” [Fushun West Open-Pit Mine: The Past and Present of a Century-Old Mine], <http://www.fkjt.com.cn/ins.asp?s=18&i=509>.

²⁵ Li, interview by author, May 2024.

²⁶ “抚顺市人民政府办公室关于印发抚顺市工业‘十四五’发展规划的通知” [Notice from the General Office of the Fushun Municipal People’s Government on Printing and Distributing the 14th Five-Year Development Plan for Fushun’s Industry], issued by the Fushun Municipal People’s Government, May 9, 2022, <https://www.fushun.gov.cn/govxxgk/fushun/2022-05-09/a2b9f535-1475-4f03-b878-1fe0d15f6dc7.html>.

²⁷ Ji, Min. “亲历日中由‘战’到‘和’渐进过程” [Personally Experiencing the Gradual Process from ‘War’ to ‘Peace’ between Japan and China]. *Wenshi Jinghua* [Essence of Literature and History], no. 11 (2008).

However, many questions are left unanswered: for the municipal government and these corporations, has the tailings become the new mine? In particular, renewable energy also has a lifespan. When the solar panels on the tailing site are eventually decommissioned, will corporations have the technology to recycle them? If residents of Fushun envision the transformation of late industrial cities as being dependent on re-industrialization, does that indicate that the civic perspective is somehow constrained?

In her work, Ahmann introduces the concept of “subjunctive politics,” which she posits as a guiding logic, particularly in late industrial communities undergoing environmental challenges and economic decline (2019, 337). She analyzes how two discourses of renewal—the environmental one advocated by technocrats and enterprises, and the economic one embraced by working-class whites—intertwined around the proposed Fairfield Renewable Energy Project in Curtis Bay (337). Both groups relied on hypothetical comparisons while projecting futures that are shaped by their past experiences with industrialization (338). Within the framework of subjunctive politics, they narrowed down a wide range of potential futures into more limited, pragmatic prospects, with the white working class willing to set aside concerns about air pollution from waste incineration in the hope of reviving their community (338). Ahmann argues that while this framework offers hope, it also reveals deep ambivalence about the future within these “geographies of undesirables” and the risk that the future remains in the hands of a few technocrats (330-340).

In 2000, the unemployment rate in Fushun reached 32.85%, compared to a national unemployment rate of 3.2%.²⁸ Even during this period of layoffs caused by enterprise reforms, resource depletion, and geological disasters, workers in Liaoning province generally looked down on those who went south to do business and insisted on sending their children to vocational schools.²⁹ Many believed that the layoffs were temporary, that the state would subsidize industrial enterprises, and that they would soon return to their factories.³⁰ But the things they held firm belief in ultimately collapsed.

As Ahmann points out, the risk of subjunctive politics is that it leaves late industrial communities believing that the future of urban renewal relies on either supporting or opposing renewable energy projects. In Fushun, the century-long energy industry has led many to believe that Fushun's future lies in efficiently utilizing coal gangue or memorializing industrial heritage, turning these industrial behemoths into tourist attractions.³¹ Among industrial heritage preservationists, this vision holds a powerful gravitational force. To some extent, the idea that one day workers' descendants could honor their parents and grandparents, that their labor would be etched into the city's development and forever remembered, is a heartwarming and welcoming prospect. However, the risk posed by the hopeful vision projected by subjunctive politics lies precisely here: when the remnants of the factory become workers' memorials and

²⁸ Fushun Municipal Bureau of Statistics, *Main Data Bulletin of the Fifth National Population Census*, 2000 (Fushun, 2000).

²⁹ Jiang, interview by author, Jan 2024.

³⁰ Ibid.

³¹ Lin, interview by author, May 2024.

museums, perhaps the narrative of the workers themselves will become even more distant from them.

Ecological Restoration and Urban Farming

A group of people documented by Li Yong offers a possible way to break free from the limitations imposed by subjunctive politics. These are elderly retired workers from the coal mines and oil shale refineries, mostly aged 60 to 90.³² About 20 years ago, they began collecting scrap around Xishechang to build small shacks and planting crops like peanuts, potatoes, corn, and watermelon nearby.³³ The soil is unlike regular farmland. The elderly workers often spend one to five years clearing, cultivating, and restoring the land, breaking down large chunks of waste minerals into smaller particles to create relatively favorable conditions for crop growth.³⁴ The small shacks serve as temporary dwellings during harvesting seasons, and the materials for building these shacks often come from nearby brick factory, cement factory, and landfill.³⁵ When the Fushun Mining Corporation built reclamation bases and photovoltaic projects,³⁶ many of these shacks were demolished. Yet every one or two years, new ones gradually reappeared on Xishechang.

³² Li Yong, interview by author, May 2024.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Fushun News Network, “抚顺：让绿色发展成为城市振兴的最美底色” [Fushun: Making Green Development the Most Beautiful Foundation for Urban Revitalization], published on the official website of the Fushun Municipal People’s Government, October 12, 2024, <https://fushun.gov.cn/006/006018/006018001/20241012/de99a98a-6996-4b1a-8a87-b8e1882db66c.html>.

Although these elderly workers spent their lives working in mines and factories, recycling scrap and growing crops is not unfamiliar to them. In 1957, to ease the strain on material supplies and fiscal expenditures, the Central Politburo of the Chinese Communist Party passed the “Directive on the Campaign to Increase Production and Economize” on February 8.³⁷ On February 12, the Youth League of Refinery No. 1 presented a red triangular satin banner to the Wire Winding Team of the Electric Workshop, with the words “Youth Group for Reviving Scrap at Refinery No. 1” (石油一厂废品复活青年突击组) cut out in white felt.³⁸ Thirteen young technicians and apprentices in the group discovered discarded electrical equipment, such as transformers, motors, and oil switches, buried in snow piles behind the workshop and began cleaning and repairing them one by one.³⁹ During lunch breaks and after work, they would conduct “detective searches” around the factory, both inside and outside, to recover discarded equipment.⁴⁰ Other institutions followed to save and economize, including city hospitals that launched a campaign to save coal,⁴¹ and many other factories set up factory-run farmland near the mines to address the shortage of vegetables.

The practice of urban farming has never stopped since the Great Leap Forward. After resource depletion and closure of several mines and factories since the 1990s, the municipal government frequently has been receiving complaints from residents about city

³⁷ “战斗在增产节约战线上的青年们” [The Youth Fighting on the Frontline of Increasing Production and Saving Resources], *Fushun Daily* (抚顺日报), February 16, 1957.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ “采取措施节约取暖用煤” [Take Measure to Conserve Heating Coal], *Fushun Daily* (抚顺日报), February 17, 1957.

and neighborhood greenery being destroyed to grow crops and develop animal husbandry.⁴² These complaints include accusing residents of raising chicken in urban settings.⁴³ In worker communities near the mining areas, any available land is almost entirely used for small-scale agriculture.

However, the elderly workers on the tailings site don't sell these crops. Instead, they give them to relatives, friends, and other neighbors living in the small shacks on the hills. They don't believe the soil is toxic either. One elderly person said to Li Yong, "These materials have existed on Earth for tens of millions of years, far longer than my lifespan."⁴⁴ When Li Yong received crops sent by the elderly, he discovered that the taste and sweetness of the watermelons and cucumbers grown on Xishechang were entirely different from ordinary produce.⁴⁵ But Li Yong never quite understood why the elderly tirelessly traveled there to farm. One of them responded: "I've worked in the open pit my whole life. These mounds were piled up by us. I just want to spend my last years there. I feel free there."⁴⁶

The elderly workers' reflection on "freedom" seem to differ from the logic of free competition and the exchange of labor for value in a market-based order. Their self-reflexivity arises from a disengagement from any narrative, transforming the tailings site

⁴² "抚顺市群众信访举报查处情况一览表（一）" [Overview of the Handling of Public Complaints and Reports in Fushun (Part 1)], *Fushun Municipal People's Government*, <https://www.fushun.gov.cn>.

⁴³ "辽宁省生态环境保护督察抚顺市受理群众来电来信办理情况汇总表（第十四批）" [Summary of Liaoning Province's Environmental Protection Inspection: Handling Public Calls and Letters in Fushun (Batch 14)], *Fushun Municipal People's Government* (抚顺市人民政府), <https://www.fushun.gov.cn>.

⁴⁴ Li Yong, interview by author, May 2024.

⁴⁵ Ibid.

⁴⁶ Ibid.

from a ‘non-place’ into a “place” through labor that cannot be absorbed by the market.

Liu Yan, who studies Northeast China’s industrial cities, writes in his book (2024):

“In the context of marketization, the history of socialist industrialization and the working class continues to surface. It is either commemorated in mainstream ‘realist’ works, nostalgically recalled in art films, documentaries, and oral histories, or exhibited in museums themed around the industrial era. However, it serves as what Walter Benjamin referred to as the ‘cultural treasures’ as spoils of war, carried by the triumphant processions of the present era to showcase contemporary civilization and progress. While this era expresses respect for the historical legacy of the working class, it also takes the following principle as self-evident: ‘Modern workers can only survive when they find work, and they can only find work when their labor serves to increase capital.’” (59)

Narratives about Fushun often follow a trajectory of rise and decline,⁴⁷ with clean energy seemingly empowering the city to catch up with the pace of development.⁴⁸ In fact, in Fushun’s history, decline has been a recurring theme rather than a straightforward process. For example, as previously discussed, in the early 1920s, Mantetsu addressed concerns over energy shortages by expanding the open pit and demolishing the urban center to access coal beneath residential areas.⁴⁹ Similarly, during the early 2000s, the Fushun Mining Corporation transformed mining sites to commercial farming sites on restoration sites and developed incineration plants, photovoltaic facilities, and hydraulic infrastructure to revive the local economy.⁵⁰ Despite subsidence and pollution, the

⁴⁷ “抚顺‘煤都’已谢幕，供给侧人生却未散场” [The Curtain Has Fallen on Fushun, the ‘Coal Capital,’ but the Supply-Side Lives Persist], published on the official website of 抚顺七千年网站 [Fushun 7000 Years Website], <http://www.fs7000.com/news/?11730.html>.

⁴⁸ Liaoning Provincial Bureau of Statistics, “抚顺：十八大以来抚顺经济社会发展情况综述” [Fushun: Overview of Economic and Social Development Since the 18th National Congress], published on the Liaoning Provincial Bureau of Statistics website under the section “第三十届全国统计开放日” [30th National Statistical Open Day], September 14, 2022, <https://tjj.ln.gov.cn/tjj/tjgz/ztl/dssjqgtjkfr/lmjshfzcyjwzp/2022091410180753682/index.shtml>.

⁴⁹ 京城日報, “滿鉄と撫順炭鉱：世界的一大工事：十年間の継続事業：大露天堀計画確定,” 第 6 卷, no. 57, May 26, 1920 (大正 9 年), p. 45, 石炭, 11.工業及鉱業.

⁵⁰ 沿着总书记的足迹 | 西露天矿：生态复绿展新辉” [Following the Footsteps of the General Secretary | West Open-Pit Mine: Ecological Restoration Shines New Glory], Fushun Municipal Government, October 1, 2024. Accessed October 31, 2024. <https://www.fushun.gov.cn/zwgk/002006/002006021/20240929/1ca93a46-bea7-4be1-94ca-ded143d1046e.html>.

industrial promise remains central to government and SOE strategies for economic revitalization. However, history demonstrates that this reliance on industrialization constrains the imagination of alternative futures.

The teleological framework of industrial decline contrasts sharply with the temporality presented by Xishechang, which has been the focus of Li Yong's long-term photographic work. Plants have their own seasonal growth cycles and sometimes act as catalysts, transforming the smoldering underground sulfides into visible flames on the surface, only to grow back after some time. Historical records of Xishechang are scarce, yet the site itself is far from static. It is continuously being accumulated and decomposed, with water, oxygen, and the elderly workers acting as agents of decomposition. It represents geological time far exceeding human civilization in Li Yong's lens.

The elderly workers' aging bodies have naturally been excluded from the order of industrial production, as their labor is no longer deemed efficient and valuable. Yet, rather than being abandoned by the factory, elders have abandoned the factory, placing themselves within the process of "wastization." They have not chosen any of the possibilities offered by subjunctive politics. Their very existence stands as an irony against the reclamation bases and photovoltaic projects on Xishechang. In Li Yong's work, the elderly workers' "production" is often presented to the audience in their material forms, through images of the small shacks and farmland they create. Li doesn't zoom his lens on the elderly themselves but rather chooses to document their 'production,' with the flash illuminating the shacks like spotlights on a stage. These elderly workers "no longer qualify as 'modern workers,' yet they have once again

become producers, and no one can turn them into trophies or cultural treasures” (Liu 2024, 62).

Concluding Remarks

In this chapter, I delve into the politics of urban redevelopment and restoration in Fushun during the critical moment of energy transition by focusing on the municipal government and corporates, industrial heritage preservationists, artists, and elderly retired workers doing urban farming. I conceive these actions as forms of space-making in response to the urban redevelopment projects proposed by the municipal government and greatly invested by the Fushun Mining Corporation and the petrochemical company. The preservationists, though proposing to transform the industrial debris into tourist attractions for economic revitalization, envision the future of the city largely relying on previous framework of industrialization. In contrast, the elderly retired workers documented by Li Yong embark on another journey to restore the toxic landscapes made of coal gangue. Although relentlessly disrupted and demolished by the Fushun Mining Corporation, which has been conducting commercial farming and ecological restoration at the same locations, the elders continued to come back and take care of the toxic landscape by breaking down coal gangue piece by piece so that they could grow crops there, thereby making spaces that have become gradually inaccessible to them once again available. However, they are not the only group of people imagining alternative post-carbon futures in Fushun. In the following chapter, I will showcase how young people have been reclaiming and transforming the late urban spaces by inhabiting the memoryscape and dreamscape.

Chapter 5. Dreams, Memory, and Late Industrial Urban Imaginaries

Beyond Boom-and-Bust

In the studies of late industrial urban transformation, collective memory often emerges as a critical aspect through which to comprehend new forms of place-making, knowledge production, governance, citizenship, and social change. However, other than oral histories, archival materials, and the physical traces of urban decay, dreams offer another interesting entering point, which has relatively been overlooked. I have illustrated briefly in the previous chapters to showcase how people navigate urban space not simply in a physical way but a combination of both practical knowledge of space and imagination. In a sense, dreams are not merely individual psychological phenomena. They can serve as forms of spatial interaction and symbolic expressions of social anxieties, historical legacies, and imagined futures. In this chapter, I examine how people I met in Fushun articulate their experiences of urban transformation and how their dreams might reflect the affective dimensions of living in a city shaped by industrial restructuring. I argue that what seems to be anxieties might turn out to be wishful thinkings that could potentially go beyond the boom-and-bust narratives.

Practically, a few questions key to my fieldwork and the writings of this chapter are: Can dreams reveal anxieties and aspirations that remain unspoken in more conventional narratives? In the context of late industrial urbanism, how might dreams serve as a unique lens through which to understand visions of the future? The first question matters because, more often than not, my interviewees framed their experiences

through the conventional narrative of industrial decline and adopted it as the overarching meta-storyline of their upbringing. Yet, beneath the surface of these familiar accounts, I could always discern counter-narratives. In many ways, narratives of industrial decline emerge through an ongoing process of negotiation between the storytellers and the world they inhabit, which is a world that must be revitalized to reclaim itself from the inertia of industrial modernity's degradation. Considered alongside the second question, these inquiries could be helpful to illustrate how individuals navigate the intersection of urban decline and personal histories.

This chapter also draws inspiration from Sophie Chao's *In the Shadow of the Palms* (2022). Particularly, her analysis of Marind people's haunting dreams provides an effective and engaged lens to consider how:

“Dreams as an onto-oneiric imagination thus constitute powerful psychic projections of the violent subjugation of Marind at the hands of powerful others, condensed in the polysemic archetype of oil palm as malignant possessor. These anxiogenic and profuse dreamings communicate the effects of rampant deforestation and agribusiness expansion among Marind, whose oneiric deaths embody the collapse of Marind subjectivity as place, persons, and time are disfigured by the relentless proliferation of monocrops. The multiplied deaths of sleepers also forebode in ominous ways the anticipated fate of all beings, human and other, rendered vulnerable to oil palm in the interstitial temporality of dreams as a future anterior—a ‘*something that will have been*,’ in Amira Mittermaier’s terms (2011, 236, emphasis in original). And just as anxiety differs from fear in that it has no determined object or cause, so too the uncertain effects of dreams speak mimetically to the abu-abu ontology of their perpetrator, oil palm—a vegetal being of alien origins, unknown desires, and mysterious volition. Both oil palm and its onto-oneiric manifestations haunt Marind through their inherent indeterminacy, in a world where ambiguity is the order of the day—and night” (197).

Building on this framework, I turn to the memoryscape and dreamscape of my research interlocutors to illustrate how their visions function as affective mappings of Fushun.

Unlike Chao's Marind interlocutors, for whom oil palm manifests as a violent and omnipresent force, the dreams emerging from my fieldwork do not coalesce into a singular nightmare of domination. Instead, they reveal a diverse spectrum of engagements with the late industrial landscape. In these dreams, some are marked by

anxiety, while others are marked by curiosity, nostalgia, or even an uncanny sense of comfort.

Urban Memory and Dreamscapes Workshop

In August 2024, as part of the Fushun Shuxiang Summer Cultural Preservation Program (抚顺书香暑期文化保育工作坊), I organized the Urban Memory and Dreamscapes Workshop (城市记忆与梦境工作坊). The event was held in a tearoom belonging to one of the Shuxiang members, who is a senior executive at Fushun's largest newspaper press. Though it was unclear whether the space was rented or purchased, she had transformed this residential property into a cultural venue, which serves as a space for Shuxiang members to host discussions and reading sessions. After Lin, one of the program's major organizers, posted the event invitation in Shuxiang's WeChat group, the workshop quickly attracted a mix of participants, including college and graduate students returning home for the summer, as well as middle-aged residents working in the city.

For this workshop, I adopted a semi-structured ethnographic approach. Participants were invited to bring 1–3 old photographs and share stories about the places in Fushun that had left the strongest impressions on them, along with how those places had changed over time. They were also encouraged to describe any dreams they had about the city in detail. Specifically, they were asked to recount not just the content of the dream but also the emotions it evoked and the thoughts they had upon waking from the dreams. While this thesis does not include the final product of this workshop, I have been compiling these narratives into a story map of Fushun. This is an attempt to weave

together individual experiences with urban space and to consider dreaming itself as a form of social interaction.

Unlike standard interview methods, I found that the workshop format allowed participants to engage with memory and dreamscapes in a more nonlinear and affect-driven manner. Rather than bringing forth structured responses, the process of revisiting memories and dreams was designed for multiple voices to converge and to reveal deeper emotions that might not surface in conventional narratives. In this sense, I was less concerned with whether these recollections were strictly “accurate.” Instead, I was more interested in how, through the act of storytelling, participants constructed new narratives. Oftentimes, these narratives were not simply about the past, but about how narrators actively reinterpreted and reassembled their relationship to the city in the present.

When participants shared their photographs, their narratives followed a familiar arc that mirrored the broader trajectory of Fushun’s industrial rise and decline. For example, an auntie shared a photograph she had taken of an old power plant. The building was covered in faded blue glass, some of which had already shattered. The metal structures on the building had begun to rust. Yet, as she spoke, there was rarely bitterness in her voice but rather a quiet sadness. She told us that the power plant had once been full of people, bustling with activity. As a child once, she often played there. A graduate student currently studying in Shenyang shared a similar photograph. In her image, a Soviet-style red brick building stood empty. Its presence looked quiet and abandoned. There was a certain desolation to the scene. Yet in the way she spoke about it, I sensed more calmness and peace. Another participant, a middle-aged man who now lives in Shenyang and has a passion for photography, shared a photograph he had taken of a

friend sitting on the stairwell of an apartment building. Behind his friend, the window and metal railings framed the image like a cage. He had edited the photograph into black and white and captioned it “Middle Age · Cage.” Later, during our group discussion on Fushun’s population decline and the city’s uncertain future, he said something that made the meaning behind his caption clear:

“We (middle-aged people) are already trapped. There are too many things holding us in place, and we can’t leave. The future of Fushun depends on the younger generation. It also depends on the efforts from people like you, who are from outside and who still care.”¹

For him, the photograph was probably not just an image but a reflection of his own reality of a generation caged by the city, while the future of the city slipped beyond further their reach.

Many of these stories do sound similar and repetitive. I noticed that beneath the surface of these expected narratives, there were much more undercurrents that complicated any straightforward reading of loss and decline. Taking Shuxiang’s main organizer, Lin, as an example.² She grew up in Nanbeitai. Born in the 1980s, Lin had grown up in a Western-style Japanese villa in that area. Her father had told her that the greenery, the villas, the schools, and the clubs in the neighborhood were subsidiary industrial facilities built during the colonial period in Northeast China for Japanese engineers and coal company managers. Lin showed us an old photograph of herself and a few other kids standing in front of a dense row of shrubs, with the red brick of an old house barely visible behind the greenery. She described how much larger the streets had felt when she was a child. “Back then,” she said, “everything seemed expansive. But

¹ King, interviewed by author, August 2024.

² Lin, interviewed by author, August 2024.

when I went back as an adult, the roads were much smaller and narrower than I remembered. Most of the old houses are gone now, but the streets are still there, and I can still recognize them.” Growing up, Lin remembers repeatedly having the same dream when she was a kid. In the dream, the streets in her neighborhood became long and winding, and the bushes grew to be as tall as five or six-story buildings, transforming into a green labyrinth that engulfed her. She tried to find her way home but became trapped in the forest of greenery. Even though she was completely lost, she didn’t feel afraid; instead, she felt comfortable and relaxed. “But after I grew up, I never had that dream again,” she said.

Even more striking than her memory was the dream she had repeatedly throughout her childhood. In it, she would wander through her neighborhood, but the streets had become unrecognizable. They had become winding, elongated, overgrown with towering trees and thick ivy. The neighborhood thus turned into a green labyrinth in her dream. She never found an exit, but she never felt afraid. Instead, she described the dream as oddly peaceful, almost meditative. “I kept having that dream when I was little,” she said. “But once I grew up, it stopped.”

Her description stood in contrast to the way a friend from Fushun once mentioned to me. She had left for college and has become a director. She has now directed two narratives films all based on Fushun. For her, Fushun could be an existence of contradiction in another way, which is something to be distanced from yet something to be rewritten through departure and return. She said:

“If I ever have kids, I don’t want them to be born in Fushun. If they are born in Shanghai (where she works now), at least they won’t have to grow up like I did.”³

I couldn’t tell if she said those words in a mocking way or not. However, when I told what she had said to me to the workshop participants. I met with immediate resistance from an auntie, who was visibly frustrated: “How can anyone say that? How can anyone reject hometown like that?” This tension between rejecting and reclaiming Fushun was not easily a generational divide but one feature I observed from many people who I met in Fushun. In a sense, it may not even have to do with age or generation. Yet, I could largely resonate with the contradictory feelings of the young people, who think that Fushun is a city of constraints rather than possibilities. However, it would be unjust to consider their act of leaving simply as debonding from the constraints, especially since a few of them actually do come back in one way or another like the director and Yang Mu. Then, return could be a way to rewrite their personal trajectories outside the shadow of industrial decline. Or at least, they could tell stories of industrial decline in their own ways.

Lin’s story further complicates this binarized tension of leaving and reclaiming. She neither idealized Fushun nor sought to distance herself from it. Instead, her memories and dreams suggested a different kind of attachment. The Fushun she dreamed of was not a city in decline, nor was it a city reborn. It was a labyrinth of overgrown greenery. In her dream, the city had become a landscape transformed, becoming timeless in a way. She was lost in it, yet she never felt anxious. The dream itself resisted resolution, or a way out.

³ Director, interviewed by author, May 2008.

If Lin's dream was about a city that had become unrecognizable yet strangely familiar, Yang Mu's was about a city that had already transformed. It had not turned into ruins but rather into something else entirely. In Yang Mu's dream, he was cycling along the edge of the West Open-Pit. However, instead of the vast scars of extraction, he saw a landscape that had been reclaimed and restored. The pit had been remade into an ecological park, with its edges becoming scenic roads for cycling and jogging. The pavements were lined with beautifully planted greenery. The city had not been abandoned because of subsidence and resource-exhaustion. It had been reshaped and woven into a new landscape. Specifically, Yang Mu said:

“In reality, I was in Harbin at the time, staying at a friend's place while attending an academic conference. One night before I fell asleep, I randomly flipped through a book. It was a travel diary written by a young German boy who had walked across China. The dream was long, but I only remember part of it.

In the dream, I was in a hurry to leave home and set off on a journey, but I had already departed late. The reason was that my teaching certification had been registered in Hada Town, Tieling (which, in reality, corresponds to Hada Town in Fushun County, just north of Zhangdang), and I needed to go there to take care of some paperwork. I first arrived in Zhangdang, but by then, it was already too late. There were no more buses. So I had to cycle along the edge of the pit toward Fushun's urban district, before continuing north to Hada.

Suddenly, the scene shifted. It was then daytime (before noon). Along the way, I encountered a group of young white 'laowai' (foreigners) on a long-distance cycling trip. I joined them. Their pace was relaxed, as they were on a slow journey, but I was rushing to get ahead. I wanted to press forward, but they seemed reluctant to part ways just yet.

The pit in the dream was strikingly clean and beautiful. It didn't appear abandoned or desolate but had been transformed. It had become a remediated landscape intentionally preserved as part of the city's scenery. A scenic road appeared on the edge of the pit.”⁴

Yang Mu's dream suggests that not everyone envisions Fushun as a place of irreversible loss, nor do all dreams emerge from grief. He imagined a version of Fushun that had

⁴ Yang Mu, interviewed by author, August 2024.

moved forward through reinvention. When I recalled my earlier encounters with Yang Mu, it appeared clearer as to why he had such dreams.

On a crisp autumn morning in 2023, I started a WeChat video call to Yang Mu. This was, in fact, the second time I reached out to him, though the first attempt had ended in failure, as his shyness had led him to decline my request for a video call. Through the grainy, high-noise video quality, Yang Mu's thin, slightly sallow face appeared on the screen. He was around thirty-five, a freelancer who had once studied agriculture and forestry at a university in Beijing. During the early days of the COVID-19 pandemic, he had quit his programming job in Shanghai and returned to Northeast China to start a nature education project with friends. Yang Mu was curious about my research. "Why study Fushun?" he asked. I tossed a few keywords into the conversation, like throwing stones into a peaceful lake: "youth outmigration, aging population, economic decline." But he neither responded nor rejected my framing. Instead, he simply began speaking about his hometown. It turned out that he had not actually grown up in Fushun's urban districts but in Xinbin Manchu Autonomous County, once a place of lush grasslands and flowing rivers and still home to the imperial tombs of the Qing emperors. It is a landscape deeply embedded in Manchu historical memory as the "Dragon's Rising Land" (龙兴之地). But his childhood had nothing to do with the pristine mountains of eastern Liaoning. His family had lived near a sulfur processing plant in rural Xinbin, where most of his relatives had worked.

At some point, of which he could not pinpoint exactly when, the factory's wastewater had begun infringing at the crops and poisoning the rivers. The plant was eventually abandoned. So was the village. The adults lost their jobs and left. After that,

Yang Mu rarely returned home. He completed high school in the city of Fushun before leaving for college in Beijing. Now, as a freelancer, he lives on the barest of means, renting a tiny one-room apartment in Shenyang for five or six hundred *kuai* a month. Most days, he eats at a community cafeteria. A plate of sweet potatoes, a bowl of rice, and some stir-fried greens are his regular diets. However, whenever he speaks of the flora and fauna of Fushun's countryside, his eyes would always light up.

In both Lin and Yang Mu's stories, the city of Fushun had changed. Yet, neither of them seemed particularly preoccupied with grief. Lin still found her way somehow through streets that had shrunk with time. Yang Mu still saw meaning in the land even as the structures built upon it rose, fell, and changed hands. In a sense, their stories are neither about resistance nor return. They are ways of continuing to live alongside what remains.

Conclusion: Filling the Pit

In this thesis, I have illustrated how Fushun rose to become the energy hub of various nation-states, including the Japanese Empire and post-revolutionary China, under the varying visions of expansion, development, and revitalization. I have also examined how multiple demographic groups, including young people, former workers, heritage preservationists, and corporate employees, comprehend decline and engage with the late industrial landscape of Fushun. In Chapter 1, I have demonstrated how the modern history of Fushun does not necessarily conform to the boom-and-bust narrative embedded in conventional discourse on company towns. I have also dedicated the rest of the chapter to demonstrate why a new approach through archival research and ethnography of spatial interaction could potentially enrich the understanding of late industrial governance and citizenship. In Chapter 2, I have reviewed the rise of Fushun's coal industry and the involvement of Japanese mining engineers in earlier extraction and urban planning of the city, as well as contemporary state policies to revitalize company towns, like Fushun, particularly in the Northeast region. I have primarily relied on Victor Seow's research on Japanese technocrats and Matsumura Takao's research on coal miners in Manchuria. Additionally, a literature review of late industrial societies and industrial cities in transformation also helps me to imagine what ethnography might look like in such contexts and compare Fushun with other cities in the world. In Chapter 3, I have looked at the issue of population loss particularly among young people in Fushun following industrial restructuring and closures of mines. I have illustrated the significance of understanding the intergenerationally accumulated precarity of which youth in late

industrial and post-socialist societies like Fushun are situated in. In Chapter 4, I have explained how former workers and heritage preservationists interact with active and phase-out industrial sites in Fushun. I have explored how they inhabit the landscape and other material manifestation of extractive economies, which have been transformed to foster reindustrialization, as well as how the assertion of decline has become the prerequisite for redevelopment and revitalization. In Chapter 5, I have gone beyond exploring the physical landscape to examine how people inhabit memoryscape and dreamscape. I have also demonstrated how their dreams might implicate alternative narratives beyond the boom-and-bust model.

In conclusion, I argue that in Fushun redevelopment and decline often coexist because what is framed as “development” has never been an evenly distributed process but one deeply contingent on the lived experiences of different social groups and classes. While some actors, such as SOEs and private investors, find new opportunities in reindustrialization, many others experience economic stagnation and displacement. Secondly, there could be two forms of decline in a late industrial context. On the one hand, decline could be the material representation of resource exhaustion, failing infrastructure, unemployment, population loss, and shrinking salary. These include former workers losing welfare package from SOEs and engaging in migrant labor, as well as young people failing to secure local corporate jobs, having to outmigrate for education and employment, and witnessing shopping malls to shut down. On the other hand, decline could be an epistemology and how one conceives lived reality in the long run. The formation of the latter often results from much complex power dynamics and historical changes. These include revitalization projects initiated and enacted by central

government, municipal government, and SOEs, as well as the consolidating powers of technocrats and bureaucrats to impact urban redevelopment and inhabitants. The two forms of decline are not necessarily the same thing. Yet the former helps to consolidate the authenticity of the latter, while revitalization projects could take place in an ecological frontier rather than an industrial wasteland. Finally, severing the presumed connection between development and progress is important. My thesis demonstrates that development has always come at varied and uneven costs ranging from ecological devastation to the precarity of resource-based economies and the marginalization of the working class.

Standing at the edge of the West Open-Pit Mine, I was once again reminded of Yang Mu's words: "Before anything else, we must first fill the pit and restore the land." When I first heard this phrase, I took it in the literal sense by understanding it as a practical and necessary step before Fushun's transformation could take place. But as I came to better understand the city's urban and industrial transitions, as well as the policies surrounding mine reclamation, I realized that much of the damage caused by extractive economies on the soil and environment is irreparable. Experts of the SOEs repetitively discussed about the feasibility of filling the pit, yet they eventually concluded that the costs and time required would be massive. Even if such a project were conducted, it would not effectively mitigate the risks of land subsidence and water pollution. Based on my observation, experts' discussions rather shifted toward repurposing the site into perhaps a reservoir, a hydroelectric station, or an industrial-themed park. However, I have not seen any concrete plans for its future.

I thus started to think that maybe “filling the pit” extends beyond the physical act of land restoration to incorporate multiple possibilities of reimagining and repurposing the mine in the present and future. Specifically, the debates over how to “fill the pit” constitute a process of knowledge production, as well as a battle over time, space, and what it means to exist in late industrial Fushun. In a sense, they are varying attempts to reconstruct reality. They seem to also indicate that Fushun’s transformation has always been a continuous process reconfiguring space and time. As Timothy Mitchell (2011) argues in *Carbon Democracy*, energy infrastructures do not simply shape economies, but they shape the political and social possibilities of societies and landscapes (9-12). Additionally, “filling the pit” reminds me of Ann Stoler’s discussion of ruins (2013) in *Imperial Debris: On Ruins and Ruination*. Particularly, she talks about how past projects of modernity leave behind unfinished ruins that continue to shape the lives of those who inhabit them (5-8). Within these spaces, as I have delineated in the thesis, assertion of agency would always surface. However, what I really hope the readers to capture is the contradiction between how people interpret their lived experiences through the lens of decline and how they engage with late industrial spaces. In a sense, these two processes do not always conform to one another.

The contradiction is also somehow embedded in the discourse of *zhen xing* (振兴), or revitalization. On the one hand, the term is burdened with the promise of renewal. On the other hand, it raises the question of to whom does the future belong. Walking through Fushun’s newly developed districts, I saw rows of empty apartment buildings and commercial spaces. At first, these made me feel like the former miners and workers living near the mining areas seem to inhabit an entirely different temporality. However, it

wasn't until I recognized all these realities coexist simultaneously, I came to realize that the fragmented urban landscape and the representations of decline had led me to uncritically accept the logic of decline initially. I believe that nothing embodies this tension more than the landscapes themselves. Like the city's inhabitants, they are caught between extraction and redevelopment, as well as between the discourse of decline and the demonstration of ecological restoration. In a sense, what continuously fills the pit is not just soil or ecological infrastructure, but competing imaginaries of what Fushun is and what it might become.

Of course, due to limitations in time, capability, and accessibility to resources, there are many aspects in this thesis that I hope could be further expanded and improved. First of all, since I was unable to visit the National Diet Library of Japan in person to examine archival materials on Fushun, I had to rely on a selected number of scanned documents. This circumstance applies to my access to the Harvard-Yenching Library as well. Additionally, I relied on the works of other historians studying Fushun, including Limin Teh, Victor Seow, and Fu Bo, as well as my own summaries and analysis of their research and arguments. In the future, if funding and time allow, I very much hope to visit not only the National Diet Library but also the Harvard-Yenching Library to access archival materials, particularly those related to mining engineers. Secondly, in this thesis, I have largely relied on Victor Seow's research on Japanese mining engineers. However, I am very curious about the mining engineers who worked at the Fushun coal mines during the socialist period in the post war era and what kinds of visions they had. Therefore I hope to have the opportunity for my future studies to explore related materials. I am also aware that Hou Li, who studies urban and regional planning, has

been working on the engineers behind the development of the Daqing oil field in Northeast China. I hope that soon I can consult her and Seow about archives related to energy technocrats and exploitation of energy resources in Northeast China. Thirdly, I also wish to engage more deeply with degrowth and post-development theories in my future research. I am aware that my discussion of development and decline is somewhat underdeveloped and lacks engagement with other academic discourse especially on development. I thus aim to devote more efforts to these specific theoretical areas in the future.

As for further fieldwork, I also see aspects of my research that need deeper examination and expansion. First, I was unable to access social connections within the SOEs, which means that I didn't have the opportunity to meet many high-level managers and engineers, although I did meet some young local department managers and retired intellectuals or former engineers. These active high-level managers, or senior executives, are particularly important for my research on the process of Fushun's re-industrialization. I believe they would be able to provide meaning insights especially in understanding how the process of re-industrialization has influenced urban planning, wealth distribution, local employment, and social upward mobility. Moreover, I hope to get a much more detailed insight of several aspects of this process. For example, how do these SOEs collaborate with the government of Fushun on ecological restoration of the open pit mine? What exactly are their plans for the future of the phase-out mining sites? How do they envision the future of Fushun as a city? Aside from those questions, there are also several other questions to consider. For example, what kind of relationship do the senior executives and engineers maintain with Fushun? Are they from Fushun originally? What

are their economic and education backgrounds? How have they experienced changes during the city's industrial transition? All these questions are critical to understanding who the key actors are, as well as the tensions between enterprises and the municipal government.

Finally, I really hope to gain a deeper understanding of the reclamation efforts at “shechang,” where the photovoltaic project and commercial farming are conducted, as well as where the retired workers have started farming. The complexity of these spatial interactions is truly fascinating. For example, one distinctive aspect of the restoration project is its strategic use of the open spaces between photovoltaic panels for farming. It dramatically creates a landscape where commercial farming and power generation are intertwined. On the other hand, the retired workers documented by Li Yong and who farm on the site are also fascinating in a way. How did they exactly acquire their agriculture skills? How do they navigate their relationship with the SOEs, the landowners of the site? These questions often only emerge in my mind while I'm walking in Fushun. Extending beyond these questions, I think urban farming is an interesting phenomenon to focus on especially in late industrial cities. Of course, it is a relatively common thing that appears across many different regions and socio-economic backgrounds. For example, in postwar Vietnam, residents repurposed neighborhood greenery into small community farms, in response to urban poverty and failing infrastructure. Similarly, in Bangalore, known as the “Garden City,” middle-class families have started growing vegetables on their rooftops for they are very concerned about food safety. Interestingly, most of them have been organizing rooftop farming and agriculture activities through the prevalent use of Facebook. In another study on ecological urban planning and urban farming in Taipei,

Amis migrant workers have been constructing shanty huts cultivating particularly vegetables to supplement their livelihoods while living in urban enclaves. In Fushun, urban farming oftentimes takes on an expansive scale. In a sense, residents themselves have transformed vast wasteland and former mining areas into patches of well-cultivated farmland. These patches of farmland somehow resemble the terraced fields in Yunnan.

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