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Publication Date

2013

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Frontier Boomtown Urbanism: City Building in Ordos Municipality,
Inner Mongolia Autonomous Region, 2001-2011

By

Max David Woodworth

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Geography

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor You-tien Hsing, Chair

Professor Richard Walker

Professor Teresa Caldeira

Professor Andrew F. Jones

Fall 2013

Abstract

Frontier Boomtown Urbanism: City Building in Ordos Municipality,
Inner Mongolia Autonomous Region, 2001-2011

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Max David Woodworth

Doctor of Philosophy in Geography

University of California, Berkeley

Professor You-tien Hsing, Chair

This dissertation examines urban transformation in Ordos, Inner Mongolia Autonomous Region, between 2001 and 2011. The study is situated in the context of research into urbanization in China as the country moved from a mostly rural population to a mostly urban one in the 2000s and as urbanization emerged as a primary objective of the state at various levels. To date, the preponderance of research on Chinese urbanization has produced theory and empirical work through observation of a narrow selection of metropolitan regions of the eastern seaboard. This study is instead a single-city case study of an emergent center for energy resource mining in a frontier region of China. Intensification of coalmining in Ordos coincided with coal-sector reforms and burgeoning demand in the 2000s, which fueled rapid growth in the local economy during the study period. Urban development in a setting of rapid resource-based growth sets the frame in this study in terms of “frontier boomtown urbanism.” Urban transformation is considered in its physical, political, cultural, and environmental dimensions. Research for this study is based on six months of on-site fieldwork in Ordos, historical research, and reviews of English-language and Chinese-language scholarship.

Chapter One of the dissertation provides a discussion of theoretical issues pertaining to historical and current-day frontiers and boomtowns. The idea of the frontier as a space of cultural encounter is discussed in relation to China’s relations with societies inhabiting its borderlands. The frontier is also elucidated in the context of economic-geographical literatures that posit the peculiar economic functions of marginal spaces. The notion of the “commodity frontier” is elaborated in order to position Ordos as a frontier boomtown. Chapter Two of the dissertation examines the processes and mechanisms by which Ordos became a frontier for coalmining in the 2000s. Chapter Three and Chapter Four discuss urban growth amidst a resource boom. Chapter Three considers urban growth through modular land development schemes. Chapter Four employs the idea of gigantism to elucidate the cultural logic of city building. The focus in both chapters is on the

production of spectacular new built environments and how these manifest struggles to achieve broader-based and sustainable urban development. Chapter Five examines the phenomenon of private finance as a key driver of urbanization in the frontier boomtown. Unregulated speculative property development is shown to be a key mitigating factor in the local state's effort to enhance social control through the production of new urban space and reveals an unexamined source of non-state development activity.

Frontier boomtown urbanism shows how city building has become the ubiquitous and basic activity of the local state in China. The frontier setting is distinguished by the intensity, pace, and scale of growth and by the highly disorganized course that urbanization takes.

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Acknowledgments

This dissertation was only possible with the assistance of a great many people and institutions. It seems only right, however, to begin by thanking those people in Ordos who facilitated my research despite their perplexity over what I was doing and why I was doing it. I can only thank these people anonymously, but they deserve mention all the same. They are friends and contacts who welcomed me into their homes, entertained my endless questions, drove me long distances to see new places, and put me in touch with key people. More than a few stuck their necks out for me in ways I will not soon forget. Without their open hearts and open minds, this dissertation would be very different, indeed.

My dissertation committee was hugely influential in the research and writing of this project. Andrew F. Jones has been a steady supporter from day one. Taking the plunge into a Geography dissertation despite being a specialist in literature, Andrew was a meticulous reader of drafts and a constant source of encouragement as well as a valuable sounding board for my ideas in the early stages of the project. Two graduate seminars with Teresa Caldeira were formative in shaping me as an urban scholar. Her breadth of knowledge in urban studies always amazed me. In conversations outside the seminar room, Teresa pushed me to think through and refine difficult theoretical and methodological questions and for that I am immensely grateful. Richard Walker, with his characteristic flair, nudged me toward more rigorous study and better research. A seminar with him during my time as an MA student awakened me to the thrill of academics and reminded me that the stakes involved can be high, indeed, if treated with the proper rigor. Finally, You-tien Hsing has been more than an advisor throughout my years at Berkeley – she has been a true mentor. Since my earliest days as an MA student, her deep knowledge of China has been a constant source of inspiration. But it is her unflagging support shown in her willingness to bring me along on fieldtrips in China, to include me in symposia, to push me to publish, to respond to my frequent inquiries, and to help secure funding that made my experience at Berkeley so rewarding. Her unprepossessing manner masks a fierce intellect and a constant skepticism toward received wisdoms. I feel lucky to have been her student.

I also enjoyed the occasional companionship in Ordos of Michael Ulfstjerne of Copenhagen University. Michael was always generous with his time and insights. Our conversations at the Sulide Hotel at the beginning stages of this project were critical in opening up new areas of inquiry and in making my stays in Ordos include a measure of fun. His feedback on early drafts of chapters was invaluable. Also in China, I benefited from conversations about various issues related to Ordos with Patrick Chovanec, Zheng Shaoxiong, Shen Yuan, Michael Pettis, Li Jianjun, Bert de Muynck, and Lin Xiaohui. I also benefited from feedback at the crucial, early stages of this project from Laurence J.C. Ma, Fulong Wu, Xuefei Ren, George C.S. Lin, Wen-hsin Yeh, Lan-chih Po, and Ching-Kwan Lee.

This project would also not have been possible without funding for travel and other aspects of research. I would thus like to express my gratitude to the following sources for their generous financial support: the Sigmund Martin Heller Graduate

Division Dissertation Award, the Chiang Ching-kuo Foundation for International Scholarly Exchange Doctoral Fellowship, and the UC Berkeley Institute of East Asian Studies and Department of Geography.

At Berkeley, I benefited tremendously from a cohort of brilliant colleagues and extraordinary staff. Special mention must be made to Albert Velazquez and Adam Romero, companions in an extra-curricular reading group that proved foundational to my studies. Shih-yang Kao also provided useful commentary at different stages of the project. My friend, Jason Gallo, also encouraged me to pursue the idea of the frontier.

At home, I want to thank my parents and siblings. Their love and support helped me through the long, tough years of graduate school. They were always cheering for me to finish. Finally, I want to thank Namiko Kunimoto. I couldn't have asked for a wiser, gentler, more supportive partner through all of this. She carried the burden of being a spouse to a graduate student while also carrying our first child during my research abroad. Once back in the United States, this project grew along with little Kazuo. I can't thank he and his mom enough for everything they've given me to make this dissertation possible – quiet time to work, gentle pats on the back, the wonders of first steps and first words. I owe this dissertation to them.

INTRODUCTION

Situated in the heart of Inner Mongolia's Ordos region amid sand dunes and scrub brush is the Kangbashi New District, a new town founded in 2006. On the town's northeastern outskirts one finds an incongruous cluster of ultra-modern buildings by a manmade lake. Though numbering only half a dozen buildings in total, this spot is called Ordos 100. The name refers to the 100 villas planned for the site, each designed by a foreign architect. The acclaimed artist, Ai Weiwei, had vetted the architects for this particular project and had called for the designs to be as experimental and conceptually challenging as possible. Ordos 100 was billed as the premier new home for Ordos' emerging elite, a cohort of entrepreneurs, managers, and well-positioned officials who had become enriched in the region's mining boom. The centerpieces of the project were a private art museum and a replica of Ai's FAKE Studio in Beijing that served as an "artists village."

In September 2011, I made one of many visits to the Ordos 100 site. I had come to join local businesspeople, officials, and journalists for the opening of a new exhibition. A Mongolian musical troupe performed at the entrance and models in traditional Mongolian garb lined the sloping walkway leading to the museum's entrance. The guest of honor at the ceremony was a retired local Communist Party leader. After a series of music performances, the elderly official delivered a short speech to mark the event. His talk made no mention of art. With a barrage of statistics, he listed Ordos' impressive economic achievements since its graduation to municipal status in 2001. He noted with undisguised pride that within its first decade as a municipality, Ordos' per-capita GDP had surpassed that of Hong Kong.¹ But he lamented that Ordos' "cultural level" (文化水平 - *wenhua shuiping*) was low. His proposed remedy was to urbanize more intensively and more quickly and cited the Ordos 100 project as an exemplar of cutting-edge design and integration of advanced, high value-added industry. The city, he submitted, was the key to a modern economy and modern culture. By harnessing the indomitable spirit of Genghis Khan, believed by many to be buried nearby, Ordos would soon transcend the resource economy and emerge as a great new metropolis on this southern fringe of the Gobi. Ordos would not simply match the wealth of Hong Kong; it would surpass the cultural sophistication of even Shanghai or Beijing! The audience had heard such high-flying rhetoric many times over the previous decade, as the mining boom inspired local officials to conjure increasingly grandiose visions for Ordos' future. Shortly after the talk, the museum's curator, whom I had befriended, said that he wished to speak with me. In a private discussion, he confided that the Ordos 100 project was essentially a scam. After building the museum and artists village, and commencing work on four of the villas, the developer had absconded with investors' money and showed little indication of trying to actually deliver a completed project. Indeed, the four villas existing at the site were unfinished husks that traced only the outlines of their eye-catching post-modern forms.

¹ This often-cited claim is, in fact, incorrect. It is unclear why officials in Ordos began to tout this claim beginning in 2009. That year, Ordos' per-capita GDP was near US\$20,000, whereas in Hong Kong the figure was about US\$30,000.



Figure 1. A semi-completed villa at the Ordos 100 project in Kangbashi, Ordos Municipality.

There were also no plans to invite artists to the artists village and no curatorial programming for the museum. The “exhibition” celebrated that day was, in fact, a five-day auction of traditional watercolor paintings. The curator was unclear whether the retired official was cognizant of the current status of the project and its lead developer, whose whereabouts were the subject of rumor. If the official knew, he showed no sign of it.

This snapshot of fieldwork in Ordos distills key dynamics that inform the city-building process in China’s new resource frontiers. In Ordos, a massive expansion of the extraction-based economy in the 2000s produced huge private accumulations and was central to a twenty-fold increase in local-state revenue and local GDP within a decade. Local officials responded to the flood of new resource wealth by embarking on an aggressive campaign to transform the region’s central urban agglomeration. For local officials, urbanizing Ordos was seen as a way to cultivate a resilient and more broadly based economy featuring a strong service, or tertiary, sector. City building also satisfied deep-seated desires to transcend the backwardness perceived to characterize a remote and, until recently, under-developed region of the deep interior. For local officials and not a small share of the local citizenry, the city was a receptacle for potent imaginaries of an alternative life in the Inner Mongolian steppe. For officials, it helped, also, that urban construction supplies a shot in the arm to the local economy and generates tangible results that reflect positively on their governing capacity. In this way, city building is both a means of professional advancement and a valued objective in its own right because of its capacity to provide a short-term boost to economic growth through investment-driven physical expansions. But ultra-rapid urban growth amid a regional boom in resource extraction is anything but a smooth process on the frontier. Extreme

specialization in mining compelled the local state to attempt all manner of alternative development initiatives, many of dubious merit, with the hope of diversifying the economy beyond mining. Though projects were intended to introduce new industry, the centrality of land development to such efforts reveals that economic stewardship was heavily geared toward urban construction. Behind officials' grandiose visions and confident rhetoric, not to mention the monumental new construction, amassed an accumulation of failed projects and deepening anxiety within the local state over its capacity to bring order to a context of staggering change. Further, in the absence of a robust and diverse industrial and commercial base, the property sector emerged as a second pillar of the local economy, absorbing local surpluses but also triggering a frenzy of property development entirely out of step with actual demand. The consequent euphoria for city building was widely shared and supplied a ripe context for venturesome profit-seekers and more than a few unscrupulous actors.

During two years of fieldwork in Ordos spanning 2010 to 2012, including about six months of residence in the municipality's capital city, Dongsheng, this juxtaposition of lofty urban visions, visually impressive new construction, and self-evident disarray in urban planning became an unavoidable everyday experience. Monumental public projects and flamboyant commercial developments like Ordos 100 had sprung up all over the municipality's core urbanized area composed of Dongsheng and the new town, Kangbashi. The size and extravagance of this new construction bespoke the wealth and ambition typical of an energy boomtown. Yet much of it was virtually empty, duplicative, or under-utilized, while traffic jams and power outages were a constant nuisance, despite an abundance of both space and coal. Resource wealth did not so much spawn a great new city as it articulated a new urbanism defined by a disorderly and inchoate urban growth process, one that was driven by the high hopes for urban transformation animated in the context of hyper-rapid economic growth. I call this maelstrom of city building "frontier boomtown urbanism."

Frontier boomtown urbanism

The specificity of frontier boomtown urbanism rests on its two important qualifying terms. In what way is Ordos a frontier? And, what is a boomtown and does Ordos qualify as one?

The idea of the frontier is not always clearly defined. In common parlance, it has gained a powerful metaphorical meaning. It connotes the unmapped territory beyond what is known, settled, and tamed. To venture into the frontier, we are told, involves high risk but with the possibility of high rewards. Flowing from its metaphorical associations that link back to Frederick J. Turner's original "frontier thesis" (1920), the frontier is shrouded by much romanticism. Still, some scholars have sought to cut through the mysticizations and use the frontier as a heuristic device and spatial concept. In economic geography, frontiers often refer to places where "super-profits" can be obtained due to a favorable mix of conditions of production that coalesce through variable combinations of deliberate state interventions and fortuitous shifts in the market. In plainer terms, technological innovations, inherited resource endowments, and novel regulatory regimes can all contribute to the formation of an economic frontier where it fosters an

environment conducive to particularly rapid capital accumulations. But this view of the frontier as a structural component of capitalism's space economy is overly abstract. It fails to specify the distinctive materiality of frontiers as unique places. In this extended single-city case study, I draw upon the notion of the "commodity frontier" developed by Jason Moore (2000; 2003). Moore's commodity frontier concept is rooted in historical-materialist analysis of actual places and goes a long way toward refining Immanuel Wallerstein's gestural theorizations of cores and peripheries in his "world systems analysis."² Using sixteenth-century sugar and silver production in the New World as examples, Moore identifies commodity frontiers as sites of extraordinary plunder of natural resources essential to the operation of the larger capitalist system. The overriding need for commodities produced on the commodity frontier has two critical effects: first, it justifies the suspension of prevailing social norms that undergird production elsewhere, thus enabling the "hyper-exploitation" of people and nature; and second, it promotes experiments in technological and organizational systems that can be applied toward ever-more intensive exploitation. The local-scale impacts of these facets of the frontier provide the key characteristics of such spaces. Rapid and radical expansions in the scale and technical sophistication of coalmining in Ordos since the 1990s meant that this formerly poor and marginal region can justifiably be conceived as a commodity frontier for coal, China's unchallenged essential energy resource. In underground and surface mines located mostly in Ordos' eastern banner territories, coal was produced in unprecedented volumes in the 2000s using the most advanced mechanized excavation methods available. The municipality touts itself as "China's new coal capital" (中国新煤都 - *zhongguo xin meidu*). By 2011, output in Ordos was five times the amount in Datong, the city that for decades held that dubious distinction.

A view of frontiers as distinct cultural regions is also relevant to Ordos. Under this conception, frontiers are where different societies encounter each other, sometimes coexisting and sometimes coming into conflict. China's Inner Asian borderlands, where the centralized and sedentary agriculture-based Chinese empire confronted the dispersed nomadic tribes of the Mongolian steppe, were theorized as frontiers in a substantial corpus of work by Owen Lattimore in the early twentieth century and in a body of recent historical and anthropological work.³ China's frontiers have been described as persistent

² Immanuel Wallerstein's "world systems analysis" is developed in his study titled *The Modern World-System*. For the most recent edition, see Immanuel Wallerstein, *The Modern World-System* (Berkeley: University of California Press, 2011).

³ Owen Lattimore's *Studies in Frontier History* (1962) provides a compilation of academic and journalistic articles, conference papers, and other writings based on the author's extensive travels and studies in Inner Asia from the 1920s to the 1950s. Another work by Lattimore with direct relevance to this study was his *Mongol Journeys* (1941), a travelogue of his trips through Inner Asia. This book contains a chapter titled "Into the Erdos," relating Lattimore's experiences visiting ceremonies in current-day Ejin Horo to celebrate Genghis Khan. Though told from the perspective of an American sojourner, the chapter provides an interesting glimpse into Ordos society before Liberation in 1949. See Chapter One for a more extensive analysis of works by Lattimore.

and culturally hybrid.⁴ Located just beyond the Great Wall, Ordos is situated at the innermost rim of China's deep and longstanding contact zone between Han Chinese and Mongolian civilizations. Yet mass migration by Han Chinese into Ordos since the nineteenth century led to decisive changes in the local cultural landscape. In strictly demographic terms, Ordos is now a predominantly Han Chinese region. But its Mongolian cultural traits persist in place names, autonomous ethnic jurisdictions, and a substantial Mongol community differentiated by language and regional and ethnic customs. Despite over a century of Han Chinese majority in Ordos and an even longer history of various groups crisscrossing, occupying, and settling the region for lengthy periods, it continues to be perceived in the current day as a Mongolian territory and a place that is culturally and environmentally different from China's core regions. Mutual perceptions in Ordos maintain that the Han Chinese are settlers and Mongols are native. In brief, at the turn of the millennium, Ordos emerged as both a commodity frontier and a distinct, multiethnic frontier region. This study shows how both senses of the frontier – as a peculiar economic space and as a cultural contact zone – were pertinent to the local city-building process in the 2000s.

Like the frontier, the boomtown is a slippery and under-theorized term. Cities rise and fall in different and unpredictable rhythms. Some develop over centuries, gradually maturing into major metropolises, whereas others seem to appear overnight. This latter type of city, often called a “boomtown” or “instant city,” can be distinguished by the extreme speed and intensity of urban growth. By “growth,” I refer to both population growth, physical expansion of the built-up area, and economic growth, all of which are of course closely connected. China arguably has many boomtowns, of which Shenzhen, Dongguan, and Kunshan might serve as paradigmatic examples. But China's new western frontier boomtowns are different. Unlike rapidly growing cities of the coastal east, Ordos' boom took place on a narrow industrial base dominated by resource exploitation. Like much of China's interior, the Ordos region lagged developmentally until the 2000s. It is interesting to note that most studies of urban China see the late-1980s or early 1990s as the starting point for rapid urbanization in the country. Yet, like many cities of the interior, Ordos did not experience a burst of rapid urbanization until the 2000s. This fact points up the significant coastal bias in studies of urban China and also suggests regionally varied periodizations for rapid urban growth in the reform era. In Ordos, late urban development meant that it built upon a legacy that persisted well into the reform era of low urbanization rates, weak industry, entrenched poverty, and poor human development indicators. Ordos especially was famous for being poor and the origin of severe sand storms that affected eastern cities like Beijing, Tianjin, Dalian, even Seoul and Tokyo. Hence, the twenty-fold expansion of the local economy between 2001 and 2011 was an unthinkable transformation for a place widely regarded as marginal and

⁴ These descriptions have been applied in work by Piper Gaubatz and Dee Mack Williams. See Piper Rae Gaubatz, *Beyond the Great Wall: Urban form and transformation on the Chinese frontiers* (Stanford: Stanford University Press, 1996) and Dee Mack Williams, *Beyond Great Walls: Environment, Identity, and Development on the Chinese Grasslands of Inner Mongolia* (Stanford: Stanford University Press, 2002).



Figure 2. Map of China showing provincial boundaries and prefectural and municipal boundaries. Credit: Wikicommons, ASDFGHJ.

irrelevant. For officials, local developers, and local residents, building the city was a fitting monument to the ascendance of a rich and powerful Ordos.

Ordos was also produced as an instant city in administrative terms. Its conversion to municipal status occurred upon approval of a request to that effect by the State Council in 2001. The switch was more than a mere change of names. It instituted a new administrative structure with firmer authority over local development for a vast region covering 87,000km².⁵ Sub-provincial jurisdictions in China's frontier provinces and autonomous regions tend to be extremely large (see Fig. 2). This means that when they are converted to prefecture-level municipal status, physically enormous and sparsely populated regions become, in official terms, a "city" (地级市 – *diji shi*).

Though fostering industry and managing local agriculture are important, municipal leaders embrace urbanization as their fundamental task. Urban land

⁵ By way of comparison, this area size makes Ordos Municipality almost 110 times larger than New York City's five boroughs.

development is the main tool at their disposal. Thus, by the end of its first decade as a municipality, Ordos' urban core centered on Dongsheng and Kangbashi boasted new stadiums, massive shopping malls, a new airport, libraries, performance venues, and a host of developments claiming to be Ordos' new financial center. In recognition of Ordos' astonishing economic growth, its massive expansion of the built-up land area, and its sudden conversion to urban status, I have termed it a boomtown.

To be sure, rapid urban growth and monumental construction are ubiquitous in China. So too are state-led urbanization projects that produce dramatic spatial reconfigurations. Studies of recent Chinese urban development convincingly show that city building is, at base, a state-centered project. But the state is itself an internally fragmented and competitive entity – a “matrix muddle” in the words of Kenneth Lieberthal (1995). In ad hoc entrepreneurial fashion, city regimes try to enlist allied state agencies and individual officials, global capital, local developers, and trendsetting designers and architects in order to remake cities and reorient them for aggressive pro-growth agendas. To date, most studies have presented this transformation from a managerial style of urban governance to an entrepreneurial one as fairly straightforward (if not always peaceful) process guided by the firm hand of the local state. Yet the frontier boomtown presents a rather different picture of city building. In this study, I argue that hyper-rapid economic growth and perceptions of geographical and cultural marginality help to legitimize and propel urban transformations that are simultaneously imitative and even more radical than analogous agendas in the more developed east. It is the zeal for conjuring a city in the context of a resource boom and the ways this leads to an uncoordinated production of monumental built environments that distinguishes frontier boomtown urbanism. I further argue that the frontier boomtown shows that arguments positing the coherence and high capacity of the local state to guide and determine urban growth do not apply universally. In the frontier boomtown, the local government is both an active and reactive participant in the city-building process, as it tries to build a new city while addressing one crisis after another and finding itself overwhelmed by the speed of change while specific state entities and officials race to profit from the boom. As improving extractive technology and transportation networks make more and more municipal territories available for intensive resource extraction, Ordos' experience affords an opportunity to examine the logics, possibilities, and pitfalls of rapid urbanization in China's resource-abundant west.

Modes of Analysis

This study engages an analysis of urbanism, as opposed to urbanization. The latter term refers to the various dimensions by which urban growth occurs, such as through population growth and concentration, spatial expansion and zonal segmentation, and so on. I see urbanism as a more expansive concept. Scholars have defined “urbanism” in a variety of ways and with varying degrees of specificity over the years. In his seminal essay, “Urbanism as a Way of Life,” Louis Wirth (1938) understood urbanism as a “mode of living” that reflects the impacts and influences of the urbanization of modern society. Architectural historians have also tended to use the term urbanism. But in the case of architectural studies, urbanism refers commonly to an ensemble of architectonic

space. Under this conception, urbanism is manifested tangibly by urban form, which arises in conjunction with the evolution of political economy and culture. Architecture is thus a part of social processes, rather than the mere reflection of them. My view of urbanism stresses the process of city building as a comprehensive project of total transformation with political, economic, and ideological aspects. It refers to the primacy of the idea of the city in structuring the visions and material processes of urban growth.

This perspective on urbanism is pertinent and urgent in the context of twenty-first-century China, where urbanization itself has become formalized as a policy tool for economic development. The city has consequently become a contested arena for construction, manipulation, disposition, and interpretation of spaces and society. New urban spaces are at the center of the country's historic political-economic and cultural changes. This view reflects a multi-disciplinary approach to the city as a complex social artifact; it is at once a physical entity, a political-economic system, and an idea with innumerable and frequently divergent meanings. In other words, political economy is not the sum of urban development. But nor can a semiological interpretation of built form reveal the full complexity of city building. With particular attention to the production of new spaces – in particular, new *urban* spaces – this study aims to combine analysis of urban political economy, social transformation, and built form. It attempts to keep in view the many moving parts of frontier boomtown urbanism. It therefore engages city building as a process involving material, institutional, and discursive components.

This dissertation is composed of five core chapters. Following a chapter discussing relevant literatures, the Chapter Two analyzes the coalescence of the coalmining commodity frontier in Ordos in terms of the reorganization of China's coal sector, the introduction of advanced mining techniques, and the coexistence of massive and technologically sophisticated state-owned mines with privately owned mines. This chapter illustrates the complementarity of these two types of mines to national energy strategy and the centrality of locally owned small mines to urban development agendas. Chapter Three examines the modular forms of urban build-out that occurred in Ordos in the 2000s. In particular, it focuses on the planning, construction, and inhabitation of Ordos' new-town project, Kangbashi New District. The new city is analyzed as a response from local elites to the new possibilities for development enabled by local accumulations in the resource sector. Memories of poverty and perceived marginality are central to earnest attempts to produce an idealized urban space on the frontier. However, as is symptomatic of boomtown-style growth, the struggle to engineer a particular "rational" vision of development was accompanied in Kangbashi by torrents of speculative investment. The fourth chapter engages an analysis of the design and decoration of Kangbashi New District's central square. Named Genghis Khan Square, this central space is analyzed as a place-making process that, through specific aesthetic strategies tending toward gigantism, mediates the shift in Ordos from marginal zone to dynamic frontier. The square is understood as a laboratory where new forms of urbanism find expression and where architecture and public art are designed to resolve ethnic tensions as well as the perceived shortcomings of the region when measured against benchmark cities such as Beijing and Shanghai. Chapter Five investigates the pervasive practice of informal lending as a key ingredient in the rapid build-out of the city. High

compensation sums for land clearance in advance of mining expansions and inner-city redevelopment produced a broad-based accumulation of restless private capital that was channeled disproportionately toward property development. Beneath the spectacular urban construction is the formation of new urban classes determined by one's relative fortunes in the boom-and-bust cycle of the local property market, which peaked and crashed in 2011. The vigor of the local informal economy highlights how gaps in local-state capacity and knowledge open development to non-state actors and forces beyond the state's control.

Although there has been a considerable amount of studies conducted by Chinese scholars on so-called "resource-based cities," there have been no such studies in English to date. Nor have these studies sought to apply insights on historical frontiers and boomtowns to such spaces. The implications of intensified resource extraction for city building in China's multi-ethnic and ecologically fragile west have not been examined. Further, the adoption of spectacular modes of urban development are frequently linked to Chinese cities' adaptations to a globalized and post-industrial economy. Frontier boomtown urbanism underscores the currency of spectacular and monumental urban construction even in settings that are decidedly not globalized and that are undeniably industrial.

Methodology

Research for this dissertation demanded a mix of methods and was carried out during three separate visits of varying lengths between 2010 and 2012. I lived in Dongsheng during fieldwork and traveled frequently to Kangbashi where key archives and government offices were located. Fieldwork tasks were focused on data collection in three topic areas: (1) the structure and scale of local coalmining and other extractive industry; (2) reconfigurations of urban built environments; and (3) the experience and interpretation of boomtown growth and especially participation in informal lending.

A significant portion of the fieldwork for this project consisted of on-site documentation of urban development sites recorded with textual descriptions, photography, oral communications with people present, and collection of primary source material including marketing brochures, advertisements, and exhibition materials. Through these means, I assembled a body of primary evidence about Ordos' city-building agendas, the central actors in this process, and local interpretations of recent development. This material was supplemented and cross-checked with data procured in secondary sources, such as the local newspaper, the *E'erduosi ribao* (鄂尔多斯日报), and periodicals published by city agencies, such as the local planning bureau and the local commission for reform and development. Interviews with local officials, developers, and real estate agents further supplemented materials in this area. I also strived to visit as much of the municipality as possible. I traveled to all the banner territories of the municipality, with the exception of Otog Front Banner.

Interviews supplied core qualitative data for this project. During preliminary research it was determined that a "saturation" interview technique was most appropriate to the research site (Small 2009). This approach uses repeated interviews to pursue and exhaust a line of inquiry with specific interview subjects rather than attempt to derive

quantitative data from a sample population for statistical analysis. This interview technique is time-consuming, as it requires multiple follow-up interviews with informants. Such an approach proved to be the most beneficial, however, as informants were unaccustomed to speaking with a foreigner. Using the saturation interview technique, the gradual process of personal interaction led to increasingly forthright and revelatory discussions and opened successive doors to new interview subjects. Moreover, the informality of interviews obtained through this technique produced extemporaneous responses that raised further questions and illuminated new areas of inquiry. Using this method, I conducted 172 interviews with a variety of informants.⁶ With a “snowball” technique for gathering contacts, I mostly sought informants with direct knowledge in my three focus areas. Data was also collected during visits to Yulin Municipality and Xilin Hot in Xilin Gol League.⁷

While in Dongsheng, I resided part of the time in the home of a young and wealthy local businessman in the mining industry who had grown up in deep poverty in a nearby village. Daily interactions with this host and his entourage of assistants, friends, and associates were invaluable to gaining deeper insights to the operation of the mining industry, the local government, city development, and new forms of social stratification in a boomtown.

During the course of research, the Inner Mongolian capital of Hohhot was rocked by violent protests by ethnic Mongols protesting coalmining in the eastern territory of Hulunbuir Municipality. Research into local mining operations was therefore highly sensitive. Furthermore, a string of damning reports in national and international media about the property bubble in Ordos aroused suspicions over my research purpose among local officials and made them reluctant and circumspect informants. Given these realities, I did not prioritize interviews with government officials and instead focused efforts on non-state actors who nonetheless had reliable information about local development. It will be the task for future researchers to follow up and gain a fuller accounting of officials’ perspectives on the boom phase of Ordos’ growth.

Quantitative data on coal output, urban land development, and local formal and informal finance were collected through industry specific websites, statistical yearbooks, quarterly reports, and periodicals available at the Ordos Municipal Library. Additional sources were collected at the National Library in Beijing.

The study is focused on the period 2001-2011. There are two reasons this study is bracketed temporally in this way. First, Ordos Municipality was founded in 2001 to replace the Yeke-juu League. The league had existed as an administrative jurisdiction since 1649 CE, when the newly established Qing dynasty divided up its Mongolian territories into a system of leagues (prefectures), banners (counties), and arrows

⁶ For a full list of anonymized field interviews, see Appendix 2.

⁷ During travel to Yulin Municipality, I visited Shenmu and Fugu counties. These places have become important new coalmining sites in recent years. Informants in Ordos repeatedly encouraged me to visit these counties because of their similarity with Ordos. Rigorous comparative study of these places was beyond the scope of this project, however.

(townships/villages). The People's Republic maintained this system, though jurisdictional boundaries and assignments have changed considerably over the years, including a trend toward converting leagues into municipalities. Conversion to municipal status thus marked a break with over 350 years of general continuity as a defined territorial entity. By becoming a municipality, Ordos took on the name of the tribes collectively charged with guarding the tomb of Genghis Khan and acquired an expanded local state structure with enhanced governing powers. Second, this study focuses on this first decade of the 2000s because it also overlaps with the mining boom. Coal is the main resource mined in Ordos, although other resources are also produced, such as natural gas, oil, and various rare earth minerals. The dominance of coal in the local economy and its centrality to China's energy picture means that it is the commodity that serves as the primary focus in this study's discussion of resource extraction. In 2000, around 23 million tons of coal were produced in Ordos. By the end of the study period, that figure had risen to 590 million tons, more than all the coal produced in India in 2011. Ordos' first decade as a municipality was thus crucially informed by the territory's twin transformations, namely its emergence as a dominant supply region for coal and its graduation from rural prefecture status to urban status. Not only did the limits of fieldwork make 2011 a closing bracket for fieldwork for this study, a severe local economic crisis that year brought an emphatic end to the boom. Though the research extends beyond the study's temporal brackets, the key findings are derived from the period of the boom.

CHAPTER ONE: FRONTIERS, BOOMTOWNS, AND CHINESE URBAN RESTRUCTURING: A REVIEW OF LITERATURES

I situate this case study of a contemporary Chinese frontier boomtown at the intersection of three topics found in a rather disparate set of literatures: the study of frontier development, work on boomtowns, and the literature on Chinese urban restructuring. Each of these topics has generated substantial bodies of research over the years. Work on frontiers contains important theoretical contributions that have reoriented our understandings of how spaces produced as margins are central to social processes. The study of boomtowns has shown such cities to comprise a unique type of city, where rapid growth in population and economy has dramatic impacts on local politics, economy, and society. Finally, work on China's urbanization since market reforms were introduced in 1978 has examined how urban space has become a vibrant terrain for politics, economy, and cultural expression. However, insights from these various literatures have yet to be combined in a case-study examination of urban development in the resource-abundant western regions of China, where economic growth, industrial expansion, and urbanization in recent years have led to epochal transformations. The wave of change sweeping through these regions is a recent phenomenon, which may partly explain the relative inattention to these events. In this chapter, I review the three sets of literatures listed above and propose a synthesis that can serve as an analytical framework of "frontier boomtown urbanism" that I apply to the research site, Ordos Municipality. I then discuss how a study of frontier boomtown urbanism contributes to current literatures on resource frontiers, industrial restructuring, and urbanism.

Frontier studies: a review of perspectives

Frontier studies is a multidisciplinary field that can be roughly divided into two dominant epistemological arenas. The first sees frontiers in terms of a unique setting to examine economic development at a number of scales. The second examines frontiers as cultural regions. In this second realm of frontier studies, the frontier is a fairly cohesive region that generates distinctive politics and cultures. This can be called the socio-cultural interpretation of the frontier. These are very different ways of conceptualizing frontiers. However, underlying frontier studies is a usually implicit appreciation of the ways in which frontier social processes take shape in dialectical fashion with the peculiar spatial aspects of the frontier. In this sense, there is an unacknowledged unity in these two realms of frontier studies that might fruitfully be brought to the fore and rendered explicit. This study attempts to do this.

To begin to illustrate the diverse connotations of the frontier, we can first consider the word's complex etymology. The English word "frontier" has evolved from its Latin root, "frons," meaning forehead, into a host of directional and spatial meanings. The *Oxford English Dictionary* features seven definitions of the term, including: "the front side," "the side that fronts in a specified direction," and "that part of a country

which forms the border of its settled or inhabited regions.”⁸ What can be said of the term’s various meanings is that they share a connotation of the frontier as an edge. In this sense, the frontier has a peculiar spatial definition. It is neither exclusively of a given core, nor is it entirely detached from it; it is an interface and a liminal zone, yet it is also potentially a capacious and distinctive region. Given this conceptual and physical flexibility, there is considerable diversity in how scholars define frontiers and assess their importance in economic and social development. Conceptions of the frontier are many and varied.

Frederick J. Turner’s writings from the turn of the twentieth century were foundational to the field (Turner 1920). In his famous “frontier thesis,” Turner theorized that the United States’ emergence in the nineteenth century as an economic power and distinct cultural entity took place through a linear process of continental frontier settlement and control.⁹ His thesis was laced with ethno-centrism and Darwinian indifference to indigenous peoples. As a consequence, it has faced sustained and sharp critiques along these lines over the years.¹⁰ Yet, his core idea of the frontier as a place that is paradoxically marginal yet simultaneously central to economic, political, and cultural development has survived. Indeed, the frontier has undergone many re-theorizations and been applied to a variety of historical and regional contexts. Later theorizations of the frontier have tended to highlight the intense politics and patterns of uneven power relations in frontier settings.

Frontiers and Economy: The role of the frontier in economic development was at the core of Turner’s thesis. In the context of North American continental settlement, Turner argued that the allure of cheap, abundant, and unexhausted land on the frontier supplied the critical enticement for new migrants to leap over settled areas and push westward. The frontier, he said, was “the outer edge of the wave ... it lies at the hither edge of free land” (Turner 1920: 3). Land and resources in relative abundance proved an “irresistible attraction” (1920: 12) for colonists to drive onward in search of more of the same. Expanding Turner’s thesis to the period of European imperial expansion between 1500 and 1900, Walter Prescott Webb (1953) saw the drive to obtain resources relatively cheap on the frontier as the motive force of modern history. The “economic boom” that characterized these centuries was sustained by a steady flow of resources exploited on the global “Great Frontier” to benefit the “Metropole,” the core economies of the Western

⁸ See *Oxford English Dictionary*, www.oed.com.

⁹ Turner’s frontier thesis was first offered as a speech delivered at the 1893 annual conference of the American Historical Society, which convened at the Columbian Exposition in Chicago. The essay was later expanded and published as a book-length study in 1920.

¹⁰ For key critiques of Turner’s thesis in historical studies of the American west, see Patricia N. Limerick, *The Legacy of Conquest: The unbroken past of the American west* (New York: W.W. Norton, 1987) and in Richard White, “*It’s Your Misfortune and None of My Own*”: *A new history of the American west* (Oklahoma City: Oklahoma University Press, 1991).

world. For both Turner and Webb, then, frontier expansion was both a linear and terminal process of territorial conquest in search of resources. In Turner's thesis, the "closing" of the frontier portended the decline of American economic and cultural vitality. For Webb, the end of the era of "free land" acquired through colonialism culminated in the twentieth century's global conflagrations. While much romanticism has been tied post facto to the classical frontier thesis, its original intent was to highlight the consequential nature of social and economic development in these regions.

Economic historians inspired by the Turner-Webb frontier thesis have sought to theorize the role of frontiers within economic development more broadly. This work has most commonly been situated in colonial contexts such as North America, Latin America, South Africa, Australia, as well as Siberia. Because resource exploitation was often the main driver of economies in these regions, these debates have also featured examinations of resource-based frontier development and the observed variable capacity of such activities to lead to sustained growth and industrialization. Work in this vein is premised on an understanding of frontiers as remote, sparsely populated locations that are nonetheless closely bound to a core or metropole through the supply of raw materials and resources. Frontiers in this conception are further distinguished by a purported relative abundance, variously defined, of land or resources. In Billington's terms, frontiers are constituted by a "low man-land ratio and unusually abundant, unexploited, natural resources" (1966: 25). Edward Barbier uses similar language, defining the frontier as "an area or source of unusually abundant natural resources and land *relative* to labor and capital" (2011: 7, emphasis in original). Guido di Tella has posited frontiers as distinguishable for the "existence of abundant land, mostly unoccupied, and by a substantial migration of capital and people" (1982: 212). Two points emerge from these debates that are salient here. First, "relative abundance" of resources is inseparable from the uneven power shown to exist between groups located on the frontier. Hence, frontier formation typically occurs in close relation to military force and colonial administration. These conditions underscore the point that the presence of resources in one place is meaningless outside of the uneven social relations that make resource exploitation a worthwhile enterprise. Moreover, contrary to their frequent characterization, frontiers are never empty of people; instead, indigenous populations are drawn into the processes of frontier development in ways that historically have proved to rarely be beneficial to the indigenes themselves. As Jason Moore (2003) has argued, plunder of nature alongside the "hyper-exploitation" of labor are central features of frontier formation.

The second point to emphasize is that frontiers are subject to radical and sudden shifts in the spatial distribution of capital, labor, and valuable resources. Expressed another way, when the social relations of production under a given set of technological and institutional conditions change, the "super profits" and "irregular rents" that di Tella identifies as the key economic attractions of the frontier can suddenly become unobtainable in one place and obtainable in another. As quickly as capital and labor poured into a space, the flows are reversed and precipitous decline at the former site of production occurs. Partly as a result of this, frontiers are famously susceptible to radical boom-bust cycles and geographical convulsions. The example of Manaus is instructive in this regard. A frontier for rubber production in the second half of the nineteenth century

and the first years of the twentieth, the geographical shift in production to Asia, where production was more efficient, devastated the city and its surrounding region, leading to long-term stagnation and the discarding of grandiose urban visions conjured for the city amid its boom.¹¹ A larger point here is that natural resources are not exogenous factors of production with absolute limits to supply, but instead are endogenous factors within industrialization. “Natural resource abundance, no less than the condition of so-called technological leadership,” David and Wright aver, is “socially produced” (1997: 204). This is a point that has been emphasized in studies of capitalism’s inherent spatial dynamism and its production of nature as a set of exploitable resources (see N. Smith 2008). In Storper and Walker’s terms, capitalism propels “waves of industrialization,” suggesting that “territorial extension, differentiation, and instability are not afflictions visited on industrialization but conditions upon which capitalist development thrives” (1991: 209). Capitalism produces frontiers and destroys them as a perpetual structural condition.

A dynamic, relational perspective on the spatiality of capitalism in this vein carries important connotations for the idea of frontiers. Frontiers, in this sense, are never “closed”; they are constantly remade in new locations contingent upon the resolution of obstacles to the realization of surplus value and the movement of capital to new, more favorable locations. Relating back to the first point, these spatial shifts are frequently driven by what Harvey calls processes of “accumulation by dispossession,” as force is applied to create anew the requisite conditions for obtaining the desired level of profit (Harvey 2005: see especially, 137-182). Under the conception of frontiers described here, frontiers are a structural component of capitalism and are defined in relational terms that combine location with other factors – transportation, technology, institutions – that generate the viability of highly profitable production in certain places (De Angelis 2004).

Reflecting a view that frontier-based natural resource production is inextricable from the social relations that inhere in such spaces, the widespread occurrence in the current day of conflict over industrial-scale natural resource extraction has become a focal point for recent research on frontiers. In this work, the notion of the frontier draws dually upon its metaphorical connotation as a process of conquest and as a site of exceptionally intense exploitation, with neoliberal globalization, not classical imperialism, supplying the political-economic logic of expansion. To use Barney’s description: the frontier in the contemporary era is “transnational and corporate” (2009: 149). The important contrasts to be drawn with the recent resource frontier research are, first, the supposition in the current era that colonial power is exercised more remotely from corporate headquarters and, second, rent-seeking by local elites short-circuits the local reinvestments needed to set in motion urban-industrial transformation (Auty 1993;

¹¹ The contemporary shale gas boom in North America further demonstrates the capacity of resource frontiers to undergo several booms interrupted by periods of stagnation and even decline. Before the advent of hydraulic fracturing technologies, for example, gas known to exist within the Marcellus, Bakken, and other deposits could not be profitably extracted. With new “fracking” technologies, however, these fields have re-emerged as “frontiers” for natural gas.

2000; David and Wright 1997). A consistent feature of studies on contemporary resource frontiers is a focus on locality-based resource conflict in rural areas. Urban integuments of the frontier are little discussed. This project addresses this particular lacuna in the current literature on frontiers.

Frontiers as spaces of encounter: Frontiers have also been theorized as politicized spaces of encounter. In a now-infamous turn of phrase, Turner called the frontier the “meeting point between savagery and civilization” (1920: 3). While this is often taken as definitive evidence of the author’s cultural chauvinism, this judgment reflects a tendency to read current meanings of terms into his original usage that likely were not intended. Accounting for the conventional discourses of his day, Turner’s view was that the frontier was where societies mismatched in terms of power faced off in Darwinian struggle for control over resources and space (Klein 1996).¹² In mid-century, Ladis Kristof updated Turner’s language, theorizing the frontier as a space between ecumene. Frontiers, in Kristof’s words, are “meeting places not merely of different ways of physical survival, but also of different concepts of the good life, and hence increasingly political in character” (Kristof 1959: 270). So stated, the politics of the frontier are often presented as revolving around the resolution of inherent tension or conflict at the frontier between opposed politicized visions of legitimate territorial control, each staking a claim on space. There is a strong correspondence between this view of frontiers and what Mary Louise Pratt (2007) has called “contact zones.” Pratt defines such zones in the following way: “social spaces where disparate cultures meet, clash, and grapple with each other, often in highly asymmetrical relations of domination and subordination – like colonialism, slavery, or their aftermaths as they are lived out across the globe today.” She continues, stressing that in contact zones people of different cultures establish “ongoing relations, usually involving conditions of coercion, radical inequality, and intractable conflict.” In much of the frontier theorizations that I label socio-cultural interpretations, frontiers are generally synonymous with this idea of the “contact zone,” though alongside the themes of conquest and exchange are strong emphases on cultural synthesis and divergence with normative social standards. Frontiers are spaces where new agents of power attempt to lay down roots with sometimes unpredictable results. Amid this process mutations of culture occur as a result of sustained interchange among peoples of different social groups in and across frontiers. Frontiers are thus unique sites to examine territorial conquest and its relations to cultural synthesis.

These themes are especially prominent in literature analyzing Inner-Asian frontiers, and in particular China’s relations to the places and societies located adjacent to, or inside, its claimed territory. Produced primarily by historians and anthropologists,

¹² French and German, which were the dominant scholarly languages in Turner’s time, hold precisely this connotation of the frontier. The French word *frontière* refers to the political boundary between different jurisdictions or states as well as referring to a broader border zone. The French word *frontière* refers to the political boundary between different jurisdictions or states as well as referring to a broader border zone. Similarly, the German term *grenz* refers to a political boundary and a region.

these studies have developed a set of useful insights that can be roughly categorized under the following headings, which I take up below: frontier interactions, the formation of Chinese nationalism and imperialism, and social control over ethnic “minorities.” Some of these studies employ the term frontier in their analyses, while others use the word interchangeably with borderland, periphery, and margin. Still others avoid using the term altogether. While this study tries to avoid implying that any of these terms are perfect synonyms, the review of the relevant literature is necessarily inclusive in order to highlight the range of phenomena studied in these contested regions that, when broadly defined, can be construed as frontiers.

Frontier interaction: Owen Lattimore’s frontier studies in the first half of the twentieth century were critical for de-centering debate on East Asian history and for opening new lines of inquiry under the organizing principle of the frontier. In work on Mongolia, Turkestan, and Tibet, Lattimore described frontiers as wide, durable, and highly differentiated societies. He called China’s northwestern frontiers “static” in recognition of the fact that massive areas beyond the Great Wall persisted over centuries as culturally heterogeneous regions, where conquest by one group over the other tended to be tenuous and temporary (Lattimore 1962a: 477). Counter to the Turnerian understanding of frontiers as spatio-temporal interims, Lattimore found that in the massive Inner-Asian region, formidable and roughly equal civilizations faced off, leading to a zone of persistent interaction that produced ways of life quite at variance with adjacent cores.

It has long been remarked that in the frontier, the dynastic states that we now refer to collectively and retrospectively under the name “China” maintained close relations with the civilizations on its borderlands. Given the often-considerable strength of China’s many bordering states, maintaining stability in the frontier was paramount in order to minimize raids on Chinese settlements and to hold back the frequent organized and more sustained incursions. Studies of China’s historical frontiers provide a rich account of the diplomatic codes, regulated trade, and alliances that helped enhance Chinese surveillance and security in frontier regions (Rossabi 1983; Barfield 1992; Perdue 1998a; DiCosmo 2001). Importantly, these studies bring into question schools of thought that long held that pastoral and nomadic frontier societies represented merely scattered groups living in primitive conditions susceptible to conquest and the allure of Chinese civilization. Instead, China’s frontiers were fluid intermediary zones with mixed economies, intensive cultural interaction, and powerful, indigenously controlled political centers.

Recent work on Inner-Asian frontiers also questions the Qing-centric view of frontier conquest and casts Chinese regional hegemony beyond the core as anything but a pre-ordained outcome. In his important study of Ming and Qing campaigns in the northern frontier, Perdue notes that the logistical challenges involved in driving military forces into the frontiers and keeping them adequately supplied made permanent conquest of the frontier a highly contingent outcome that followed on repeated setbacks (Perdue 2005). Distance and climate were major factors militating against conquest and mass settlement by Chinese in the northwestern frontier. So too, however, were the strength and obduracy of the states encountered in the frontiers. Frontier states emerged in relation

to, and not simply in reaction to, the relative strength of the adjacent large states: Russia and China.

The formation of Chinese nationalism and imperialism: In recent years, frontiers have emerged as a focal point for the study of Chinese nationalism and China's relation to imperialism. Much of this work takes as its starting point a critique of the myth of the continuous, unitary Chinese state and core culture. This notion of a unified China has survived not just in official nationalist narratives but also in important Western discourses on China until recently. John K. Fairbank wrote that China "had achieved a degree of cultural homogeneity and isolated continuity hard to match elsewhere in the world" (Fairbank 1992: 44-45).¹³ More recent work on the Chinese state's policies toward peripheral territories and its peoples has brought new scrutiny to the construction of ethnic categories that form the bedrock of modern Chinese nationalism. China's frontiers are spaces where new self-definitions of modern China took shape starting in the late-Qing. In his study of the policies employed by the Qing and its successor Republican regime to conjure a unified China in the face of sustained imperial encroachments, Leibold has argued that the encounter with the "internal Other" on the frontier proved central to devising the idea of a multi-cultural, multi-ethnic Chinese nation. What Sun Yat-sen and Chiang Kai-shek both promoted as the "family of five nations" (Han, Tibetan, Uighur, Manchu, and Mongol) was a way to incorporate both the peoples and threatened peripheral territories into a single grouping under the modern dress of the nation-state (Leibold 2007). In Benedict Anderson's terms, these efforts were a way to "stretch the short tight skin of the nation over the gigantic body of the empire" (1992). A multi-ethnic conception of the Chinese nation enlisted frontier peoples as pillars of a unified territory, while also legitimizing what amounted to colonial occupations of frontier regions. Importantly, the multi-ethnic conception of the Chinese "family of nations" also assuaged the humiliations experienced in successive rounds of foreign aggression by constructing a racial hierarchy at the top of which would sit the Han as the father figure of the national household.

The work of imagining and constructing the Chinese nation as a multi-ethnic unity presumes the completion of a process of frontier conquest. For nationalist scholars, this has involved eliding the violence of conquest over borderland peoples and beginning with a conception of the nation that begins roughly with the maximal geographical extent of Qing territory. It has also necessitated drawing distinctions between Chinese expansionism and foreign imperialism based on the fact that Chinese states historically

¹³ The renowned social anthropologist, Fei Xiaotong, in a similar way contended that historically the "Chinese people" (*zhonghua minzu*) was a continuous and unitary, albeit ethnically composite, entity dominated by the Han people (X. Fei 1989). This durable conception of China as a homogeneous society led by the Han, which undergirds much of the existing popular imaginary of the country, has been brought into question by work that seeks to interrogate the basic categories that support this myth. The idea of the "Han" race, for example, has been analyzed as an unstable classification and a product of hotly contested processes of taxonomy (cf. Moser 1985; Mullaney 2011).

occupied contiguous territory and did so under a soft-handed assimilationist approach with a flexible and universalist ideology rather than out of geopolitical or profit motivations (Perdue 1998b). Other scholars find such distinctions overdrawn, seeing in the Qing dynasty's frontier expansions a form of colonialism and imperialism with remarkable resemblance to the Western variety (Harrell 1995; Millward 1999; Hostetler 2001; X. Wang 2011). As Xiuyu Wang has noted, not only was Qing (and later Republican and Communist) expansion carried out through successive and bloody military campaigns, but Qing, Republican, and Communist authorities also undertook the hallmark activities of colonialist regimes: censuses, ethnic taxonomies, cartography, training of native administrators, and the granting of privileges to certain strata of local society as a means to divide and conquer. In the case of Taiwan, Teresa Teng applies Edward Said's notion of "Orientalism" to demonstrate how Chinese colonialism was also supplemented by the production of debasing textual and visual representations of indigenous populations, all of which served to bolster and legitimize colonial occupation (Teng 2006).

Social control over ethnic "minorities": Related to the theme of nationalism and imperialism on the frontier is the question of official policy toward ethnic minorities. Officially, there are 56 ethnic groups in the People's Republic. The Han constitute the largest category, making up roughly 90 percent of the population, with 55 "minorities" making up the rest. Minorities can be found in every province and autonomous region, but are concentrated in China's west. Thus the correspondence between many of China's ethnic minorities and the country's territorial border regions has made frontiers key sites for the critical study of Chinese ethnopolitics. Thomas Mullaney's account of the "Ethnic Classification Campaign" carried out in 1952 in Yunnan Province details the emergent Communist regime's state-backed ventures into borderlands by academic ethnologists to locate and classify the country's minority peoples (Mullaney 2011). As he and others have documented, this campaign compiled a list of ethnic groups exceeding 400, which was later whittled down to 41 and gradually added upon over subsequent decades. Constructing the requisite knowledge about frontier minorities in order to more effectively govern them has been shown to be inseparable from institutionalizing state control in frontier regions over which the Communist Party originally had rather tenuous holds.

Studies of frontiers also show that the Communist Party has had to tread carefully in its handling of the "ethnic question" (*minzu wenti*). In the course of its rise to power, the Party issued multiple promises and assurances to non-Han groups. These promises were motivated both by the need to forge military alliances in the fight against the Japanese and Kuomintang during the long years of armed conflict between 1937 and 1949 and on the basis of the Soviet model of "national self-determination" elaborated by Stalin. The system of "autonomous regions," for example, was first instituted in Inner Mongolia in 1947 as a demonstration of goodwill aimed at winning over the allegiance of eastern Mongols, who at the time were not committed to joining a future PRC (Bulag 2005). Under the PRC, in practice, "autonomy" in such regions has meant greater local control over administrative resources and loosened regulations over religious practice,

education, family planning affairs, taxation, and the local legal system. The parallel local Party system, however, has consistently remained in Han hands (Gladney 2004: 19).

Efforts to consolidate the frontiers by means of administrative concessions were also crucially motivated by the abundant natural resources believed to be stored in the vast hinterlands. In his important 1956 document titled *On the Ten Great Relationships*, Mao Zedong wrote: “The population of the minority nationalities in our country is small, but the area they inhabit is large. . . . We say China is a country vast in territory, rich in resources and large in population; as a matter of fact, it is the Han nationality whose population is large and the minority nationalities whose territory is vast and whose resources are rich, or at least in all probability their resources under the soil are rich.” From the outset, the “ethnic question” was bound to problems of frontier territoriality and resource exploitation.

Securing the country’s borderlands has been a major challenge for the Chinese state. Since the 1950s, the People’s Liberation Army has been active in suppressing independence movements in Xinjiang and Tibet. The CCP has also encouraged large-scale migrations of Han Chinese to these territories and to Inner Mongolia. The resulting demographic shifts have been shown to produce simmering discontent and recurrent paroxysms of violent inter-ethnic conflict. Attacks by Red Guards on religious institutions, clergy, and minority peoples during the Cultural Revolution (1965-1975) also greatly embittered non-Han communities to PRC claims over borderland territories. From the perspective of China’s frontiers, CCP rule has been marked not so much by the construction of a unitary and multiethnic Chinese nation as a series of reneged promises on autonomy, a strong military presence, and frequent state violence. The study of the frontiers has thus also emerged as a core site to examine the intersection of ethnic identity and resistance to state power (Bulag 2002a; Bovingdon 2010).

Frontiers and urbanism: In China, the familiar equation of frontiers with nomadic peoples and sparsely populated territories has also meant that the urban factor in frontier zones is paid little attention. An exception is Piper Rae Gaubatz’s important study of urbanism in five of China’s borderland cities: Hohhot, Lanzhou, Xining, Urumqi, and Kunming (1996). Gaubatz’s study broke ground in the study of China’s frontiers by illuminating how colonial administrations sought to utilize urban form and the regulation of architectural design as a means through which to communicate social norms and, in effect, to Sinicize the frontier. Yet, the idealized Chinese urban form pursued in these cities was alloyed by countless accommodations to local practice and cultural expression. The result, Gaubatz argues, was that the Chinese frontier city represented “a striking replica of a standardized Chinese urban ideal and a multicultural settlement with distinctive characteristics of its own” (Gaubatz 1996: 314). Through a close analysis of urban morphology and architecture, Gaubatz argues in terms that echo Lattimore that Chinese frontier cities were also spaces of intensive and sustained cultural interaction.

But, given Gaubatz’s broad historical perspective, the discontinuity marked by urban development since 1949, and especially since the commencement of market reforms, is under-emphasized and merits closer attention. It is China’s particular iteration of capitalism now driving urban redevelopment that is decisively reshaping frontier cities

and giving rise to new ones, such as Ordos. This is where China's historical frontiers – cultural regions with ancient heterogeneous societies – are intersecting with another type of frontier, that of extractive industry.

Building upon this diverse set of literatures on frontiers, this dissertation explores how China's contemporary resource frontiers are simultaneously constructed through constantly changing economic processes and continuity of cultural encounter. Under the current political economic structures governing spatial administration, this intersection of two types of frontiers has profound effects on the process of city building.

Boomtowns and instant cities

Cities expand and contract in different rhythms. Some cities mature into major metropolises over long periods that alternate phases of relative somnolence with fits of rapid growth. Others emerge suddenly, telescoping population and physical growth into a comparatively short time, sometimes only a few years, thanks to one source or another of exceptional economic expansion. These latter cities are often given the label "boomtowns." Such cities have tended to be seen as aberrations to the "normal" process of societal and urban evolution and have hence been regarded with some skepticism. The low regard in which boomtowns are commonly held and the inherent ephemerality of the boom perhaps explain the conspicuous dearth of urban theory on this type of city. Still, important empirical work has been done on boomtowns that illuminates their peculiar qualities and differentiates them from other cities.

The most cogent conceptualization of the boomtown is Gunther Barth's "instant city" model (1975). In his landmark work, he describes the instant city in the following terms:

"In contrast to cities in general, instant cities came into existence Athena-like, full-blown and self-reliant. Some instant cities rose in response to the command of a ruler, the design of government, or the bidding of a faith. However, most emerged only when several conditions were met simultaneously. The presence of something valuable in or on the land, such as gold, silver, timber, trade, or people worth exploiting was one condition; the abrupt influx of people of different skills, motivated by personal gain was another. Originally, the nature of the site was important, but with man's increasing ability to control his environment through technological advances, almost any locale could be made habitable. All instant cities were transplants, but their roots were often widespread and diverse. They lacked traditions of their own and learned to adapt to their immediate needs the customs and components of the disparate life styles brought by the first settlers with them from distant lands."

He continues:

“Without common traditions and customs, self-interest fostered social cohesion when the needs of property demanded organization. The concern for opportunity, stimulated by the dazzling promise and blatant insecurity of the cities, curbed the effectiveness of government. In the absence of success, only the future mattered. It held out the promise of the completion of the cities as the ultimate source of personal prosperity. A past did not exist, and the present was continually rendered obsolete by change that sustained the development of the cities until the urban explosions spent themselves and the cities’ uniqueness vanished.”

Finally,

“Like ships in the turbulent waters of the urban flood, the instant city pointed a course, charted by audacity and imagination to the hoped-for shore of urban tranquility and harmony” (Barth 1975: xxii, xxiv, xxv).

Five characteristic properties emerge in Barth’s formulation to distinguish boomtowns, or instant cities, from the mass of ordinary cities. One or more have been highlighted in other empirical work on cities past and present. First, boomtowns experience a rapid influx of population dwarfing the original settler population. Boomtowns are therefore characterized by newness in a given locale. For this reason, boomtowns frequently appear at what we have just outlined in the foregoing discussion as a frontier. Long-established regional primate cities simply absorb population, but frontiers spawn entirely new cities that can blossom at the beginning as boomtowns. Brechin and Cronon show precisely this kind of growth in resource frontier settings in their dramatic portrayals of nineteenth-century San Francisco and Chicago, respectively (Cronon 1992; Brechin 2006). More recently, Brasilia also exemplifies the creation *de novo* of a city on the frontier, though not in pursuit of resource wealth, but rather as a pioneer laboratory for post-colonial modernism (Holston 1989). Second, boomtowns attract droves of wealth-seekers. The presence of valuable resources is the boomtown’s classic beacon for migrants, who converge on certain locales propelled by dreams of personal prosperity. As people arrive from all directions in a given place, boomtowns take on a distinctive cosmopolitan flair, as cultures encounter each other in a rapidly growing city (Burns 1965). For newcomers, boomtowns are spaces where new beginnings are seen to be possible. Third, narrow economic bases, and in particular specialization in the production of a few valuable commodities, make boomtowns susceptible to abrupt swings in commodity cycles and speculative rushes. With confidence in sustained growth, fanned by boosterism, sudden accumulations seeking new outlets are plowed into the built environment. On the upside of the cycle, rapid growth occurs as commodity prices rise, the city reaches out horizontally and vertically, and more people converge stimulating local commerce. Once prices drop or the

speculative fever abates, depression sets in and population flow reverses, thus compounding the effects of economic torpor (see Burns 1965). The fate of boomtowns rests on their capacity to evolve through the initial fits of boom-bust cycles. Some succeed, while many fail. Fourth, boomtowns concentrate and amplify a range of social and urban problems. Studies of the “front-end” costs of boomtown growth show that rapid population influx overwhelms local governments with demand for services and infrastructure (Gilmore and Duff 1975; Gilmore 1976). A mismatch then arises between the immediacy of the population’s needs and the time required to plan, execute, and pay for adjustments. The itinerant populations converging on boomtowns further provide precarious income for local governments. But, the impacts of boomtown growth extend beyond the difficulties of service provision. Boomtown growth has severe social impacts. Though one must apply caution when ascribing universal social pathologies to boomtowns, studies of energy boomtowns in the United States in the 1970s and 1980s attribute high incidence of crime, substance abuse, and suicide in boomtowns to the destabilizing effects of rapid growth and swings in the economic fortunes of local populations (cf. Cortese and Jones 1977; Freudenberg 1980; Freudenberg 1984). Finally, boomtowns characteristically give rise to grandiose urban visions, often frustrated by post-boom reality. Elites who cohere in boomtowns are usually not content with the disorderly physical landscapes of such cities and set about to improve urban space through elaborate planning schemes and extravagant public works. Initiation of radical urbanization agendas marks a departure from the utilitarian, *ad hoc* settlement patterns that characterize the early phase of boomtown growth. In such cases where transformative urban agendas are attempted, boomtowns are sites for bombastic political statements and urban experiments that aim to ratify the bold visions of an emergent class of town burghers and political rulers (Holston 1989; Scobey 2003). Colonial cities have served analogous roles, spurring sudden urban growth and inspiring urban plans that mediate relations between dominant and subordinate groups (see Rabinow 1989 and Wright 1991 on French colonial urbanism; Buck 1999 on Japanese colonialism in Manchuria). Planned towns and company towns constructed from the mid-nineteenth century through the 1930 in the United States serve as examples of instant cities or boomtowns (Crawford 1996).

Barth’s “instant city” model summarized above provides the contours of a framework for analysis of boomtowns as an urban type. Its utility is its capacity to highlight newness, instability, and the struggle for definition and control over a city against the countervailing pressures of short-termism, rapid growth, and societal incoherence. In differentiating boomtowns from fast-growing ordinary cities, we can begin to move beyond the typical judgments of “chaotic,” “lawless,” and “derivative” urbanism to conceive of urban maelstrom not as expressions of a deficient culture but as fitting an historical pattern of exceptionally fast urban growth in institutional and geographical settings poorly equipped to deal with change on such scale and pace.

China is a worthwhile contemporary setting to apply this model, as economic expansion since the 1990s has been accompanied by astonishing rates of urban growth in all dimensions. China arguably has many boomtowns. Indeed, observers have marveled at the growth of Shenzhen, Dongguan, Kunshan, and many other cities in recent decades.

Shenzhen is the most dramatic example of a Chinese boomtown, having morphed from a 30,000-resident town in 1979 to a city of over 10 million in the current day. Chen and de' Medici have tested the instant city model in the Shenzhen Special Economic Zone, finding evidence of severe economic, governance, and social strains lurking behind the veneer of spectacular growth (Chen and de' Medici 2010; Chen and de' Medici 2009). The Shenzhen SEZ was a creation of the central government specifically to engineer a trade and manufacturing center that would leverage the twin benefits of proximity to Hong Kong, with its command over global capital flows and cheap migrant labor from China's interior. Migration controls into the SEZ as well as a unique tax code and regulatory regime established a basis for boomtown-style growth.

Ordos' boomtown transformation has been of a different kind. Unlike Shenzhen's boom, Ordos' boom took place on an exceptionally narrow economic base producing goods almost exclusively for domestic markets. Moreover, Ordos has grown as a boomtown within China's standard system of spatial administration; it is not an SEZ and so enjoys no preferential tax or regulatory regime, nor does it occupy a peculiar political position as a central-government showcase. Its boom was based on a single commodity with a deep and important history and position in the national economy: coal. In fact, the largest mines in the municipality are operated and occupied by the Shenhua Group Corporation, a central-level state-owned enterprise (and the world's largest coal producer) over which the local government has minimal authority. The municipality cannot, for example, levy the standard resource tax on Shenhua's production. For this reason alone, Shenhua's presence in a given territory is widely regarded as the bane of local governments, forcing it to absorb enormous costs associated with mining without enjoying the full benefits. Reforms in the coal sector and the introduction of technology-intensive production techniques are a large part of why Ordos leapt from obscurity as a resource frontier boomtown. Further, because China's coal production is marketed to domestic users, Ordos' economy is far less globalized than, say, Dubai or Houston. Ordos is also distinctive in that the inflow of migrants sees a partial seasonal reversal as construction projects are halted during the cold months; concrete cannot be poured in the region's consistent wintertime sub-freezing temperatures. Thus, while Ordos saw a significant rise in population between 2001 and 2011, much of the new population was itinerant. When the boom came to an end, the migrant population reversed itself.

It has become axiomatic to describe Chinese urban growth in recent decades as "fast" or even "breakneck." But differences in speed and intensity matter for places. Drawing upon the diverse literatures that have dealt directly and tangentially with boomtowns, this study seeks to contribute to the growing literature on Chinese urban transformation from the perspective of a resource frontier boomtown. A boomtown focus can shed light on how economic, political, and cultural logics intersect in the production of a late-developer city located in a marginal region with a history of inter-ethnic conflict. When growth arrived, it did so not through the careful attention of high-level leaders, or the gradual expansion of industry, or an organic increase in population; rather, it came as an explosive expansion of resource extraction. Accumulations in this arena quickly spilled into the production of new built environments. Urban growth and a distinct local enthusiasm for city building were inseparable parts of these sweeping changes. Crucially,

Ordos' urban growth was conditioned by its articulation within China's political economy of urban land development. Though the stereotype of frontier boomtowns is that they are wild expressions of unbridled capitalism, we find in Ordos the fingerprints of the state on virtually every aspect of city building.

Chinese urban restructuring and spectacular urbanism

This study is also situated in debates over Chinese urban restructuring and the role within this transformation of spectacular or monumental modes of space production. A consensus view holds that a turning point in contemporary Chinese urbanization occurred in 1988, when the central government ratified an amendment to Article 10 of the PRC Constitution creating a market for urban land leaseholds.¹⁴ This change coincided with sharp reductions in central-local transfers and jurisdictional, administrative, and tax reforms designed to force cities to take the lead in regional development (Chung and Lam 2004). As a result of these reforms, urban administrations in the 1990s and 2000s acquired a powerful set of incentives to develop land as intensively as possible as a primary means of stimulating regional growth and industrialization.

China's peculiar circumstance of state land tenure and land's de facto privatization sparked debate in urban geography about the state's guiding role in urbanization. The problem of secure private property rights is central to this debate. In one view, their absence is viewed to be a cause of inefficient land allocation and use (Zhu 2002). An alternative perspective sees China's ambiguous land tenure as a crucial adaptive mechanism for the state to maintain social control during the process of market transition (Ho 2001). Scholars have also sought to account for the determining effects of China's administrative hierarchy on the distribution of resources that impact the size and vibrancy of individual cities (Fan 1999; Chan and Zhao 2002). By underscoring the active role of the state in the process of urbanization, all these explanations of "state-led urbanization" emphasize Chinese cities' divergence from patterns theorized in capitalist Western cities, where market dynamics and private property rights structure the spatiality of urbanization.

Other scholars have sought to explain Chinese urban restructuring with reference to urban governance literature. This literature develops a theoretical framework that triangulates the local state, local corporate actors, and local communities to theorize their interplay in maintaining the local state's structural continuity and its focus on growth as a primary objective. Logon and Molotch's notion of the "urban growth machine" exemplifies this approach by showing the close relations between state and corporate actors whose prioritization of the exchange value of space is opposed to the use value of place defended by local communities (1987). This approach would seem to have purchase in the context of China's recent urban development, where linkages between state and corporate realms are often observed (T. Zhang 2002; Y. Zhang and Fang 2004;

¹⁴ Article 10 states: "Land in cities is owned by the state. ... The state may, in the public interest and in accordance with the provisions of law, expropriate or requisition land for its use and shall make compensation for the land expropriated or requisitioned. No organization or individual may appropriate, buy, sell, or unlawfully transfer land in other ways. The right to the use of land may be transferred in accordance with the law."

He and Wu 2005). In recognition of political realities, however, numerous scholars have noted that a crucial difference in China is the comparatively weak position of communities vis-à-vis powerful coalitions of officials and corporate actors. The triadic relations of regime theory's formulations are shown to be highly uneven in the Chinese case.

An alternative explanation, which argues against the notion that legal changes originating in the state produced changes in the marketized land system in unilinear fashion, holds that the amended Constitution realigned the mutually reinforcing dynamics between the local state and the land market. The dialectical relation between a burgeoning property market and local states organized around land development signaled the "urbanization of the local state" (Hsing 2010). This theorization posits that the local urban state is a fractured and internally competitive entity in which local-state territorialization is secured through interconnected processes of accumulation, distribution, and legitimation. Land development is central to each of these discrete processes: accumulation is pursued in reflection of cities' heavy reliance on property fees, rents, and taxes to maintain fiscal solvency; distribution is central to the management of populations affected by development; city governments wrap themselves in an image of urban modernity to secure their legitimacy in the eyes of the public and higher-level officials. In short, the urbanized local state does not merely manage the process of urbanization from above as regulator of the land market. Rather, the urbanized local state engages in city building as a multi-faceted enterprise of authority building and social control that reverberates back onto itself with uncertain effects. The pervasive conflicts observed to arise in the process of urbanization translate into political crises for the local state due to its direct profit-oriented engagement in the process.

A supplement to the political-economic analysis of Chinese urban restructuring has been a corollary focus on the dramatic reconfigurations of built environments in recent years. Studies in this vein have sought to place aesthetically flamboyant urban spaces and architectural objects within the re-tooling of local urban economies. Studies highlight how urban regimes have embraced cutting-edge architecture as a way to redefine state legitimacy in the era of post-socialist globalization (Olds 1997; Broudehoux 2002; Broudehoux 2007; Ren 2008a; Ren 2008b). Massive capital accumulations and authoritarian state power are said to facilitate grand designs and bombastic architectural statements (L. Kong 2007; C. Smith 2008; Ong 2011). In contrast to the triumphal postures adopted in Beijing and Shanghai, where much of this literature is situated, other studies have identified a pervasive sense among urban officials in China's relatively underdeveloped interior regions of being behind the times or "late" in terms of modernization (Li Zhang 2006; P. Gaubatz 2008). Li Zhang explains this impulse thus: "Anxiety about being late and the widespread desire to catch up economically and representationally have largely shaped governments' decisions to wipe out old infrastructures deemed incapable of serving the new economy centered on the service industry and mass consumerism" (Li Zhang 2006). This underscores regional variation in the cultural logics that inspire and legitimize large-scale urban projects. As this study reveals, the drive to see through massive urban reconfigurations and to embrace extravagant urban form in Ordos reflects the notion of "lateness."

City-based natural resource extraction and processing has also been an important element of China's urban-industrial system since Liberation in 1949. Scores of so-called "resource-based cities" (资源型城市 - *ziyuanxing chengshi*) were established in the first decades of the People's Republic in locations throughout the country deemed by central planners to have an appropriate mix of resource endowment, transportation links, and power sources. Resource-based cities under the command economy had two primary functions: (1) extraction of ferrous and non-ferrous minerals, lumber, and energy resources and (2) basic industrial processing. The priority placed on social production over social consumption meant environmental conditions were poor and urban landscapes notoriously cheerless. The nearly exclusive purpose of local administrations in these cities was to serve local mines and industry.

In the 1990s, many resource-based cities were impacted by resource depletion, state-sector reform, and reductions in central-local fiscal transfers. By the 2000s, such cities were no longer admired as paragons of socialist industrialization as they had been in the 1960s and 1970s. Instead, they had become synonymous with deindustrialization, social decay, severe pollution, drab urban form, and the "irrationality" of the state sector. Scores were re-categorized starting in the 2000s by the National Development and Reform Commission as "depleted-resource cities" (资源枯竭城市 - *ziyuan kujie chengshi*), an assignment which comes with preferential development loans and assistance (See Appendix A). In the words of a leading scholar on the topic, resource-based cities had become "problem cities" (Zhao 2006).

Against this backdrop, recent work on resource-based cities has put overwhelming emphasis on the plight of deindustrializing mining towns (M. Zhang and Wu 2001; M. Zhang 2001; X. Zhang and Chen 2001; M. Li and Zhang 2002; X. Zhang and Chen 2002; Q. Wang 2003; W. Zhang, Wang, and Xu 2011). But, the decline of extractive industry has not been a universal phenomenon in China. Rather, in the key arena of energy resource production, the frontiers of industry have merely shifted location. With this geographical change, burgeoning industry has generated phenomenal urban growth in a certain few places. Ordos, which emerged in the 2000s as the leading domestic production site for coal, exemplifies the rise of new extraction-based frontier boomtowns. Other frontier boomtowns include Yulin and Shenmu in northern Sha'anxi Province; Fugu and Lüliang in western Shanxi Province; Baotou and Xilin Hot in Inner Mongolia, and Karamay in Xinjiang Autonomous Region. Sudden wealth and spectacular urban expansions in these boomtowns have challenged not just the typical image of resource-based cities as deindustrialized relics of socialist-era resource mismanagement but also long-standing perceptions of China's western regions as remote, impoverished, and under-urbanized.

Frontier boomtown urbanism

The frontier boomtown offers a context within which to re-examine Chinese urban development in the contemporary era. The preponderance of urban research in China is focused on the major metropolises of the eastern seaboard, where economies and local societies are starkly different from those found in the country's west. National strategy in the reform era has been to stagger development by first concentrating growth

in the coastal east and later prioritizing development in the central and western regions (Naughton 2004). Thus, the popular perception is that western regions are poorer and that their development trajectories will trace the path blazed by eastern city-regions. The story of Ordos' dramatic growth period in the 2000s suggests that urban growth in China's resource-abundant west will instead follow a pattern that will be familiar to students of historical boomtowns in frontier regions, albeit while exhibiting the peculiar inflections of China's land and political systems.

The first peculiarity of frontier boomtown urbanism is its basis in resource production. A surging mining economy propelled Ordos from a position of marginality to one of centrality in the overall economy. Coal is by far the dominant source of primary energy in China. Production and consumption volumes are staggering: 3.5 billion tons produced and 3.7 billion tons consumed in 2011. Massive investments in mining were critical to the twenty-fold increase in Ordos' local economy between 2000 and 2010. In line with Harvey's theory of the "urbanization of capital" (see 1978; 1985), accumulations in the mining sector quickly led to a sustained and focused effort at city building as another site of accumulation. The dominance of resource extraction to the local economy makes this process particularly turbulent and crisis-prone. Price fluctuations have dramatic impacts on the local economy, given its narrow basis in extraction. Distance to major markets and industrial centers, meanwhile, discourage investment in a wider range of industries. When combined with the city government's politically driven predisposition to build in order to boost revenue and to make a series of visible, tangible alterations to the built environment, the property sector emerged as the second pillar of local economy.

The second peculiarity is the adoption of spectacular modes of city development within a context of inconsistent state authority. Analyses of urban mega-projects and spectacular urbanism in China assume a powerful and capable state that marshals resources to carry out large-scale development (Olds 1997; Ong 2011). By contrast, the presence of the state in the boomtown is less evidently a guiding one, as growth overwhelms efforts of particular agencies to plan economic growth and spatial expansion. In this context, elaborate development agendas generate a confusing overlap of showcase projects and flagrant violations of plans. Proactive local-state development schemes coexist with ubiquitous quasi-informal ventures. Moreover, involvement by elements of the local state in illegal development reveals the local state as not merely internally competitive but fundamentally incoherent. Gigantic, spectacular development obscures the disunion of the local state, while providing multiple channels through which to extend the resource bonanza into urban construction.

Finally, the exhilarating experience of rapid economic growth in the boomtown promises to lift the city into a new position of contemporaneity with more developed peers. Growth statistics appear to signal a thoroughgoing transformation not just of the local economy but of local society as well. But beneath aggregate and average growth numbers are a host of frontier-specific social, political, and environmental problems that come into view strikingly at the end of the boom-bust cycle. With the volatility of the boomtown revealed, the frontier's definitive marginality is reaffirmed.

Studies of Chinese urbanization have circulated around the relative roles of the market and various levels of the state in determining urban outcomes. Particular attention is paid to the local state as a primary actor in planning cities, attracting high-design architectural forms, and making urban space “fit” within the new market economy. Concepts such as globalization and neoliberalism have been applied in this literature to highlight the dramatic urban transformations occurring in major Chinese cities in terms that reflect the most up to date modes of global urbanism. A study of a frontier boomtown can contribute to these debates by shifting the focus to a place where the struggles of a city to find footing on a crowded stage of emerging cities are brought into stark relief. The long-established metropolises of the coast have deep urban traditions and dense connections to the world beyond China’s borders. Ordos has far fewer such linkages and a much weaker claim to a local urban tradition. Growth in this setting is a maelstrom of epochal change that takes place on the foundations of regional marginality, poverty, and ecological strain.

CHAPTER TWO: LOCATING THE FRONTIER IN ORDOS

“I noticed throughout the country many traces of coal, sometimes on the surface, sometimes exposed by river channels. I doubt whether the veins are very important, but even if they were the finest in the world, there are no means of working them remuneratively in the present difficult conditions of transport in China.”

– Count Jacques de Lesdain, in *From Peking to Sikkim through the Ordos and Tibet*

“The Three Gorges lights up half of China; Shendong can illuminate the whole world”

– Shenhua Group Corporation slogan

China has made important advances in recent years in the expansion of hydro, nuclear, solar, and wind power. The country’s global search for oil has also captured the world’s attention. But all of these sources of primary energy are overshadowed by the dominant source of power in China: coal. In the early years of the People’s Republic, coal accounted for over 90 percent of primary energy. That proportion fell gradually until the 2000s, when it stabilized at its current 70-percent share in the national energy mix. Heavy reliance on coal historically and in the present reflects China’s large domestic reserves, as well as industrial, security, and energy strategies aimed at keeping coal the dominant source of primary energy to offset relatively small reserves of oil and natural gas (IEA 2007).

Given coal’s centrality to the Chinese economy, aggregate production volumes are enormous. Total production in 2012 surpassed 3.6 billion tons, more than twice as much as the United States, the world’s second largest producer. Yet, despite impressive production totals, coal production is carried out through a highly fragmented industry and is attributed with myriad environmental, political, and social problems. As Rui et al. conclude, “the coal industry is among the most troubled industries in China” (Rui, Morse, and He 2010: 2). For this reason, the coal industry has undergone constant reform in recent decades with the aim to improve industry oversight, restructure bloated state-owned enterprises (SOE), enlarge and protect certain key SOEs, and check uncontrolled expansion of capacity.

Studies of the Chinese coal industry focus mostly on internal industry reforms and market dynamics (F. Wang 2007a; Qian 2005; Bing Wang 2007; Rui, Morse, and He 2010; Ni 2010; Tu 2011). The national scale is the standard basis for analysis. This “view from Beijing” on the coal industry has paid relatively little attention to a critical aspect of the industry’s transformation in recent years, namely its spatial reorganization. More specifically, the geographical dispersal of production, which prevailed through the 1990s, was significantly changed in the 2000s by a pronounced regional concentration of extractive activity. The geographical shift in the regional balance of extractive industry, called the “strategic westward movement” (战略西移 - *zhanlüe xiyi*), has been a key component of national energy strategy since the 1990s (B. Wang 1994). In tandem with this shift, production was also reorganized under 13 so-called “energy bases” (能源基地

- *nengyuan jidi*) the borders of which are defined by particularly productive coal, oil, and gas fields and are therefore trans-provincial in numerous cases.¹⁵ The largest and most productive of the 13 bases are located in western provinces and autonomous regions and in Shanxi Province, historically the epicenter of China's coal industry.

Spatial recomposition of the coal industry has opened new frontiers in mining with profound impacts at local and regional levels. Among its effects, massive-scale mining in formerly impoverished western regions has sparked flashpoints of astonishing economic and urban growth and given rise to a crop of powerful corporate and state actors based in mining regions. Nowhere have these transformations been as acute as in Ordos Municipality.

This chapter examines how Ordos became a frontier and reconsiders what "frontier" means in this 21st-century Chinese context. Specifying the frontier as a unique space establishes a theoretical basis for this study's investigation of Ordos' boomtown urbanism. While resource endowments are shown to be important to the formation of the new coalmining frontier, other factors were equally, if not more, fundamental. First, the move west was driven fundamentally by a motivation to address the fragmentation of the coal sector. Reforms have sought to consolidate production under a reduced number of more technologically advanced firms that are more geographically concentrated and that apply greater levels of mechanization in the production process. Unstated but no less important is the opportunity to abandon the entrenched labor regimes and technical systems in old mining sites in order to start virtually anew in new places. In a late-developing coalmining region such as Ordos, mine operators with access to investment capital can immediately install the most advanced production methods and achieve productivity that is impossible to reach in debt-burdened and depleted old mines. Enhanced transport and power delivery systems were also essential to making coal production in Ordos economical. Thirdly, a steep rise in coal prices in the 2000s fueled strong investments in the sector. Finally, the push to re-center production westward was matched at the local level by governments' fervent desires to stimulate economic growth.¹⁶ Ordos saw a proliferation of small-scale, technologically backward mining operations in the 1990s and 2000s, as well as a few among these that grew into major mining firms with high production capacity and state-of-the-art technologies. Throughout China, reining in small mines has been a key point of contention between different levels of the state apparatus. During periods of low supply, small mines have been encouraged, but during periods of tighter demand, the central government has embarked on campaigns to shutter small-scale mines. This on-again-off-again endorsement of small mines, most of them operated by cash-strapped village collectives or private firms with close ties to local officials, is a major irritant in the central government's relations with localities dependent on mining for employment and revenue. In Ordos, intensification of coalmining in the 2000s was closely tied to these local territorial dynamics and was not

¹⁵ Xinjiang Autonomous Region was designated as a 14th energy base in the 12th Five Year Plan for Coal Industry.

¹⁶ This should not be taken to connote universal support for mining in Ordos. Conflict over land-use rights and population displacement was rife in Ordos in the 2000s.

solely a result of a coherent central-level energy strategy. With the coexistence of some of the world’s most technologically advanced mines and scores of primitive, wild-cat mines, Ordos presented in the 2000s a contradictory picture of minute industrial organization and acute disorder. It is the coupling of the two that properly characterizes the frontier.

		1990	1995	2000	2005	2010
Coal (mn. tons*)	Production	1135.25	1443.27	1514.05	2477.87	3505.52
	Consumption	1069.01	1401.07	1481.86	2384.80	3501.78
Oil (mn. tons)	Production	138.3	149.0	162.6	181.4	203.0
	Consumption	112.9	160.2	224.2	327.8	437.7
Natural Gas (bn. m ³)	Production	15.3	17.9	27.2	49.3	94.8
	Consumption	15.3	17.7	24.5	46.8	107.6

Figure 3. China primary energy production and consumption, select sources, 1990-2010. Sources: BP Statistical Review, U.S. Energy Information Administration. (*Tons = U.S. short tons)

Locating the “commodity frontier”

This chapter opens the examination of Ordos as a commodity frontier. In his original conception of the “commodity frontier,” Jason Moore posits that it is the geographical expansion of capitalism’s law of value supported by continual processes of original accumulation that drives production of key commodities to new sites around the globe (2000; 2003). While Moore’s studies are aimed at theorizing the expansion of early capitalism, three core insights can inform a study of coal production in Ordos in the 2000s. First, counter the notion that frontiers are remote and backward, such spaces, in fact, represent a vanguard for technological and social organization of production. Second, reflecting capital’s inherent tendency toward expansion in the pursuit of the realization of surplus value, frontier production is marked by ever-increasing and massive scale of production premised upon the “hyper-exploitation” of people and environments. Societies and ecologies reflect the ravages of intensive exploitation of specific resources. Third, commodity frontiers introduce new spatial divisions of labor as a result of shifting directional flows of capital and commodities. In referring to Ordos as a commodity frontier, I trace these three aspects in the restructuring of coal production and its localized impacts.

Tracing the Origins of the Boom

Ordos experienced a classic resource boom in the 2000s as a result of a massive expansion of local coalmining. Output grew from 54 million tons in 2000 to 596.11 million tons in 2011 (see Figure 4). By way of comparison, more coal was produced in Ordos in 2011 than in India the same year (IEA 2012). By 2005, Ordos was the top municipal-level coal-producing region in China. The ascending importance of coalmining to the local economy is evidenced in the growing portion of local GDP comprised of coal industry revenue. Between 2002 and 2010, coalmining revenues rose from less than a tenth to over a third of municipal GDP, this during a period when the local economy expanded fifteen-fold (see Figure 5). While coal was by far the dominant local industry,

there were also simultaneous booms in Ordos in natural gas production and rare earth mining. Discovery of the “extra-large” Sulige gas field in the 1990s, the largest unbroken reserve of natural gas in China, has set the stage for a potentially huge increase in local production of this commodity. China National Petroleum Corporation’s gas production in the Sulige field rose from 3.6 billion cubic meters in 2007 to 25 billion cubic meters in 2011. Local gas industry revenue was 8.4 billion yuan in 2010.¹⁷

The boom in resource exploitation in Ordos drew upon the region’s large reserves. Proven reserves of coal in Ordos total 149.6 billion tons, half of the proven reserves in the Inner Mongolia Autonomous Region and a sixth of the proven total nationwide. Moreover, coal in Ordos is of various types, it is relatively close to the surface, and is deposited in thick seams. The Sulige gas field is situated almost entirely beneath the municipality and contains an estimated 700 billion cubic meters of gas. A further 1.16 billion tons of oil are estimated to be recoverable within the municipality’s boundaries.¹⁸

But the reasons behind Ordos’ coalescence as a commodity frontier go beyond the presence of abundant reserves. This development occurred as part of broad shifts in national energy resource production. The boom in Ordos originated in overlapping policy and technological changes compounded by the geographical, geological, and social context of the municipality in the 2000s. Unpacking these changes necessitates detailing the institutional and technological revolutions that have reshaped the coal industry and situating these changes in the local context. We can then see how the expansion of mining came to have such a pronounced impact in Ordos.

	Municipal production total, mn tons	National production total, mn tons
2000	22.9	1299
2001	50.5	1381
2002	63.1	1455
2003	81.0	1722
2004	117	1992
2005	130	2205
2006	162	2373
2007	200	2526
2008	251.3	2802
2009	330	2973
2010	433	3235
2011	588	3502

Figure 4. Ordos municipal coal production, 2000-2011. Source: Ordos Bureau of Statistics, NDRC, Xinhua, China Coal Industry Association.

¹⁷ Figures compiled from Ordos Bureau of Statistics reports and CNPC.

¹⁸ See <http://www.ordos.gov.cn/zjordan/zrzy/>.

	Coal industry revenue (bn. yuan)	Percent of municipal GDP
2002	1.99	9.7
2003	2.78	10
2004	5.91	14.9
2005	10.85	18.2
2006	15.3	19.1
2007	24.61	21.4
2008	44.14	26.1
2009	62.61	29
2010	80.78	30.6

Figure 5. Coal as a percent of municipal GDP in Ordos, 2002-2010. Source: Ordos Bureau of Statistics.

Background

The impression of stability in coal's proportion in the domestic energy consumption mix obscures huge changes in the sector in the reform era (Andrews-Speed et al. 2005; Rosen and Houser 2007; Andrews-Speed 2009; Ni 2010; Tu 2011). In the early 1980s, rapid economic growth and concomitant rises in demand for electricity and thermal power led to recurrent coal supply shortages. These threatened economic growth and Deng Xiaoping's incipient reform agenda. In response, the central government abandoned the command-and-control system of coalmining, in which state-owned mines monopolized production and were managed through vertical lines of authority. The sector was opened to new entrants. Tens of thousands of township and village enterprises (TVEs) and private operators were subsequently established and rapidly boosted supply. By 1990, there were estimated to be over 100,000 mines, the vast majority run by small-scale, quasi-private TVEs (Tu 2011).

Introduction of a "dual-track" pricing system in 1985 was central to the massive increase in the number of mining firms in the 1980s and 1990s. Under the "dual-track" system, SOEs were to meet production quotas for utilities and specified industrial producers at low set prices and were free to sell surplus production at liberalized market prices. Meanwhile, small TVE and private collieries were permitted to sell all their production to the highest bidders. The price discrepancy favoring new entrants spurred uncontrolled expansion of supply, as village collectives and local-level governments turned to mining as a high-profit venture. This soon led to excess capacity and a severe reduction in the profits of the larger SOE coalmine operators. By 1996, TVE and private firms produced 61 percent of total coal production, though productivity at such mines tended to be low. In addition, by the 1990s, SOEs were burdened by huge pension and welfare costs inherited from the former system of labor-intensive mining. Recurring losses had to be routinely papered over through debt forgiveness. However, under Premier Zhu Rongji's reform drive in the 1990s, the central government grew increasingly unwilling to cover these losses. Industry reform therefore became a priority

for the central government by the late 1990s, which proclaimed a determination to instill market discipline in SOE operations (Shen, Gao, and Cheng 2012).

Although entry of small-scale TVE and private operators alleviated supply shortages and helped stimulate industry in under-developed regions, including Ordos, it also had less salutary consequences that helped to motivate and legitimize subsequent sector reforms. Mines run by small firms had appalling accident rates and were the main cause of China's dubious distinction as the country with the world's highest mining casualty rate (Huang 2010). Further, environmental impact mitigation was an afterthought at TVE and private collieries; mines generated severe land, air, and water pollution, and contributed to uncontrolled and widespread land subsidence and water table depletion. These mines were also notoriously wasteful given the limited technical means employed in the production process. Complex seams were excavated for the coal easiest to obtain, leaving behind large amounts of coal in shafts rendered too perilous to undertake further production by conventional means.

In sum, China's position as the world's leading coal producer since 1994 has been based upon highly decentralized and fragmented production and by enormous discrepancy in the production capacities of individual firms. By the late-1990s, the coal sector was characterized by excess capacity, low efficiency, high casualty rates, and resource waste (Shen, Gao, and Cheng 2012; Andrews-Speed et al. 2005). Efforts were undertaken starting in the mid-1990s to force the closure of small mines with little effect; by 1998, there were 94 large, central-level SOEs versus 77,500 mining firms operated by local-governments, townships, villages, and private operators (Bing Wang 2007). The severe fragmentation of the coal industry and the more forceful reforms initiated to address this and the problems just mentioned had dramatic impacts at the local level in Ordos and contributed to its emergence as a new coalmining frontier.

Coal sector governance: The coal sector has been marked by constant change in the structure of institutional oversight. In 1998, the Ministry of Coal Industry was dissolved and ownership of its mines was devolved to provincial and sub-provincial governments. Regulatory functions and personnel were switched from the ministry to the newly established State Development and Planning Commission (SDPC), the State Economic and Trade Commission, and the Ministry of Land and Natural Resources (MLNR, later renamed the Ministry of Land and Resources – MLR – in 2008). The State Administration of Coal Industry (SACI), organized under the SETC, was placed in charge of regulating the coal industry. Another round of administrative reform in 2003 further reorganized the industry's oversight structures and planning. Industry policy was placed under the authority of the National Development and Reform Commission (the SDPC's successor body renamed in 2003) and its sub-agency, the National Energy Administration (NEA). The State-owned Assets Supervision and Administration Commission oversees the major SOEs on behalf of the central government. The MLR administers licensing and survey work through provincial and local bureaus. Other regulatory bodies involved in the coal industry include the State Environmental Protection Administration and the State Administration of Work Safety (Y. Wu 2003; Rui, Morse, and He 2010). Along with the administrative restructuring, the central

government promulgated a slew of laws, regulations, and guidelines that address all aspects of the industry from mining licenses, to safety regulations, and environmental protection measures.

In practice, the devolution of regulatory oversight and its distribution across multiple agencies each with sub-branches at different levels of the bureaucratic structure bred confusion, overlap, and complexity. For example, mining licenses are issued by local entities at different levels with overlapping territorial authority (ie., municipal, county, township). Environmental regulations face similar problems, with oversight dispersed across multiple agencies, all replicated at various levels of the bureaucratic system (Andrews-Speed et al. 2003). In addition, the independent drafting of regulations by oversight agencies created contradictions and large gaps in the relevant regulations. At the central level, the NEA's policy-making authority was weak from the beginning due to under-staffing and the dispersal of sector management across multiple agencies. In an attempt to add teeth to the central government's energy management, the State Council in 2010 established a National Energy Commission chaired by the premier and vice premier. Lack of clear delineation in agencies' spheres of authority opened the door to rampant violations and inconsistent and arbitrary enforcement. When coupled with the local states' immediate interest in fostering local industry, whether to enhance revenue or for officials' personal gain through legal and illegal partnerships, implementation of laws and regulations is decidedly ad hoc.

The permissive approach to small collieries that prevailed in the 1990s stimulated a rapid expansion of mines in Ordos. By 1998, upwards of 1,900 mostly small, privately owned mines were scattered throughout the territory.¹⁹ The vast majority of these were little more than holes dug into hillsides or fields excavated using bulldozers and other basic earth-moving equipment. According to informants with long experience in the local industry, restrictions placed upon mining were minimal, as village leaders and officials at the township and league levels were eager to spur economic growth. It was often noted during fieldwork interviews that in many places throughout Ordos, coal seams are exposed in arroyos and seasonal creek beds. Other seams are struck while laying a foundation for homes or building roads. Ease of extraction, lax regulation, and the low returns for agriculture in the region were potent spurs for locally organized expansion of mining based on simple extraction methods. Among private coal operators, the scramble to excavate as much as possible and as quickly as possible was summarized in a popular local aphorism that translates as "the four big empties" (四大皆空 - *si da jie kong*) (X. Liu 2012). The term means to empty Ordos of coal, land, people, and wealth.

¹⁹ The distinction between private and TVE should not be overdrawn. Mines described as "*minying*" or "*siying*" (both terms mean "private enterprise") have unclear ownership structures. For example, in Ordos, the municipality's flagship private mining firm, Yitai Energy Group, was established by former local officials. Conversely, TVEs are often held as quasi-private firms. Complex merger and partnership arrangements devised during efforts to consolidate the industry further complicate the ownership structures.

Creation of champion firms: Although China was the leading coal producer globally at the turn of the millennium, operational standards were low, sector fragmentation was extremely high, and market share of specific firms was small due to local and regional SOE monopolies and competition from the tens of thousands of small mines. A keystone in recent reform efforts has thus been to nurture greater concentration in the industry based on the creation of a smaller number of champion firms.

The *10th Five-Year Plan for Energy Development (2001-2005)* articulated guidelines to develop “extra-large” (*te daxing*) and “large” (*daxing*) mining conglomerates. This strategy was reaffirmed in the *11th Five-Year Plan for Energy Development (2006-2010)*, which called for creating a core group of firms with annual production capacity over 50 million tons and to maintain the share of production by extra-large firms at a minimum of 50 percent. The *12th Five-Year Plan for Coal Industry* (henceforth *FYPCI*) reaffirmed the strategy to produce champion firms. It calls for the industry to be led by 10 firms with 100 million tons annual capacity and 10 firms with 50 million tons annual capacity. The drive to create leading mining conglomerates envisions greater vertical integration, in order for firms to combine extraction, processing, power generation, and shipping.²⁰ Larger firms, the plan argues, will be better positioned to construct dedicated rail in order to ship coal over long distances to market and alleviate the transport bottlenecks that plague the existing railway network, which is already strained by growing passenger service.²¹

Two central-level SOEs, Shenhua Group Corp. and China National Coal Group Corp. (CNCG), emerged in the 2000s as the dominant national mining conglomerates and the models for sector reform in lower-level SOE mines.²² Shenhua and CNCG expanded

²⁰ In discussions with mine operators in Ordos, firms were strongly resistant to the push to open ownership to public shareholders. Capital was available, they said, through banks or the underground capital curb market, so there was little need to raise capital through share sales. They viewed the push for shareholding as an attempt on the part of the government to improve surveillance over mines.

²¹ Access to rail freight is a major point of contention in the coal sector. Rail is by far the most economic means of transport, but dedicated rail is limited and loading points are monopolized by Shenhua Group Corp and the Ministry of Railways. The lack of access to rail shipping has stimulated a significant private truck-based hauling industry. But trucking coal is highly energy-inefficient, damages roads, causes huge numbers of traffic casualties, and produces massive traffic jams on highways and provincial roads, as trucks line up outside mines, sometimes for days, to purchase a load. Importantly, the high cost of trucking translates into a significant loss of added value, as truck maintenance and petrol costs eat into the profit margins between the mine mouth price of coal and the port price. Rail freight would also permit improved surveillance of production amounts and would mitigate production in the gray market by small mines that were ostensibly closed but remained in operation.

²² Creation of two competing energy conglomerates was also carried out in the oil sector. The two dominant firms are China National Petroleum Corporation and Sinopec. The

their businesses into transport, logistics, coal-chemical production, power generation, mine design, mine equipment manufacturing, and even urban subway construction. Both firms are considered “extra-large” central-level SOEs with vice-ministerial ranking under the direct supervision of the State Council. Their chairmen hold vice-minister rank in the administrative hierarchy, which affords substantial leverage when negotiating mining rights with localities. Shenhua is the world’s largest coalmining firm by volume; production reached 460 million tons in 2012.

Shenhua operates the two largest coalmining complexes in Ordos through two wholly owned subsidiaries: Shendong and Zhunneng. Shendong’s 19 mines contain proven reserves of 223.6 billion tons; the Zhunge’er field, which is mined at the Heidaigou open-pit mine, contains proven reserves of 25.3 billion tons (Huang 2010: 58). These two subsidiaries are the largest and most productive under the Shenhua Group umbrella.

The local government in Ordos also sought to foster the development of large local champion firms. Because the early development of local industry was primarily through private firms, the municipal government facilitated the organization of large private energy conglomerates through successive rounds of forced mergers and consolidations. By 2010, nine local energy conglomerates were among China’s top producers by volume.²³ Yitai Group Company was the largest among these, with 2010 revenues of 25.89 billion yuan, making it the 19th largest coal producer nationally and the largest private firm in the industry.²⁴ Following the Shenhua model, Yitai expanded its operation portfolio in the 2000s to include mining, dedicated rail transport, coal processing, and an experimental coal-to-oil liquefaction facility. It also operates a real-estate subsidiary. The rise of Ordos’ private firms is the subject of much local lore. A popular local anecdote recounts that a local trucker with an elementary school education, Liu Manshi, parlayed his single truck used for hauling coal out of Ordos in the early 1990s into the current Manshi Group Company with assets in mines, logistics, finance, chemicals, real estate, retail, and eco-tourism.²⁵

Reduction in the number of firms: A corollary to the effort to create dominant coal firms has been successive drives to reduce the number of mining firms through forced mergers and shutdowns. Decrees issued by the central government in 1998 ordered the closure of thousands of small-scale mines. By the end of the following year, local officials reported that 33,000 small mines had been shuttered. However, subsequent reviews revealed widespread fraudulent reporting, which suggested that many small collieries had not been closed down, but had continued to produce in violation of central

much smaller China National Offshore Oil Company is limited to offshore exploration and production.

²³ The nine firms are: Yitai Group Co., Huineng Group Co., Yidong Group Co., Mengtai Group Co., Manshi Group Co., Tianlong Group Co., Mengxi Group Co., Wulan Group Co., Tehong Group Co., and Mengfa Group Co.

²⁴ See <http://www.yitai.com/>.

²⁵ See <http://www.manshigroup.com/industry/>.

policy (Naughton 2007: 335). Local governments dependent on the revenue streams from coal production in small mines had proved loath to shut down operations in their jurisdictions. In the wake of a string of disastrous accidents at small mines between 2000 and 2002, more forceful follow-up reforms were carried out through provincial administrative channels and reduced the number of small mines to about 7,500 by 2007 (Yanjia Wang, Gu, and Zhang 2011). Still, by 2009, TVE and private mines continued to represent a substantial share of total production (38 percent) (Huang 2010). Hence, the drive to reduce the number of small mines has been a central component of industry strategy since the late-1990s and a major arena of industrial reform. The *12FYPCI* reaffirmed the intention to reduce the number of firms. The plan calls for the number of mine operators to be held at 4,000 or less by 2015.

A reduction in the number of firms in Ordos was also attempted through successive campaigns begun in 1998 and that remain ongoing at the time of writing. In initial rounds of reform, mine closures were carried out through administrative revocation of collieries' mining rights for a host of regulatory violations or for failing to meet minimal production limits. In particular, safety and environmental violations were utilized as pretexts for shutting small mines, as such violations were pervasive. After the first phase of reform in 2002, the number of small mines in Ordos was reduced to 552 (Q. Yang 2010; Ordos MG 2011a). A second campaign launched in 2005 sought to further halve the number of small mines within three years. The approach in this phase of reform was to force consolidations in the industry to foster greater scale of production among individual firms. Larger firms were to commit to greater mechanization in production, while the smallest, least productive mines were to be forcibly closed (Ordos MG 2001; IMAR 2004; Ordos MG 2005). Recovery rates at consolidated mine operations subsequently rose from an average of 30 percent to 65 percent (Q. Yang 2010). A third phase of reform was initiated in 2011 aimed at further reducing the number of small, private mines. By this time, there were 321 mines in Ordos, a number that included Shenhua's mines (19), provincial-level SOE mines (5), and municipal and banner level SOE mines (20). The objective of reform has been to combine the remaining 277 private mines into 40 larger firms and to assist the largest local firms to achieve output on par with global mining firms. Production targets were set as follows: one firm at 100 million tons per year, one at 80 million tons, three at 50 million tons, and 10 at 10 million tons. All firms producing less than 3 million tons were to be closed. To overcome resistance to reforms among small mining firms, the city government led negotiations to consolidate firms by offering to double the mining-rights period from the standard 24 to 48 years and permit a doubling of the production limit for merged firms provided they raised the technological inputs in production. (Song 2011b; Ordos MG 2011c; Ordos Coal Bureau 2011).

While a number of dominant local firms emerged in Ordos through reform efforts and the general expansion of the local industry, small mines have persisted. Two primary reasons are given for this. First, with coal so abundant and so near the surface in Ordos, mining is simple enough in Ordos that minimal capital is required to profitably exploit coal using basic technologies and cheap migrant labor or local farmers. Production costs at some mines were as low as 15 yuan per ton, about 3% of the production cost at

Shenhua (Tu 2011; Huaxia shibao 2012). Not only did mechanization represent a capital investment beyond the financial capacity of most local mining operators, there was little incentive to invest further in equipment when local mine-mouth prices ranged between 250-400 yuan in the 2000s, depending on the type of coal. Small mines also faced high risks of arbitrary closures, which discouraged large-scale investment in technical improvements. One mine operator explained to me that small mines in Ordos recuperated their up-front investment within six months, after which production represented almost all profit, minus the various fees and taxes levied on production. Second, local-level coalitions of officials and mine operators collaborate to protect smaller mines, as they provide revenue and, in many cases, direct income to officials. Another reason for the difficulty of achieving tighter consolidation in the industry is contention over the price of mine acquisitions. The local mining bureau sets per-ton prices calculated on proven reserves. Invariably, the price is too high for the buyer and too low for the seller (*Huaxia shibao* 2012).

Westward shift in coal production: At 1,180.445 gigatons, China has the world's third largest proven reserves of coal, but they are geographically concentrated in the country's north and west. Four provinces and autonomous regions – Inner Mongolia, Shanxi, Sha'anxi, and Ningxia – possess 67 percent of proven reserves. A further 20 percent of proven reserves are in Xinjiang, Qinghai, Gansu, Yunnan, Guizhou, Sichuan, and Guangxi (Huang 2010).²⁶ This concentration of reserves traces an arc surrounding the Chinese cultural “core” region. Not only are reserves overwhelmingly located in the northwest and in western Shanxi, reserves in northwestern seams present less complex excavation hurdles due to local topography. Especially in Inner Mongolia, geological and topographical conditions permit widespread use of opencast mines, which greatly increases the recovery rate and reduces worker-safety hazards. For these reasons, opencast mines have been prioritized for expansion.

The strategy to boost coal production in western regions took shape through promulgation of the *10FYPCI* (2001-2005), which first codified the “strategic westward shift” as central policy, and two subsequent industry-specific five-year plans covering 2006-2010 and 2011-2015 (NDRC 2002; NDRC 2007; NDRC 2012).

The *11FYPCI* proposed the establishment of 13 “energy bases” to be targeted for intensive coal production by key central-level and provincial-level SOE operators (See map). These bases are composed of specific coalfields or groups of fields, which in many cases span across provincial and/or sub-provincial territorial boundaries. They represent an effort to bring into closer spatial agglomeration coal mining, power generation, and the industries that utilize coal most heavily, such as metallurgy, chemical industries, and

²⁶ In a reflection of the commodity frontier to shift at intervals, Xinjiang is gaining a reputation as the next hotspot for coal production. This belief is driven by major discoveries in the autonomous region, such as the Junger coalfield, reportedly the largest in China. The difficulty for production in Xinjiang is the distance to market, which has prevented large-scale provision of coastal regions. As a result, Xinjiang is conceived currently as a strategic reserve area for future exploitation. See (Xinhua 2011).

building materials.²⁷ Greater geographical concentration of energy-intensive industry and power generation is seen to be preferable as a means to reduce the costs incurred by coal transport. The bases also complement reforms aimed at encouraging horizontal integration in the industry through state-facilitated mergers and acquisitions and vertical integration of mining, processing, transport, and power generation in large energy and industrial conglomerates. The shift westward in coal production specified in the aforementioned policy documents was promoted through increased central-government investments through major SOEs, such as Shenhua, preferential loan terms for investment in western production, shutdowns of eastern coalmines, and preferential licensing and land-use arrangements (Rui, Morse, and He 2010).

Ordos is the epicenter of one of the 13 energy bases, which encompasses the municipality and parts of Baotou Municipality (Inner Mongolia), Ningxia Autonomous Region, and northern Sha'anxi. Called the Shendong Energy Base, it covers an area of 9,000km² and contains the largest proven reserves of all the bases at 146.6 billion tons. The specified mining sites under the Shendong Energy Base rubric are: Shendong, Wanli, Zhunge'er, Baotou, Wuhai, and Fugu. As part of the energy base strategy, major mines in the Ordos region enjoyed preferential terms for expansion and subsidized diversification of industry as well as assistance for improvement of rail and highway transport systems.

	National	IMAR	Shanxi	Sha'anxi
1985		32.04	133.63	26.93
1990		47.61	285.97	33.27
1995		70.55	347.31	30.05
2000	1299	72.47	251.51	26.96
2001	1381	81.62	276.60	45.31
2002	1455	114.70	367.62	58.59
2003	1722	147.06	452.32	73.92
2004	1992	212.35	514.95	84.25
2005	2205	256.07	554.29	108.90
2006	2373	297.59	581.42	115.79
2007	2526	354.37	630.21	131.69
2008	2802	490.42	655.77	173.31
2009	2973	600.58	615.35	248.56
2010	3235	786.64	740.96	355.00
2011	3502	979.25	872.32	417.12

Figure 6. Coal production by province, select provinces, 1985-2010 (mn tons). Sources: Energy Statistical Yearbook, various years, Xinhua.

²⁷ Locating production and consumption of thermal coal in western regions represents a regional strategy with the objective to discourage the establishment of small-scale and highly polluting power generation facilities by local governments throughout China. The plan also laid out priorities to expand the freight rail network specifically by separating the passenger rail network from the freight network. The development of high-speed rail is central in this regard, as the shared usage of the railway network by passenger and freight trains was (and continues to be) a major source of supply bottlenecks for south-moving and east-moving coal. Dedicated railways are a major objective of future development.

To summarize, the central government has sought to effect sweeping changes in the coal sector in the 2000s. The reform drive was motivated by the persistent diseconomies of scope and scale faced by larger SOEs and the safety, environmental, and productivity problems that resulted from excess capacity installed in the 1980s and 1990s. To address these problems, reforms have sought to eliminate smaller firms through forced mergers and acquisitions in order to create larger and more technologically advanced firms. In tandem with this strategy has been a drive to concentrate and expand production in “energy bases” while reducing production in places facing resource depletion or with money-losing SOEs.

The reform effort has produced mixed results. Delegation of regulatory powers to lower levels of the state apparatus and its distribution across multiple agencies has led to bureaucratic overlap and confusion. In addition, local coalitions composed of mine operators and local-level officials have worked against attempts to shut down small mines and firms have resisted forced mergers. Within the central government, debate also circulates around the strains placed on the distribution network as a result of the westward shift in production. Further, unanticipated changes in other sectors have altered the evolution of energy industry. For example, the growth in energy-intensive industries in China, such as steel, alumina, and cement, all of which are tied to the surge in investment-driven growth in the 2000s, led to a reduction in the economy’s overall energy efficiency, causing sharp increases in demand (Rosen and Houser 2007). The unanticipated surge in primary energy demand was registered in the large discrepancy between production targets and actual production figures. For instance, the *11FYPCI* (issued in 2007) called for a total production in 2010 of 2.6 billion tons; production reached at least 3.1 billion in 2010 (Huang 2010; IEA 2011).

The Western Development Program: The Western Development Program (西部大开发 - *Xibu da kaifa*) introduced in 2000 was a further stimulus to the westward concentration of energy resource production. The program is aimed at boosting state and private investment in western regions with the purpose of reversing the relatively slow improvement of living standards and a steady deterioration of environmental conditions in western provinces and autonomous regions (Naughton 2004).²⁸ Its strategic priorities are in environmental improvements (afforestation, grassland restoration, water conservation), heavy industry, chemical industries, energy industries, specialized agricultural products, and tourism. It provides region-specific tax abatements, flexible loan terms, longer land-use periods for industry, preferential treatment for foreign direct investment, and elevated levels of direct central investment (Ordos CB 2012).²⁹

While the scope of the Western Development Program is broad, three areas within its policy spectrum had significance for energy resource production in Ordos. First, the

²⁸ The Western Development Program identifies two formal regions, the northwest and southwest.

²⁹ Information on specific policies related to the Western Development Program can be found here <http://www.chinawest.gov.cn/web/Column.asp?ColumnId=10>.

program identifies coal as among the primary energy resources abundant in the west to be targeted for incentives and priorities. Under the rubric of the program, mining and industrial firms receive subsidies for technological upgrades, personnel training, establishment of complementary processing industry, as well as low loan rates. Also, the State Council listed Ordos as a “strategic resource reserve” for priority extraction by Shenhua. The program further affirms the central government’s commitment to developing natural gas in western fields as a source of primary energy through the “west-east gas delivery” (西气东送 - *xiqi dongshu*) plan. The Sulige field, located almost entirely in Ordos Municipality, has emerged as a major new source of natural gas. Second, the program calls for greater power generation to take place in western regions in large-scale power-generation facilities for transmission east and south. Called the “west-east electricity transmission” (西电东送 - *xidian dongsong*) plan, the program stipulates massive state investments in coal-fired power capacity closer to sources of coal. Third, the program seeks to use the west as an experimental region for the privatization of industry. Based on its experience in fostering large-scale private energy conglomerates, Ordos was identified as a model site for industry privatization (Ordos DRC 2010).

Scholars and officials have noted that the Western Development Program has not significantly rebalanced regional development (S. Jiang 2008; Zeng 2010). Whereas in 1999, western regions had 19.2 percent of the national share of fixed-asset investment, in 2006 the share had only risen to 20.4 percent; in terms of GDP, the results were similar: in 1999, the west’s share of national GDP was 18.74 percent compared with 18.29 percent in 2006 (S. Jiang 2008). However, the program provided key investments in infrastructure, utilities, and mining to the benefit of Ordos specifically (Anshu 2002; Ordos DRC 2010). Further, the municipal government received approval from the State Council in 2002 to classify the municipality under the rubric of the development program as a strategic “industrial base” in the following six industries: “green industry,” which includes anti-desertification activities as well as grassland restoration and industrial-scale cashmere sheep husbandry; energy resources and renewables; chemicals, in particular fertilizers and natural-gas products; coal-to-oil processing; silicates production; building materials; ceramics; high-end textiles, in particular cashmere; and biotechnology (Pan 2008).

Enhanced mining technologies and related infrastructure: Small mines in Ordos, as elsewhere, were notorious for utilizing basic room-and-pillar methods of excavation, which led to low yields, high levels of resource waste, and extremely high numbers of casualties.³⁰ Huge breakthroughs in productivity were seen in the 2000s in larger mines in Ordos where advanced excavation machinery was introduced in larger mines. Longwall mining and open-pit mining methods were especially crucial in these regards.

³⁰ Room-and-pillar mining techniques involve excavating a grid of tunnels through coal seams and leaving pillars of coal to support the roof of the tunnels. This method, which is the most common coalmining method historically, excavates a low proportion (30-50%) of coal.



Figure 7. A view from the pit base in the Heidaigou coalmine in Xuejiawan Township, Jungar Banner, Ordos Municipality, 2011. The coal seam is visible as the black portion beneath approximately 20m of rock.

The Shendong coalfields contain multiple overlapping seams averaging 3m-6m in thickness, with some as thick as 20m. Seams are typically unbroken, broad, and flat. These geological features, plus a slight east-west tilt in the seams of 1-3 degrees, make the Shendong seams especially suited to installation of longwall excavation equipment (F. Liu and Wang 2006). Longwalls employ a rotating shearer that moves back and forth on a horizontal track across a coalface. As the coalface is excavated and the coal removed from the mine on conveyor belts, vaults holding the roof of the mine to shelter equipment and technicians automatically deploy forward and the overburden (soil and rock above an excavated seam) is allowed to collapse behind them. A longwall requires a relatively low number of skilled technicians to operate, thus reducing labor unit costs and massively raising tonnage. The largest longwall shearer in the world (7m), built by Pennsylvania-based Joy Mining Equipment, operates in Shenhua's Shendong mines and produces up to 2,100 tons per pass (Hui and Wang 2012). Two German engineers I met during fieldwork who were installing equipment at a Shendong mine testified to the advanced state of machinery in the company's mines in Ordos. Despite decades of experience in the industry and having worked in mines around the world, they both claimed to have never seen longwall equipment as large as in the Shendong mines. Longwall equipment represents a substantial up-front cost, ranging from US\$5-\$15 million, with massive

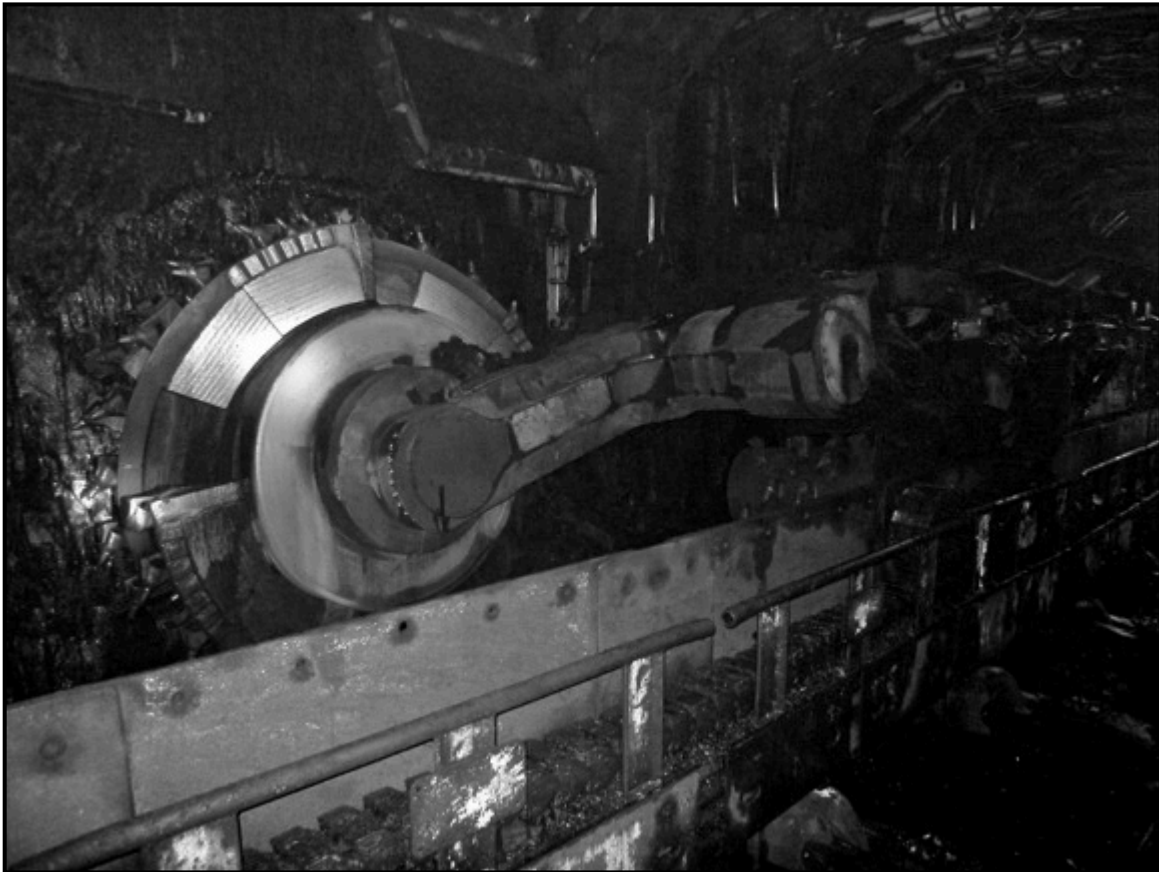


Figure 8. A longwall shearer is shown in the Shendong mine complex. Credit: Michael Ulfstjerne.

follow-up maintenance and rebuilding costs. As a result, longwalls are only a realistic investment for the largest firms. Still, while a full account of the number of longwall operations is not available, their application in mines is widespread in Ordos.

Many coalfields in Ordos are also suited to opencast methods of extraction. Capital-intensive opencast mining employing gigantic machinery, including bucket-wheel excavators, mechanized draglines, massive earthmoving equipment, and fleets of trucks with hauling capacities over 100 tons, was introduced in mines throughout Ordos. The most technologically advanced of Ordos' opencast mines is Shenhua's Zhunneng subsidiary, which operates China's largest single open-pit coalmine at Heidaigou, producing 139 million tons in 2011 (Shenhua 2012). A day spent during fieldwork accompanying a machinery repair crew in the Heidaigou mine revealed the tight choreography of machinery and transport equipment. Traffic in the mine is strictly regulated, while the number of personnel in the mine at any time is low.

However, the capital-intensivity of opencast mining varies greatly. In contrast with the Heidaigou operation, Ordos was also famed for sub-contracting and freelance opencast mining. Under such operations, private mines run by village collective members opened a block to shareholders on a surface area basis. Roving excavation teams, hired by a mine, would extract coal within the paid-for operating area and sold to privately

owned trucks waiting at the mine gate. Shareholders earned the difference between the sale price and the share price plus the cost of excavation. Hoping to bring an end to this practice, the municipal government has restricted all open-pit excavation methods to operations capable of producing 3 million tons per year.

In tandem with improvements in mining equipment have come expansions in the infrastructure needed to move coal and gas out of Ordos to the major markets of eastern and central China. These have come in four main areas: railways, highways, pipelines, and electricity transmission capacity.

During the 11th Five Year Plan (2006-2010), the city extended its freight railway network by 911km to 1,208km. It also added 800km of multilane highway. During this period, firm-operated dedicated branch railways linked coalfields to the following railway lines: Baotou-Beijing trunk line; Shenmu-Shuozhou-Huanghua trunk line; Datong-Qinhuangdao trunk line; and the Houma-Yueshan trunk line. Gas pipelines originating in Ordos also commenced large-scale delivery of natural gas during this period to the Bohai Bay region (Beijing and Tianjin) through the three parallel Jingbian (Ordos)-Beijing regional pipelines and through the “west-east gas delivery” plan, which began operations in 2006 and which added a second pipeline in 2009. The latter pipeline network, operated by China National Petroleum Corporation (CNPC), connects China’s coastal markets with gas fields in Turkmenistan, Kazakhstan, and Xinjiang’s Tarim Basin via the Changqing field in Sichuan (J. Wang and Liu 2012). CNPC estimates that the Ordos basin contains a third of China’s gas reserves, though it is located in deep, complex tight-shale deposits. Exploration and production partnerships with Total and Shell are aimed at improving the company’s hydraulic fracturing capacity in these reserves. In 2011, CNPC had 4,233 wells operating in the Sulige field (CNPC 2011). Power generation in Ordos expanded by 809 kilowatts between 2006 and 2010 (Ordos MG 2011b).

Increased exploitation of coal and gas in Ordos is linked to broader national strategic goals related to national security and the environment (Higashi 2009). The high levels of sulphur, carbon dioxide, carbon monoxide, and other emissions generated by coal-fired power plants, which make up 70 percent of total power-generation capacity, cause billions of yuan in economic losses each year. The 12th Five Year Plan for Energy calls for switching to greater use of gas in domestic consumption in cities to alleviate urban air pollution and assist in meeting CO₂ emission reduction targets. To that end, the Ordos basin has been targeted as a primary source both for the size of the Sulige field and its relative proximity to markets in eastern and central China. Ordos has also been the site for two demonstration projects directed by Shenhua and Yitai to perfect direct coal liquefaction procedures.³¹ Commercial production began at the Shenhua facility in 2011 and achieved production costs below benchmark crude prices that year (Rui, Morse, and He 2010; Reuters 2011). Transforming coal into liquid fuels has potential to alleviate oil

³¹ For information on Shenhua’s coal-to-liquids programs, see Shenhua Coal to Liquid and Chemical Co., Ltd. Website: <http://www.csclc.com.cn/gsxx/gsjj/2010-11-19/124.shtml>.

import pressure, which has been a national-security concern since China became a net oil importer in 1993 (Rosen and Houser 2007).

Conclusion

China's leaders have hewn to an energy strategy reliant upon domestically mined coal. In recent years, institutional and technological changes have spurred radical transformations in the coal industry. Coal production in geographically dispersed mines established during the planned economy proved unsustainable by the turn of the century for a host of reasons, including resource depletion, antiquated equipment, bloated workforce and pension obligations, and price competition from small-scale TVE and private mines. As this chapter has shown, a shift in extraction westward was used to purge the industry of failing enterprises and achieve breakthroughs in production. Although reform of the sector has faced repeated challenges, this effort was not without successes. A decisive concentration of coal production in Inner Mongolia, Sha'anxi, and Shanxi occurred in the 2000s. However, this achievement was qualified by continued fragmentation in the industry, difficulties in actually achieving full oversight, and resistance by local actors whose interests are not always aligned with the objectives of central industry policy. As subsequent chapters in this study show, the concentration of mining in new regions also had profound impacts at the local level. In particular, it has stimulated the formation of commodity frontier resource boomtowns. The urbanism that results from rapid resource growth in the commodity frontier is another unexamined aspect of this geographical shift in coal production.

The surge in coal and gas production in Ordos was neither a preordained nor obvious outcome of resource abundance alone. Resources were known to exist in Ordos in large quantities for a very long time. Yet only in the past two decades were they exploited at industrial scale. This chapter has examined why and how the municipality became a commodity frontier in the 2000s.

This examination of the commodity frontier in Ordos shows it to be a composite of two arenas of industrial transformation. We find, on the one hand, a high degree of state-led industrial restructuring through various policy initiatives and preferential treatment of specific firms operating in new "energy bases." Specifically, directives issued from the central level and complementary efforts carried out at lower levels of the state apparatus aimed to reduce coal production in regions where mining had been concentrated under the planned economy. In choosing this path of reform, old mining sites, including their firms and masses of laborers, were abandoned in favor of concentrating production in sites where improved, capital-intensive technologies could be introduced through favored central-level SOEs. With claims on the massive Shendong, Zhunge'er and Wanli coalfields, Shenhua's mines in Ordos became demonstration sites for industrial reform. By the end of the first decade of the 2000s, Shenhua was not just the world's largest producer of coal by volume, its productivity and safety records were on par with international mining giants. Also during this decade, the company pioneered coal liquefaction and began to explore outward investments with acquisitions and joint ventures in places like Australia and Indonesia.

Alongside the presence of Shenhua in Ordos, we also find, on the other hand, the persistence of hundreds of small and private mines operating with highly variable levels of mechanization and sophistication. At one end of the scale, the largest local private firms employ advanced production technologies and achieve volumes comparable to the largest SOEs. At the other end of the scale are hundreds of mines utilizing relatively primitive extraction methods. These mines have nebulous ownership structures and close connections with village-level and township-level officials whose immediate interest is in seeing such operations remain open. Small mines are also able to evade scrutiny and oversight by securing finance through Ordos' pervasive underground financial channels (see also Chapter 5). Given the scale of small mines, environmental impact mitigation, efficiency in resource extraction, and safety are not given priority.

The coal industry in Ordos in the 2000s was characterized by the coexistence of state-of-the-art technologies and highly organized integrated industrial systems exemplified by Shenhua, as well as continuity in the existence of small, wild-cat mines. This leads us to reassess certain features of the frontier. What Jason Moore evocatively calls "hyper-exploitation" is evidenced in Ordos in the enormous Shenhua mines, where hundreds of millions of tons of coal are extracted annually and massive tracts of land ruined by subsidence or opencast operations. Small-scale mines also have led to hyper-exploitation of coal, workers, and environment. Environmental problems linked to small mines include mismanagement of toxic mine tailings, land subsidence, and mine fires resulting from uncontrolled use of explosives. Participation in the resource bonanza was widely distributed through direct ownership of mines by village collectives, shareholding, and popular credit networks that lent to mines and derived dividends through interest payments. In sum, the rush to exploit coal resources was not the exclusive practice of large corporate interlopers. Rather, resource exploitation was pervasive and carried out by large and small actors alike. This circumstance was facilitated by industrial organization and policy planning, as well as by disorganization, abetment, and gaps in oversight at the local level.

CHAPTER THREE: BECOMING A FRONTIER BOOMTOWN

Ordos Municipality's founding ceremony in 2001 was held in a nondescript public plaza in Dongsheng. Although the mining economy had already begun to display signs of a boom starting in the mid-1990s, as explained in the foregoing chapter, the city that surrounded the dignitaries assembled that day was small by Chinese standards (population 200,000) and had the typical austere appearance of lower-tier cities across China's vast interior where economic development lagged the coastal east. Gridded streets were lined with Soviet-inspired concrete walk-up apartment blocks and office buildings. Behind these and spreading out into tracts of land on the city's periphery were dense warrens of squat brick homes built into the sandy hillsides. Here lived cheek-by-jowl an unknown number of low-income native residents and migrants from the Yeke-juu League's rural areas, as well as migrants from around China. Some of the city's more recent construction, like the textile market on Dalad Street and the corporate headquarters of the Erdos Cashmere Corporation, boasted a measure of regional decorative flourish. Yet overall, the city's urban form had little to boast in the way of aesthetic or formal distinctions. In line with Dongsheng's modest urban form, the league's main administrative office building, located in the city center, was a utilitarian three-story structure of whitewashed concrete (Figure 9). Upon conversion to municipal status, placards at the front door were replaced to rename the building Ordos City Hall (鄂尔多斯市政府办公大楼 - *E'erduosi shizhengfu bangong lou*).

The replacement of the Yeke-juu League with Ordos Municipality³² was, in one sense, a simple bureaucratic redefinition of the territory from a rural prefecture to a city. But for a region that through the twentieth century had languished in deep poverty, the shift in official administrative status portended profound change. Local officials pinned lofty hopes on the graduation to a prefectural municipality (*diji shi*). These hopes were conveyed by the incoming municipal party secretary, Yun Feng, whose remarks at the city's founding ceremony on 28 September 2001 merit quotation at length:

“Becoming a city allows us to improve our bureaucratic system and macro-economic controls. It allows us to improve resource management and to expand industry. It enhances our ability to build a hub city and to use urbanization to stimulate industrialization and to realize leap-frog growth to become a major growth pole in the west. It raises Ordos' visibility and it improves our capacity to achieve innovations in technology, systems, and opening up. It will help to advance the socialist legal system and will help maintain a harmonious and united situation. It will help the economy maintain a sustained, rapid, stable, and healthy development” (OMG 2005: 17).

³² The change of administrative status was approved in February 2001, but the official ceremony marking the change did not occur until September of that year.



Figure 9. A photograph in the 2002-2003 *Ordos Yearbook* shows the municipality's main administrative building before construction of a new complex inaugurated in 2006 in the Kangbashi New District.

This remarkable passage reveals the tremendous faith in urbanization to transform economy and society and the local administration's understanding that becoming a city engaged a mission that went far beyond economic development. Becoming a city was a direct pathway to an envisioned modernity. Central to this transformation was a radical build-out of physical spaces that would serve as the material and symbolic basis for Ordos' emergence.

City building was thus pursued with great zeal after municipalization. In the decade of the boom following Ordos' administrative change, a ferocious round of urban construction thoroughly remade the humdrum urban landscape in and around Dongsheng. After decades during which urban form was functionalist and compact, the spate of intensive urban development in Ordos' central urban agglomeration in the 2000s introduced hundreds of attractive residential high-rises, opulent office and retail complexes, massive public squares and parks, sprawling industrial zones, and exclusive gated communities that encroached into the dunes and scrubland. A keystone project was the creation of the Kangbashi New District, a new twin city built on former farmland about 25km south of Dongsheng. In a decade, Ordos' urban core achieved an unprecedented degree of horizontality, verticality, and aesthetic flamboyance through a laundry list of hallmark development projects. However, projects were plagued by under-utilization and low tenancy. Over the course of the boom period, the landscape in Ordos's

urbanized core area became littered with visually impressive projects serving no apparent purpose.

This chapter examines the logic behind the proliferation of urban development projects produced during the resource boom in Ordos. These projects gave dramatic expression to three of the forces driving frontier boomtown urbanism: (1) economic expansion; (2) a local-state predisposition for large-scale and visually striking infrastructure and prestige projects; and (3) the formation of local pro-growth coalitions composed of local officials and private and quasi-private development interests. The purpose in this chapter is to explain how frontier boomtown urbanism drives a growth process defined by a modular mode of radical monumentalism. The organic model of city growth is rejected in favor of a radical, project-based urbanization with strong political motives. The frontier setting distinguishes itself by the speed and size of construction, by the imitative character of projects, and by the uncertain utility of projects given the challenges posed by the composition of the local labor force, population size and density, environmental conditions, logistical hurdles, and industrial structure. In brief, I propose here that massive physical reconfigurations emanate from a catch-up urgency, from a political imperative to demonstrate capacity, and from a local pro-growth coalition composed of state officials and corporate interests bent on translating the resource bonanza into a parallel city building bonanza. Transformative visions of urban change were more than window-dressing for base pecuniary motives. The boomtown is a place that is unreservedly future-oriented and that, paradoxically, borrows models to concoct desirable images of this future. This aspect of boomtowns is hardly new; Gunther Barth notes in *Instant Cities* that such towns “acknowledged no past but a narrow record of accomplishments. . . . Respect for transmitted forms kept experimentation with new ways within the range of transmitted stereotypes” (1975: 202, 205). Hopes to join the ranks of top-tier cities were earnest, and boomtown growth gave every impression of making that a distinct possibility.

The chapter also considers how this logic and its resulting physical transformations were at the center of the political and economic crises that erupted in 2011 with the downturn in the local economy. Projects regarded with great pride locally during the boom were rapidly transfigured in locals’ perceptions into symbols of corruption, waste, and incompetence amid a severe localized economic slump originating in the local property sector. This change revealed the unstable basis of political legitimacy cemented through construction.

The logic of frontier boomtown urbanism and modular land development

To open an examination of the massive build-out of urban spaces in Ordos, I begin here first by briefly reviewing some of the pertinent theoretical approaches to recent urban restructuring. This preliminary discussion seeks to show how boomtown city building – as opposed to urbanization – is an encompassing economic, political, and ideological enterprise.

Urban transformation in reform-era China has seen a variety of interpretations. One strain of research has identified the political-economic imperatives behind intensive urban land development. Work in this vein shows that the de facto commodification of

urban land and the centrality of the revenues derived from land transactions supply a structural bias in favor of massive-scale urban development. Because tax collection is costly and difficult, and because central-local transfers have been greatly diminished for most localities, fiscal sustainability hinges on ever-more intensive development of tracts in city centers, suburbs, and even the far peripheries. Coupled with this, the emergence of commercial property development branches operated by state agencies has opened the door to widespread participation by the ostensible market regulator as a participant in land markets. This circumstance, in which local state actors pursue urbanization as their primary activity has been described under various headings, such as “state-led urbanization” (see Ma 2006; Lin 2009), “administrative urbanization” (Y. Liu, Yin, and Ma 2012), and “urbanization of the local state” (Hsing 2010).

Another strain of research has ventured interpretations of the nexus of culture and corporate and state power at the center of China’s urbanization. This work finds that the production of signature urban developments reflects a growing awareness among urban officials of the political and economic expediency of splashy aesthetic and representational strategies (see Olds 1997; L. Kong 2007). In major cities, this has led to a conspicuous embrace of global discourses and practices in planning and design. Reflecting this trend, urban regimes have ushered through countless urban mega-projects, art districts, landmark structures, and tourist-oriented cultural venues. In her study of high-end architecture in Beijing and Shanghai, for example, Xuefei Ren (2008a) notes the push among local officials to accumulate political capital by delivering high-design urban development. Eye-catching physical reconfigurations are carried out for their political and economic value. These phenomena are no less relevant in poorer regions of the country. Indeed the desire to catch up physically and representationally provides added thrust to officials’ resolve to overcome mutual perceptions of “lateness” (Li Zhang 2006). The ubiquity of iconic structures and one-off urban events suggests that spectacle has become the popular currency of urban governance.

In an essay focused on the Rem Koolhaas-designed CCTV tower in Beijing, Aihwa Ong (2011) addresses these architectural-political strategies as an instantiation of “hyperbuilding,” a term she deploys as both noun and verb. Hyperbuilding(s) in cities like Beijing, she says, is being part of efforts aimed at securing geopolitical stature as well as foreign investment. Coordinated and often underwritten by state agencies pursuing gains beyond the market, “hyperbuilding becomes part of an anticipation of a future that is asserted as a guarantee” (Ong 2011: 209). This insight – that massive-scale construction serves ideological, economic, and immediate political ends – can also be extended to places where the stakes are less about national assertion than they are about local-state consolidation. In poorer, interior regions of China, the serial reproduction of spectacular projects just as often reflects the struggles of local states to find a sustainable footing for the local economy, achieve territorial control, and broadcast administrative capacity to peers in the state apparatus as well as to local residents. Urban construction is widely seen as the surest way to demonstrate that the local state is “doing something.” Tangible urban construction is regarded as a “concrete achievement” (具体成就 – *juti chengjiu*) in officials’ performance assessments. Hyperbuilding has thus become a pervasive practice, and is not confined to the major coastal cities. Success of projects,

however, is far from guaranteed. A mining boomtown, where the local state gives every appearance of being fiscally flush, is no exception.

The prevalence of political prestige projects – called *zhengji gongcheng* (政绩工程) in Chinese – has been attributed to so-called “fevers” (热 - *re*) for fashionable development models. The urban scholar Zhang Zaiyuan (2010: 142-144) outlines a chronology of these “urban contagions”: in the 1980s, widespread copycats of Shenzhen’s Splendid China Folk Village amusement park, faux old-town streets, and technology zones adopting “valley” in their names after Silicon Valley in the United States; the 1990s saw a trend for massive public squares; and in the 2000s came copycats of Shanghai’s Xintiandi, “university towns,” exhibition center developments, central business districts, and copies of Beijing’s luxury SOHO residential development. A few of the other trends he notes are for new performing arts centers, so-called “landmark architectures,” and new administrative districts (or new districts). The imitative character of projects underscores what Zhang calls the “hard logic” (硬道理 – *ying daoli*) of urban development, adapting the maxim coined by Deng Xiaoping during his famous 1992 “southern tour,” which said: “development is the only hard logic” (发展才是硬道理). The notion of a “hard logic” in urban development points up both the perceived imperative for cities to build and the tendency of urban officials to understand “development” in purely architectural and infrastructural terms. Developments in Ordos brought frontier-style intensity and urgency to this generalized trend.

Writing specifically about Ordos in 2002, Uradyn Bulag has argued that attainment of municipal status along with the acquisition of the name Ordos, which harkens to local Mongols’ roots as guardians of Genghis Khan’s tomb, marked a breakthrough in the consolidation of this contested frontier territory (Bulag 2002b). By discarding the Mongolian territorial designation of the league (盟 - *meng*), the region was absorbed into a uniform, Han Chinese-dominated urban territorial system of administrative *shi* (市), or municipalities. The switch from the rural-sounding *meng* to the more modern-sounding *shi* signaled a process of “‘urbanization’ cum rectification of names,” making it a contemporary iteration of longstanding cultural politics aimed at absorbing and pacifying the non-Chinese peripheries (Bulag 2002b). The implications of municipalization in Bulag’s analysis were two-fold. First, it proffered a restoration of Mongol ethnic autonomy through the symbolism of the region’s name change while simultaneously subjecting the region to the universalizing impulses of a Chinese-controlled urban land system. Second, the celebration of regional particularity served, on the one hand, to reinforce the exoticization of Mongols for branding purposes aimed at boosting tourism while, on the other, integrating the region for ever-more intensive economic development with disproportionate benefits for the national metropole regions (i.e., the eastern seaboard).

These insights can be extended and refined in light of the construction boom that took place in Ordos. Specifically, the uniformization and integration implied by achieving municipal status went well beyond the alteration of its administrative status. Municipalization helped to facilitate and legitimate massive, imitative state-led urban development projects that remade the physical spaces of Ordos’ urban core. This involved the adoption of new practices, new discourses, and, critically, the production of

new spaces in familiar molds. Urban construction had the added benefit of providing a shot in the arm of the local economy and drawing attention to the government’s capacity and sophistication in terms of its ability to bring about material improvements and aesthetic upgrades. The overarching thrust of the assimilation of city building as an economic, political, and ideological enterprise was a process of erasing Ordos’ frontier difference. In other words, it was a standardizing urban logic evidenced in the reconstitution of physical landscapes that transformed Ordos. Modular development schemes marked Ordos’ decisive integration into the broader national space economy. A planning expert in Ordos explained the urgency of massive-scale construction in the following terms: “In Ordos, leaders have one thing on their minds: to build big, many, and tall (*da, duo, gao*). That is their vision of a city” (Interview 10221101).

Building out urban Ordos

Upon municipalization, local leaders moved fast to act upon the ambition to build big, many, and tall. Construction soon overwhelmed Dongsheng as well as the smaller urban centers of the municipality, bringing a wave of urban redevelopment to inner-city areas and extending the built-up area into adjacent farmland and scrubland. Officially, the municipality’s built-up urban area expanded from 83km² to 238km² between 2002 and 2011 (Figure 10). The actual amount of expansion was much higher, possibly 600km² according to one informant, due to rampant violations of land-use quotas and construction on protected farmland. Satellite photos give some indication of the expansion of Dongsheng.

Year	Ordos built-up area (Km/sq)
2002	83
2003	91
2004	104
2005	138
2006	142
2007	196
2008	163
2009	218
2010	228

Figure 10. Urban built-up space in Ordos Municipality, km/sq. Sources: Ordos Bureau of Statistics, Ordos Planning Bureau.

New construction in Ordos was intended to replace the vestiges of local urbanism widely regarded as irrationally produced and gravely deficient for meeting the needs of the booming city. Despite the promulgation of urban master plans for Dongsheng in 1988 and 1993, these had little impact on the actual patterns of urban growth in the 1980s and 1990s. Physical layouts and growth targets spelled out in these plans bore little relation to growth.³³ In the judgment of Dongsheng’s lead planner in the 2000s, earlier expansions

³³ The first plan, drafted between 1956 and 1960, designated Dongsheng’s role as the main administrative center of the Yeke-juu League and a base for new industry. High rates of migration into urban areas at the time led planners to anticipate that the local

were disorderly and *ad hoc*, resulting in aesthetically unremarkable and functionally deficient urban form (F. Wang 2007a). Moreover, an influx of migrants, drawn by Ordos' burgeoning economy, exacerbated the problems of uncontrolled urban expansions. By the early 2000s, slum conditions prevailed in large tracts of low-income housing; few homes had in-house toilets or modern sewerage and gas connections and highly polluting coal bricks were standard for heating and cooking. Within and around Dongsheng, antiquated traffic patterns and road networks suited to the moderate traffic flows of the 1980s and 1990s had become severely strained by rising numbers of trucks and private vehicles. Also, attesting to practices established under the planned economy to see cities as sites of production firstly and only secondarily as spaces for living, residential structures were poorly built and there were few parks, open areas, or green spaces. Severe overcrowding, inadequate infrastructure, and polluting industry were immediate and genuine problems for the city. Given these realities, support among the local population for the range of infrastructural improvements and new residential construction was strong. Between 2001 and 2009 city government expenditures on infrastructure totaled 194.72 billion yuan (Subject Committee 2003; F. Wang and Liu 2007).³⁴

The municipal government was also attuned to the imperative to foster new, city-based industries. It was understood that coalmining was inadequate to sustain the local economy. Moreover, efforts to depopulate the countryside in order to clear the way for mining and anti-desertification programs brought greater numbers of people into the urban core centered on Dongsheng thus increasing the need for city-based commerce and

urban population would jump from 33,000 in 1960 to between 100,000 and 150,000 by 1975 with an additional 40,000 to 50,000 in five satellite townships. The second round of urban planning took place between 1980 and 1988. This draft indicates that the influx of migrants to the city was not as strong as expected in the first draft. Its 1990 population target for Dongsheng is 65,000, with an added 10,000 planned for 2000. Reflecting the general policy at the time for "cities to lead the counties" (*shi dai xian*), the second urban plan specifies Dongsheng's functional role as the administrative, economic, and cultural center of the league. Priority is accorded to the development of the textile and energy resource industries. In the wake of Deng Xiaoping's so-called "southern tour" in 1992, during which he affirmed the country's commitment to accelerated market reforms, the third urban master plan was drafted and approved in 1993. With the slogan to "use industry to build the city" (*gongye lishi*), the third plan reaffirms Dongsheng's role as the administrative, cultural, and economic center of the league and its primary transport hub. The scope of industry was expanded in this plan to target not only energy resource mining and textiles but also construction materials and chemicals. The league's burgeoning economy based on these industries had begun in the 1990s to draw growing numbers of migrants. This is reflected in revised population targets; the plan set a 2000 population target of 130,000, with a 2010 target of 200,000. By the latter date, the urban built-up area was to be fixed at 22km².

³⁴ A survey of the city's residents commissioned in 2002 showed that 100 percent of middle-aged respondents judged incomplete infrastructure to be the city's most pressing problem (Dongsheng Planning Bureau 2002).

industry as well as demand for housing, services, and other amenities. Diversifying the economy was a paramount concern.

The production of new spaces of various types was deemed to be central to addressing these issues. The imperative to develop Ordos was approached fundamentally as a problem of city building. Land development was embraced as the privileged means of effecting the needed physical transformations that would allow the envisioned urban economy to take root. Moreover, the perceived need for total and rapid transformation abetted an accelerated pace of construction and delivery of projects on a massive scale. What is remarkable about these is the adherence of projects to a familiar and limited repertoire of urban development modules. These display the constrained norms and forms seen to be available for the task of local development.

Highly visible, massive-scale land development projects undertaken in the urban core area by the city government between 2001 and 2011 can be categorized as follows (see also Appendix 3.1):

Transportation infrastructure: Dongsheng serves as the hub of Ordos' regional transport network, sitting at the crossroads of major highways and on the Baotou-Shenmu railway line. Between 2006 and 2011, the municipal government doubled its highways by adding 800km to its network and quadrupled its length of railways by adding 911km of track. All additional rail capacity was for dedicated freight transport, primarily for coal. In 2005, the city received approval to convert a decommissioned military airport for civilian air transport. A new terminal with four gates and an extended runway was inaugurated in 2007. The following year, passenger volume exceeded the city's estimate for 2015, spurring plans for a greatly enlarged new terminal. Construction on the new 120,000m² terminal began in 2009. The new terminal entered service in 2013.

Government and cultural infrastructure: Some of the most eye-catching new construction was dedicated to local government and cultural facilities. Monumental new government buildings came to dominate the urban landscapes in Dongsheng, Kangbashi, and Ejin Horo. Some of these included administrative buildings, courthouses, and police stations. In Kangbashi, the city built an F3 racetrack shaped like a galloping horse, a museum, a library, a theater, a cultural center, an exhibition center, and a sports complex. Sports stadiums were also erected in Dongsheng and Jungar. In Ejin Horo an equestrian center, a Nada'am Festival complex, a cultural center, and a performing arts center were built (OMG 2011). Park spaces and public squares were expanded from XXX to XXX. Along with these prestige projects, Ordos revamped or built 151 schools, including a branch of Inner Mongolia University.

Industrial zones: Central to the ambition to become a leading industrial hub was the creation of multiple industrial parks, zones, and bases. Eighteen industrial parks were built in the first decade following municipalization, nine of them with funding from the central or provincial governments. A further eleven industrial bases were initiated, including a 60km² equipment manufacturing base located between Dongsheng and. Other special industrial zones in the urban core centered on Dongsheng included a "cloud computing development zone," a computer animation technology zone, an "automobile culture" zone, and two "creative-cultural industries" development zones. All told, over 700km² were planned for specialized industrial zones in the municipality (OPB 2009).

Commercial property development: Residential, office, and retail developments thoroughly transformed the skyline in Dongsheng and in other urban centers of the municipality. In 2010 alone, there were 10.79 million square meters of new commercial property development in the municipality (OMG 2011). Much of the new construction was in residential sector. By 2009, for example, 7.4 million square meters of commodity housing were under construction in Dongsheng (DBS 2010). By way of comparison, Beijing in 2008, during its pre-Olympic building boom, had 23 million square meters of commodity housing under construction with a population at least twenty times as large as that of Dongsheng (H. Wang 2009). National real estate development companies, such as Star River and Greentown, built projects in Dongsheng and Kangbashi.

New districts: While a significant amount of new construction occurred through the redevelopment of old inner-city cores, much of the new commercial floor space was added in newly built urban zones. Dongsheng established a 35km² addition called the Tiexi Economic Development Zone by redeveloping scrubland and farmland on the western edge of the city. The addition more than doubled the district's built-up area. The Dongsheng District government moved all of its administrative agencies to newly built offices in Tiexi. In Ejin Horo Banner, the local government completely rebuilt the urban core of its main township, Aletengxire, which is located across the Wulanmulun river from Kangbashi. Forty-eight billion RMB were invested by 2011 to expand the built-up area from 4.5km² to 32km² (*E'erduosi ribao* 2011). The largest project in Aletengxire was civil servant residential development with 100 high-rise buildings. The apartments were intended for municipal and local banner-level functionaries. The largest and most extravagant of the new districts was Kangbashi, which had a total planned area of 155km² and a Phase I built-up area of 35km². The municipal government relocated to Kangbashi in 2006. Kangbashi is discussed in detail in the following section.

The frenetic pace of construction and monumental scale of these projects became defining aspects of Ordos' city building agenda in the boom years. For the local state, urban status was confirmed and enacted through the construction of this checklist of hallmark urban features. The speed and scale at which such projects were completed signaled not merely an agenda aimed at improving the functionality of the city or at meeting scientifically assessed demand for facilities and infrastructure. Rather, these projects were billed as ways to transform local life by reshaping the spaces in which it takes place. Moreover, the abundance of new infrastructure and prestige projects sought to communicate to residents and to higher-level officials who scrutinize local development that the new city was the fruit of superior local-state stewardship. Construction to a monumental scale was an expression of political expediency.

Kangbashi: A new city in the desert

Kangbashi New District was the centerpiece of the new city's urbanization strategy. As a new-town project, it opened a fresh field of action for the emergent city government to apply the latest concepts of urban management, planning, and design. The new town was to be a comprehensive parallel city to Dongsheng, featuring the full range of urban functions but with enhanced spatial planning. The appeal of creating a new town was straightforward: it was a chance to build a city *ex nihilo* where the emergent city

government could enact its planning authority and propose a credible transformation from the region's formerly decrepit urbanism exemplified by Dongsheng. Though farmers and herders had long inhabited the basin in which Kangbashi was to be built, their relocation cleared space to work from a fresh start. As a case study of an urban mega-project, it conveys the urgency behind land development as a key strategy of economic transformation.

The plan for the Kangbashi New District was modified from an earlier plan for an economic development zone slated for the site.³⁵ In March 2001, one month after the State Council approved the Yeke-juu League's conversion to Ordos Municipality, the local leadership commissioned the Tsinghua University Urban Planning and Design Institute to draft plans for a new industrial zone.³⁶ Called the *Qingchunshan jingji jishu kaifa qu* (青春山经济技术开发区), the site plan's first draft was delivered a month after the zone's formal approval and followed a similar model to the hundreds of so-called "economic and technological development zones" (ETDZ) that sprouted up throughout China in the 1990s (Sun 2003; Hao 2003). The zone's long-term development area was 155km² with a core zone for first-phase development of 32km². Wide avenues and large tracts were planned according to a grid with functional specialization regulated through zoning. The size of industrial tracts anticipated large-scale manufacturing to be drawn to the site, with particular focus on automobile and machinery manufacturing and maintenance as well as chemical processing and heavy industry.

The municipality's first master plan, however, abandoned the ETDZ designation in favor of making the site a multi-functional city under the administrative designation of a new district.³⁷ These jurisdictional, administrative, and name changes affirmed the site's planned new role as the administrative, cultural, and economic center of the municipality (KMC 2005).³⁸ The specification of Kangbashi as a new district followed

³⁵ The zone was separated from Dongsheng District and formally made an independent territorial entity in 2003 governed by a management committee (*guanli weiyuan hui*) appointed by the municipal government. As part of these changes, the municipal People's Congress approved the municipal government's relocation from Dongsheng to the EDTZ and the following year, the Autonomous Region government ratified the change in name of the zone to Kangbashi New District. See Wang and Liu, *E'erduosi chengshi guihua fazhan licheng*, 2007.

³⁶ Meetings to decide upon the establishment of the EDTZ had taken place in Dongsheng in November and December 2000 before the final decision was reached in March 2001 to go through the plan and to commission THUPDI for the planning work.

³⁷ China experienced a trend for the creation of new districts in the early 2000s. One report indicates that over 100 new districts had been planned, with many reaching completion and others abandoned.

³⁸ When Kangbashi was approved, the city government faced a dearth of development capital for the project. To resolve this problem, it used 700 *mu* of land as collateral to establish a City Investment Corporation (CIC, *chengshi jianshe touzi gongsi*) with the vice mayor serving as chief executive officer and the new district's management committee leader assuming the title of general manager. As a consolidated and centralized nexus of

similar efforts in cities around China at the time. Shanghai's Pudong New District, established in 1990 as a central-level project and built over the subsequent decade, set the general template for new districts. Three more central-level new districts were founded on the Pudong model: Bohai New District near Tianjin (1994), Zhengdong New District near Zhengzhou (2001), and Shenbei New District near Shenyang (2006). The legitimization of the new district model sparked a trend for new districts that diffused to lower levels of the state apparatus, as cities of all sizes sought to apply innovative land development models to stimulate economic growth. By the mid-2000s, there were scores of new districts under construction across China (Yu, Wang, and Wan 2009: 3-27). Kangbashi was one of them.

Zonal planning for the Kangbashi New District spelled out in the first municipal master plan issued in 2004 encompassed the original 155km² of the former development zone and focused development on a 32km² core. When approved as a new district, Kangbashi was still little more than empty fields framed by a dry riverbed on its southern edge and by low hills to the north. Despite burgeoning municipal revenue, the city government did not have a dedicated budget with development capital specifically for the project. To resolve this problem, the city government followed two primary means of getting the project underway. First, it used 700 *mu* of land as collateral to establish a City Investment Corporation (CIC, *chengshi jianshe touzi gongsi*) with the vice mayor serving as chief executive officer and the new district's management committee leader assuming the title of general manager. As a consolidated and centralized nexus of state and corporate power, the CIC was able to raise funds through bond issuances and bank loans. Second, the city government also initiated key projects on "build-transfer" and "build-operate-transfer" models in order to minimize upfront costs for the municipal government. Using these means, the city government raised 1.75 billion yuan in 2004 and 2005 to put toward construction of a skeletal infrastructural network covering the core area of the new district and its surrounding residential, commercial, and industrial zones (Bingjun Wang 2007).

Between the commencement of construction on the new district in May 2004 and Phase I completion in July 2006, when the municipal government moved into its new headquarters, the skeletal basis of the new town had been completed (KMC 2005; Bingjun Wang 2007). At its founding, Kangbashi featured 129km of new roads, a 25km expressway connecting the town to Dongsheng, and a 749km underground network of pipes for water, sewerage, electricity, Internet, and gas and steam heat provision. The town also featured a water treatment plant, a natural-gas transfer station, and a reservoir designed to hold 110 million cubic meters of fresh water. In addition, the town had completed "greening" of 2,800 *mu* of land and had planted 200,000 trees of various

state and corporate power, the CIC was able to swiftly raise funds through bond issuances and bank loans and to organize key projects on "build-transfer" and "build-operate-transfer" models in order to minimize costs to the municipal government. Using these means, the city government raised 1.75 billion yuan in 2004 and 2005 to put toward construction of a skeletal infrastructural network covering the core area of the new district and its surrounding residential, commercial, and industrial zones.



Figure 11. A planning map shows zonal segmentation for the Kangbashi New District and the adjacent Aletengxire Township. Source: Ordos Planning Bureau.

native and non-native species. In terms of layout, the new district is arranged on a grid with a central axis running north to south that bisects the town. The physical center of the new district was designated as the administrative and cultural core. In this central space were built the municipality's new city hall, theater, museum, cultural center, and performing arts center, all surrounding a major central square. These facilities, along with a convention center, were completed between 2006 and 2010. Fanning out from the new town's core are residential and commercial zones, with industrial zones placed on the eastern edge of the new district leeward from the region's dominant winds.

Another significant hurdle to establishing the new district was attracting commercial and industrial enterprises. This was not a simple task, as the district had virtually no tenants at its founding in 2006. Generous incentives were introduced for stores and other commercial ventures to enter the new district. For example, the new district's management committee offered free rent for three months to small retail outlets. This preferential policy was extended to six months in later years. Two retail shopping malls were enticed with multi-year tax-free status. Another means of drawing retail establishments was to offer free land beneath the new district's central square in return for funding landscaping and construction at the surface level. To recruit industrial enterprises, the city government approved a policy that offered stakes in local coalmines in return for manufacturing investment. This policy successfully attracted the major auto manufacturer, Hwatai, to set up a large-scale facility in Kangbashi in 2007.

A final hurdle to establishing the new district was to relocate population. This was also not a straightforward proposition, as few businesses were located there and basic amenities were lacking. Despite the physical attractiveness of the site, its lack of city conveniences discouraged voluntary relocations. To entice new residents to relocate from Dongsheng, new housing in Kangbashi was heavily subsidized. In addition, all municipal government offices were relocated to the new district and the municipality's best middle and secondary schools were also moved to new facilities in Kangbashi. These moves were designed to compel a critical mass of relocations from Dongsheng.

The results of the construction of the new district were mixed. A number of vexing problems emerged in the five years after it was inaugurated in 2006. First, though civil servants and other middle-class urban residents rushed to purchase homes in Kangbashi, these were commonly secondary or even tertiary residences. Given the simultaneous expansion of housing in Dongsheng, households elected to stay in that city and hold their homes in the new district as investments. Ordos has China's highest private car ownership rate at 300 cars per 1,000 residents, meaning that middle-class civil servants simply commuted back and forth between Kangbashi and Dongsheng. Still, anticipation of future growth ignited the local property market, causing prices to rise rapidly, thus shutting out lower-income residents from relocating. As a consequence of these trends, by 2011 population in the new district was far short of the city's population targets. Though the city government publicized the new district's population that year as 30,000, it was an open secret that perhaps as few as 5,000 residents lived in the new district on a permanent basis. The scant population fed into negative perceptions of the new district, which further hampered the growth of local commerce and discouraged relocations. Reacting to the underutilization of spaces in Kangbashi, reports about the new district have presented it as a failure. Residential projects sit visibly unoccupied, while storefronts are vacant and the absence of a vibrant street life marks a jarring contrast with Dongsheng.

Modularity and transformation

Municipalization had radical impacts on urbanization in Ordos between 2001 and 2011. In becoming a formal city, the local administration instituted a far-reaching entrepreneurial development agenda at the core of which was urban construction. Major land-development projects were undertaken in rapid succession. Some of these projects responded to evident needs, such as improvements in sanitation and transport infrastructures. Dongsheng in 1980s and 1990s was a small city in terms of its physical size and population. With the rapid industrialization brought on by the expansion of coalmining and the consequent rise in the urban population, the need for improvements was real, as was the imperative to devise new footings for the urban economy. Still, many projects were geared toward the accumulation of political and cultural capital. There were strong political and ideological components to the city's radical build-out. These were manifested in the adoption of multiple modular land-development schemes widely regarded as political prestige projects (*zhengji gongcheng*).

It is worth noting that new government offices, large public squares and parks, theaters, museums, convention centers, airports, etc. have all been serially produced in

cities across China. The imitative aspect of particular urban development projects is of more than passing significance when applied to Ordos. They illuminate how resource-based cities are compelled to strive to be more than mining towns. There is a potent urge to become a new city, but in the mold of benchmark metropolises regardless of context. Sweeping land-development agendas are thus enacted both as means to catch up economically and culturally with the more urbanized and developed regions of the east. Hence, a striking aspect of frontier boomtown urbanism is its physical articulation through the serial reproduction of monumental state-led land development projects that mimic city-building efforts in other major cities.

There is a temptation to view such developments in comparison with the various iterations of modernism proposed over the years. So-called “high modernism,” according to James C. Scott describes “a strong, one might even say muscle-bound, version of the self-confidence about scientific and technical progress, the expansion of production, the growing satisfaction of human needs, the mastery of nature (including human nature), and, above all, the rational design of social order commensurate with the scientific understanding of natural laws” (1998: 4). Indeed, the application of planning and centralized state control to urban development would seem to support such an assertion. Moreover, the local state’s embrace of planning discourses and its eagerness to appear to be at the center of the local city building agenda also points in such a direction. A crucial difference, however, is the absence in Ordos of a development narrative that expands beyond local economic growth. Booster-type rhetoric describing social and spatial engineering through city building is a core product of a local pro-growth coalition whose fundamental objectives were growth according to simple GDP indices. Cozy relations between the local government and developers facilitated massive projects the long-term utility of which mattered less than their completion. A steady flow of government contracts befitted local development companies, such as Vibor, Vanzip, Xintong, Xingtai, Oriental Road and Bridge, and others.

At the end of 2010, Ordos Party Secretary Yun Guangzhong asserted in his annual report to the local People’s Congress that the city had undergone an historic change. “The appearance of the city has seen enormous change. We have seen results in building a regional metropolis. The redevelopment of the old areas of Dongsheng has gone forward, the Kangbashi-Aletengxire conglomeration has developed in unified fashion and with the relocation of the municipal government, the new district has grown quickly, increased its functions, and improved its aesthetic appeal” (Yun 2011). But, despite the insinuation of order and rationality, urban expansion exhibited a lack of control and effective regulation. As Yeh and Wu have noted, planners are not seen as decision-makers but as technicians tasked with providing local authorities with politically expedient zoning plans (1999: 226). Areas designated as protected agricultural land was intensively developed for a variety of purposes, including new government buildings and luxury gated communities. Functional zoning was substantially altered in successive drafts of the master plan and violations of land-use regulations were rife. Almost immediately upon their establishment, both Kangbashi and Tiexi became twin epicenters of a massive property development bubble.

Scholars have noted in recent years that local officials favor large-scale urban construction projects as relatively effective and rapid ways to stimulate local economies and produce visually dramatic results in order to advantage their personal chances of promotion. But the narrow repertoire of construction projects suggests a highly constrained range from which officials choose and a strong resistance to adaptation to local conditions. There is also a curious overlap in the type and size of construction. The Kangbashi New District, for example, is the exact same area size (35km²) as the Zhengdong New District in Henan, which was also the same size as Shanghai's Pudong New District. In assessing the "cultural infrastructure" of major Asian cities striving to attain "global status," Lily Kong highlights the pursuit of cultural "hardware" at the expense of the "software" (2007). New facilities are erected solely for their symbolic value in re-branding cities and broadcast a re-imagined post-industrial urban future. This is true even in a place as decidedly industrial as Ordos.

For cities of the interior, such as Ordos, the imitative replication of projects implies not a desire to attain "global status," but to achieve sameness with cities like Shanghai or Beijing. Little regard is paid to the utility of projects. Budgets for cultural facilities evaporate once the buildings are completed (Interview 10221101). New parks and green spaces are virtually empty throughout the day due to difficulty of access, the sheer size of plazas and parks, and the simple fact in Ordos that the harsh climate militates against spending extended periods of time outdoors. Moreover, the influx of migrants was comprised mainly of low-skill construction workers, who could not afford to live in the newly built housing in Tiexi or Kangbashi. As a result, the old section of Dongsheng became the primary destination for new arrivals. Yet, simultaneous massive-scale inner-city redevelopment in the old quarter had reduced the total amount of low-income housing in the city. This forced migrant workers to crowd into expensive and unregulated privately operated dormitories with appalling safety and sanitation standards or to accept extortionate rental leases in the dwindling number of cheap residential warrens. Responding to the mismatch in types of available housing, the municipal government began work in 2010 on subsidized low-income housing. To save money, the project was constructed on scrubland midway between Dongsheng and Kangbashi in a tract lacking transportation access to either city, stores, schools, clinics, and other basic services.

The massive scale and underutilization of new public projects did not escape the notice of the local population. The pervasiveness of massive political prestige projects was the subjects of local jokes and, occasionally, searing derision directed at local officials. In particular, amid the economic downturn that occurred in 2011 and that brought a virtual halt to all construction in Ordos, massive projects were transfigured, for many, from symbols of urban emergence into signs of waste and corruption. The end of the boom was a sobering moment for the local government and many of my regular informants during fieldwork.

CHAPTER FOUR: GIGANTISM IN GENGHIS KHAN SQUARE

When the Ordos Municipal Government set forth to convert the Qingchunshan Economic Development Zone into the Kangbashi New District, it signaled a new vision for the then-empty 32km² site. It would not just serve as an industrial park, as previously planned, but as a new city. Articulating this new agenda, Ordos' first municipal masterplan (OPB 2004) stated that Kangbashi would be the “governmental, financial, and cultural” center of the municipality. To this end, city-level government agencies, the municipality's best middle and secondary schools and key cultural institutions were to be relocated from Dongsheng. The masterplan also noted that the new city must emphasize “local characteristics” (地方特色 - *difang tese*) in design and architecture and declared that Kangbashi would be a modern (现代 - *xiandai*), prosperous (富裕 - *fuyu*), comfortable (舒适 - *shushi*), natural (自然 - *ziran*), and livable (宜居 - *yiju*) place. The masterplan further specified that Kangbashi would concentrate advanced industries along with high-end residential and commercial zones. Dongsheng, meanwhile, would retain “traditional commerce and industry” (传统企业 - *chuantong qiye*), a byword for small-scale and low-value-added industry. In this way, the construction of Kangbashi was framed as an opportunity to realize a certain vision of an urban future on China's frontier. For this, it would draw upon an up-to-date urban grammar supplied by spatial planning, cutting-edge architecture, and attractive urban design, three features seen to be absent in Dongsheng.³⁹ Kangbashi would thus mark a clear break with Ordos' urban past, as represented by its crowded, drab, and insalubrious counterpart. The new town would represent the new Ordos, putting the municipality's wealth on display and announcing its conversion from impoverished marginal space to dynamic frontier region.

As a practical matter, however, the city government's field of action was constrained by the necessity to have private developers build out the bulk of the new town's planned zones. Within certain parameters, these developers built to their own specifications and designs. In other words, Kangbashi was not a wholly planned community; rather, it was a local state-led commercially oriented urban development project. The masterplan, like those of other cities, was more a statement of guiding principles as opposed to a binding blueprint for town construction. The city government only maintained firm control over the appearance of new spaces within the limited confines of the town's core, where key municipal institutions were clustered around its monumental public square. The representational strategies aimed at attaining the ideals spelled out in the masterplan were concentrated in this space.

In this chapter I explore the Kangbashi New District's central core and, in particular, its main public space, Genghis Khan Square. This symbol-laden arena is seen here as a privileged site for an analysis of how new urban form mediates a city's shift from marginal periphery to dynamic frontier. I focus on the battery of visual and spatial

³⁹ In a 2007 article reflecting on Dongsheng's planning and urban design, the head of the city's planning bureau evoked a four-character phrase to describe its bland appearance: *qian cheng yi mian* (千城一面), or “a thousand cities, one appearance.”

tactics mounted on and around the square all aimed at representing and delivering an idealized new city. By looking at how the new town was envisioned and how its central space was arranged and designed, we can study how the discursive components of frontier boomtown urbanism manifest in the production of a material space. What urban form was seen as able to adequately represent and embody a new urban existence on China's frontiers? How does the need to display "local characteristics" combine with the parallel drive to incorporate global aesthetic trends? I also wish to examine the relation between city-based state power and visibility. In brief, how does a frontier boomtown establish itself representationally in today's crowded field of aspiring and real metropolises? And who is the envisioned viewer of the town's showcase spaces and how does that viewership mesh with the actual experience of the physical space? As we will see, the new town's core makes an emphatic statement of arrival through architectural bombast. It therefore follows the lead of cities across China where the introduction of extravagant new buildings and public spaces has become a serial aspect of urban development programs. A further reading of the space also reveals ways in which it navigates regionally specific ethnic and cultural tensions as well as perceived shortcomings when measured against prevailing standards of contemporary Chinese urbanism. Not least of these shortcomings is Ordos' reputation as a lawless coalmining dystopia, where a crude class of nouveau riche dominates the city in collusion with corrupt city officials and where ecological degradation is the norm. The square is thus not merely a display of governmental authority. It is also a laboratory to forge new expressions of urbanism on the frontier unburdened by legacies of poverty and isolation.

Here I deploy an adaptation of Susan Stewart's notion of the gigantic (1993) for its utility in addressing the politics of space production in Kangbashi's Genghis Khan Square. In her original formulation, gigantism is an amplification of the body's experience of the exterior world. Her emphasis is on how the gigantic exteriorizes and communalizes subjective experience and, in the process, mediates the individual's relations to forces beyond the self, such as the supernatural, nature, or, in our times, the encompassing concrete abstraction of the market economy. Drawing upon Stewart's original formulation, I propose four dimensions of gigantism that help to explain the modes of representation in the square. I outline these here as follows:

(1) *Gigantism as a display and exercise of power*. Under contemporary capitalism, Stewart says, gigantism has moved from the ritualistic arena of folk culture to the secular spaces of production and consumption. As part of this shift, "the gigantic is appropriated by the state and its institutions and put on parade with great seriousness ... as a symbol of the abstract formations making up life in the city" (1993: 81). Gigantism, in other words, is part of the display of power under capitalism with the state figuring centrally.

(2) *The priority of consumption*. Related to the first point, the production of spectacle under late capitalism, in the manner theorized by Guy Debord (1995), fosters gigantic visual expressions, which offer themselves exclusively for distanced, visual consumption; public participation is thwarted in favor of detached viewership. In this way, gigantism is staged for a public by state or corporate power, often with the city as a backdrop or as the produced artifact itself. More importantly, it is not

given over to the public's unruly impulses, but is served up for the "pseudo-labor of consumption" (Stewart 1993: 101). Under industrial capitalism, she argues, the gigantic is structured by overarching commodity relations. The result is the production of spectacle along the lines theorized by Guy Debord in his work, *The Society of the Spectacle* (1995). That is to say, the gigantic becomes a mask concealing the true relations of production; it "marks the magicalization of the commodity," Stewart says (1993: 85).

(3) *Decontextualization and recontextualization*. Gigantic forms of representation in public space command positions of height and centrality. "It is ... important that the gigantic be situated above and over [the viewer]" (Stewart 1993: 89). Public statuary is the quintessential expression of this tendency, for it produces its own context in which to narrate the stories town burghers desire to tell. In so doing, gigantism prods the viewer's "prostration to history and authority" (Stewart 1993: 90). This mode of gigantic representation is not confined to sculpture; it also extends to whole buildings, towers, and monuments lifted onto plinths or framed in open spaces. It is also evidenced in carefully manicured landscapes and parks, which supply connections to the original form of gigantism: nature itself.

(4) *Miniaturization and minimization of the viewer*. The gigantic envelopes the body but remains inaccessible. Because the gigantic occupies a space beyond the body, Stewart says, it "analogously mirrors the abstractions of institutions – either those of religion, the state, or, as is increasingly the case, the abstractions of technology and corporate power" (Stewart 1993: 102). In the presence of the gigantic, the body is drawn into an exterior, or public, relation with modes of authority imprinted upon space. It compels the viewer to acknowledge forces that seek to miniaturize, contain, and discipline the body. It minimizes the significance of the viewer by reducing it to the position of passive spectator.

These four precepts of the gigantic provide an alternative analytical language to explain the mutually constitutive relation between monumental urban form and the fragmented character of local state power in the frontier. It supplies a way to understand how supreme size and a radical surfeit of built space "makes sense" as an expression of Ordos' situated politics and cultures of city building. Extending Bulag's adroit perception that municipalization provides "a shortcut to modernity" (Bulag 2002b), urban construction in the gigantic mode is a means of temporally compressing the fulfillment of bombastic urban visions divorced from practical assessments of social utility. Gigantism satisfies immediate political impulses, throws fuel on the fire of speculative development, and produces an aesthetic that conjures a new local reality with selective reference to a local past. In its brash assertion of power, however, construction in the gigantic manner testifies to the internal fragmentation and instability of the local state.

What is interesting about the case of Genghis Khan Square is the manner in which gigantic forms operate dually to conceal the social relations that structure the production of space while simultaneously displaying state power and capacity. This dual operation functions through the constitution of different subjects representing different viewerships. One is Stewart's atomized individual for whom the square's various expressions of gigantism generate a profound disorientation and alienation. The other is an imagined

subject who does not inhabit the new town but rather embodies the investor's and/or official's gaze upon it. In this way, gigantic architectural objects and spaces are integrated into a mode of state-orchestrated display in which gigantism communicates power in rather direct ways for some while attempting to conceal it from others. For the frontier boomtown, gigantism also serves as an expedient mode of representation, reifying the conceit of abundant empty space in the Inner Mongolian steppes and working to show desirable features, conceal unspeakable aspects of local development, and conjure new local realities. It further demonstrates that it is not always necessary or even desirable to disguise power.

To be sure, Kangbashi is not the only Chinese city to use extravagant urban design to impress the notion of epochal change upon residents, investors, and tourists. Recent studies have examined how high-design urban form is a fundamental component of urban place-making strategies amid heightened inter-city competition (Jessop and Sum 2000; L. Kong 2007; Ren 2008a). Monumental architecture produced by so-called *starchitects* and projects that mimic Western residential forms are said to index the arrival on local turf of global norms and forms, as design concepts become integrated into the Chinese context (Olds 1997; F. Wu 2004). While these studies have illuminated the instrumental role played by new architecture in urban political economy, they remain fixated on a handful of metropolises deemed emblematic of global change and focused on the rarefied realm of luxury and high-design monumental architecture. As a consequence, the prevalence of flamboyant public and private projects all aiming to make strong statements through architectural and design bombast even in lower-tier cities has not been adequately addressed.

What are the implications of aspiring cities of the interior attempting to mimic the celebrated architectural features of the major coastal cities? Recent work addresses parts of this question (Li Zhang 2006; P. Gaubatz 2008). Zhang, for instance, has stressed the problem of perceived "lateness" in urban development in lower-tier cities and notes the catch-up impulse in urban design and planning against the backdrop of uneven regional development. Gaubatz attributes the sameness of urban form, or "isomorphism," to patterns of diffusion for planning concepts and norms. A trend toward commissioning planning work has meant that a few planning institutes in Beijing and Shanghai hold sway over discursive and practical elements of urban design. Chinese scholars frequently bemoan the "fevers" for fashionable development models and the tendency of urban officials to "blindly follow" trends regardless of the appropriateness of certain plans for the settings where they are carried out (Z. Zhang 2010).

Building on this research, this chapter examines the cultural logic of spatial design in Ordos' new town project. City leaders, who were buoyed by rising revenues and growth curves that appeared to arc ever upward, envisioned new vistas of opportunity, hope, and expectation for an amenity-filled urban future in a region that until recently was widely regarded as irredeemably marginal. In this context, the spatio-temporal laggardness once perceived as endemic to Ordos is seen to suddenly evaporate thanks to the local resource boom and the opportunity to build a whole new city in Kangbashi.

This chapter's discussion is situated within the context of research into the relation between urban design and territorial power. These connections have received increased focus in recent years from scholars working in diverse fields (Schorske 1981; Holston 1989; Rabinow 1989; Zukin 1993; Scobey 2003). It is widely recognized in these works that the built environment is intimately linked to elite efforts to reform societies toward specific ends. Urbanists have also traced shifting forms of urban governance and how it relates to the changing meaning of city spaces (Rutheiser 1996; Gottdiener 1997; Hannigan 1998). Harvey's identification of a transition in governance from spatial organization geared toward industrial production (a Fordist paradigm, in his words) to spatial reorganization geared toward the marketization of urban place for the sake of high-income residents and tourists (1989).

In her important critique of the design agendas put forth in France's North African and Southeast Asian colonies, Wright (1991) reveals how urban design and planning were embraced, on the one hand, as a means to modernize colonial societies seen as "backward" and, on the other, to preserve local traditions for the benefit of tourists, colonists, and colonized alike. Her analysis is relevant to the Ordos case, as it highlights the modes of mutual reinforcement between the colonial gaze upon the city and architectural design. Urban design and urban politics become complementary techniques of asserting territorial power.

Given the radical changes in Chinese cities since the implementation of a marketized land leasehold system in 1988, growing attention has similarly been paid to the productive role of design and architecture in the country's transition from socialism to a market economy.⁴⁰ Important China-based work in this field has analyzed the revival of spatial planning in the reform era and the usage of spectacular mega-projects as tools of local-state consolidation (Olds 1997). Through a study of the Lujiazui Financial Center in Shanghai, Olds reveals how international planning and architectural norms pushed by a "global intelligence corps" are integrated in a display of local-state capacity. Chinese city leaders have demonstrated an eagerness to tap into global flows of design ideas to help brand their cities and establish a clear and marketable image in general conformity with global aesthetic standards (Broudehoux 2002; 2007). As Chinese urban governance has shifted decisively toward a model of municipal entrepreneurialism, self-conscious place promotion, urban mega-projects, and spectacular events have become the norm across China and East Asia. These projects and one-off spectacles are believed to be essential to cities' ability to compete on the global stage, while they are also shown to be flashpoints of urban contention (L. Kong 2007). The introduction of new and often extravagant architecture is now at the center of cities' development strategies. In her study of "transnational space production," Ren brings to light the instrumental role of China's trend-setting mobile elites in bringing large-scale, high-design development projects to substitute drab inner-city cores (2008). This work has shown that spectacular design and architecture, while indexing China's pole position in the race for experimental development projects, are directly implicated in patterns of exclusion and displacement.

⁴⁰ In 1988 Amendment 28 to Article 10 of the PRC Constitution was ratified specifying the implementation of a market-based urban land lease system.

Simultaneously, in places like Beijing where history weighs heavily on processes of spatial reconfiguration, design stirs debate surrounding the terms of China's integration into the global and the preservation of tradition.

Comparatively few studies examine how these processes unfold in China's interior provinces and what their implications might be. Existing research makes clear that frontier legacies and persistent uneven development in China's western regions supply radically different underlying conditions for urban reconfigurations.⁴¹ Regional difference has not meant that spatial changes occur slower or on smaller, less-spectacular scales. On the contrary, the urgency behind economic development in relatively underdeveloped regions creates powerful impulses in city governments to seek radical formal transformations that outpace even those of coastal metropolises. Based on a study of redevelopment in the provincial capital of Kunming, Li Zhang (2006) theorizes the cultural logic behind these impulses in terms of temporal and spatial "lateness." She applies this notion to understand the radicalism of efforts to rebuild cities according to benchmarks of "spatial modernity" set in the major coastal cities and the West. Kunming "experiences a double sense of lateness in that it needs to catch up not only with the Western world but also with the more developed coastal regions, special economic zones, and major metropolitan areas in China that opened up earlier and benefited first from reform" (Zhang 2006: 463). Gaubatz posits a similar dilemma in the city of Xining under a concept of "secondary globalization" (P. Gaubatz 2008). There too, local officials are motivated by a perceived need to catch up and thus initiate spectacular development schemes that are hugely disruptive to local social fabrics and of dubious economic value.

While the notion of lateness and its capacity to motivate large-scale projects in less-developed regions is an important insight, the implicit (or, indeed, explicit) judgment of derivative urbanism in these purported backwaters merits reconsideration. To be sure, cities like Beijing and Shanghai provide undeniable demonstration effects in the realm of urban design. The circulation of planning ideas follows a general outward diffusion from the so-called Tier-1 cities.⁴² But, rather than trace the diffusion of design concepts westward from the coast, what interests me are the ways that *design is embraced on local*

⁴¹ Gaubatz notes the vast discrepancy in studies of cities in China's eastern regions versus central and western regions. She found in a rough survey that in the Chinese literature on urban development five cities (Beijing, Shanghai, Guangzhou, Nanjing, and Wuhan) account for 57 percent of studies. See Piper Gaubatz, "Commercial Redevelopment and Regional Inequality in Urban China: Xining's Wangfujing?" *Eurasian Geography and Economics* 49(2): 180-199.

⁴² Instrumental in this process of diffusion are commercial planning institutes operated out of Tsinghua University and Tongji University. These institutes are veritable "planning mills" that bank on their prestige to secure projects around the country and that employ a constant supply of low-cost student labor to draft an enormous volume of planning documents for cities large and small. The political economy of the planning industry has yet to be thoroughly analyzed. These aspects of the field were brought to my attention during interviews with project managers at the Tsinghua University Urban Planning and Design Institute and during casual discussions with the institute's interns.

terms in dialogue with broader cultural currents to produce a place-specific vision of an urban future. The accumulation of political and cultural capital, as well as economic capital through intensive land development and extravagant urban design follows peculiar pathways determined by local conditions. New urban spaces on the frontier must produce a credible statement of local distinction through a narrow visual grammar of contemporary urban form. We find also that urban form tries to negotiate the enduring tensions produced by frontier marginality, such as cultural difference, development lateness, reliance on unglamorous resource extraction, and the latter's consequent environmental impacts. Nowhere is this clearer in Ordos than in Genghis Khan Square.

The changing public square

In Western urbanism, public squares have played an outsized role in the life of cities. They are often deliberately positioned to serve as nodes of traffic circulation. At the same time, they are open spaces where people are invited to linger. Along with the street, the square has thus evolved as an important venue where the public life of the private individual finds some sort of definition in relation to other people and institutions in the city. In squares, representational agendas abound, as planners, architects, and artists are recruited to create designs and objects that seek to guide the production of meaning for citizen-viewers. Squares are also remarkably plastic features of the built environment, having been introduced into cities by imperial, theocratic, fascist, Soviet, and democratic regimes alike. In his landmark history of urban form, *The City Assembled*, Spiro Kostof identifies a fundamental paradox of the public square: in a setting often literally shadowed by symbols of authority, the public square symbolically joins public space and free movement by citizens as a way “to ensconce community and to arbitrate social conflict” (Kostof 1992: 124). Further, the institutionalized quality of the public square and the ritual behaviors it invokes point to the subtle – and sometimes not-so-subtle – regimes of authority that order urban space and bodies.

In China, the public square as a formal type of urban space was adopted haphazardly during the first half of the 20th century. Western-trained Japanese colonial planners in Manchuria instituted plazas and squares in Changchun (Buck 1999). Treaty ports likewise saw the introduction of squares as well as parks. Doubtless the most grandiloquent of China's early 20th-century public squares was planned for Republic's new capital city in Nanjing (Musgrove 1999). The latter plan, however, was never realized. Through the first half of the twentieth century, the vast majority of citizens had little experience with this peculiar type of public space.

That changed, however, with the establishment of the People's Republic in 1949. The emergent post-Liberation socialist regime, with the urging of Soviet advisors, systematically built public squares in towns large and small. These quickly assumed a central significance in urban daily life and national politics by functioning as a privileged interface between the state apparatus and the masses it claimed to represent (Hua 2006).⁴³

⁴³ It is important to note that Beijing as a whole and Tiananmen Square in particular underwent substantial reworking in the first half of the twentieth century. For an excellent



Figure 12. A view facing north of Ordos Municipality's city hall seen from Genghis Khan Square.

Tiananmen Square provided the template for urban squares around the country. The art historian Wu Hung has argued that by enlarging Tiananmen Square and filling it with monuments and monumental public buildings, Mao carried out a deliberate plan to produce the square as a “political space,” one that could be replicated in modular fashion around the country (2005). By political space, Wu means “an architectonic embodiment of political ideology” and “a site activating political action and expression” (2005:9). Wu further distinguishes the political space of Mao’s Tiananmen Square with squares in the post-Mao era. These latter squares, he says, have been *depoliticized* as a result of their conversion into park-like spaces with greenery and festive decorations (see 2005: 22 & 222-224). But have these spaces really been *depoliticized*? Or have public squares in the post-socialist market era been *repoliticized* through a new symbolic grammar with a different political charge?

It is certainly true that squares in Chinese cities have been quite thoroughly purged of the ponderous monumentalization of state power that was common before the reform era. For example, statues of Mao, once ubiquitous, have been quietly removed. Instead, squares now offer up a parade of local “culture” and constructed visions of nature. This shift in the design and contents of squares is highly consequential. It reflects the changing political realities of urban development, as the state’s authority has been parochialized amid the delegation of powers to lower levels of the state apparatus, especially to the municipal scale (L. J. C. Ma 2005). City governments responding to the need to self-finance local development have turned increasingly toward development

history on the gradual changes to Beijing in the post-imperial period, see Wang Jun, *Cheng ji* (Beijing: Sanlian, 2003).

models that center on eye-catching architectures and spatial designs. Cities are intensely focused on improving the physical environment of cities to demonstrate their capacity to supply not just a good “investment environment” (投资环境 – *touzi huanjing*) but also – and crucially – an agreeable “civilized city” (文明城市 – *wenming chengshi*). The consequent spectacularization of urban space regularly entails the redevelopment of public squares, bringing a new political logic of urban space production emphasizing visual delight and consumer enjoyment as assumed prerequisites for successful urbanization. Gigantic forms are endemic to these strategies, as the competitive race to out-do one’s peers compels cities to green-light progressively taller, bigger, and more elaborate new projects. But the success of such approaches, measured by their ability to evoke desirable new urban subjects, hinges upon the alignment of bodies for structured modes of viewing. Success in this arena is far from assured. New urban spaces are open to divergent and conflictual interpretations. Such spaces – especially public squares – are also flashpoints of social contention. Hence, the arbitration of social conflict that Kostof reminds us is a central purpose of public squares can readily be derailed by the provocation of conflict and the unpredictable multiplication of meanings ascribed to urban space. The social terrain of the frontier boomtown brings these tensions into stark relief, and nowhere more clearly than on Genghis Khan Square.

The gigantic cultural landscape

In May 2004 the municipal government broke ground on the Kangbashi site, which had been cleared and platted over the previous three years. The first phase of construction entailed building out the new town’s roads and basic infrastructure and beginning work on the square along with the main public buildings that surround it.

The problem of appropriate design raised by the need to produce a large public space in this empty tract of land occasioned a debate at the center of which was the idea of *cultural landscape* (文化景观 - *wenhua jingguan*). This idea illuminates some of the key stakes involved in the gigantism of Genghis Khan Square and the logics of city building in a frontier boomtown. Discussions about cultural landscape in the new town played out in high-level meetings and a symposium held in Ordos in 2006, which focused on urban design, architecture, and urban development.⁴⁴ These meetings assembled academics and professionals working in design and architecture, as well as planning and urban-design bureaucrats from around China. Their deliberations were subsequently compiled in a volume titled *Discourses on Ordos Urban Landscape* (鄂尔多斯城市文化

⁴⁴ Discussions over urban form for Kangbashi had been ongoing since the decision to establish it as a new district. A design by the Singaporean firm CPG Corporation was selected among submissions from design firms in Japan, Germany, the United States, and China. The plan was subsequently modified based on input from local officials and experts. The design for Genghis Khan Square was finalized incrementally, however. Planners with whom I discussed the construction of the square indicated that top officials, in particular local Party secretary Yun Feng, made final choices and adjustments to designs. In 2003, an international contest for design proposals for the new town’s core district was organized.

景观论 – *E'erdusi chengshi wenhua jingguan lun*) (Ordos CPPCC Experts Commission 2007). Sampling from the volume's 17 articles, essay titles include: "Increasing the soft competitive power of Ordos," "Enriching the cultural content of the city – enhancing the comprehensive strength of the region," "The cultural value of urban ecological landscape," and "Urban landscape and citizen quality." Other papers related to the topic were published sporadically in journals printed by various agencies of the municipal government (H. Yang 2007; F. Wang 2007b; Editorial 2007).

The discussion over cultural landscape and its application to Kangbashi identified a problem that was articulated as a dual paradox intrinsic to Ordos: first, Ordos was a place rich in history but without a continuous urban center that could testify to such a heritage, and second, the imagined and real local landscapes of Ordos were the antithesis of China's current-day vertically oriented notions of urban modernity. The emphasis placed on the notion of cultural landscape by the experts and officials charged with overseeing Kangbashi's design made this dual paradox all the more urgent. For cultural landscape, as defined in geographic and landscape studies, is a landscape in which the visual evidence of place reveals the sedimentations of human history and of humans' interactions with the natural environment. Cultural landscape displays and testifies to local historical legacies (Rowntree 1996).

In the context of commercially driven new-town construction, the constructed cultural landscape would need to suit an explicit development agenda as well as gesture toward the city's visions of social reform. Indeed, the head of the committee charged with debating concepts of local landscape design writes that the cultural landscape has multiple functions, central among them to preserve history, boost local pride, and raise the people's aesthetic standards (Zhang 2008: 19). Former vice mayor Yang Hongyan saw an even broader significance to cultural landscape. His interpretation merits extended quotation:

“Through cultural landscape it is possible to elevate the quality of the city and to make a more powerful Ordos. Making culture a motor of economic growth and a means of creating an international image is a widely recognized strategy. On the one hand, the cultural landscape can serve as the city's urban calling card (城市名片 - *chengshi mingpian*) reflecting its cultural content; on the other, cultural landscape enhances the development environment by attracting investment, which helps to raise the overall quality of the city. ... As for its social function, the cultural landscape expands knowledge and harmonizes social relations. It raises the quality of the citizens (市民素质 - *shimin suzhi*) and makes them more upright (敦化 - *dunhua*) (Yang 2007: 15-16).

Cultural landscape's perceived utility in boosting the marketability of place and in raising the “quality” of the citizenry was a widely felt concern. One participant in the

discussion of Kangbashi summarized the issue of cultural landscape in terms that applied not only to Ordos but to all Chinese cities.

“Chinese society is set to enter a period of great urbanization in the 21st century. While retaining a strong focus on urban planning and raising the quality of architecture, cities will need to use modern humanism to generate a vibrant and locally distinctive urban landscape brand (城市景观品牌 - *chengshi jingguan pinpai*). Cities will need to use outstanding art to elevate the image and aesthetic taste of the city in order to stimulate cultural industries and achieve synergies across sectors as well as to satisfy the spiritual needs of its citizens. This is the great challenge facing Chinese cities in the future.” (Liu 2007: 33).

These remarks point to an unmistakable adaptation of the cultural landscape concept from social artifact to spatial technology utilized in the production of commodified urban space. A representation of history emanating from this milieu is necessarily a selective one. To meet the objectives of creating a pleasing environment attractive to residents and investors, Kangbashi’s cultural landscape would have to omit certain unspeakable truths related to its frontier setting, including Ordos’ recent history of grinding poverty and uneven development, ongoing and frequently violent conflicts over land uses, and the environmental devastation wrought by the city’s scores of open-cast mines and enormous (and enormously destructive) longwall mining operations.⁴⁵

Which visual rhetorics, then, were expedient in achieving the new cultural landscape ideal? The solution, embodied in Genghis Khan Square, was to produce a theme-park-like environment in celebration of Mongolian culture, the grasslands, and Genghis Khan. To the list of themes banished from the square we must therefore add the reality of Han Chinese dominance in Ordos, as well as the reality that Ordos is mostly covered by arid scrubland and desert – only a small and imperiled portion of the territory is grassland. Amid this debate, some worried about a surfeit of imagery related to the Khan (Kong, Zhao, and Huang 2010). Naming Kangbashi’s central square after Genghis and festooning it with Mongolian symbolism, it was argued, would rob attention from the Khan’s mausoleum, Ordos’ main tourist attraction, and undermine its solemnity. This

⁴⁵ Longwall mining is a coalmining technique in which a continuously rotating circular blade moves laterally back and forth across the face of a coal seam. As the face is extracted the blade is pushed forward and the roof beneath the just-excavated portion of the mine is collapsed. Longwall blades vary in size according to the seam under excavation. Based on conversations with German mining engineers in Ordos, longwall blades at the Shangwan mine, Ordos’ largest underground mine, measure 7m in diameter. Land subsidence at the surface of a longwall mine using a 7m blade completely remakes the surface geology, altering water flows and soil composition and destroying built structures.

was a decidedly minority opinion, however. In the final determination, which the Party Secretary Yun Feng is known to have played a decisive part, Genghis Khan and Mongol culture were affirmed as the primary design motifs.⁴⁶ As we will see in the next section, stereotypes of the horizontality and vastness of the grasslands and the purported carefree, roving nature of horse-backed Mongols are given dramatic expression in Genghis Khan Square. We find also that these motifs lend themselves to gigantism.

Gigantism on the square

A central task of the built cultural landscape in Genghis Khan Square was to construct a marketable image of a modernized, yet ancient, Ordos. For this, two distinct notions of culture were marshaled in the configuration of the square: first, the square assembles important venues for the consumption of contemporary high culture; second, design motifs inscribed upon the square's objects and buildings draw freely upon references to Mongolian history and the grasslands. The conjoining of these images on the square seeks to bridge a purportedly timeless regional culture with the contemporary future-oriented moment. The result is inevitably an architectural pastiche amplified by its gigantism.

The square that emerged after four years of phased construction runs the length from north to south through the center of the new district, bisecting the town into eastern and western halves. The space is bounded on its east and west sides by East Culture Road and West Culture Road. At the figurative "top" of the square at its northern extent is the municipality's monumental new city hall, a three-building complex made of grey stone set at obtuse angles to form a capstone to the square. Roughly 200m wide for most of its distance, the square extends for 2.5km from the steps of the city hall to the Wulanmulun reservoir, a manmade scenic lake formed out of the riverbed of a seasonal creek. Clustered near city hall at the square's northern end are five of Ordos' "seven major cultural projects": the media center, the performing arts center, the museum, the library, and the cultural center. South of the administrative-cultural constellation are three shopping centers and two luxury hotels that flank the square. Moving south to the Wulanmulun reservoir, the remainder of the square is bracketed by commercial tracts reserved for future projects. As the square is intersected by nine streets running east-west, it is not an unbroken landscape, but rather is divided into eight blocks of similar size, each of which features a design arrangement that relates to the theme chosen for the square by the municipal government, a theme that quotes from the title of a 1953 patriotic Inner Mongolian folk song: *The Sun that Never Sets on the Grassland* (草原上升起不落的太阳 – *caoyuan shang shengqi bu luo de taiyang*).

Given its massive dimensions, the square is touted as the largest square in East Asia – larger even than Dalian's enormous Xinghai Square and roughly three times longer than Tiananmen Square. The visual effect of this order of size is to place the

⁴⁶ The local CPPCC draft document on Kangbashi's design plan lays out three precepts to orient the new town's image: (1) Southern Gobi Mongol Yuan dynasty culture, (2) auto industry new city in the grasslands, and (3) governmental, economic, and cultural center of Ordos. See Ordos CPPCC Experts Commission: 179.



Figure 13. A view facing south of the International Financial Center as seen from Genghis Khan Square.

opposite ends of the square out of sight from each other despite the space's horizontality. Facing north, the viewer's gaze is drawn not to the end of the square, for it cannot be seen, but slightly upward to the city hall, which emerges as the main visible feature of the distant landscape. Turning to face the other direction, one's eyes are similarly drawn to the horizon where the six skyscrapers of the World Financial Center, completed between 2010 and 2012, are symmetrically aligned with the square's central axis on the southern shore of the reservoir. These eye-catching edifices are eminences of Ordos' pro-growth coalition, bracketing the square, watching over it from elevation, and leaving little doubt as to the arrangement of local power. The awareness of surveillance is compounded by regular vehicular police patrols that circulate along the circumference of the square.

In a very immediate and absolute sense, then, the square's relation to the body emphasizes its gigantic size and reveals the two types of viewership created by its arrangement. On the one hand, the visitor to the square experiences a palpable sense of miniaturization and minimalization when beholding the expansiveness of the square. This acute sensation of insignificance is heightened by the lack of people in the new town and the harsh weather to which one is subjected in most seasons when outdoors in Ordos. On the other hand, the square also discloses the panoptic position of the planner, the urban official, and investor for whom the square is what Henri Lefebvre terms "a representation of space" (1991). From this perspective, the square is rather an image of a square, a monumental and concretized abstraction of public space. Its production at gigantic scale

inverts the conventional understanding of squares as sites of communion. The square emphatically rejects community.

A closer examination of the architectural objects and design elements on the square further illuminates how the gigantic is at work in this space. This can begin with a consideration of the new city hall. Situated at the top of the square and set upon a landscaped rise, it dominates the space from a position of authority that echoes the purported continuous and unifying spatial order of traditional Chinese cities. Under this tradition, which in actuality saw constant alterations and modifications over the centuries, a cosmological system of social hierarchy was imprinted into urban space, placing the emperor at the center and his subjects at appropriate distances arranged concentrically from the core. In terms of urban design, this system stresses symmetry determined by north-south axes and the introduction of monumental features that interrupt the uniformity of a gridded street plan. The privileged placement of Ordos' city hall at the center and top of the town grid is both a reference to and statement of authority derived from antiquity. The building's massing is also of consequence. Its floor space covers 87,000m² in a nearly exact 1,000:1 ratio of the municipality's total surface area. Ordos being renowned for its vast land area, the construction of the city hall as a scalar reflection of the literal territory signals the translation of supreme size into a built structure housing the local government. In this way, local territoriality, or the rooting of power through control over land, is secured through the appropriation of a measurement of land and its conversion into floor space quite literally occupied and controlled by the local government. It is also interesting to note that, in contrast with almost all city halls in China, Ordos' city hall is not surrounded by a gated fortification. The absence of walls in Genghis Khan Square produces a jolting reconfiguration of the typical manifestations of regulated distance used to structure social status in traditional and modern Chinese cities. This strategy implies a connection with notions of openness, accessibility, and mobility. Yet social distance between citizen and ruler is regulated not by walls but by the gigantic horizontal composition of the square and placement of city hall at the vanishing point. Horizontality and supreme size index the Mongolian frontier, while also refiguring classical spatial relations of power and social stratification.

In front of the city hall on the first block of the square is an ensemble of five bronze statues, produced through commission by the atelier of the reputed sculptor He E (何鄂). The statues narrate the life of the Khan, beginning with his birth, proceeding through his conquests, and ending in continental unification. The commission, named *Bronze Age Ancestors, Grassland Scions*, called for the statues to achieve realism, intimacy, reverence, and (Mongol) ethnic pride ("Experts" 2005).⁴⁷ Cast in bronze, four of the five statues are elevated on stone plinths and range in height from 7m to 12m. The

⁴⁷ The sculptures are named as follows:

- 1) *A Name Resounding Across the World* (闻名世界 - *wenming shijie*)
- 2) *Proud Tribal Lord* (一代天骄 - *yidai tianjiao*)
- 3) *Mother of the Grasslands* (草原母亲 - *caoyuan muqin*)
- 4) *All Rivers Run to the Sea* (海纳百川 - *haina baichuan*)
- 5) *Heavenly Horse Galloping in the Sky* (天骏行空 - *tianjiao xingkong*)



Figure 14. A statue of Genghis Khan and his army is shown on Genghis Khan Square. In the background is Ordos Municipality city hall.

fifth statue, depicting Genghis' twin ponies reared on their hind legs, reaches to 18m. Uradyn Bulag has called the profusion of popular references to Genghis in recent years a "reemergence" of the Khan in a geopolitical battle waged among the region's powers over control of Inner Mongolia (see Bulag 2010: 31-64). The statuarial depiction the Khan and its accompanying inscriptions celebrate him as a "national hero." As such, the colonial appropriation of Genghis Khan's image situates his representation firmly in a national frame. Yet his reemergence is also put to the service of the city's branding agenda, as Ordos has tried to stake a final claim on the Khan's resting place to augment its tourism industry. As the statues face southward, with their backs to the city hall, the location of the statuary at the city hall's doorstep draws the viewer's gaze to local state, for the ritual of personal photography performed by virtually all visitors to the square frames the subject with the gigantic statuary in the intermediate background and city hall looming behind it. Given their subordinate position in the spatial hierarchy of the town's designed space, the statues underscore the function of gigantism to operate as a choreography of power for which size helps to dazzle and confuse viewers by virtue of recognizable form rendered in outsized proportions. In repeated visits to the square, an unmistakable reaction of viewers was to approach the statues for a closer look despite their giant size making their formal details plainly visible from afar. The power of the gigantic to beckon and summon was a palpable effect.

Landscape detailing on the square is also enlisted in the celebration of local culture and in extending the town's aesthetic themes of Mongolian exoticism and

grassland gaiety. This is clearest in a sub-section of the square named Sun Square (太阳广场 – *taiyang guangchang*), which is composed of a massive arrangement of potted flowers and hardy local shrubs. The site fills a full block on the square and is arranged in a sunburst pattern, while also serving as a gigantic logo of the new district's chosen folk-song theme. In the square's design scheme, the sun pattern is placed at the figurative heart, with the city hall in the position of the head, or mind. The square thus analogizes the body in a language of naturalism, with the local state serving as the brain, local culture as the heart and spirit.⁴⁸ In all seasons, migrant workers maintain the garden's shrubs, flowers, and painted brick pathways. Water being scarce in Ordos, trucks carrying fresh water must travel daily to nearby water sources in order to keep the flora alive. Ironically, the resulting sunburst pattern is visible only from heights unobtainable near the square given existing height restrictions for local construction.⁴⁹ As such, the gigantism of the floral landscape also inadvertently references the planner's eye. Yet the efforts to sustain the plants in the punishing environment are themselves monumental, demanding fiscal resources that filter through the new district's budget toward local gardening and landscaping contractors.⁵⁰

The placement and design of the new town's key cultural institutions on either side of the floral arrangement further highlights the centrality of culture in the city's urban development plan. These institutions are cornerstones in Kangbashi's appointed role as a "cultural center." In pairs situated on either side of the square, the buildings face each other across the floral arrangement. Once more, gigantism saturates the inflections of Mongolian culture that inform each building's architectural program. The library is built to represent a triad of Mongolian classic texts⁵¹; the performing arts center was designed to resemble traditional Mongolian headdress; the cultural center's blue facade includes detailing themed on the grasslands; and the municipal museum's shape and color scheme is designed to reference local sandstone. In each case, visual themes reproduce regional cultural motifs rendered at massive scale, producing an array of monumental symbol-objects. With these forms, we behold what Robert Venturi et al. decried in their landmark work, *Learning from Las Vegas* (1972), as a surfeit of symbolism at the

⁴⁸ This anatomical analogy extends an interpretation made by Wu Hung of parts of Tiananmen Square. See Wu, *Remaking Beijing*, 2005.

⁴⁹ The World Financial Center, located across the Wulanmulun reservoir, provides a clear exception to this rule. Two of its six skyscrapers are 55 stories tall, making them the tallest buildings in Ordos. Explanations for how and why height restrictions were broken in this case varied during fieldwork. Most informants attributed it to the mayor, Yun Guangzhong, who purportedly wanted to put his mark on Kangbashi after assuming control in Ordos in 2009 following the departure of Yun Feng and his administration.

⁵⁰ The symbol of the sun references also the frequency of sunny days in Ordos. For farmers, the baking sun, along with the winter cold, has historically been a major restraint on the development of agriculture in the territory. Under the envisioned new service-led economy, the frequency of sunny days in Ordos is said to enhance local tourism potential.

⁵¹ The texts are: *The Secret History of the Mongols*, *Mongolian Altan tobchi*, and *Mongolian Erdeni-yin tobchi* – 蒙古源流.



Figure 15. The Ordos Museum, designed by Ma Yansong.

expense of function. For these authors, buildings that try to impress through symbolic languages or, as is sometimes the case, by physically embodying a symbol are termed “ducks” in honor of a duck-shaped building that figures central to their analysis. Ducks represent architecture where “architectural systems of space, structure, and program are submerged and distorted by overall form” (Venturi, Scott Brown, and Izenour 1972: 87). Such a description captures well the aesthetic and symbolic qualities of the gigantic cultural institutions on the square.

The Ordos Museum merits further mention, as it has evolved to become the city’s uncontested iconic building, its image reproduced and circulated in countless venues including official booster materials, media reports, and popular online forums of various types. Designed by the Yale-trained Chinese architect Ma Yansong, a protégé of the Iraqi-born British *starchitect* Zaha Hadid, the museum is an arresting feature of the landscape due to its amorphous shape and its raised position above the street level atop a landscaped rise. Its impressive form and the self-evident technical complexity of its construction has helped to put Ordos on the cultural map by generating buzz in global and domestic architectural circles. Though all four cultural institutions are roughly the same size – around 40,000m² of floor space – the museum’s idiosyncratic form overwhelms the adjacent cultural buildings, fulfilling its purpose as a sculptural landmark and indexing Ordos’ architectural taste, wealth, and sophistication. With the museum, Ordos declared itself not just a participant in China’s fierce inter-city architectural one-upmanship, but a frontrunner uniquely empowered by its tremendous resource wealth to leap ahead of the pack. In an irony of the frontier setting, however, the sheer

extravagance of the building in this remote setting highlights the boomtown ambitions that brought it about.⁵²

Other sectors of the square contain further references to Mongolian culture. In one sector, named Drinking Culture Plaza (酒文化广场 - *jiu wenhua guangchang*), gigantic ornamental drinking vessels and gourds provide symbols of Mongols' purported affinity for drinking. Another, named Mongolian Chess Plaza (蒙古象棋广场 - *menggu xiangqi guangchang*) similarly features gigantic gold and silver chess pieces.

The southern half of the square is a vast park space traced by winding trails and filled with trees planted in conspicuously random patterns. The aesthetic contrast with the square's sparse and symmetrically arranged northern pole and its constellation of administrative and cultural buildings is stark. Yet the two spaces work in complementary fashion, serving as co-constitutive iterations of the cultural landscape design program. The northern half of the square can be said to represent culture harmonized, organized, and amplified; its southern half is nature represented as vast, green, and pacified. The square's southern half becomes a park and a garden. Hence, the square served as an occasion to display Ordos' dual place-making themes: indigenous culture and natural abundance. These were tailored to depict stereotypes of the frontier landscape and also to conform to fashionable urban "green" discourses fashionable in recent years.

The tensions in the depiction of nature are particularly evident in the handling of color. Kangbashi's actual physical landscape has a color palette that ranges through yellow, ochre, and brown. Yet the new district has articulated a strategy of "green power" (绿色势力 *lüse shili*) and "ecological living" (生态居住 *shengtai juzhu*) in its urban branding efforts (Sun 2011). The polysemic nature of the word green refers here at once to the idea of urban sustainability and an idealized color palette that can be utilized in myriad forms of representation. Green is widely seen as the only color that adequately represents the most up to date forms of "green" urbanism and, inter alia, the most desirable and marketable places. In Ordos, making spaces literally green is seen as an imperative of city building. Hence, anxiety over the incongruity between the fashionable currents of green urbanism and the absence of the color from the local landscape is registered in the substantial funds dedicated to introducing and maintaining flora throughout the municipality and especially on Genghis Khan Square. In 2011 alone, the city government confidently proclaimed its ambition to create 24 million square meters of "green space." This is carried out under a campaign of green-ification (*lühua* 绿化) designed, on the one hand, to combat desertification and, on the other, to improve the livability of urban centers. To keep the square's thousands of saplings alive (and green) in Kangbashi's hostile environment, trees are planted in water-capturing depressions dug

⁵² The museum also figured in a professional rivalry between artist Ai Weiwei and Ma Yansong. Of Ma's work, Ai has said: "Instead of design that has function, beauty and honesty, we either have soulless and ugly buildings thrown up by State-owned companies, or trendy young architects trying to create masterpieces. Someone like Ma Yansong creates copy after copy. He just wants to be fashionable. It's so easy to make a few curves, but real design is about more than that." See "The Big Debate," *Timeout Beijing*, March 2009, 17.

by hand and are fitted with drip bags of liquid supplements that supply nutrients directly into the trunks. As a consequence of these efforts, Genghis Khan Square is intensively greened in order to provide a sensual experience of flora and its implied spiritual uplift. In 2009 Kangbashi was awarded as a “Model Environmental Art City” from the official Chinese Construction Culture and Art Association. This award was seen as affirmation of the town’s core design themes, as well as a marker of achievement for the local government.

At its southern pole the square culminates in the Wulanmulun reservoir. An expansive terraced plaza provides public access up to the lakeshore. Statues of two dozen gigantically rendered Mongolian ponies adorn the plaza. At the lakeshore an elaborate system of subterranean pipes and pumps forms the world’s largest electronically controlled ornamental fountain. Each night in summer the fountain operates for an hour-long display of lights and water programmed to Western classical music and patriotic ethnic minority songs (民族歌 – *minzu ge*).

In its extravagant display of flora, green-ness, and water, the square strives for gigantism in its representation of nature. As such, it achieves two specific aims. First of these is to signal Ordos’ adherence to contemporary norms of green urbanism, not only in terms of providing green space but also by supplying elements that resonate with ideas of green-ness, such as trees and water. Second, the square’s representation of nature alludes to a purported surfeit of “empty” space on the frontier; nature is made to appear never-ending, suggesting that, far from being a remote and desertified space of severe ecological degradation, Ordos is, in fact, brimming with natural abundance harnessed for human benefit.

The square as ‘dead space’

A reading of Genghis Khan Square’s gigantism also reveals problematic realities about its production and its greater significance in Ordos. It must be noted that, despite its centrality to the town’s design scheme, the square is severely under-utilized. Few organized events take place in the square and visitors rarely explore the space – most pedestrian traffic moves on its perimeter.⁵³ As a local planner explained to me, it is simply too big to walk to or across. In its paradoxical combination of extreme visibility and transparency, the space bears some resemblance to what Richard Sennett in *The Fall of Public Man* (1976) has called “dead public space.” But the space is, in fact, not entirely empty of people. Migrant laborers in Kangbashi, who circulate mostly by walking or by public transport, have little choice but to venture into the enormous void of the square by foot. They are thus the most familiar with the space. This pertains doubly to the hundreds of laborers who actually maintain the square’s flora, walkways, fountains, and other adornments.

An exchange I had in July 2011 with six male laborers from the same village in northern Sha’anxi was particularly revealing. I found the men huddled in bushes seeking

⁵³ This judgment applies to observations during fieldwork between 2010 and 2012. Whether the square sees greater use will depend on the pace of population growth in Kangbashi.

shade from the punishing summer sun. In discussing the square's design scheme, they provided pointed reactions to the space, exposing the instability of its aesthetic program and the discordant messages it broadcasts.

Laborer 1: We came here together because the pay is high and the work is easy. It is easier to make money maintaining a garden (花园 - *huayuan*) than it is to grow one's own food. We are all farmers back home.

Author: What do you feel about Kangbashi? How does this square make you feel?

Laborer 2: This place is very strange. As you can see, there is no one here. We rarely see people, so there is no atmosphere. It is a cold (冷 - *leng*) place.

Author: Do you find the space and its artwork attractive?

Laborer 3: The environment is very good, much better than our hometown, which is desert and very poor. The space is impressive (壮观 *zhuangguan*). But it is much too big.

Laborer 1: The statues are about Genghis Khan. That is *their* ethnic hero, not ours. It is not meaningful to us.

These workers' sentiments vis-à-vis the square and its adornments were echoed in interviews conducted with residents, tourists, and migrant workers on the square. A thread running through responses to queries about the size of the square, its statuary, and other adornments noted that the square was physically absorbing and majestic but also verged on ostentation. Residents and tourists both expressed little interest in spending more time in the square or revisiting a second time. A sense of exposure in the space produced profound feelings of vulnerability, one woman resident told me. By striving to make a statement through size, the square's designers instead produced what came to be widely perceived by those with bodily experience in the space as a hostile void.

Visual and tactile perceptions of the square as a void were often linked in responses to popular characterizations of Kangbashi as an "empty town" (空城 - *kongcheng*) or "ghost town" (鬼城 - *guicheng*). The square and its extravagant buildings tapped into widespread resentments over so-called "political achievement projects" (政绩工程 *zhengji gongcheng*). In Ordos, controversy over the speculative property bubble in Kangbashi provoked a string of damning news reports and invited scrutiny from provincial-level officials. Gigantic design ended up animating an unanticipated social life of the square registered in its call to action for speculators, as well as its beckoning of media and officials probes. Its success in this arena clashes directly with low regard with which the square is held by its most frequent visitors and residents.

The square was also the pivot of intense social conflict. Throughout the planning and construction of the new district, Kangbashi's original residents organized collective actions to demand higher cash compensation for their relocation to three purpose-built settlements at the town's northern fringe. In their original relocation agreement, settled in

2000, residents were compensated at a rate of 200-250 yuan per *mu* of land.⁵⁴ Settlements ranged between 20,000 yuan and 40,000 yuan, princely sums for residents at the time. Houses in the relocation sites were provided free and each household was also distributed between three and 10 *mu* of protected agricultural land adjacent to the relocation site. The municipal government subsequently sold requisitioned village land at enormous mark-ups. Land tracts bordering Genghis Khan Square fetched up to 800,000 yuan per *mu*. Upon learning of the discrepancy between their compensation and the prices obtained at auction for their land, the original Kangbashi villagers registered successive petitions beginning in 2002 through the “letters and visits” (信访 - *xinfang*) system. They also brought suit against the municipal government citing the *Land Law*, which specifies that relocation must be compensated at “market rates.”

For the villagers, nearly all of them Han but who also include Mongol and Hui members, the sight of the square elicited feelings of revulsion and outrage. In a group interview, three villagers explained how they viewed the square:

Author: What is your reaction to Kangbashi when you go there now?

Woman 1: It is sad. That was our land. We lived there most our lives. I have no reason to go there now, so I never go.

Woman 2: They built a huge square and nobody goes there. It is useless. It is wasted. When I see those statues of Genghis Khan I become enraged (气死了 - *qisile*). Do you know how much those statues cost? They cost a fortune! And we received nothing!

Man: They should have put a statue of Chairman Mao there.

Author: Why Chairman Mao?

Woman 2: Chairman Mao would never have stolen our land like that. It is these villains in the city government who abuse the people (欺骗老百姓 - *qipian laobaixing*), demolish our homes, and rob our land.

These raw emotions were expressed in late 2011. The city government was then in negotiations household by household to requisition the relocation site. Rather than provide new housing and arable land, the municipal government offered villagers cash compensation as high as 1.5 million yuan. Still smarting from a decade of fruitless petitions and lawsuits against municipal authorities, and wary of their prospects as landless peasants in the city, village activists refused the compensation agreement. One

⁵⁴ Under the previous land tenure system, the Kangbashi basin had been distributed according to household size and most households held over 100 *mu*, most of which fell into the category of “five wastelands” (五荒地 *huangdi*), a categorization to specify tracts of non-arable land not used for construction or other productive uses. The remainder of households’ land was arable land (农耕地 *nonggengdi*) and village construction land on which their homes sat. Most of the village’s farming households used the wasteland tracts for seasonal grazing of sheep, cattle, and camels.

by one, however, the homes of households who accepted the city's cash compensation offer were demolished, their farming plots turned over by bulldozers, and their greenhouses dismantled. A faceoff ensued in 2011 between a hardcore group of activists, whose homes were left standing at the relocation site, and the city government. Water, heat, and electricity to the site were turned off. The conflict ended in April 2012 with the jailing of 15 village activists who had attempted to travel to Beijing to submit a petition against the municipal government and were apprehended by police at the Dongsheng train station. Two elderly participants in the action died while in jail. At dawn on April 24, 2012, demolition crews under armed guard leveled the remaining homes and gardens, which the remaining activists had abandoned. These events were not reported in the media.

Once cleared, the city government immediately commenced work on the seventh of Kangbashi's planned cultural venues: a sports center situated on a radial axis stretching from the sunburst pattern on the square. The 700 million-yuan facility will serve as the main venue for the 2015 Minority People's Games. It features an indoor arena, a stadium for field events, and an indoor, all-seasons alpine ski park – the world's largest.

Conclusion

Genghis Khan Square carried deep significance for the frontier boomtown regime. City leaders seized upon the square as a space where particular design schemes could signal that Ordos had realized the transition from rural backwater to gleaming hub city. To make this point, the city created a gigantic square to spell out its new prosperity and sophistication. But the square is more than a crude display of wealth and power. It also introduces residents to new discursive and material practices appropriate to an envisioned life of abundance on the frontier, an elevated lifestyle attributable to the perceived limitlessness of coal and gas reserves underfoot. The square's design also sought to circumvent the delicate issue of inter-ethnic relations and to distract from the ecological strains brought about by mining. Ethnic tensions and ecological degradation are tackled together through production of a harmonized cultural landscape. Central to this was the construction of carefully calibrated images of harmonized nature and culture. These images artfully omit reference to the intensive exploitation of natural resources taking place round the clock only a few kilometers from the square and the contested dispossession of local villagers.

Given the multiple representational burdens placed upon the square, its design performs multiple duties. Yet, the common thread running through the various representations inscribed on the square is their gigantism. In terming the design elements this way, I use the dominant formal trait of the space and its many decorative objects to illuminate not just the image reality of the square but the unanticipated social life that the square adopted. That is to say, construction and decoration of the square in the gigantic manner not only showed the city's lofty ambitions and sensibilities in emphatic visible terms; it was integral to the local cultural logic motivating the process of urbanization more generally. For not only does gigantism index the frontier's abundance of space and resource wealth while also overshadowing less gracious realities in Ordos, construction in

the gigantic manner was essential to the transformative urban agenda to build a modern, prosperous, comfortable, natural, and livable place.

Another critical feature of gigantism evident in the square was its operation through the alignment of bodies and viewerships. Perceptions of the gigantic hinge upon the position of the viewer. For the visitor to the square, the space, the statuary, the pervasive symbols of nature and culture all overwhelm through a sensual experience of supreme size registered at the bodily level. This perspective changes, however, when seeing the production of the space as an integral part of a local pro-growth coalition whose immediate interest has been to construct a credible image of Ordos as a livable and prosperous place. Aesthetic strategies that lean heavily on the utilization of large amounts of space and impressive architecture, all of which miniaturize the actual people who inhabit the landscape, are central to marketing place in a frontier boomtown.

But urbanization on the frontier proved more complex than the reality proposed by the square. The square is a gigantic symbol of the local state and a material manifestation of its intentions and capacities. While the space endeavors to convince viewers of a new urban future, its ties to new and old social conflicts of various sorts underscored Ordos' frontier reputation – and reality – as an enduring space of hyper-exploitation of people and environment.

CHAPTER FIVE: GHOSTS IN THE SHELL GAME: THE ROLE OF *GAOLIDAI* IN THE MAKING OF A FRONTIER BOOMTOWN

Sometime in mid-2011, the property bubble in Ordos popped, plunging the city into acute crisis. The sudden end to the city's property mania, which had lasted about five years, was not a surprise. In a frenzy of construction that locals repeatedly described to me during fieldwork as "crazy" (疯狂 - *fengkuang*), developers had built millions of square meters of new property and created what analysts concluded was a severe glut in the local property market (Chovanec 2011; Chovanec 2010; Song 2011a). By early 2010, the proliferation of empty developments in Ordos had inspired its popular characterization as a "ghost town."

Property bubbles, of course, are a familiar and recurring feature of capitalism generally (Kindleberger and Alizer 2011) and of resource boomtowns in particular. In this sense, Ordos' boom-bust cycle in the property sector was an oft-told tale and a crisis foretold. Yet, the property glut itself was, in fact, a remote cause of the bubble's sudden implosion. The more immediate trigger was distress in the city's tangled networks of high-interest private lending. Known by the colloquial term *gaolidai* (高利贷, literally "high-interest loan/lending"), this type of lending had spread deep and wide across multiple sectors in Ordos during the boom between 2001 and 2011, supplying investment capital for restaurants, retail shops, mining, and small-scale industry. But *gaolidai* finance capital flowed in greatest proportions into the property sector (Qin 2011). Fly-by-night firms conducting financial intermediation also became a shadow industrial sector amid the boom. Starting in 2011, interwoven threads of these nebulous lending webs had begun to unravel gathering speed in the feedback loop of rumors and asymmetric information intrinsic to informal lending.⁵⁵ This form of lending and the society that it fostered in Ordos were integral to the formation of frontier boomtown urbanism.

The implications of the collapse in *gaolidai* networks were swift and hugely consequential for the city and its people, as participation had become pervasive – so much so that locals invented a term for the phenomenon: *quanmin fangdai* (全民放贷), or "mass lending." Everyone, it seemed, had become a creditor to someone and, conversely, many people owed someone money. Like beachgoers who stray too far into a tidal zone, when the inevitable reversal occurred, the imprudent and unlucky alike were

⁵⁵ Informants pointed to the high-profile case of a woman named Shi Xiaohong, whose underground bank in Ordos was raided in October 2010 as a precipitating event that set the crisis in motion. Retrospective identifications of the origin of the crisis, however, cannot be seen as reliable historical evidence. The Shi case was a convulsion that may have pushed things into motion. But the crisis, which is my interest, entailed a lengthy process with, no doubt, multiple origins that can never be fully known. For information on the Shi case, see Zhang Kanli (张侃理), "E'erdusi jingfang pohuo 7.4 yi yuan dixia qianzhuang" (Ordos police crack underground bank worth 740 million yuan), *Zhongguo guangbo wang*, October 10, 2010, <http://news.eastday.com/c/20101010/u1a5486364.html?wd=>.

quickly overwhelmed. An undercurrent of panic was palpable during fieldwork in 2011 and 2012. The realization of *gaolidai*'s centrality to local society and economy prompted a set of interrelated questions that guided a significant portion of my fieldwork: What role did informal finance play in the city's property development? What socio-cultural conditions rest behind the ubiquity of informal finance? And what kinds of landscapes were produced as a result?

The broad-based social phenomenon of *gaolidai* is a facet of Chinese urban development that has remained unexamined in current urban-geographical and planning literature. This despite an "informal turn" in urban studies focused on the developing world (Elsheshtawy 2010) and a voluminous canon on the "informal sector" (for a review of the literature, see Portes and Haller 2005). Such neglect might be traceable to a persistent view of Chinese city development as exclusively an elite-driven process. Too often, city residents only emerge in accounts of urban development when they mobilize to resist demolition or other types of perceived violations of livelihoods and life-worlds. Yet while investigating *gaolidai* in Ordos between 2010 and 2012 precisely as the system began to teeter and then collapse spectacularly, two striking findings destabilized these durable notions: (1) far from being a marginal phenomenon, *gaolidai* was central to the urban process, opening an avenue for multiple forms of participation in city building and, crucially, instigating new forms of dispossession; and (2) *gaolidai* in Ordos helped build out the city from within a place-specific social ecology marked by desires, confusion, and fear, all of which informed Ordos' particular culture of city building and drove its pace, tenor, and style. Ultimately, as well, the *gaolidai* phenomenon in Ordos spurred the production of the city's landscapes of premature urban ruin composed of massive empty work sites and half-built and abandoned skyscrapers. By 2011, the hundreds of empty buildings in Dongsheng and Kangbashi had become objects of curiosity, scorn, and ridicule in China's major media, symbolizing the purported lack of sophistication in a backward coalmining dystopia. But from the perspective of local residents and the city government, the *gaolidai* crisis was no laughing matter. By late-2011, Ordos' crisis landscapes were permanent and concrete indices of the swirling rumors of suicide and shocking violence, as well as bitter monuments to widespread collusion between the local state and hucksters of various stripes. More than few people who had experienced various types of forced relocation in Ordos had contributed their compensation sums to lending schemes. When these failed, the end of the boom marked a second moment of dispossession.

A note on method

This chapter is based on 72 interviews conducted in Ordos between 2010 and 2012, as well as primary and secondary source materials.⁵⁶ I also collected data from statistical yearbooks, news outlets, brochures, and government reports. I purposely sought interview subjects from a broad cross-section of local society. Hence, I interviewed real estate agents, a loan officer at a commercial bank in Dongsheng, property developers, petty entrepreneurs, people in private equity, micro-lending firm managers and loan

⁵⁶ See Appendix 2 for field interviews.

officers, displaced farmers, three members of a criminal syndicate, academics, directors of investment companies, coalmine group company CEOs, a mining equipment firm CEO, a museum curator, and mid-level bureaucrats. Interviews were conducted in Dongsheng, Kangbashi, Ejin Horo, and Jungar.

It is in the nature of informal finance to be opaque and for those involved in this activity to try and remain invisible. For this reason, scholars have remarked upon the difficulty of studying informal finance and offered this as a reason why conventional economics has treated the subject only tangentially (Hsu 2009). Empirical surveys and ethnographic research on curb-market activity each present high logistical hurdles to the researcher. An empirical survey of informal finance in Ordos was beyond the scope of this project. My purpose, in any case, was not to conduct interviews intending to compile quantitative data. Instead, my qualitative interview strategy was aimed at absorbing as much about the topic as possible in what Luis Small calls a “saturation” interview methodology (2009). Some informants spoke with me only once; with others I conducted multiple interviews spaced out over several months. Critical information also emerged in subsequent casual conversations with informants during stays in Ordos. These pieces of data informed my findings and helped to frame questions in later interviews. Further, because the topic was inherently obscure, accounts provided by my informants were often fragmentary and heavily qualified. None, including workers in the Ordos Bureau of Finance, could claim to offer a full picture of informal finance in Ordos. Over time, I was also struck by the forthrightness with which informants spoke of activities that were clearly illegal and their willingness to show me documents and divulge details of illegal business practices and criminal behaviors.

The severity of the *gaolidai* crisis that erupted in 2011 was closely related to informal finance’s intrinsic opacity, which results from the meager authoritative information available to lenders and borrowers alike. I tried, then, to gain what Sayer terms a “practically adequate truth” in my comprehension of Ordos’ *gaolidai* culture (1992). To do so, I have endeavored through data collection efforts to remedy gaps in the empirical picture of *gaolidai* in Ordos and to present as complete an image as possible of the phenomenon. But my purpose was less to analyze finance, as it was to consider the implications of *gaolidai* for city building and urban life in Ordos. Hence, my claims about the social dimensions of informal lending are based not only on my efforts to glean the empirical reality of *gaolidai* but also are offered with recognition that informal finance’s empirical reality is inseparable from its opacity, immeasurability, and overall lack of knowability. Indeed, the uncertain ontology of *gaolidai* made it more relevant to examine the social and spatial dimensions of *gaolidai* in its connection with the build-out of the city. It was, moreover, the uncertainty at the core of *gaolidai* that above all seemed to grip people who were engaged in such activities and that helped to bring such intensity to both the boom and bust in the city’s physical expansion between 2001 and 2011.

The scale of *gaolidai* in Ordos

While definitive measures of *gaolidai* are impossible to achieve, available estimates of its scale help to demonstrate its significance in Ordos and relative importance in the city compared with other places in China where informal finance is

also present. Three studies conducted by the Ministry of Housing and Urban-Rural Development conducted in 2010 and 2011 documented the private lending and its connections with the property sector.⁵⁷ These reports estimated that private capital circulating through *gaolidai* circuits in Ordos in 2011 totaled at least 200 billion yuan, or about 83 percent of local GDP in 2010 (Qin 2011). The ministerial reports also found that analogous networks existed in the nearby resource-based boomtowns of Shenmu and Fugu in Sha'anxi Province, where coal production also saw exponential increases in the 2000s alongside property booms. By comparison, the People's Bank of China reported in 2011 that Wenzhou, Zhejiang Province, a city with twice the population of Ordos and famed for its entrepreneurial culture and active informal financial networks, had close to 100 billion yuan circulating in informal networks (PBC 2011).

The reports also concluded that money circulating in these underground networks flowed into many sectors, from retail to small-scale industry. However, the property sector and its associated industries were the preferred destinations for *gaolidai* in the boom years due to high rates of return and the relative openness of the sector compared with mining, which was the city's other major high-profit industry. While non-bank investment occurs as reinvested profits, much of the capital in the property sector was sourced through *gaolidai* networks (Tian 2012). As we have seen in previous chapters, during the 2000s, the city government undertook efforts to reduce the number of mines and mining firms in Ordos through forced mergers and shutdowns of small mines. Mine operators faced greater scrutiny from higher levels of government and, by all accounts, had little need to draw upon high-interest loans to expand operations. By contrast, the property sector was wide open as the city government vigorously sought to refashion itself as a major regional hub city. The resulting flood of *gaolidai* capital into the property sector propelled rapid increases in property values, setting in motion a vertiginous speculative dynamic. Developers were willing to shoulder high financing costs under the assumption that loans would be easily repaid. Interest as high as 60% per annum only attracted more creditors thus stimulating new and more elaborate schemes and pushing the pace and scale of local construction to staggering levels. In 2010, the amount of constructed floor space in Ordos in per-capita terms was six times the amount in Beijing the same year (Qin 2011). By 2011, the formal banking sector had total outstanding loans in property development totaling 5.97 billion yuan, or about 16.5 percent of the 36.57 billion yuan invested in the property sector just in 2010. According

⁵⁷ See Qin Hong, "Shoufa: Zhongguo minjian ziben touzi diaoyan baogao E'erdusi bian (First draft: China private finance research report, Ordos edition)," Ministry of Housing and Urban-Rural Development, Beijing, 2011; "Gaohe ziben minjian jiedai weiji diaoyan baogao er: E'erdusi minjian jiedai weiji baofa genyuan (Go High Capital popular finance crisis research report two: The origins of Ordos' popular finance crisis)," Go High Capital, Tianjin, November 2011; "Gaohe ziben minjian jiedai weiji diaoyan baogao san: E'erdusi minjian jiedai weiji de yingxiang (Go High Capital popular finance crisis research report 3: The impact of Ordos' popular finance crisis)," Go High Capital, Tianjin, November 2011. These reports use the term "*minjian jiedai*," which translates as "popular/folk lending."

to one report, 80 percent of capital invested in local property development originated in *gaolidai* networks rather than banks (Li, Xiaoye 2011). A further indication of the prevalence of informal finance is seen in the number of registered financial intermediaries. In 2010, there were 971 firms whose explicit business was informal financial intermediation: 36 pawnbrokers, 468 investment firms, 270 re-insurance firms, 197 consignment shops, and 87 microfinance firms (Li, Xiaoye 2011). *Gaolidai* was therefore not a marginal phenomenon in Ordos; it was central to the property sector and to the economy overall.

As the round of speculation in property gathered pace, the barriers to entry into the property market fell. The number of private property development firms in Ordos rose from seven in 2001 to over 400 by 2011 (OBS 2010; Li, Xiaoye 2011). In reality, however, the number of firms was unclear, as many were unregistered. As an informant in Dongsheng who worked as a real estate agent explained, almost all were small, family operations in which the husband, wife, children and other relatives assumed management titles and sub-contracted design, engineering, accounting, construction, marketing, advertising, and sales to other specialized firms. “Sometimes they don’t even build anything. They just hope to attract investment and disappear.”

Estimates of popular participation in *gaolidai* were exceptionally high. A survey by the People’s Bank of China conducted in 2008 found that 62.43 percent of respondents had either borrowed or loaned money in informal circuits (Li, Xiaoye 2011). Even given this high proportion, informants in Ordos insisted the proportion was much higher in the run-up to the bust in 2011. Even if the sums deposited or borrowed were small, virtually everyone I spoke with was engaged in these circuits. Exceptions were rare. Hence, *gaolidai* networks drew from all sectors of local society. Creditors included members of the local stratum of wealthy industrialists and professional class, bureaucrats and high-level officials, and farmers. There was no typical profile of creditor into schemes beyond their possession of some idle savings that could be mobilized given the right connections and opportunities of which there was plainly no shortage.

Critical to making *gaolidai* a mass phenomenon were the private accumulations generated through urban redevelopment programs. Between 2006 and 2010, 7.65 million m² of floor space were demolished in old sections of Dongsheng, forcing the relocation of 51,772 households. The pace of demolition accelerated in 2011 with a target of 3 million m² slated to be razed, though projects were halted mid-year with the onset of the crisis. Similar massive urban redevelopment campaigns were undertaken in other urban centers, but especially in Ejin Horo, where virtually the entire town was demolished and rebuilt between 2009 and 2011. In rural areas too, thousands of households were relocated to make way for the expansion of mining operations or as part of grassland restoration efforts programs. To facilitate the relocation process, free or heavily subsidized urban housing was provided, as well as cash compensation often as high as 8,000 yuan per m² for demolished homes. Compensation in excess of 1 million yuan was not uncommon, particularly for rural residents whose homes tend to be larger and whose cultivated plots also qualified for compensation. In urban areas, given the pace and scale of demolition in the 2000s, it was not uncommon for households to undergo two rounds of compensated relocation within a few years. Depending on the size of relocation sums,

households often ended up, after purchasing a new home and other necessities, with several hundred thousand yuan in idle savings. By 2011, the city had over 6,000 households with assets worth over 100 million yuan and more than 20,000 households with assets over 10 million yuan (Qin 2011).

Defining *gaolidai*

What, after all, was *gaolidai*? In a strictly technical sense, it was an informal mode of credit extension. It thus had points of commonality and difference with the notion of the “informal sector” and widespread forms of informal finance in China that merit some discussion. Its broader significance was in its central role in reshaping the local physical and social landscapes. This second level of significance is discussed in subsequent sections.

The idea of the informal sector originally was formulated in the 1970s in work by Keith Hart, who theorized it as a diverse economic arena outside the system of formal wage labor that enabled large sections of society, particularly in developing-world cities, to survive and sometimes even to thrive (1970; 1973). Because Hart’s original conception of the informal sector challenged assumptions pertaining to the urban unemployed as being what Marx called a “reserve army of surplus labor,” it stimulated a vigorous debate on structural changes then roiling the global economy. The study of the informal sector also brought into question bedrock assumptions regarding the necessity of clear property rights and labor contracts, while simultaneously underscoring the social embeddedness of economies. Given how the notion of the informal sector cuts to core of longstanding political-economic debates, it has inspired vociferous reactions (cf. Portes and Haller 2005). At the extremes, it has been seen as a means to justify the flexibilization of the Third World labor force (cf. Peattie 1980), while for others it provides evidence of a laudable entrepreneurial verve with potential be channeled toward higher forms of capitalism (De Soto 1989). Finding a kernel of truth in both views, Castells and Portes conclude that the informal sector “encompasses flexibility and exploitation, productivity and abuse, aggressive entrepreneurs and defenseless workers, libertarianism and greediness” (1989: 12). Debates about informality have hardly been resolved; on the contrary, informality remains a vibrant subject in multiple fields and in a range of geographical contexts.

In China, informal finance has earned considerable attention from scholars, policy-makers, and journalists in recent years. The new notice paid informal finance is rooted in the vital role it has played by supplying capital to the private sector since the outset of market reforms, and in recognition of its significant scale, estimated at around 7% of total outstanding domestic bank loans, or 3.8 trillion yuan, in 2011 (Mao and Luo 2011). The high-profile crisis in Ordos, along with a similar crisis in Wenzhou, Zhejiang Province, in 2011 also helped bring the issue into the national spotlight.

Current law is an imperfect guide to understanding informal finance in China. Article 28 of the Provisional Regulations of the PRC on the Bank Oversight (中华人民共和国银行管理暂行条例) states: “Local governments are not permitted to establish banks. Individuals are not allowed to establish banks or other financial institutions, nor to conduct financial business.” Under these and other relevant banking regulations,

individuals, groups, or firms are forbidden from accepting deposits from the public, while loans between individuals and firms are legal, as are the mutual assistance associations (*huzu hui*) common in some regions. In practice, gray areas abound within the legal framework governing non-bank finance. Oversight and enforcement are notoriously inconsistent and prone to erratic swings in response to local events or sudden policy changes issued from the central or provincial governments. This makes it especially difficult to generalize the state's stance toward informal finance, and also makes defining this realm for analytical purposes rather hazardous. For this reason, a distinction is sometimes made between the banking system (including state-run and commercial banks), where interest rates are set centrally by the People's Bank of China, and alternative, non-bank sources of finance, some of which are, in fact, legal. A recent volume by Chinese and American experts on the topic, for example, defines informal finance to include all "nonbank financing activities, whether conducted through family and friends, local money houses, or other types of financial associations" (Hsu 2008: 3). In light of the permeable boundaries between the state and private realms, other studies on informal finance in the Chinese context also tend to not rely on dualities between legal and illegal, state and non-state, or private and public (Tsai 2002; Allen, Qian and Qian 2005; Ayyagari, et al. 2010). In this chapter, I use the more colloquial *gaolidai*, since it is the term used most often by people in Ordos to refer to lending outside the banking system. Also, its literal meaning ("high-interest loan") connects more directly to the social implications of these activities; high interest rates imply promise and peril in a way that the dry term "*fei zhengshi jinrong*" ("informal finance") or the folksy "*minjian jiedai*" ("folk finance") do not.

Much of the scholarly literature on informal finance in China examines the apparent paradox of the private sector's exclusion from formal bank loans and its dynamism when compared with the state sector. As of 2010, private-sector firms comprised 70 percent of the total number of firms and provided 85 percent of new urban jobs yet received less than 1% of total bank loan capital (Yuanlong Wang 2011). Non-bank lending is thus found to arise both as a supplement to bank loans and as a necessary source of capital due to the private sector's exclusion from the formal financial system (J. Li and Hsu 2009; Pairault 2012). Kellee Tsai has argued that private entrepreneurs have thrived despite their exclusion from formal financial channels because of regionally variable constellations of formal and informal institutional arrangements within which clear property rights are not essential (Tsai 2002). Allen, Qian and Qian take this argument further to posit, based on the World Bank's *Investment Climate Survey*, that the private sector thrives *because* of its use of curb-market finance. To explain this dynamic, they point to informal finance's important function as a social lubricant for the operation of small-scale private firms (Allen, Qian, and Qian 2005). Informal lending, in other words, is a way of nurturing indispensable *guanxi* (social relations) networks.

Tsai offers five reasons to explain the existence of informal lending in China: (1) political pressure on banks to supply state-owned enterprises with loans in order to minimize unemployment; (2) so-called "policy loans" extended to specific industries to realize industrial policy goals; (3) enduring suspicions of the private sector; (4) banks' inexperience in dealing with the private sector; and (5) institutional bias in banks to

extend “safe” loans to the state sector (Tsai 2002: 32-35). Other factors highlighted in the literature include demand pressures issuing from asset-poor firms in need of capital quickly and supply-side pressures from massive accumulations of private capital with few productive outlets (Yuanlong Wang 2011).

To these factors we must also add that local-level officials, whose priorities lean toward generating local economic growth above all else, often turn a blind eye to legally suspect non-bank lending practices. Such lending is generally accepted until it triggers a crisis and prompts enforcement of rules that months earlier were flaunted, if they were known to exist in the first place. Local non-enforcement of financial regulations thus represents a major schism in central-local governance. In spite of guidelines issued from Beijing aimed at controlling the money supply, interest rates, and inflation, the various regulations proscribing certain lending activities are routinely ignored lower on the administrative ladder either because local authorities do not have the capacity to enforce rules or are unwilling to do so out of fear that doing so may depress GDP growth. Informal finance’s demonstrated positive effects on economic growth in China help to explain the erratic approach adopted by different levels of the state toward regulation in this arena.

Two main threads running through recent work on informal finance in China are a focus on firms and examination of the implications of informal finance for understandings of Chinese political economy.⁵⁸ Connections to urbanization and urbanism have not been examined. But precisely these aspects were inescapable in Ordos, where *gaolidai* was intimately tied to the inflating of the local property bubble and evolved into much more than a mere practical means of securing capital for industrial or commercial ventures. The *quanmin fangdai* phenomenon represented a moment of social upheaval, where private visions of wealth joined hands with the local state’s visions of urbanity. In the heady days of the boom, *gaolidai* was, for many, a way of life – indeed, it was the only way of life for more than a few people. Part of the explanation for the *gaolidai* craze is surely the mysterious and intangible bandwagon effect that takes hold during a speculative bubble (see Kindleberger 2011, especially Chapter 4). Such bubbles are nothing new, particularly in frontier settings. In his frontier thesis, Turner bemoaned the “lax business honor” and the “speculation and wild-cat banking” on the American frontier (Turner 1920: 32).

There are also parallels between Ordos’ *quanmin fangdai* phenomenon and Katherine Verdery’s harrowing portrayal of mass participation in pyramid schemes during the years immediately following the end of socialism in Romania in the early 1990s (Verdery 1995a; Verdery 1995b). There, she argues, the construction of a capitalist system out of the collapse of the Soviet one engendered destabilizing conceptions of the ideas of work, money, and trust that helped to encourage widespread participation in financial schemes. Profits that seemed to appear from nowhere rested on people’s

⁵⁸ Exceptions to this rule are sociological studies of rotating savings and credit associations, generically known in China as *hui*, which have received occasional attention since the early twentieth century as a long-standing social institution, particularly in the southeast (Gamble 1956; H.-T. Fei 1946).

unfamiliarity with (or the suspension of disbelief in) the link between time and the production of surplus value under capitalism. In the wake of the inevitable collapse of Romania's pyramid schemes, many small-scale depositors were left destitute while powerful figures from the old regime had curiously parlayed the crisis into new positions of authority within the emergent post-socialist state apparatus. A similar and even more violent paroxysm related to pyramid schemes occurred in post-socialist Albania (Jarvis 1999). In Ordos, *gaolidai* was undoubtedly a form of non-bank finance shoveling capital at firms looking to expand. But it was also a field where the productive function of supplying capital could quickly turn a well-intentioned entrepreneur into a huckster and an unfortunate depositor or lender into a new member of the dispossessed urban poor. But beyond these extremes, *gaolidai* was also simply a mundane method of earning income and getting a leg up in a city where all around was evidence of astonishing wealth.

Though the language of informality has failed to take hold in work on Chinese city development, some recent studies carry forward the tradition of investigating the spatial challenges to urban authority that in other contexts are often treated under the conceptual frame of "informal urbanism" (see Elsheshtawy 2011). Li Zhang's study of an enclave of Wenzhou migrants from in Beijing is an example of this line of research (Li Zhang 2001). Aspects of the "village in the city" (*chengzhongcun*) phenomenon also recall the insurgent, adaptive, and semi-autonomous character of city-building tactics seen in other national contexts (L. Zhang, Zhao, and Tian 2003; Hsing 2010). More common, however, is to posit an elite-driven and/or centrally directed, top-down process in which urban officials, planning authorities, developers, and architects seize center stage in the scramble to determine the size of a city, its appearance, its management, and the disposition of its functional zones (Olds 1997; Ong 2011; Ren 2008a; F. Wu 2000).

In Ordos, the real estate sector was a primary target for *gaolidai* investment (Qin 2011; J. Li 2009). This suggests an unexplored, regionally specific, bottom-up form of participation in the urban process through informal investments in the urban built environment via curb-market financing. *Gaolidai* also was directed toward industries associated with urban property development: construction, brickmaking, piping, furnishings, cement, etc. The penetration of *gaolidai* in the industries engaged in city building further qualifies the durable perception of the Chinese state's strong hand over urban planning and forces a rethinking of the categorical exclusion of informality from analyses of Chinese urbanism. Urban space in Ordos was built, as Roy says with reference to Indian cities, through the active collusion between formal and informal agents and the deliberate exploitation of ambiguity and gaps in regulatory capacity (Roy 2009). In Ordos, cracks in the local state edifice provided ample room for informal actors to participate in the city-building process. It is in this gray zone where *gaolidai* and the construction of new built environments conjoined as overlapping processes that redefined for residents what it meant to be urban while reconfiguring the physical space of the city. The proliferation of *gaolidai* was a byproduct of frontier urbanization and represented a new "urban way of doing things." In other words, engagement in *gaolidai* was a way of becoming urban, or of living the city. It was central to frontier boomtown urbanism.

Types of *gaolidai* in Ordos

A recrudescence of old forms and establishment of new types of non-bank lending has taken place across China since the introduction of market reforms in the late 1970s. Traditional high-interest lending institutions like pawnbrokers (*diandang hang*) and money houses (*qianzhuang, yinbei*), also known as underground banks, have revived. Mutual assistance organizations, or *hui*, are similarly flourishing. In rural areas illicit credit and savings cooperatives emerged in recent years, but were subsequently closed down. Micro-finance, introduced in 2005 on an experimental basis, has also proliferated, especially in Ordos. Alongside these forms of more-or-less institutionalized non-bank lending, firms and individuals have devised myriad off-books means of obtaining credit. Some are as simple as personal loans between relatives, friends, or firms. Often these are agreed upon without a written contract or collateral. Another means of marshaling capital is to register a shell company in which deposits are categorized as founding capital. The full spectrum of non-bank credit arrangements, in fact, is unknown. Types of informal mechanisms are limited only by the creativity of those seeking to make it happen. As the *gaolidai* crisis in Ordos demonstrated, such lending has become not just ubiquitous but also potentially destabilizing.

In Ordos, the most common types of informal finance are inter-personal loans, money-house lending, pawn broking, and microfinance. These four types of informal finance, some of which are legal and some not, vary tremendously in the amounts of capital mobilized, the number of participants, the interest rates, and the timeframes for repayment. All are referred to in daily parlance as *gaolidai*.

Inter-personal loans and money houses were especially common forms of *gaolidai* in Ordos. The terms of inter-personal loans were negotiable and astonishingly lax compared with requirements for loans at formal banks. It was common, for example, for loans between close acquaintances to not require collateral nor demand interest. Repayment terms were similarly permissive and written contracts were the exception, not the rule. In the wake of the lending crisis, a construction engineer who worked the municipal government and was owed 250,000 yuan from a friend who had neither provided collateral nor been seen in several months explained that to require collateral from longtime friends would have been “unseemly” (*bu hao yisi*). Lending among acquaintances and relatives was facilitated by personal ties. Social convention made lenders highly uneasy about setting down rigid loan terms. But because borrowers of such loans frequently used the money to become creditors to money houses or invested in other high-risk schemes, inter-personal lending erupted as a particularly acute vector of crisis when lending ground to a halt in 2011. In interview after interview, informants spoke with palpable emotion about being fleeced by childhood friends or close relatives.

Money houses, which function essentially as underground banks, became popular for two simple reasons. On the one hand, they offer depositors interest rates multiple times those offered in formal banks. Creditors received monthly dividends between 2 and 5 percent of the principal, meaning annual interest rates ranged from 24 to 60 percent. On the other hand, for borrowers, money houses offer flexibility and speed. Interest rates and dividend payment schedules were negotiable and were usually tied to the amount of collateral offered up front. One informant who ran a money house explained that

borrowers in Ordos could obtain up to 100 million yuan within days from his operation, whereas banks would take months to review and approve such a loan, and rejection was highly probable in most cases. Business plans drafted by borrowers, he explained, were unlikely to sustain scrutiny from bank-based loan officers. Liquidity of this scale was common in Ordos' money houses. Reflecting the pervasive nature of the phenomenon, deposits into Ordos' money houses were sometimes as low as 10,000 yuan, indicating participation from even low-income residents (Feng 2012; Liang Zhang 2011). Money houses were typically founded by a core group, sometimes business associates and other times family members, who enjoyed strong reputations in their communities based on success in business, high social standing, and/or connections with powerful people, including government officials and members of local mafia. Their operations tended to be formed through strands of personal relations that stretched out from the founders through a subset of lieutenants who functioned as intermediaries between the money house and depositors. The latter sometimes numbered in the hundreds. Because money houses were illegal, introduction into a lending operation was almost always done through at least one direct acquaintance, though depositors were not always mutual acquaintances. This meant that in large operations relations among depositors were diffuse and impersonal, much like a bank. But, obviously without depository insurance, news and rumors of failed schemes in late-2010 triggered panic among depositors. According to many informants, the *gaolidai* crisis was largely attributable to depositors' panicked reaction to news that the local government had commenced a crackdown on money houses. Some accused the municipal government of spooking depositors, sparking the crisis, and cutting short the city's remarkable streak of economic growth.

Micro-lending firms and pawnbrokers also emerged as important private capital intermediaries in the 2000s in Ordos. Unlike money houses, pawnbrokers and micro-lending firms are legal entities that face regulatory oversight from the Bank of China. Since 2009, a newly established Bureau of Finance also purported to oversee the workings of these types of financial intermediaries in Ordos.⁵⁹

Pawnbrokers are an ancient form of lending in China that was eradicated under Mao but has seen a remarkable comeback since the first reform-era establishment was opened in Chengdu in 1987. According to regulations, pawnbrokers are permitted to charge up to seven times the official lending rate set by the People's Bank of China. In contrast, micro-lending is a new concept in China, having been introduced on an experimental basis in Shanxi, Sha'anxi, Guizhou, and Sichuan in 2005 and then approved in Inner Mongolia in 2008. Micro-lending was originally devised as a means to open capital markets and re-introduce formalized and regulated lending mechanisms in rural areas that are severely underserved by the banking sector, as the latter has withdrawn from poor and rural areas in recent years (X. Jiang 2009). Indeed, a study by the China Banking Regulatory Commission found that 2,945 towns, mostly in the country's western regions, had no banking outlets in 2009, forcing people in these areas to either store savings in their homes or find alternative means of safely depositing accumulated savings (Yuanlong Wang 2011). Micro-lending firms are forbidden from accepting deposits from

⁵⁹ In 2011, the Ordos Finance Bureau had 16 full-time and part-time staff.

the public and are permitted to lend only up to 5 percent of the firm's founding capital per loan at interest rates not to exceed four times the centrally set rate (PBoC 2006). Though micro-credit was conceived as a transitional service for farmers by issuing small loans of 5,000 yuan or less, microfinance evolved into simply one more form of *gaolidai* in Ordos. By 2011, there were more than 100 micro-finance firms operating in Ordos. Local mining conglomerates, such as Yitai and Elon, and local property development firms, such as Vanzip and Vibor, established micro-finance subsidiaries. According to informants, the standard minimum loan from a micro-finance or pawnbroker in Ordos was 200,000 yuan. As one loan officer explained "micro-lending firms in Ordos have few staff. We can't waste time reviewing applications for loans smaller than that amount."

Mutations of these various forms of *gaolidai* were also evident. A firm called *Su Dai Bang* (literally "speedy loan syndicate"), for example, was established in 2011. In conversations with the young men who established the firm, they stressed that it was much like a micro-finance operation, except it specialized in extending loans even quicker than the latter type. Its storefront on a major Dongsheng thoroughfare was designed, the general manager said, to assure borrowers that it was more legitimate than money houses.

Though types of lending in Ordos can be readily identified, their ad hoc structures and variable modes of organization make *gaolidai* networks in Ordos difficult to map. Lending and borrowing occurred in a relatively open field enabled by hyper-rapid economic growth and by broad-based substantial private savings, much of it derived through compensated relocations from rural areas cleared for mining operations or from inner-city areas undergoing redevelopment. The eagerness with which people borrowed and lent gave rise to myriad creative financing mechanisms, which people joined opportunistically. Moreover, along with money houses, inter-personal loans, pawnbrokers, and micro-lending, financial intermediation was also rife through legally registered shell companies that would draw depositors masquerading as "investors" and promise regular dividends labeled as "profits." In addition, bank loans intended for one purpose were also directed instead toward money houses and other high-risk lending schemes. Loan officers at formal banks in Ordos spent much of their time following up on loans they had issued for fear they had been misused.

Finally, the municipal government was also engaged in *gaolidai*. In 2011 the Ordos Folk Capital Investment Center was established. Ostensibly it was a private firm. But its primary shareholders were the municipal government (30%), the state-run local chamber of commerce (40%), and three recently retired officials (30%). The firm's original capital was 3 billion yuan. Subsidiaries were engaged in micro-lending, re-insurance, capital management, and securities trade, the latter three being the most typical forms of shell companies for *gaolidai* operations. Under the banner of rationalizing and making the city's *gaolidai* networks more "transparent" (*touminghua*), the Center also sought to utilize its government connections to force the establishment of a centralized high-interest loan "exchange" (*jiaoyi suo*), where micro-lending and pawnbrokers would need to register and compete for borrowers' business. Employees and owners of other micro-lending firms interpreted the Center's intentions as being a municipal government

attempt to enhance surveillance over lending and take over the high-interest lending business.

Society of the speculation: city dreams, authority, confusion, fear, and violence

How can we explain the popular enthusiasm for taking part as creditor or borrower in the *gaolidai* craze? How did the sudden unwinding of loan networks impact the process of city building to which people had contributed so vigorously? While there surely can be no single or overarching answer to these questions, certain motivations became clear during the course of my fieldwork. In conversation after conversation the frontier boomtown crystallized as a maelstrom of rapid social reordering driven in significant measure by people's participation in *gaolidai*. To it were hitched dreams of pecuniary advancement in the context of the city. It also sowed confusion about sources of power and authority as people scrambled to strike it rich. Then, when *gaolidai*'s house of cards began to wobble, the thrill of the boom turned quickly into justified fear and panic.

City dreams

Gaolidai was embraced at the outset of the boom as a practical means of earning a livelihood in the city and an entity onto which individuals' visions of social advancement and enrichment could readily be projected. The term itself, connoting high interest for creditors and therefore easy money, speaks to its immediate allure. Yet, despite the known risks, the boom years allowed *gaolidai* to be seen by many as a safe and well-worn path out of the poverty that had long blighted life in Ordos. "We were once very poor" was a constant refrain in interviews with informants. Though conditions in Ordos had markedly improved in the reform era, the socio-economic transformations that first occurred in the coastal east really only arrived in Ordos amid the resource boom of the 2000s. Up through the 1990s, the Yeke-juu League was among Inner Mongolia's poorest regions. In the background of the *gaolidai* phenomenon was the constant drumbeat of city-government booster rhetoric celebrating the city's triumphal rise.

Resettlement of rural residents displaced by mining operations or grassland restoration projects brought tens of thousands of new households into urban areas. These new migrants typically had minimal education; many were functionally illiterate.⁶⁰ They perceived themselves – and were certainly perceived by native urbanites – as unqualified for all but the lowest-paid and most demeaning labor. Street sweeping, garbage picking, and driving taxis were typically seen as the only occupations available to rural migrants. But why, many asked, should they take such jobs? Such employment was perceived by most informants of this description to be incongruous given the large sums households obtained in the relocation process. Under city government guidelines, relocations were to be highly compensated in order to smooth and quicken the process and also to infuse the

⁶⁰ Informants frequently revealed that they could not read well. Their low reading levels were offered to explain why oral agreements, rather than written contracts, were used to set the terms of loans.



Figure 16. A wall surrounding a construction site for a shopping mall and office complex in Dongsheng features imagery depicting a gigantic dollar sign embedded in a downtown scene.

local economy with money. For the unskilled labor streaming into Dongsheng and other urban areas, becoming a creditor to *gaolidai* operations held out the possibility of living a comfortable life in the city without needing to accept the unskilled (and undignified) labor options believed to be available to migrants in the city. Given the lack of socially acceptable income-generating opportunities, rural migrants frequently placed their entire savings into *gaolidai* schemes after purchasing a home and other necessities. Monthly dividends from *gaolidai* networks could comfortably secure a steady income that was multiples what households had previously earned coaxing crops from Ordos' sandy soils. In the boom years, relocated peasants composed a new urban class of idle rich much maligned by white-collar urbanites.

But, *gaolidai* was not the exclusive preserve of the city's lower class. Participating in *gaolidai* was also a way for those already gainfully employed to supplement their incomes. Especially for mid-level office workers and civil servants, whose monthly salaries were quite modest, *gaolidai* dividends could propel creditors to new class standings. From merely surviving on a few thousand yuan per month, as is typical for salaried workers, savings placed into money houses or lent at high interest rates to entrepreneurs could rapidly multiply one's income. Though rules prohibit civil servants from participating in lending schemes or holding sideline businesses, their

access to privileged information was a spur to lending and borrowing. It was an open secret that high-level officials were deeply involved as well, trading on connections and access to information.

Real estate was a logical outlet for *gaolidai*. Massive-scale reconstruction undertaken to house new migrants and households displaced by inner-city redevelopment campaigns stimulated demand for new housing. But households did not merely purchase a replacement home. Rather, homes were perceived to be a secure store of value for accumulated savings. Even amid the crisis, when property sales ground to a halt and the glut in unsold homes became apparent, no one I spoke with believed money invested in real estate could be lost. Near-universal faith in the city's resource base to sustain the economy in perpetuity supported the view that local property prices could move only in one direction: up. The takeoff in property prices beginning around 2005 lent credence to this perspective: per-meter prices in popular housing projects rose from around 2,000 yuan per meter square to 8,000 yuan within three years. Hence, savings invested in property during the boom were more than safe, they doubled or even tripled within just a few years. Further, by skillfully reinvesting profits from home sales or other schemes into property development, households could catapult into sudden and spectacular wealth as the speculative dynamic continued its upward spiral. Moreover, the short-term gain to be had through property speculation in Ordos far outstripped those in higher-end property markets in Beijing and Shanghai, where annual increases vary widely but are substantially lower than in Ordos (Qin 2011). In this context, it is hard to distinguish conservative purchases of multiple homes as a means to safely stash accumulated savings from speculative purchases in pursuit of short-term profits. In conversations with informants, the impression conveyed was that such purchases could serve both ends simultaneously. The emphasis placed locally on the combined use and exchange values of property made ownership of multiple properties a standard marker of urban status. In 2011, households owned on average four homes and there was an estimated ten 100m² homes for every urban household (J. Ma 2012).

Property developments in Ordos also catered to both conceptions of property. Mixed with the standard marketing pitches stressing lavish amenities, high-end interior fixtures, and abundant landscaping, visual reminders of investment potential were everywhere in evidence. "Where will you invest your money?" was the question posed on a billboard in downtown Dongsheng advertising a new mixed-use development. "Stocks? Bonds? Mutual funds? Lending? Housing? Bank savings account? In your heart, it's already clear. In a storefront here!!!" Visual reminders of this sort connecting property to safe investments and pecuniary advancement were ubiquitous in the giant advertising billboards that surrounded construction sites. The city's ground-level landscape provided image after image not only of the homes under construction behind the billboards, but often of gigantic representations of hard currency. In one such depiction, an enormous dollar sign rose from the center of an image of San Francisco's financial district. In another billboard, gold coins formed a tornado ripping through a generic downtown district, as though converting urban space into pure money through the process of destruction. Surrounding the Yitai mining conglomerate's Royal Palace development in central Dongsheng, where baseline per-square-meter prices were quoted to me as 22,000



Figure 17. Migrant laborers stand in front of a billboard for a property development by the Yitai Group Company.

yuan, crimson-red billboards featured gold text inviting buyers to become a “Dongsheng rentier (东胜地王 - *Dongsheng diwang*).” Investing in property was a way to obtain a home, an income, and, not least, a new type of identity. Even the persona of the rentier, a classic Mao-era taboo identity, was something to which one could now safely aspire. In the context of the property and *gaolidai* boom, bourgeois imaginings of home that typify billboard imagery at development sites around China shared space in Ordos with more flamboyant representations of the social power of money.

Daily life at street level was a ceaseless display of status in the boom. Dongsheng’s downtown became a parade of late-model luxury vehicles not only of the mass-market variety, but of the more rarefied brands: Bentley, Rolls Royce, Ferrari, Bugatti, and so on. High-end shopping malls sold extravagant wares, such as 35,000-yuan cellular phones, or a jade pendant for 15.8 million yuan. In the sky, well-heeled thrill-seekers could be seen flying ultra-light aircraft over the city in flagrant violation of China’s strict air-control regulations. For a time, the boom and its *gaolidai* integument drove an exhilarating new urban life.

Gaolidai also nurtured a high-risk entrepreneurialism. Taking loans on a *gaolidai* basis was a daring proposition, as dividend payments began usually after the first month of obtaining a loan. One needed to be relatively assured of rapid profits to risk ventures

on the terms typical of *gaolidai*. For those with exceptional nerve, operating as intermediaries between money houses and individual lenders became a new occupation. It could also function as a path to more legitimate and orthodox financial pursuits.

Not surprisingly, those more able to navigate the inherent risks of financial intermediation held sanguine views of *gaolidai*, even during the crisis. For such people, boom-style growth was not an aberration. Instead, it was seen as a logical outcome of an exhilarating cycle of high-paced, catch-up development in a place that began from a low point of development but could use its natural resource base to race ahead. A 27-year-old CEO of a local financial services firm and son of a wealthy retired local official explained *gaolidai* was a proto form of finance, a stage in the city's movement toward a more "mature" economy. "This kind of lending lacks professionalism and so it has many problems. But the finance sector here is very underdeveloped, which produces both the demand and supply for such lending. It is normal that it sees ups and downs."

The period of high growth and widespread lending did, in fact, lift many out of poverty and helped many households establish a foundation of wealth. *Gaolidai* was a central mode of local redistribution, enabling some to establish stable middle-class lifestyles and a few to become spectacularly rich.

Authority and confusion

The *gaolidai* phenomenon thrived in the boomtown's atmosphere of collusion, corruption, and inconsistent government authority. The city was awash in rumors and conspiracy theories of backroom deals between government officials, developers, and operators of *gaolidai* schemes. As the crisis later revealed, the lure of easy money facilitated all manner of foul play in informal finance and helped make the city a beacon for charlatans. Of these there was no lack of evidence.

The uncertain authority of the local state in Ordos was perhaps most discernible in its cavalier approach to regulating the property market to which local planners, developers, and real estate brokers testified. Typically, a three-stage process that required first obtaining a land-use title, then a construction permit, and ultimately a sales permit, projects large and small were begun and finished before any of these were formally approved. One informant in the real estate sector estimated that 90 percent of homeowners in Ordos did not, in fact, possess title to their property, but rather held certificates of "internal purchase" (*neibu xiaoshou*) from development companies. At the crest of the lending wave in 2009 and 2010, pre-sales, legally restricted to the later phases of construction, were common before even a foundation had been dug. Informants were quick to point out that officials, including those at the highest levels of the local government, were often deep in debt to lending schemes and had little incentive to initiate crackdowns on the *gaolidai* bonanza.

There was a palpable sense among informants that the local government exercised little consistent regulatory authority. Distinctions between corruption, incompetence, and incapacity were not always clear due to the rapidly shifting circumstances in the city. While many assumed regulatory authorities were in on the take, officials were just as likely to be hoodwinked by clever operators. The example of the Ordos 100, mentioned in the Introduction to this study, demonstrates this well. The project's lead developer, Cai

Jiang, submitted a proposal to the city government in 2007 to build a new development in the Kangbashi New District. The proposal aimed to bring 100 up-and-coming international architects from around the world to each design a villa projected to sell for US\$1 million a piece. The villas were to be set around an art museum, an artist village, and a “creative industries park.” Cai hired the artist Ai Weiwei to curate the commission process. Coming amid the dramatic slowdown in construction in much of the world, architects responded positively to Ai’s invitations and two months later convened in Ordos for a “symposium” at which designs were presented and discussed and plots were demarcated. International media, including the *New York Times*, were also invited to attend (see Bernstein 2008). The attention drawn by the participation of “internationally famous architects” helped the project lure significant investment. Images of the symposium showing foreigners surveying design models and plots of land were printed in local booster publications. Symbolizing the new district’s wealth and ultra-modern aesthetic orientation, Ordos 100 was embraced by the city government as a showcase project. However, after building the artist village, the museum, and the shells of four homes, Cai absconded with an estimated 300 million yuan, according to one of his associates with whom I established a friendly relationship. Officially, however, the city planning bureau said the project was halted due to “inappropriate design.” In another case, the city government feted the arrival of the auto manufacturer, Hwatai, which it had lured to the city with shares in a local coalmine. It soon became clear that the manufacturer’s assembly line was producing far less than had projected and hiring was minimal. A worker dormitory the firm constructed was left unfinished. Though it was never reported in local media, it was an open secret that the firm had little intention of expanding operations and was mostly intent on drawing profits from its coalmine shares.

The existence of factions within the local state apparatus associated with various developers and *gaolidai* networks further confused matters. The severity of these internal cleavages was made plain during a particularly revealing exchange at a banquet hosted by the head of the local Communist Party School that I attended during fieldwork. The banquet was held to celebrate the release from jail of seven members of an Inner Mongolian gang from Hohhot to whom he was connected. A property developer and associate of the Party school head had called upon the gang members to help recuperate an outstanding loan, but the gang members were intercepted at the Dongsheng train station. The borrower was an associate of the local police chief, who, hearing that thugs had been hired to press him for the loan, obliged a request to apprehend the men. The gang members told of being repeatedly electrocuted and beaten while in jail. No one at the table contested the credibility of their stories. Indeed, the head of the Party school pointed to such practices to bemoan the low *suzhi* (quality) of local officials.

However deep was local corruption during the boom years, it seemed little remarked upon before the bust. Indeed, Ordos’ reputation for permissiveness was known far and wide and seen in some quarters as reason for envy. In 2009, for example, the mayor of Datong, Shanxi Province, told his staff they should emulate their counterparts in Ordos by making “cute mistakes” (*ke’ai de cuowu*), a euphemism for skirting regulations, while discharging their duties as public officials (Geng 2010). It was in the context of the reckoning, brought on by the collapse in *gaolidai* and property that the

search for culprits began. When the axe fell, it was conspicuously on non-native developers and their allies in the Dongsheng District Government apparatus and not on figures within the municipal government. The target was the Guangzhou-based Star River Group, which proposed a 1,900-unit luxury development in Dongsheng. The project was commenced in 2010 amid great fanfare; Star River had built highly successful projects in Guangzhou, Shanghai, Beijing, Macau, and Taiyuan. To drum up enthusiasm for the project and curry favor with officials and local residents, who tended to be wary of outsiders seeking to benefit from the resource bonanza, the company sponsored a concert in August 2011 at the new Dongsheng stadium with major pop stars from China, Hong Kong, and Taiwan. Despite the heavy promotion, the development's grand opening in October 2011 fell flat, as the local housing market had already cooled significantly. In the weeks after Star River's opening, a joke began circulating around Dongsheng that the company had sold three homes, but two were returned the next day. Less ludic, the poor sales at a nationally renowned developer's new project attracted the attention of national media and exposed the depth of the crisis in Ordos' real estate market to a broader audience. This, informants said, forced the municipal government to act in order to mollify provincial and central government officials, who began to conduct probing inspection tours in the fall of 2011 in response to reports about the *gaolidai* crisis. A subsequent investigation of the Star River project found company and district government officials violated a slew of laws and regulations, including illegal land acquisition and construction on protected agricultural land. Unspecified disciplinary measures were meted out in 2012 to the Dongsheng District commissioner, the vice commissioner and his predecessor, the director of the local land bank, the director and vice director of the land and resources bureau, the director of the district urban construction bureau, the director of the planning bureau, and the vice director of the development and reform bureau. A vice president of Star River was jailed for offering bribes (Xinhua 2012).

Fear and violence

Once the foundations of the *gaolidai* system began to evaporate, a panic ensued in which creditors at once all sought to reclaim their principal from their borrowers. But, having changed hands sometimes through multiple intermediaries in the process of being extended as credit, individuals' claims upon money gained little traction. A localized iteration of casino capitalism made fear, anxiety, and desperation signature traits of local life. In the autumn of 2011, talk in Dongsheng was of suicides and murders related to failed *gaolidai* schemes, as borrowers and creditors short on cash discovered that they were either destitute or owed sums they had no hope of repaying. News in October of that year that a prominent local judge had hanged himself due his inability to make good on loans seemed only to confirm the severity of the crisis.

Like all modes of informal finance, *gaolidai* functioned not just in a legal gray zone but in a sphere of institutional inconsistency and opacity that the powerful could employ against the weak. Sharp information asymmetries are a key element in *gaolidai*, as the organizers of schemes maintain exclusive control over information on the number of depositors and the direction of investments. When coupled with the minimal legal

protections afforded creditors to *gaolidai* schemes, opportunities for abuse are rife. Depositors are cognizant of this asymmetry, yet lend all the same into the networks based on assurances whose credibility was measured along subjectively defined metrics of community trust. Emulation was also the essential grease in the system, compelling people to join networks based on the sudden enrichment of acquaintances. “When you see other people doing it, it puts your mind at ease.” “When the system works, it is easy to trust that it will continue to work without problems.” But, persistent anxiety rooted in the relative lack of information was a constant concern and ultimately was an accelerant to the implosion of networks, as shaky trust between creditors and lenders of various schemes broke down in 2011.

Because there are no codified punishments for failure to make due on loans and only limited recourse within the legal system for activities in the informal sector, lack of certainty hung over lenders and borrowers alike. Though threats and actual violence were said to be rare in *gaolidai* schemes, desperation among creditors fearful of being caught empty-handed sometimes led to violence and vigilante justice. During fieldwork, hair-raising stories of violence were part of everyday dinner conversation. In one such story, a slightly built, middle-aged woman who had been forcibly relocated twice before settling permanently in Dongsheng described for me how she and her husband kidnapped a man over his failure to repay a 400,000 yuan loan. Trembling with indignation while recounting the story, my inquiry about the implications of kidnapping a person elicited a sharp response. Not only had the man not repaid after six days restrained in their home, he had broken a window to escape.

The *gaolidai* crisis prompted the municipal government to establish a task force charged with collecting information from bilked creditors. Located across a thoroughfare from Dongsheng’s Bentley showroom, the task force’s office compiled information to help bring suit against delinquent operators of various schemes. Hundreds of dispirited lenders could be found daily outside the office sharing information and meeting with other lenders to prepare to register their cases. In theory, claimants were to work with investigators to follow lending chains and identify and seize assets of those running the schemes, put the assets up for auction, and reclaim for creditors whatever portions of their principal could be recuperated.⁶¹ But the chances of recuperating money were slight. Middlemen and the heads of schemes had gone into hiding or fled the region. It was widely believed that many of Ordos’ most unscrupulous *gaolidai* operators had relocated to Hainan in China’s subtropical south. By mid-2012, the local court was overwhelmed with cases filed by claimants seeking to recover deposits in *gaolidai* schemes. But in many, if not most cases, deposits had simply evaporated in failed investments and through conspicuous consumption by borrowers.

The meaning of crisis in *gaolidai*

Assessments in China’s popular media of the *gaolidai* crisis in Ordos imply that “wild-cat” banking in this part of the world is a product of regional culture. In this

⁶¹ Because much of the lending was illegal to begin with, auctions would not compensate for lost interest income.

retelling, *gaolidai* emerged because unsophisticated investors and greedy nouveau riche sought the easy path to wealth.

But *gaolidai* can more accurately be viewed as a part of the broader transformations that remade local life in Ordos as a result of the resource boom and its connected urbanization drive. In particular, *gaolidai* and the crisis that it precipitated spurred profound social changes compressed into the few short years of the boom and subsequent bust. While *gaolidai* facilitated redistribution and accumulation in highly uneven ways, the subsequent crisis similarly had uneven consequences. Harvey's notion of "accumulation by dispossession" implies a class division between the dispossessed and the accumulators at the moment of dispossession. In the case of Ordos, the dispossession of peasants through forced but compensated relocation was in many cases followed up by a second round of dispossession, as relocated people took part as creditors to doomed lending schemes.

The social and class reordering was inseparable from the physical reconfigurations of urban space. Lending schemes were intimately bound to urban construction providing capital and materializing new urban visions previously denied people in the frontier setting. But the opportunities for rapid personal enrichment and the dizzying pace of growth amid the boom short-circuited urban planning and regulatory oversight. Informality was not a parallel realm to a formal one in Ordos. The city itself operated as an open field that combined the formal and informal in irregular and inconsistent ways. While research tends to argue informal finance is a lifeline to small businesses and a key ingredient in poverty alleviation and economic dynamism for developing countries, the capacity of such mechanisms to stimulate and perpetuate crisis-prone modes of circulation is often only a footnote. Instead, much of the literature aims to recuperate the functionality of informal financial intermediation from normative judgments based on its illegality or usurious qualities. If anything, studies of informal urbanism tend even more toward celebrating informality as an irruption of civic energies. Informal settlements and other practices are held up as "weapons of the weak" for those seeking to survive in the neoliberal city.

In Ordos, however, *gaolidai* was part of a radical transformation that struck with exceptional intensity rendering urban planning and regulatory authority difficult, if not impossible, tasks. Though the city government engaged in grandiose urban planning agendas, which double as economic planning refigured as spatial planning, a parallel urbanizing force propelled city building on a pace and scale sometimes labeled "Ordos speed." Yet the same speculative investments in *gaolidai* that generated such rapid build out of the city were also freighted with widespread and unsustainable anticipation of personal pecuniary gains. When the city's house of cards collapsed, what were left behind were empty buildings and the disrupted lives of those who invested in them.

CHAPTER SIX: CONCLUSION

During a final field site visit to Ordos in 2012, a friend who works in the construction business welcomed me at the Dongsheng train station. As we drove through the city, he explained that the local property sector remained depressed after the shock it sustained in 2010 and 2011. Block after block, he pointed to buildings and construction sites where activity had all but ceased since the crisis in the local real estate sector struck the year before. Throughout my visit, the property sector's bust and its reverberations were everywhere in evidence. Cranes had been removed from half-completed skyscrapers. Construction sites that formerly swarmed with workers and trucks ferrying materials and dirt to and fro were virtually empty. Over 200,000 people had left the city over the previous year, causing a noticeable diminishment in street-level crowds with the concomitant further crimping of local retail business (Zhou 2012). Rents for housing had plummeted. The early signs of a slowdown in the national economy meant that even coal prices had dropped, denting the municipality's dominant industry and idling all but the largest and most profitable mines. Ordos' boom had come to an emphatic end. The future of the city seemed an open question.

Research for this study began amid Ordos' boom and overlapped with the bust. This provided an up-close look at the volatile nature of urban growth in a frontier boomtown. The boom and the bust telescoped some of the characteristic processes of China's recent urban growth. It also reproduced them in hyperbolic fashion, casting them in stark relief, and amplifying the spatial and human consequences of rapid urban growth.

As this study has shown, the centrality of land development for local governance, the political utility of monumental prestige projects for urban officials, and the limited capacity of the city government to control urban growth made urbanization in the context of a resource bonanza highly unstable and crisis-prone. Despite the local state's formal control over land, unchecked expansion of physical spaces was a defining trait of the frontier boomtown. This exemplifies a ubiquitous tendency among territorial administrations to dream in urban terms and to construct this dream in a standard idiom.

Urbanization reshaped Ordos' landscapes in a manner that, at first glance, appeared utterly typical. Within ten years, coalitions of local government officials and developers built highways, new government buildings, museums, theaters, libraries, development zones, and residential high-rises. By decade's end, urban spaces in Ordos closely resembled the mass of Chinese cities. However, manifold contradictions emerged within Ordos' brand of boomtown urbanism. On the one hand, the construction of monumental and modular urban forms akin to those erected throughout China in recent decades defined a state-guided project aimed at improving the city's functions and aesthetic appeal. On the other hand, the growth process was also marked by uncontrolled and unplanned expansions funded through opaque underground finance networks. Local officials turned a blind eye to the unruly aspects of boomtown growth while a speculative mania for urban property raged unchecked. The resource bonanza gave rise to all manner of opportunism and short-term pecuniary schemes that built the city quickly but without adhering to the city's own elaborate plans. The first decade of municipal status was

therefore characterized by astounding economic growth and urban development, followed by acute crisis precipitated by the headlong rush to build.

In the following passages I review the key findings of the foregoing chapters and point to new avenues of inquiry that this study has opened.

Making a frontier

This study has been premised on a view of Ordos as a frontier. This notion is elaborated as a convergence of industrial changes and the persistence of cultural encounter in this multiethnic and historically contested region.

Important changes in the geography of energy resource production stimulated rapid industrial expansion in certain areas of China's west, exemplified by Ordos. Coal is an especially important industrial input in China for its provision of approximately 70 percent of the country's primary energy (Rosen and Houser 2007; Ni 2010). As this study has shown in Chapter 2, not only did production totals rise significantly in the 2000s, the geographical distribution of production changed as well. Until the 2000s, coal production was widely distributed. Starting in the new millennium, however, huge leaps in the scale of production occurred in Inner Mongolia, while production stagnated or even declined in places where coalmining was a key industry under the planned system of coal production, which persisted into the 1990s. By the end of the study period, three contiguous provinces – Shanxi, Sha'anxi, and Inner Mongolia – became the leading coalmining macro-region, supplying up to 60 percent of the national total by 2009 (Huang 2010).

Two broad factors enabled this regional transformation: the drop in profitability at old mines and central-government policy to prioritize production in the country's west. In the latter macro-region, geological, technological, and social conditions allowed for higher profitability by the 2000s. Specifically, large, shallow, and more easily exploited reserves could be economically brought to market by improved highway and rail transport. Moreover, because economic development had been slower in the west in the reform period since 1978, local governments and resident populations, for the most part, have been eager for inward investment. The geographical shift in coal production also coincided with sector reforms that turned coalmining from a consistently loss-making industry to one that generated high profits. Hence, an intensification of coalmining in Ordos translated into a huge expansion of the local economy and, through the various taxes and fees levied on industry, a massive increase in municipal government revenues. The gradual market-oriented liberalization of the coal sector generated resource bonanzas and helped to spur the formation of extraction-based boomtowns. This dynamic was particularly remarkable in Ordos, where state-of-the-art extraction methods were put to use in the 2000s and where the local government was strongly supportive of expansions in mining.

Boomtown urbanism in review

The historic shifts in the geography of coalmining and its increasingly concentrated and mechanized forms brought unprecedented wealth to Ordos and inspired a radical city-building agenda. The close connections between the sudden increase in mining and urban growth merit the characterization of Ordos as a peculiar city type: a

frontier boomtown. This kind of city differs in key respects from the mass of ordinary cities in China, in particular those of the eastern seaboard, where the impacts of global trade are far more pronounced, economies are more diverse and robust, and there is relative ethnic homogeneity. China's new energy frontiers are forming in regions with legacies of deep poverty, under-development, and marginality, as well as complex multi-ethnic social compositions. Ordos, for example, was among China's poorest localities through the 1990s; yet in 2011 was among the wealthiest.

Previous studies on Chinese urbanization have tended to emphasize cities' integration into a global economy dominated by service industries and the growing importance of aesthetic factors and spectacle in the amassing of political and economic capital. Chinese cities are read as sites where globalization and tertiarization are inexorable trends. But regional and functional variations among China's 659 cities point toward greater diversity in the kinds of urbanism shaping current-day cities than has been adequately explored to date (Editorial Board 2010).⁶²

Urbanism in an extraction-based economy assumes certain distinguishing traits. As this study has shown, local regimes like the one in Ordos conspicuously strive to emulate urban form pioneered in more advanced cities. Major effort and large sums are invested in building spectacular museums, parks, squares, theaters and so on. Yet these urbanizing efforts unfold in relation to peculiar circumstances of overwhelming economic growth. In the frontier, the rapidity of resource-based accumulations propels exceptionally fast and intensive urban development. Urbanizing agendas display sharp contradictions in the enactment of masterplans and the evident incoherence and extreme disorganization of the actual city-building process. The pace of uncontrolled growth in Ordos' urban core rendered successive urban masterplans obsolete before they were even approved. Unchecked expansions in all categories of property development led to redundancy and underutilization of new construction and fostered a casino dynamic as people raced to profit amid the resource and property bonanzas.

Amid the uncontrolled expansion of urban construction, there was also a heavy imprint of monumental local-state urban development projects. As cases elaborated in the foregoing chapters show, massive land-development initiatives, like the Kangbashi New District, the Tiexi Economic Development Zone, and other industrial zones appropriated hundreds of square kilometers of rural land in successive and sometimes competing efforts to attract investment and population. Alongside the city's development zones are new government offices, a new airport, and "cultural projects," such as the municipal museum, theater, library, cultural center, convention center, stadium, and media center. Also, vast new parks and public squares were built in urban areas. Taken together, these projects radically altered the appearance and functionality of Ordos' urban landscapes and implanted highly visible markers of the local state's presence. Although massive state-led projects are geared toward the career advancement of local officials and stimulating the local economy through debt-financed construction, in their modular

⁶² In 2009, there were 659 officially designated cities: 4 at the provincial level; 15 at the sub-provincial level; 268 at the prefecture level; and 367 at the county level (Editorial Board 2010: 13).

similarity with projects carried out throughout China, they also aim directly at achieving functional and representational parity with benchmark cities. Monumental projects are seized upon as means of transcending frontier marginality and achieving contemporaneity through replicative modes of space production. The outcomes of such projects are highly uneven – failures abound as repeated efforts fall short of expectations.

A signature aspect of the representational strategies visible in urban construction is the use of gigantism. This study has shown how construction at supreme scale served multiple ends. The example of Genghis Khan Square illustrates how a massive public space adorned with oversized statuary and surrounded by the municipality's landmark prestige projects obscures the multiple forms of exploitation embedded in the production of new built environments in this frontier boomtown context. The square's creation entailed the dispossession of local villagers and the commodification of cultural symbols in a comprehensive urban branding scheme designed to remake the local landscape into a tourist-oriented celebration of Mongolian culture. Mongolian motifs rendered in exaggerated scale were pervasive in new public construction projects, sidestepping Ordos' heterogeneous ethnic makeup in favor of simplified, but much amplified, representations of ethnic particularism.

A further signature trait of frontier boomtown urbanism examined in this study was the mania in the property sector fueled by widespread informal finance during the boom years. It was found that urban development was a key catalyst to private accumulations that occurred through locals' involvement in urban construction by means of underground finance. The expansion of mining, grassland clearance programs, and inner-city redevelopment provided a large number of households with windfall accumulations. A cohort of entrepreneurs and managers in the local mining sector also experienced substantial growth in wealth. Accumulations during the boom were mobilized through informal finance circuits, creating an exhilarating and crisis-prone urban growth process. When the networks of underground finance collapsed, dispossession of creditors and borrowers revealed a hidden layer of exploitation at the foundation of the frontier boomtown's urban process. It further exposed the local state's depth of collusion in uncontrolled growth and its absence of firm authority over economic and spatial expansion. These latter findings suggest a revision of the formal-informal dichotomy, as unstable patterns of opportunism drove participation by all elements of local society, including state actors.

China's new frontier boomtowns in perspective

An examination of frontier boomtown urbanism reveals peculiar pathways to urban growth for late-developing regions of China's resource-abundant interior. It has long been known that China's west contains abundant natural resources. Resource extraction in the minority regions of the west, underway for decades already, has begun to see significant increases in intensity. Urbanization in these regions is taking place in the context of intensive resource extraction rather than in connection with manufacturing or service-sector expansion, as in the coastal east. Explosive growth through resource extraction produces boomtowns where the local state's control over growth is highly attenuated and where its efforts to seize local territorial control are geared toward urban

construction and design. Analysis of urban growth in this context brings together such issues as natural resource production and its concomitant conflicts, inter-ethnic relations, urban planning and design, and urban political economy.

By engaging an analysis of urban growth amid a resource boom in China's west, this study contributes to the literature on Chinese urbanization. It reveals the struggles of local administrations to bring order to a setting of hyper-rapid economic growth occurring upon legacies of under-development and low urbanization rates. These efforts are strongly informed by monumental-scale urban construction projects. It also explores countervailing internal disunity within the local state, which arises as a result of the effort to extend the resource bonanza into urban growth and the short-termism that results. In particular, the focus on the property sector as the second main pillar of the local economy fosters a casino dynamic, as privately accumulated capital seeks a productive outlet and joins the local administration's city-building agenda. Consequently, physical expansions of the city are driven by the ubiquitous urge among city administrations to build out the city and by private investors' constrained options for investment given the narrow local industrial base. Taking account of these divergent forces brings into question the leading role of the local state in guiding urban development while emphasizing the primacy of city building as local governments' foremost task.

Given China's comparatively low urbanization rate at 51.27 percent in 2011, further urbanization is widely viewed within the central government as both inevitable and desirable. Indeed, the central government has affirmed its commitment to an economic development strategy centered on the production of cities. Yet this study's examination of urban growth in a frontier setting underscores the volatility of this model, especially in contexts where rapid capital accumulation transforms geographically marginal and historically poor regions. Boomtowns are, by definition, ephemeral artifacts formed within peculiar conditions. Yet the transformations set in motion amid a boom endure well beyond the ultimate bust. It remains to be seen how and whether a frontier boomtown can effect the transition to a durable city.

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APPENDIX 1: Resource-based cities by resource. (Depleting resource-based cities marked in bold except where noted.)

Coal	Tangshan, Handan, Xing'an, Wu'an, Datong, Yangquan, Changzhi, Jincheng, Shuozhou, Gujiao, Huozhou, Xiaoyi , Gaoping, Jiexiu, Wuhai , Chifeng, Manzhouli, Ordos, Huolinguole, Fushun, Fuxin , Tiefa, Beipiao, Liaoyuan , Jixi, Hegang, Shuangyashan, Qitaihe , Weinan, Yong'an, Pingxiang , Fengcheng, Leping, Gao'an, Zaozhuang, Xintai , Longkou, Tengzhou, Zoucheng, Feicheng, Pingdingshan, Hebi, Jiaozuo , Yima, Ruzhou, Dengfeng, Leiyang, Zixing, Lianyuan, Heshan , Guangyuan, Huaying , Dazhou, Jinzhu, Liupanshui, Xuanwei, Kaiyuan, Tongchuan , Hancheng, Shizuishan , Hami
Timber	Yekshi, Genhe, A'ershan, Baishan, Dunhua , Hunchun, Huadian, Jiaohe, Songyuan, Shulan , Linjiang, Helong, Yichun , Heihe, Wudalianchi, Tieli , Shangzhi, Hailin, Ning'an, Muleng, Hulin
Oil	Xilin Hot, Daqing, Panjin , Dongying, Puyang, Qianjiang, Yumen , Karamay, Korla
Nonferrous Metal	Huludao, Tongling , Dexing, Lengshuijiang , Lechang, Pingxiang, Dongchuan, Gejiu, Baiyin , Jinchang, Aletai, Fukang
Ferrous Metal	Qian'an, Benxi, Ma'anshan, Zhangping, Chenzhou, Panzhihua, Linxiang
Other resource-based cities	Caizhou, Zhaoyuan, Lingyu, Yunfu, Fuquan
Other depleting resource-based cities, counties, and areas	Hinggan Area, Dayan, Xiahuayuan, Yingshouyingzi Mining Area, Gongchangling Area, Yangjiazhangzi, Nanpiao Area, Jiutai, Weibei, Jingdezhen, Lingbao, Huangshi, Wansheng Area, Wanshan Special Area, Dongchuan Area, Jingxing Mining Area, Shiling Area, Er'daojiang Area, Wangqing County, Jiawang Area, Xinyu, Dayu County, Zichuan Area, Songzi, Changning, Shaoguan, Pingjia Management Area, Changjiang County, Nanchuan Area, Luzhou, Yimen County, Tongguan County, Honggu Area, E'erguna, E'lunchun Banner, Zhalantun, Xunke County, Yuanhui Area, Jiayin County

Source: NDRC

APPENDIX 2: Field Interviews 2010-2012

Code	Date	Location	Title
DS07251001	07/25/10	Dongsheng	Researcher
DS07261001	07/26/10	Kangbashi	Migrant construction worker
KB07261001	07/26/10	Kangbashi	Migrant construction worker
KB07271001	07/27/10	Kangbashi	Engineer
KB07271002	07/27/10	Kangbashi	Engineer
KB07271003	07/27/10	Kangbashi	Researcher
BJ07051101	07/05/11	Beijing	Planner
DS07151101	07/15/11	Dongsheng	Banker
DS07221101	07/22/11	Dongsheng	Real estate sales agent
DS07241101	07/24/11	Kangbashi	Director
KB07241102	07/24/11	Kangbashi	Tourists
JG07261101	07/26/11	Jungar	Surgeon
JG07271101	07/27/11	Jungar	Mechanical team manager
JG07271102	07/27/11	Jungar	Mechanic
KB09151101	09/15/11	Kangbashi	Director
KB09151102	09/15/11	Kangbashi	Architecture
KB09151103	09/15/11	Kangbashi	CEO
KB09151104	09/15/11	Kangbashi	Administration
KB09151105	09/15/11	Kangbashi	Loan collections
DS09161101	09/16/11	Dongsheng	CEO
DS09181101	09/18/11	Dongsheng	Store owner
DS09221101	09/22/11	Dongsheng	Staff reporter
KB09261101	09/26/11	Kangbashi	Real estate sales agent
KB09271101	09/27/11	Kangbashi	Real estate sales agent
KB09271102	09/27/11	Kangbashi	Teacher
KB09271103	09/27/11	Kangbashi	Migrant workers
DS09291101	09/29/11	Dongsheng	Real estate sales agent
DS10011101	10/01/11	Dongsheng	Sales manager
DS10011102	10/01/11	Dongsheng	Sales manager
DS10011101	10/02/11	Dongsheng	Real estate sales agent
DS10021102	10/02/11	Dongsheng	Sales manager
DS10021103	10/02/11	Dongsheng	Real estate sales agent
DS10031101	10/03/11	Dongsheng	Sales manager
DS10041101	10/04/11	Dongsheng	Real estate sales agent
DS10041102	10/04/11	Dongsheng	Sales manager
DS10081101	10/08/11	Dongsheng	Loan officer
DS10081101	10/08/11	Dongsheng	Loan officer
DS10081102	10/08/11	Dongsheng	Loan officer
DS10091101	10/09/11	Dongsheng	Loan officer
DS10101101	10/10/11	Dongsheng	CEO
DS10101102	10/10/11	Dongsheng	Loan officer
KB10121101	10/12/11	Kangbashi	Planning
KB10141101	10/14/11	Kangbashi	Statistician
KB10141102	10/14/11	Kangbashi	Vice director
KB10141103	10/14/11	Kangbashi	Tourists
DS10171101	10/17/11	Dongsheng	Planning
DS10171102	10/17/11	Dongsheng	Planning
DS10181101	10/18/11	Dongsheng	Staff reporter

DS10181102	10/18/11	Dongsheng	Informal lending
DS10181103	10/18/11	Dongsheng	Informal lending
DS10191101	10/19/11	Dongsheng	Staff reporter
DS10191102	10/19/11	Dongsheng	CEO
DS10201101	10/20/11	Dongsheng	Loan officer
DS10201102	10/20/11	Dongsheng	Loan officer
DS10211101	10/21/11	Dongsheng	Informal lending
DS10211102	10/21/11	Dongsheng	Informal lending
DS10211103	10/21/11	Dongsheng	Informal lending
DS10211104	10/21/11	Dongsheng	Informal lending
DS10211105	10/22/11	Dongsheng	Informal lending
DS10221101	10/22/11	Dongsheng	Police officer
DS10231101	10/23/11	Dongsheng	CEO
DS10231101	10/23/11	Dongsheng	CEO
SM10241101	10/24/11	Shenmu	Engineer
SM10251101	10/25/11	Shenmu	Technical training
BJ11161101	11/16/11	Beijing	Researcher
DS11181101	11/18/11	Dongsheng	Farmer
DS11111101	11/11/11	Dongsheng	CEO
DS11191101	11/19/11	Dongsheng	Manager
DS11201101	11/20/11	Dongsheng	Cook
KB11241101	11/24/11	Kangbashi	Informal lending
KB11241102	11/24/11	Kangbashi	Farmer/informal lending
KB11241103	11/24/11	Kangbashi	Farmer/informal lending
SH12011101	12/01/11	Shanghai	Architect/Professor
SH12021101	12/02/11	Shanghai	Architect
SH12021101	12/03/11	Shanghai	Planner
DS12051101	12/05/11	Dongsheng	General Manager
DS12051102	12/05/11	Dongsheng	CEO
DS12061101	12/06/11	Dongsheng	CEO
KB12091101	12/09/11	Kangbashi	Vice director
DS12091101	12/09/11	Dongsheng	Artist
KB12101101	12/10/11	Kangbashi	Administrator
DS12101101	12/10/11	Dongsheng	n/a
DS12121101	12/12/11	Dongsheng	Real estate sales agent
DS12121102	12/12/11	Dongsheng	Sales manager
DS12151101	12/15/11	Kangbashi	Director
DS12171101	12/17/11	Dongsheng	Director
DS12171102	12/17/11	Dongsheng	CEO
DS12181101	12/18/11	Dongsheng	Gangster
DS12181102	12/18/11	Dongsheng	Gangster
DS12191101	12/19/11	Dongsheng	Engineer
DS12191102	12/19/11	Dongsheng	Engineer
DS12201101	12/20/11	Dongsheng	Banker
BJ07211201	07/21/12	Beijing	Professor
DS07231201	07/23/12	Dongsheng	Reporter
DS07231201	07/23/12	Dongsheng	Informal lending
DS07231202	07/23/12	Dongsheng	Loan collections
DS07251201	07/25/12	Dongsheng	CEO
DS07261201	07/26/12	Dongsheng	Loan collections
DS07271201	07/27/12	Dongsheng	Informal lending

DS07271202	07/27/12	Dongsheng	Real estate agent
DS07281201	07/28/12	Dongsheng	CEO
DS07291201	07/29/12	Dongsheng	Real estate agent
DS07301201	07/30/12	Dongsheng	Informal lending
DS07311201	07/31/12	Dongsheng	Informal lending petitioners
KB08011201	08/01/12	Kangbashi	Planning
DS08021201	08/02/12	Dongsheng	Informal lending petitioners
DS08021202	08/02/12	Dongsheng	CEO
DS08021203	08/02/12	Dongsheng	Engineer
KB08031201	08/03/12	Kangbashi	Small-business owner
KB08031202	08/03/12	Kangbashi	Tourists
DS08041201	08/04/12	Dongsheng	Staff reporter
DS08041202	08/04/12	Dongsheng	Vice director
DS08041203	08/04/12	Dongsheng	CEO
DS08051201	08/05/12	Dongsheng	Informal lending petitioners
DS08051202	08/05/12	Dongsheng	Lawyers
DS08051203	08/05/12	Dongsheng	Banker
XG08071201	08/07/12	Xilin Gol	Director
XG08081201	08/08/12	Xilingol	Director
BJ08121201	08/12/12	Beijing	Technician
BJ08121202	08/12/12	Beijing	Reporter
BJ02121203	08/12/12	Beijing	Reporter