Before the Yellow River Met the Hebei Plain

1.1 Loess, Silt, Floods, and a Thousand Years of Tranquility

This book is about the making of a Yellow River delta in the flat, low land of Hebei. The emergence of a delta landscape was an instantaneous result of the dramatic environmental change in summer 1048. But, for this event to happen and for the river to build up enough momentum to push its 700-kilometer-long flow into a different direction and to carve open the earth for a new river course, various environmental entities had to work in concert: not just the river itself, but also the land of Hebei that received the intrusion of the river’s course, the imperial state that intervened in the river’s movement, and many other factors. It took an extended period prior to 1048 for each of these entities to experience some environmental, geological, and political transformations and to encounter and entwine with each other. The following four chapters will examine the complex history behind the occurrence of the 1048 event. Through the interplays among the longue durée of environmental transformations, the middle term of political and social changes, and instantaneous events, the river, the plain, and the state crossed different temporalities and geographic zones to connect to each other. They together interacted to change the face of the physical landscape and the history of north China.

Our opening chapter begins with a panoramic view of the Yellow River’s changing situation during the two thousand years prior to the 1048 environmental drama. This broad-brush depiction of the river’s history offers two vital observations. First, the Yellow River’s turning turbulent toward the eleventh century and its eventual crushing of Hebei to produce a new river delta had begun long before 1048. The
long-term environmental changes in north China and the river’s hydrological characteristics – the worsening soil erosion and consequential increase in the river’s silt load – had destabilized the river’s situation toward the end of the first millennium. Together, they had produced a river that was more and more prone to flooding. By the time the Northern Song Dynasty stepped onto the historical stage in 960, the environmental history of the Yellow River had sown and nourished the seeds for a catastrophic event like the one that occurred in 1048. Meanwhile, the longue durée of such environmental transformations saw a spatial disjunction. The seeds that eventually sprouted into disastrous fruits in downstream areas like the Hebei Plain were planted by the joint forces of nature and human activities more than a thousand kilometers upstream in northwestern China. This extraordinary distance proved to be deceptive, as it concealed the causal relationship between environmental transformations going on in different geographic units from the spatial conception of the Chinese in medieval times and from our modern conception as well.

The second observation is not about the river’s flooding issues per se but about the river’s relationship with the Hebei Plain. For nearly one thousand years prior to 1048, the river served as the plain’s southern border and did not impinge upon the plain in any remarkable way. The river and the plain had remained two marginally intersected, largely independent environmental entities. After 1128, the river shifted toward south China, and up to today it has never entered the center of the Hebei Plain again. This means, after 1128, the river and the plain restored their long-term relationship as two marginally related entities. Clearly, the environmental drama played out by the river and the plain during 1048–1128 was a rare, extraordinary episode in the entire environmental history of north China. Positioning the eighty years within the context of two millennia leads us to wonder how the change in the river–plain relationship actually took place.

This second observation demands an understanding of the long-term history of the Hebei Plain. The second half of this chapter will present Hebei as a geographically and environmentally well-defined plain. Partly thanks to the geographical division set by the Yellow River, Hebei had developed a martial tradition and a high level of political autonomy in its human society. This historical survey of Hebei will prepare us to understand the interventions of the Northern Song state from the late tenth century in Chapters 2–4. From political, socio-economic, and environmental perspectives, the state interventions peripheralized Hebei,
broke down its marginal relationship between the river, and brought the two into an intricately knitted entanglement.

**Loess, Silt, and Floods**

The Yellow River, the sixth longest river in the modern world, originates in the Tibetan Plateau and reaches the coast in northeastern China after coursing through 5,464 kilometers. Along its route, the river has developed a drainage area of 752,000 square kilometers that covers most of the North China Plain, an area nearly the size of modern-day Turkey. A hundred thousand years ago, the river evolved from several small local streams into a full-length course similar to what we see today. Since then, its currents have continuously eroded the earth and picked up soil and rocks on its way. The water flow grinds these materials into fine silt, carries it long distances, and deposits it along its course. The silt builds up the flat ground in north China. As the river continues to run eastward toward the ocean, this land-building process spreads eastward as well, pushing the coastal line further into the ocean.

This process still continues today. Between 1855 and 1953, before the People’s Republic of China was established to carry out enormous hydraulic works, the river’s estuary extended 2 kilometers toward the ocean annually, creating 23.6 square kilometers of new land every year. This unstoppable process over the past hundred thousand years makes the Yellow River one of the geological builders of the land of north China. It is fair for those in north China to call the Yellow River their mother river, similar to the way the Egyptians think of the Nile River and the Indians the Ganges. The Yellow River brought the land of north China, including Hebei – a northeastern part of the river’s alluvial plain – into being, long before the first human being appeared to make use of its water and to cultivate the land it produced.

Ironically, as much as the Yellow River is widely acclaimed to be the cradle of China and the Chinese, it also has a notorious reputation as “China’s Sorrow.” This nurturing mother also shows an unpredictable face of rage and punishment. In historical times, she wielded her power and raised torrential floods again and again, devouring massive amounts of land and people. Historians have found that the river changed the course of its 700-kilometer-long lower reaches at least twenty-five times. Six of these events took place on an extraordinary scale: (1) the river shifted into southern Hebei in the seventh century BCE; (2) into southern

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Hebei again in the second century BCE; (3) out of Hebei and into northern Henan in the first century CE; (4) into central Hebei between 1048 and 1128; (5) south toward southern China in 1128; and (6) northward between Hebei and Henan-Shandong in 1855.²

These major shifts created multiple courses to the river’s lower reaches. The separate courses infiltrated the vast space in the eastern part of the North China Plain and stretched out in different directions. Geographically, these courses were grouped into three clusters: northern courses, eastern courses, and southern courses, referring respectively to those within the Hebei Plain, those flowing through northern Henan and Shandong, and those tending toward the south to converge with the Huai River drainage area. These courses swept clockwise and anti-clockwise and moved the river estuary back and forth between latitudes 39° and 32° north. All together they have formed a vast alluvial fan of the Yellow River over 250,000 square kilometers.

² Huanghe shuili weiyuanhui (1982).
This enormous area is the river’s floodplain, where it breached its banks along multiple courses to cause tremendous floods. Historians have identified 1,590 flooding events in the past 2,540 years. No single historical period was completely free of the Yellow River’s floods. From the statistics, we may observe a growing curve in the frequency of flooding events, increasing from once every thirty years before the fourth century, to once every ten years between the fourth and the mid-tenth century, to almost once every year in the Northern Song period, and to twice a year from the late thirteenth century onwards.

The Northern Song period from the mid-tenth century through the early twelfth century saw a height of river disasters. The environmental drama of 1048, when the river crashed into Hebei and created a cluster of northern courses, occurred right in the middle of these terrible events.

Situating our environmental drama within the long-term trend of the Yellow River’s changes makes us wonder how the hands of nature and other environmental forces had collaborated, little by little, to lead the river toward its chaotic condition in the eleventh century. There were two major forces at work: unique hydrological dynamics that caused the river to be flood prone; and historical environmental degradation of the Loess Plateau in the river’s middle reaches, which produced and then reinforced the river’s hydrological characteristics.

In the past century, dozens of chronicles of Yellow River floods have been compiled in Chinese. In nearly all of them, within the opening few

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4 Han Zhaqing (1999: 208).
5 A considerable number of publications on the Yellow River, both on its technological aspects and historical aspects, has been published by the Yellow River Conservancy and its associated Yellow River Hydraulics Press, and by the Water Resources Press associated with China’s Ministry of Water Resources. Among Chinese historical geographers who have published extensively on historical transformations of the Yellow River, a great number are associated with two leading scholars, Shi Nianhai at Shaanxi Normal University and Tan Qixiang at Fudan University. Most of their works have been published through the university presses of these two institutes. In English, there are a few studies dedicated to the Yellow River. For example, Wang Ling and Lu Gwei-djen’s volume in Neeham’s *Science and Civilization in China* contains sections on hydraulic technology. Randall A. Dodgen (2001) studies the political and technological responses to river disasters in the 19th century. Jane Kate Leonard (1996) studies political reasoning and technological solutions about managing the Grand Canal and the canal’s relations with the Yellow River. David Pietz (2015) provides an excellent study about the history of flood control, dam construction, and their environmental implications in twentieth-century China. Micah S. Muscolino (2015) offers a nuanced examination of the river’s bank rupture in 1938 and its ecological, political, and socio-economic complications before the mid-twentieth century.
pages, the authors employ three phrases to characterize the river: “prone to siltation, prone to overflow, and prone to course shifts” (shanyu shanjue shanxi 善淤善決善徙). This narrative establishes a causal relationship: because the river contains high silt levels and tends toward sedimentation, it is thereby prone to overflow, breach its banks, and shift its course. This causality suggests that it is the river’s own hydrological characteristics – in particular its heavy silt and rapid siltation – that have caused various river disasters. To understand where the silt came from and how it led to the exacerbation of the river’s situation over a millennium before 1048, we must journey upstream to take a close look at the river’s middle reaches, where soil erosion delivered a massive volume of mud, sand, and rocks into the river.

The middle reaches of the Yellow River wind through the northern edge of the Loess Plateau, the world’s largest, deepest loess deposit, which is nearly the size of modern-day France. Today, this area supplies 90 percent of the silt that feeds into the Yellow River. The raw material of this silt consists of fine, loose, porous grains of loess. Given extremely low natural precipitation in this area, loess suffers from serious aridity as its porous texture interferes with the retention of moisture. Environmental conditions appear even worse as we travel further north to the Ordos area, on the northern edge of the plateau. There, the landscape features extensive deserts and sandy groves, among which the Maowusu 毛烏素 and Kubuqi 庫布齊 deserts being the most famous and well studied. This area is sparsely dotted with drought-resistant grass, small lakes of high salinity, and little patches of oases. Its surface is largely covered by coarse sand.

The texture of the earth, climatic aridity, and the shortage of water all make the Loess Plateau ecologically fragile. The land has a limited capacity to support even thin vegetation and carries little environmental resilience. The vegetation cover – trees, bushes, and grass – does not readily return once gone. Trees, crops, and grazing land for livestock are all difficult to sustain. The latter two form the major human activities that have destroyed this area’s natural vegetation in historical and present times. Today, a considerable part of the Loess Plateau appears completely barren year-round. Without a heavy cover of vegetation to shield the land surface, and without the roots of plants to anchor the soil, the fine,

6 There are enormous studies on Chinese loess from earth science and soil studies, for example, Liu (1964) and (1985). For the Yellow River’s silt specifically, see Zhao (1996).
lightweight loess is exposed to the open air and can easily be carried away by wind or water.

The Yellow River courses around the Loess Plateau and the Ordos area, forming a “Great Bend.” Along its journey, it picks up loess, fine sand, coarse sand, and rocky debris. It is also joined by multiple tributaries that cut through the loess, producing a distinct geomorphology of thousands of tall, earthy masses. Large or small, each of these masses presents a flat, barren top surface and steep cliff-like facets, and each is separated from its neighbors by deep gullies. For millions of years, these local rivers have gushed through the gullies and eroded away the earth, becoming even more loaded with silt than the Yellow River itself. The Wuding River’s silt load, for instance, is 4.9 times that of the Yellow River’s, and an even smaller tributary, the Kuye River, has 6.4 times the Yellow’s silt load. These local rivers stretch deep into every corner of the Loess Plateau to collect silt and then discharge it into the Yellow River.

By the time it finishes circling the Loess Plateau and turns eastward to its low-lying flood plain, the Yellow River has collected 1.6 billion tons of silt – the river’s mean silt load per annum in the past few decades. This is seven times the amount of annual sediment discharged by the Mississippi River in the early 1980s and nineteen times the amount of sediment fed into the Colorado River at the Grand Canyon gate from 1948 to 1960.\(^8\)

In comparison with the North American “Big Muddy,” the Yellow River is no doubt a “Super Muddy.” Its muddy nature determines its hydrological dynamics, as silt blocks up the channel and forces the water to overflow.

Historically, the Yellow River was not always muddy, and the source of its muddy contents, the Loess Plateau, was not always a desolate, denuded land. Behind the river’s rapid siltation is a long-term deterioration of the environmental conditions on the Loess Plateau. The dry, barren image of this area did not manifest in historical literature until the ninth century. It took more than two millennia for the Plateau to develop the unpleasant environmental conditions similar to what we witness today.\(^9\)

Three thousand years ago, the Loess Plateau seems to have been rather humid.\(^10\) The average temperature might have been 2°C higher than today. Under the cover of bushes and broad-leaf trees, animals lived comfortable lives. Tigers, elephants, and rhinoceros that appear in tropical areas today seem to have existed widely in this part of north China. Before sedentary agriculture began, the rich vegetation (both forests and grasslands) sustained in a relatively warm and humid climate and guarded the loess and held it in place. Soil erosion had not yet significantly affected the Yellow River. The river’s water ran clear, and it was simply called the “River” or the “Great River” in early Chinese sources.

The mass migration of agricultural population and the colonization of the land gradually transformed this ecologically sensitive zone. Han Chinese began to settle in the region when the Qin (221–202 BCE) and Han (202 BCE–220 CE) dynasties competed with nomads for land and sought to incorporate this borderland area into their empires. The first

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\(^10\) Shi (2002: 433–448); Shi et al. (1985: 1–74); Ho (1969); Elvin (1993: 30–33); and various sections in Elvin (2006). For a comprehensive survey of regional environmental changes, see Marks (2012).
emperor of the Qin 秦始皇 sent 300,000 men to this region to “attack the hu (non-Han peoples).”\(^{11}\) Along with the military actions there arrived an enormous number of corvée laborers, who built and repaired the Great Wall. These men were the first wave of Han Chinese settlers to the Ordos area. During the next three centuries, continuous battles between the Han and the Huns and their struggles for the Great Bend area brought a sizable military population to the area. In 119 BCE, for instance, Emperor Wu of the Western Han 漢武帝 sent 725,000 people from the eastern part of the North China Plain to the Great Bend of the Yellow River to boost agricultural colonization.\(^{12}\)

Han Chinese farmers brought a sedentary lifestyle and an agricultural economy to the area. The material provision agriculture provided in turn supported a stable growth in human reproduction. Unfortunately, the gradual increase in human inhabitants and the way they dealt with the surrounding environment led to irreversible negative environmental effects.\(^{13}\) In comparison with nomadic animal husbandry, agricultural cultivation cleared the land more thoroughly; the steady population growth also required the plowing of more and more land, causing forests and grasslands to disappear. Stripped of its vegetation, the once-moist earth became dry and the porous soil began to travel. As a result, the siltation of the Yellow River accelerated and clogged the river’s lower reaches. Between the mid-second century BCE and the first century CE, the river produced serious floods, and the river itself became known as the “Yellow” river.

After the first century, the environmental situation seems to have improved temporarily. The fall of strong imperial powers in northern China might have put a pause to the mass migration into the area. The return of nomads possibly drove some Han farmers out, replacing farming with a mixture of both farming and animal husbandry. It is likely that the land was given enough time for its natural vegetation to recover, leading to a reduction of soil erosion and corresponding silt in the river.

For a while, the environmental conditions on the Loess Plateau appeared favorable. In 407, Helian Bobo 賀連勃, a chieftain of the Huns, established the Xia 夏 Kingdom and built his capital, Tongwan Cheng (統萬城, lit., City to Rule the Myriad), in middle of the Ordos. Today, this part of the Ordos is covered by sand and is known as the

\(^{11}\) Shiji, 6: 252.
\(^{12}\) Han shu, 6: 178.
\(^{13}\) For environmental implications of the northward expansion of Han Chinese in the Qin-Han period, see Wang (2007: 310–332; 485–498).
Maowusu desert, but in Helian’s time the land was verdant with natural streams and lush grasses. As Helian remarked, “I have traveled to many places, but none of them are as beautiful as here.” Archaeological works also suggest that the earth stratum associated with that historical period consisted of dark, moist, and quite fertile soil. Helian resettled 400,000 Han Chinese slaves there to engage in agricultural production for his state. It seems that for the founder of the Xia Kingdom, the northern part of the Loess Plateau was rich enough in natural resources to support all sorts of economic activities that sustained his myriad subjects as well as his military. This suggests that in the fifth century environmental conditions must have been rather benign; large-scale deserts had not yet come into being.

It is very likely that the resettlement and re-colonization of the land by farmers – introduced by Helian as well as rulers and warlords over the next several centuries who had to rely on the Loess Plateau as their production base – once again exposed this area to the same environmental destruction it experienced centuries before. The establishment of centralized empires in the Sui (598–617) and Tang (618–907) dynasties once again turned the northern Loess Plateau into the Chinese northern frontier. The old strategy of the Qin and the Han to stuff the land with Han migrants was used again. The land within the river’s Great Bend was filled with state-sponsored military colonies, Han Chinese farmers, and non-Han groups that adopted a sedentary lifestyle.

The revival of agriculture and the population boom challenged the environmental capacity of the Loess Plateau. By the mid-ninth century, excessive cultivation had depleted the vegetation and nutrients in the soil; temporary settlers migrated from one place to another to search for new land, leaving desolated earth in their wake. Helian Bobo’s Tongwan City had been seriously eroded by sand and wind. In 822, a sandstorm could easily toss up sand dunes as high as the city walls. Several decades later, travelers who came in search of the past splendor would only find a pile of remnants in a vast stretch of yellow sand. By the end of the Tang period, soil erosion became so serious that the Yellow River’s tributaries were heavily silted and blocked up. The Wuding River flooded and shifted its course many times and eventually acquired its name as the “Unsettled...
River.” The Wei 河 River in the southern Loess Plateau ran through the suburb of the Tang capital, Chang’an 长安. It was so silted that, starting in the late eighth century, its water overflowed frequently and put the capital city in great danger.16

After the first century, the Yellow River was rarely reported to flood. Sadly, this eight-century-long state of tranquility, “anliu 安流 (lit., peaceful flow)” as Chinese historical geographers call it, was to end in the Tang period. At first, the river’s middle reaches on the Loess Plateau became so unstable that the river often meandered from its mainstream. Military towns and garrisons originally considered to be “inside the river” became “outside the river,” or vice versa, not because these settlements were relocated or the districts had been displaced, but because the river’s course had shifted.17 As the decades passed, the impact of soil erosion slowly extended eastward to the river’s lower reaches. A few small-scale floods were observed by people living downstream in the ninth century. These minor events would develop into serious floods that took place nearly once every four years in the tenth century.

As the tenth century approached, the climate showed a drier tendency, and this played a significant role in the worsening of environmental conditions in north China. Statistics of disaster records in the tenth and eleventh centuries show that drought frequently affected the Loess Plateau.18 This increasing aridity would have harmed vegetation, depleted the earth’s moisture, and accelerated the desertification of the land. As a result, more sandy material entered the river. Reports of sandstorms (yutu 雨土, lit. earth storms) increased greatly in the eleventh century.19 Although most of the sandstorms affected the lower Yellow River valley and were witnessed by people there, the sandy materials that produced such storms came from a place nearly a thousand kilometers away, namely the Loess Plateau.20

The dual impact of human activities and the climatic tendency together modified the environmental conditions in the Yellow River’s middle reaches. Within this broad temporal and spatial context, the making of the environmental drama in 1048 had come about as a result of profound interregional environmental and geological exchanges.

17 Chinese historical geographers have debated for decades if there was a tranquil period in the Yellow River history and why. See Tan (1986), Yao (1987), and Shi (2002).
A Thousand Years of Tranquility

As the Loess Plateau continued to feed the river tremendous amounts of silt from a thousand kilometers upstream, the failure of the downstream flow to process and digest that silt eventually led to flooding disasters along the river’s lower reaches. Today, every year the river carries 46.4 billion cubic meters of water, merely 8 percent of the 562 billion cubic meters of the Mississippi; at 1,880 cubic meters per second, the Yellow River’s discharge rate is only 12 percent of the 15,500 cubic meters per second of the legendarily sluggish Mississippi. Given such low water level and low velocity, the river has trouble discharging its heavy silt into the ocean; instead, it deposits silt in the riverbed or spreads it over the land of north China along its course. The flow’s inability to transport silt is significantly worsened by the flat, low terrain of the North China Plain. Here, the land stands less than 50 meters above sea level and offers little gradient. Today, nearly 40 percent of the 1.6 billion tons of silt is deposited unevenly over the river’s lower reaches, causing the riverbed to rise at a rate of 2–3 centimeters each year. The continuous accumulation of sediment in the past three thousand years has produced a “suspending river” on the North China Plain. This means that a substantial portion of the flow does not stay in the ground but instead stands meters above the surrounding low-lying ground – a phenomenon that historical writings recorded as early as in the second century BCE.

The higher the river body rises, the more likely it will overflow, and the more powerful its flooding will be. Beginning in the seventh century BCE, kingdoms along the river’s lower reaches entered a “dyking race,” meaning that they competed with each other to construct lengthy high dykes to keep out both floods and silt. Those who did not build dykes would become victims not only of the river’s torrents but also of their neighbors’ hydraulic infrastructure. The dyking technique, however, induced negative consequences and led to more flooding disasters. The dykes straightjacketed the river course and fixed the water and silt within a limited space. Such spatial confinement accelerated the accumulation of sediments in the riverbed and thereby the latter’s elevation. As a result, the river’s hydrological force pushed even harder against the dykes, and the river’s water was more likely to burst through them.

The one and a half millennia prior to 1048 saw an endless wrestling between human efforts to build more dykes and the river’s desire to

\footnote{Gupta (2007: 31).}
run free. When the river succeeded in overcoming the dykes, the massive force of water would pour out onto the surrounding low ground and wreak havoc over a vast area. In 132 BCE, for instance, a terrible bank rupture at the site of Huzi 孤子 led to the inundation of all of southern Hebei and northern Henan. It took Emperor Wudi of the Western Han Dynasty twenty years to come to the conclusion that the bank rupture had to be fixed at any cost. He visited the bank rupture personally and presented extravagant sacrifices to Heaven and Earth. He even composed a prose poem to express his despair over the calamity, as well as to document the tremendous human efforts under his leadership to fix the rupture. His officials, regardless of status and position, carried wood and stones to the riverside to perform flood-control work. Dealing with the aftermath of the floods took the state over twenty years; as one of its many costs, the bamboos in the state-owned forests in Henan were completely felled for use as construction material.\(^{22}\)

The river’s destruction seems to have become even more severe at the turn of the first millennium. Archaeological works led by T. R. Kidder have shown a remarkable earth stratum 10 meters under the present land surface, which was produced by floods and resulting sediments in that period.\(^{23}\) Continuous flooding certainly contributed to the political upheaval and social instability, so it is reasonable for us to consider that river-related environmental disasters must have played a significant role in the dwindling of the Western Han Dynasty and the tragic failure of Wang Mang 王莽’s short-lived Xin 新 Dynasty. The environmental conditions of the river carried immense political and socio-economic implications.

Flooding began to reduce in the first century, partly because of the improvement in environmental conditions after human activities on the Loess Plateau decreased, and partly because of innovations in hydraulic knowledge and technology. Previous historical writings have generally attribute the decrease of floods to the hydraulic works conducted by Wang Jing 王景 in the first century. Wang witnessed the overwhelming power of the Yellow River and learnt the technical limitation of fragmented dykes. To tame the violent river, he believed it necessary to observe the natural conditions of geography, to choose and design a suitable route for the river, and then to install a holistic dyke system that contained the entire river rather than only sections of it. Not much is left of Wang’s hydraulic

\(^{22}\) Shi ji, 29: 1412–1413.

\(^{23}\) Kidder et al. (2012: 30–47).
legacy today, but historical literature suggests that he developed a brand new course for the river, flanking it on both sides with strong dykes that stretched over 500–600 kilometers.\textsuperscript{24}

Wang Jing’s river course remained functional for the next nine centuries, and the river’s lower reaches appeared peaceful. Very few flooding events were reported in the North China Plain. We cannot judge to what extent the tranquil state of the river is attributable to Wang’s hydraulic work, because there are not many extant historical sources that offer evidence. Whatever brought about a stable, gentle river, we know for certain that the first century marked a significant change in the river’s relationship with the land of Hebei. Wang Jing’s eastward-flowing river course divided the land of Hebei from that of Henan. The river’s long-lasting geographical stability even granted these two regions their identities: Hebei eventually acquired its literal name as “the land north of the river,” in contrast to Henan, “the land south of the river.” From then until the tenth century, the river made very little trouble for Hebei and its people; it certainly never invaded Hebei’s territory before the eleventh century.

Sadly, the tranquility that people on the North China Plain had enjoyed for nearly one thousand years gradually came to an end, as the environmental conditions in the upstream area continued to deteriorate and, very likely, Wang Jing’s dykes slowly broke down. The accumulation

\textsuperscript{24} For the debate on Wang Jing’s hydraulic work and the possibility of a thousand-year tranquility of the Yellow River’s situation, see various articles in Tan (1986) and Yao (2003: 155–175).
of silt made certain parts of the river increasingly vulnerable to flooding. In the tenth century, bank ruptures and floods occurred in twenty-four individual years. Most of them happened within a small area in the Huazhou and Chanzhou prefectures, where the river’s channel zigzagged, the earth supporting the dykes was loose and fragile, and the currents tended to be turbulent. Through the tenth and eleventh centuries, this dangerous section of the river saw the most major flooding and course shifts.

Meanwhile, from the late tenth century on, sediments began to deposit at the river’s estuary and block river water from entering the sea. Dizhou prefecture, for instance, was close to the ocean and saw the river flowing through the southern half of its domain. In the 980s, this district carried 56,178 registered households, roughly 280,890 people. Here, the riverbed of the Yellow River had risen nearly ten meters above its surrounding ground. The dykes could no longer be built higher, and the increasing pressure of water occasionally crashed through them. Between 1007 and 1014, floods struck the capital city of the prefecture every year. In 1014, a flood nearly submerged the entire city, forcing local officials to petition to the imperial court to abandon the city and remove its residents. Soon after people evacuated, the city of Dizhou was completely submerged by a second flood.

This eastward movement of flooding problems toward the river mouth did not alleviate pressure on the river’s upstream sections. Rather, by the beginning of the eleventh century, the entire 700 kilometers of the river’s lower reaches had become highly problematic; its various sections were troubled by different kinds of hydrological mechanisms. The blockage of the river mouth must have jeopardized the river’s normal flow and caused both water and silt to surge backward. There is no historical source to demonstrate this phenomenon, but with basic hydrological knowledge, one may imagine that the counter-directional flow from the coastal area surged westward to clash with the river’s eastward-flowing mainstream. Wherever these two hydrological forces met saw great damage. In the early eleventh century, these clashes happened again and again in the Huazhou-Chanzhou area. In the years 1015, 1019–1021, 1034, and eventually in 1048, the river provoked its most serious bank ruptures and floods precisely in this area.

26 XCB, 83: 1839.
This brief survey of the river’s history charts a gradual end to the thousand years of tranquility, both in terms of the river’s conditions and the North China Plain’s experiences of environmental stability and disturbance. The catastrophic events that began to occur in the eleventh century were in fact a culmination of a growing trend of river disasters. Situating the momentary environmental event in 1048 in a complex temporal-spatial context helps us see clearly how the currents of history had been preparing its actors – the river, the land of north China and the people residing there, and governmental and political figures – for the dramatic outbreak of a catastrophe like the 1048 event. Hence, the environmental drama presented in this book did not come about as some random event; rather, it was the result of a series of causal relations complicated by both natural factors and human activities.

1.2 The Autonomous Plain

Hebei as a Geographical Entity

Before the Yellow River’s penetration in 1048, Hebei was a land “north of the Yellow River.” For nearly a millennium, not only did Hebei experience limited environmental impact from the river, it utilized the river’s broad, heavy body as a natural barrier to shield itself from the rest of China. The river endowed Hebei with a geographical boundary as well as a sense of separation and independence – both Hebei and the rest of China saw Hebei as its own entity, distinct from other regions.

Geographically, the plain resides at the northeastern corner of traditional Chinese territory. In the east, it abuts on the Gulf of Bohai, where the sea cuts off its connection with any other landmass, such as the peninsulas of Shandong, Liaoning 辽宁, and Korea. In the west, the plain leans against the Taihang Mountains 太行山, which stretch north–south over four hundred kilometers and stand over a thousand meters in altitude, high enough to block Hebei from the highland of Shanxi 山西. To the north, Hebei’s geographical division from its neighbor is not as sharp as in the other three directions. The century-long battles between the Han Chinese and the Khitan 契丹 took place here, resulting in the display of troops and fortresses on both sides of the Juma 拒馬 River. The political and military situation had long established the Juma River as the de facto northern boundary of Song-occupied Hebei. In 1005, the Song and Khitan’s Liao 遼 (907–1125) states issued a peace treaty and officially declared the Juma River a border between the two states. Hence, the
medium-size Juma River served as both the political and the geographical northern edge of the plain.

Given this geographical contour, the “Hebei” plain at question in this book refers roughly to the land called the “Jizhou 冀州” region during the Han and Three Kingdoms 三国 periods (the second century BCE through the third century CE), the southern half of the “Hebei dao” during the Tang period (the early seventh through early tenth century), and the southern half of the “Zhili 直隶” region in the Ming 明 and Qing 清 periods (the early fifteenth through the early twentieth century). This region, thus, is also different from modern Hebei Province whose territory includes a vast area north of the Juma River, where modern Beijing 北京 is located. Hebei in the tenth to twelfth centuries refers to the southern half of modern Hebei Province, the region administered under the name of “Hebei lu” by the Northern Song Dynasty. The land to its north, the northern half of modern Hebei that includes the city of Beijing today, was under the control of the Liao Dynasty as the Liao’s “Nanjing 南京” district during the tenth to twelfth centuries. Its land and people underwent a drastic political, socio-economic, and cultural transformation due to nomadic influences. Readers should note that the
present book does not study that northern land; the Hebei Plain here is strictly defined as the land south of the Juma River.27

Bracketed by these rivers, mountains, and sea, Hebei distinguishes itself from its neighboring areas. It stands out as a material entity with a clearly defined geophysical enclosure. This book foregrounds a geographical definition of Hebei, acknowledging it foremost as a plain in the geographical sense, before regarding it as a socio-economic and cultural region, or as a political, administrative unit of the Song empire. These three definitions of the land are correlated, and they often overlap each other in terms of their spatial coverage. In this book, the term Hebei often refers to the three meanings in an interchangeable manner, with an understanding that the geophysical existence of the land lays the foundation for its other significances. In places where more clarity is needed, I shall explain in exactly which sense the term is being used.

By emphasizing Hebei as an enclosed geographical entity that enjoys rather uniform materiality, I highlight Hebei’s image as an environmental entity equal to but distinct from other environmental entities, like the Yellow River and the imperial state. I honor Hebei’s roles as a participant and actor in history, which performed and interacted with other historical actors in the complex process of making north China’s environmental history. Hebei did not participate in the historical process nominally, as an abstract political unit bearing an administrative title, nor did it participate merely as a conceptual substitute for anthropocentric subjects like people, their society, and their collective culture. As a geophysical entity, Hebei not only served as a material site where various environmental changes and exchanges as well as political and economic activities took place, it also acted as both a recipient and an object of these changes and activities, which modified the land’s physicality in various ways. Most importantly, the land responded to the movement of the Yellow River and the interventions of human activities by setting limitations or provoking reactions. It defined the ways in which the river behaved within its territory; it shaped and reshaped the livelihood of the people who were affected by every change to the land’s materiality. The land itself kept changing and took part in the endless making and unfolding of the historical drama. By playing participatory roles in the environmental

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27 This book does not extend the range of the Hebei Plain toward the land in the north not only because the Juma River sufficiently served as Hebei’s geographical, political, socio-economic, and cultural boundary, but also because historical sources associated with the Liao-controlled northern land are scant and do not support an in-depth study of its environmental history.
process, and by way of its constant reciprocation with other entities, the 
plain of Hebei made itself a prominent historical actor.

This geographical entity distinguishes itself through its internal geo-
physical singularity. First, although it covers a vast area of roughly 
120,000 square kilometers (back in the Northern Song period28), nearly 
as large as modern-day England, the land sees little variation in elevation. 
Being a typical plain, Hebei lacks fluctuation of its surface; it spreads 
out smoothly, seeing no significant obstacle, like mountains, to divide the 
land into distinctively different sections.

Second, nearly the entire area is uniformly low-lying. Born as a tectonic 
sink millions of years ago, it has continued to sink, as the mountainous 
terrains around it continue their uplift. Except for a narrow strip along 
the foot of the Taihang Mountains where the terrain is relatively high, the 
plain stands only 50–20 meters above sea level on average, much lower 
than other areas in north China. From western Hebei to the eastern coast, 
a distance of 400 kilometers, the land’s altitude gradually drops from 100 
to 2 meters. The change in gradient is so minor that across Hebei one 
may not observe much topographic difference.

Third, Hebei is climactically varied: the eastern coastal area receives 
more oceanic influence; the western mountainous area traps higher 
humidity and thereby enjoys more rainfall in the rainy season; while 
the central plain suffers higher aridity and lacks any shield against sum-
mer heat, strong winds, or cold fronts. Nevertheless, in general, the 
plain shares a relatively uniform continental temperate climate. Located 
between latitudes 35° and 39° north, this area is dominated by interplays 
between the southward movement of cold, dry air masses from Siberia– 
Mongolia and the northwestward movement of warm, moist air masses 
from the Pacific. When the northern forces rule, they produce a cool, dry 
Hebei during a large portion of the year. Spring and summer are usually 
short, but the temperature can go up to 35°C in most places.

Throughout Hebei, the temperature drops under the freezing point in 
winter, now as back in the Song period. Heavy snow is common. When 
spring arrives and the land heats quickly, most of Hebei experiences the 
“hot dry wind (ganrefeng 乾熱風),” which blows the earth so dry that 
it often kills winter-spring crops. The rainy season does not start until 
mid or late May. In general, precipitation is low throughout Hebei, with 
regional variations for annual rainfall between 400 and 600 millimeters. 
This small amount of rain nourishes the land in a peculiar way: about

70 percent of it hits the ground during three summer months, which creates downpours that fill up rivers, cause floods, and wash away the dry, loose soil from the land surface. During the rest of the year, the other 30 percent of the rainwater sprinkles down sparsely, far from enough to relieve aridity. This climatic pattern makes Hebei subject to certain natural disasters. Excessive rain causes floods, while a lack of rain causes drought. Historical records show that this seasonal contrast was evident in the Northern Song period as well as today.

Lastly, Hebei’s geophysical singularity is also manifested in the characteristics of its water resources. Most of Hebei’s natural streams originate from the western mountainous area. Supplied by underground water and snowmelt in spring, the rivers follow the smooth descent of the gradient toward northeast Hebei. In the vicinity of modern Tianjin where the land is lowest and was covered by swamps in the tenth to twelfth centuries, the rivers merge with each other before discharging into the sea. Back in the Northern Song period, some of these rivers were known for being muddy due to their heavy silt load. Their water volumes changed often and, due to Hebei’s rain patterns, were prone to floods. Therefore, navigation by boat to travel from western Hebei downstream to eastern Hebei was a challenge.

Thanks to the flat low ground, water accumulates easily. Meanwhile, the underground water table sits merely 1 or 2 meters under the land surface; with even a little infiltration of rainwater, it rises quickly to form lakes, ponds, and springs. In early China, western and northern Hebei were festooned by extensive lakes. Many of them had shrunk or disappeared by the ninth century; the bottoms of these lakes had been cultivated as fields by farmers. With the addition of more water, however, these lowlands could still trap water and turn back into swamps and lakes. This is exactly what happened in the late tenth century. Under heavy rains, the local rivers ran wild and flooded, and a considerable portion of northern Hebei was submerged in stagnant water.

From the first century until the Yellow River’s entry into the plain in 1048, Hebei’s water system functioned as a largely independent, self-reliant entity. Rain, snow, surface runoffs, and the underground water circulated and replenished each other. These waters stretched toward every corner of the land to organize a vibrant, self-sufficient geographical entity, which formed the underpinning of the environmental life for both humans and non-humans on the Hebei Plain.

Cultural, Socio-Economic, and Political Autonomy

For readers who have learnt about Hebei through the scholarship of late imperial China, Hebei was a “land of famine” in its recent history. Located south of the metropolitan area of Beijing, capital to the Jin, Yuan, Ming, and Qing dynasties and present People’s Republic of China, Hebei was where these late imperial states deployed massive amounts of soldiers and conscripted large numbers of corvée laborers, where roads and waterways spread all over not to benefit the locals but to deliver grain and wealth from south China straight to Beijing. In recent centuries, the land increasingly suffered from hydraulic breakdowns and environmental disasters; its human population was frequently struck by agricultural failures, hunger, and demographic losses. For many recent centuries, this region was not a significant player in the arena of political and socio-economic contestations among various regions; rather, it has become one of the poorest, most powerless parts of China. This impoverished image of Hebei is very different from how the region looked before the eleventh century. In the following pages, we shall trace the historical evolution of a militarily strong, politically independent, and economically self-sufficient Hebei before the eleventh century. For many early centuries prior to the eleventh, the geographical enclosedness of Hebei had interacted with the people living there and produced a society that enjoyed a history and culture quite different from people in neighboring regions. Hebei’s uniqueness lies in its ethnic, economic, and cultural hybridity, its military tradition, and its political autonomy.

Back in early China, the land of Hebei was a contested region where multiple feudal states of the Spring and Autumn (700–476 BCE) and Warring States (476–221 BCE) periods vied. It was a borderland – an ethnic, economic, and cultural melting pot – between the sedentary, farming Han Chinese and non-Han peoples, including the horse-riding nomads and semi-nomadic hunter-gatherers who arrived from the Mongolian Steppe and northeast Asia. Either through violent territorial disputes and military struggles or through peaceful economic exchanges and intermarriages, these ethnic groups intermingled to produce a population that was known as the “men of Yan and Zhao (Yan Zhao zhishi 燕趙之士)” in many later centuries. These people, also known as the Hebei people after the geographical name “Hebei” came into common use, were a kind of hybrid between two ethnic, socio-economic, and cultural traditions.

30 Lillian M. Li (2007).
Before the imperial times, the early Hebei people were distant descendants and subjects of the Han Chinese culture. In comparison with those living to their south and west, they did not strictly observe state rituals and social norms derived from the tradition of the Zhou Dynasty that had dominated the lives on the central North China Plain. They were not well acquainted with Confucian philosophy, ethics, and literature, which had formed a basic ethos for the men of China’s ruling classes. Hebei men did not produce famous thinkers or writers like Confucius and Mencius, whose moral and political teachings defined the Chinese society and its individuals since the second century BCE. Neither did they produce powerful politicians like Guan Zhong (of the Qi state in Shandong) and Lord Shang (of the Qin state in Shaanxi), whose political sophistication helped build strong states that led toward the rise of imperial China.

Instead, the early Hebei people were known for their martial and heroic characters. King Wuling of the Zhao Kingdom (340–295 BCE) was famously known for promoting non-Han culture, such as horse riding, archery, and nomadic styles of clothing, in order to improve his state’s military strength. Jing Ke, a strong man from the northern land of Hebei, became one of the most renowned individuals in the literature of this era for his assassination attempt of the king of the Qin, later the First Emperor of the Qin Dynasty. Literature from early China gives us a general impression that, in the land of Hebei, even ordinary farmers knew how to ride horses and shoot an arrow. When not farming, they hunted or practiced martial arts, or sauntered around with swords hanging from their belts. These men were born soldiers because of the region’s martial tradition and strong sense of honor and personal worth. Open, friendly, and blunt, they made acquaintance with strangers easily and often developed their social lives through drinking. These qualities, however, could get them into trouble too. When offended, they would not hesitate to provoke a fight. They would avenge any slight of family or personal honor and were known to become outlaws.

Teeming with heroes and strongmen, Hebei had for centuries been the breeding ground for fearless warriors and powerful military leaders. Their armies could provide the force for the rise of a central authority.

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31 Literature of early China, such as Zuozhuan, Zhanguo ce, and Shi ji, offer many stories and anecdotes about warriors, assassins, and remarkable figures of the sort from the Hebei area. They give us a general impression of the martial characteristic of early Hebei people.
The founding emperor of the Eastern Han 東漢 Dynasty, Liu Xiu 刘秀 (6–57 CE), for instance, pacified rebellions and unified China under one central rule. He achieved this because he gained support from Hebei warlords and built a political and military foundation inside Hebei. From the late Han through the Three Kingdoms period, Hebei acted like a military powerhouse. Prominent contenders for the imperial throne, like Yuan Shao 袁紹 (d. 202), Cao Cao 曹操 (155–220, whose family established the Wei 魏 Dynasty), and many others, established their military and political careers here and used Hebei as the base for their military expansion toward the rest of north China. Dominating the civil war in north China, Hebei warlords often resisted centralized control coming from the outside; they cared more about their own interests and political autonomy. In this sense, Hebei men were the most disobedient subjects an imperial state had to deal with. Even worse, an ambitious Hebei warlord could easily rally his own troops and expand beyond Hebei to challenge the state in central north China, while the central state often experienced difficulties in entering highly independent Hebei: the land’s geographical barriers, in particular the Yellow River, effectively blocked most invasions from the south.

Through the early seventh century, China was wracked with civil war. Various non-Han ethnic groups streamed into China proper from the Mongolian Steppe and northeastern Asia to participate in political and military competitions. Both disturbed by and forced to absorb these populations, Hebei’s military culture and tradition of political autonomy were further strengthened. Households of wealth and high social status amassed weaponry, raised horses, and trained their own militants for self-protection. In this period, a manorial economy thrived. Large estates owned enormous plots of land and commanded the labor of multiple households to engage in various kinds of production. The manor produced both agricultural and non-agricultural products to guarantee a highly self-sufficient economy, which relied very little on exchanges with the outside world. This economy allowed estate owners to develop their military forces and gave them enough freedom to emerge as local political leaders and compete for power at higher levels both within Hebei and in interregional or even national arenas. These “strongmen from east of the [Taihang] mountains (Shandong baojie 山東豪傑)”32 in Hebei acquired extraordinary political and military power in north China from the third

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32 This phrase sometimes referred to “east of the Yao Mountain,” meaning the eastern part of the North China Plain, a realm larger than Hebei.
century on. They participated in north China’s political contentions and simultaneously protected their homeland from falling prey to any external authority.

From the mid-sixth century, northwest China saw the rise of strong regimes, which eventually suppressed the powers in the northeast and conquered Hebei. The Sui and Tang dynasties both acquired Hebei as a northeastern province of their imperial empires. This repression of the “strongmen from east of the mountain” has long been considered a major transition in Chinese history, representing the political and cultural integration of different regions, like Hebei, into a centralized imperial state. All over China, the manorial economy slowly gave the way to a more diversified agro-market, empire-wide economy. Thanks to a peaceful political environment from the early seventh century, small landowners were released from the control of the large estates and thrived in various specialized modes of production.

By the mid-eighth century, Hebei had become a major agricultural producer in the empire and contributed greatly to the state’s finances. Its grain products traveled over a thousand kilometers westward to feed the population in the imperial capital of Chang’an in Shaanxi; it was also known as the largest supplier of refined silk in the empire. Meanwhile, trade boomed and market towns mushroomed, especially along streams that provided convenient water-based transportation. Inside Hebei, the Yongji Canal (known as the Yuhe Canal in the Northern Song period) was built in the early seventh century. This north–south waterway linked Hebei’s local rivers with the Yellow River that skirted Hebei’s southern border; it carried goods in and out of Hebei and distributed them to various parts of the plain. With this additional means of transportation, commerce flourished. Qinghe County in central Hebei, for instance, gained so much wealth that people called it the “northern warehouse of the empire.” Hebei’s booming regional economy, considered the strongest in the Tang empire, led to an increase in population, and by the mid-eighth century, it enjoyed the largest regional population among the empire’s various provinces. Its registered households accounted for

33 Chen (1997).
34 McDermott and Shiba offer a survey on the transformation of economy during the Tang period, in Chaffee and Twitchett (2015: 321–325).
36 Zizhi tongjian, 217: 6957.
20 percent of the entire empire, and its population density was the second highest in the empire, just barely behind the metropolis of Chang’an (see Illustration 5).  

All these political and socio-economic changes, however, did not seem to have fully incorporated Hebei into the rest of China, nor reduced it to a submissive subordinate to the imperial state. As the state remained wary of the burgeoning region, Hebei and its people sustained their regional identity as a geographically distant, economically self-sufficient, and politically semi-independent area. Its vigorous economic growth and population increase enriched its regional authorities and military forces; it endowed Hebei’s generals and later warlords with immense confidence and strength in terms of resisting or even challenging state rule. This sense of superiority and political semi-autonomy eventually led to the An Lushan Rebellion in 755.  

This rebellion, which nearly tore the Tang empire apart, was initiated by non-Han generals like An Lushan and Shi Siming from northern Hebei. It then exploded into a multiplicity of regional warlords and political factions throughout China, who fought with each other and grabbed as much land and population as possible to enlarge their domains. Among them, Hebei warlords were particularly powerful and arrogant. While most other regional powers formed checks and balances in military, civil, or economic terms and helped preserve the central authority of the Tang, Hebei warlords kept full control of their territories and often threatened the stability of the imperial rule. They rejected any intervention from the central authority, demanded honor and gifts from the state, monopolized wealth in their areas, refused to contribute taxes to the central government, summarily expanded their own militaries, and invaded their neighbors and annexed land without heeding the opinion of the central government. Hebei’s extraordinary military strength and unbridled ambition to supersede the state were analyzed by the late-Tang poet official, Du Mu. The land of north China centering Hebei was something that “A king cannot be a king without owning it; a hegemon cannot be a hegemon without owing it. A cunning thief who wins this land is able to disturb everything under Heaven.”

The resurgence of Hebei’s military tradition was reinforced by this region’s ethnic hybridity and mixed social and cultural practices, which

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38 Based on Liang (1980: 86, 114).
continued to produce the kind of “cunning thief” that pro-state, non-Hebei native like Du Mu complained about. The cosmopolitan empire of the Tang drew non-Han ethnics from Inner Asia and North Asia, some conducting trade with the Han Chinese while many settling down in north China to become farmers or join the Tang’s armies. For centuries, Hebei, like other north China regions like Shanxi and Shaanxi, hosted a highly mixed population: Han, Sogdian (like An Lushan and his fellow soldiers who originated from central Asia), Bohai (from the modern China–Korea border), and Khitan co-inhabited and intermarried here. Being Han was not necessarily superior in either ethnic or cultural terms; instead, being non-Han sometimes suggested better physical conditions and higher military capacities, which were welcomed and respected in a time of constant war. One’s personal worth was considered to be more valuable than ethnic or family background. Social relations were formed in a variety of ways. To trace blood kinships and lineages to common ancestors – a practice that organized the Chinese Confucian society – was just one way. Under the influence of non-Han and especially nomadic practices, sworn brotherhoods and loosely formed social-professional alliances became prominent. This was particularly true within the military, in which the ratio of non-Han was higher than in the civilian population. In armies, due partly to nomadic influence and partly to high mortality, the practice of adoption was popular. People of superior social and political status adopted orphans or inferiors as their children, regardless of their ethnic backgrounds. An adopted son was generally given the same opportunities as his foster siblings and, if he proved himself talented and capable (often in the martial sense), he might make an equal claim to the adoptive father’s inheritance, including his political and military power.

In addition to speaking Han Chinese as a common language, it was not unusual for the Hebei people to communicate in other languages, either in the market places or in armies. The average literacy level was low, and the Hebei men in this period were not known for scholarship or literary sophistication, unlike the more educated population in central and south China. A good example is Zhao Pu, 趙普 (922–992), a native of Hebei who became a chief advisor to the founding emperors of the Northern Song Dynasty and served as their Grand Councilor for several decades. Although he helped the emperors to establish the state and guided them in nearly every significant political decision, Zhao was said to have gathered his intelligence from merely half a volume of Confucius’s The Analects. This anecdote might be an exaggeration or a fabrication by political rivals to blemish Zhao’s reputation. Nevertheless, it suggests
that during the turbulent tenth century, a culture based on the standards of Han Chinese Confucian teachings might not be what the Hebei men valued most. Or, even rather renowned scholars, who were certainly the minority in Hebei, such as Liu Kai 柳開, were best known for their northernner’s blunt temperament and martial spirit, very different from refined, delicate southern scholars. In northern Hebei, people often dressed in a nomadic “zuoren 左衽” fashion – that is, with the front piece of their garment folded toward the left side of the body – even if they happened to be ethnically Han. Some shaved their hair in various nomadic styles. Practicing martial arts and learning horse riding and archery were a significant part of Hebei culture, which remained vibrant even throughout the eleventh century.

The blurred ethnic and cultural identities of the Hebei people as well as their socio-economic and political pragmatism not only helped them survive the political turbulence, but also strengthened their military autonomy and sense of difference. All this fueled north China’s political chaos from the late ninth century through the tenth century. As the Tang Dynasty was replaced by several short-lived regimes, rapid rebellions, and numerous secessions in central China, Hebei warlords actively engaged in the contestation for power and contributed to the frequent dynastic successions. Some of them established dynasties themselves; some served the regimes as leading generals to sustain their solid control over the Hebei military. In an era when “Those who possess mighty soldiers and strong horses will become the Son of Heaven!” as the domineering, Late-Tang general An Zhongrong 安重榮 (?–942) claimed, the person

43 Standen (2007) studies the great diversity of ethnicities and identities across the Song–Liao border in the Hebei area. However, in his study of a man traveling across China in the tenth century, Dudbridge (2013) reminds us that we should not overestimate the cultural hybridity of people in northeastern regions like Hebei; Han Chinese’s cultural and ethnic identity still remained strong. We should certainly note that, while literati (scholarly officials) maintained their strong Han identity particularly in times of political, social, and cultural crises, ordinary people like peasants and soldiers might have been more practical and drawn toward social and cultural practices that could better preserve their lives in extreme hardship, such as practicing martial arts and adopting non-Han lifestyles.
45 For the political and military turbulence during the tenth century, see Naomi Standen and Hugh Clark in Twitchett and Smith (2009) and Lorge (2011: 38–205).
46 Jiu wudaishi, 98: 3005.
who “owned” Hebei seemed to be in a good position to vie for the throne. That An was able to make such remark and contemplate the idea of arrogation was due to his status as a major commander of Hebei’s military forces. His declaration echoed perfectly with Du Mu’s assessment of Hebei’s strategic significance in the ninth century.

Entering the tenth century, Hebei’s military prominence skyrocketed especially because of its geopolitical position between the Han Chinese regimes and the Khitan’s Liao Dynasty. The Khitan originated in southeastern Inner Mongolia and expanded rapidly in the late ninth century. In the early tenth century, this equestrian people had established a nomadic empire, not only dominating a great part of the Mongolian Steppe and northeastern Asia, but also pressing upon land that had traditionally belonged to China. For years, the Khitan raided the land north of the Juma River; in 937 and 947, their troops marched all the way through Hebei, crossed the Yellow River to enter Henan, and even captured several imperial capitals of different Chinese regimes. The Khitan’s overwhelming military strength defeated several Chinese rulers, who were forced to give up land north to the Juma River, where sixteen military prefectures (including modern Beijing) were located, to the Khitan and fulfill its demands for wealth.

The Khitan’s military superiority and, for a period, political oversight of a Chinese regime endowed the land of Hebei with a tremendous strategic significance. On the one hand, Hebei suffered as the battlefield for multiple regimes, and its society, population, and economy were ruined by the prolonged period of war. On the other hand, this land became an indispensable military base and buffer zone for any Chinese regime, which had no choice but to support Hebei and reinforce its military in order for the region to serve its role against the Khitan. Hence, ironically, the socio-economic decline of Hebei went along with its strong hold on political and military power. Its regional military leaders used the Khitan as leverage to contest the central authorities in the south and negotiate to their advantage. When they felt pressure from the south or resisted being centralized by a Chinese regime, they turned to the Khitan in the north for protection. The regional forces in Hebei swung back and forth between the regimes on either side and switched their loyalties as would benefit them. To the Khitan, it made sense to help maintain a relatively

\[\text{For the Khitan’s military and political interactions with the Late Tang Dynasty and the Late Jin Dynasty, see Naomi Standen in Twitchett and Smith (2009: 38–132) and Lorge (2011).}\]
strong and autonomous Hebei. Although it was capable of launching an attack on central China, the Khitan’s several attempts had proven that it could not occupy Chinese land for long, since the culture, economy, and society were too different from its own, and the resistance against foreign rule was too strong. The Khitan needed Han-Chinese agents to preserve and maximize its interests, for instance, protecting the frontier trade and the importation of Chinese goods. A semi-autonomous Hebei, not fully yielding to the Chinese regimes, served the Khitan well.

The Chinese regimes rooted in Henan, south of the Yellow River, had mixed feelings about Hebei’s military power, autonomous inclination, and ambiguous relationship with the Khitan. They relied on support from the Hebei warlords, and they needed Hebei to be strong and intact to fend off Khitan invasions. It was not in these regimes’ interests to see the dissolution of Hebei’s military strength. Yet, when Hebei acted as a decentralizing force, it might challenge the Chinese states’ rule or even assist the Khitan in a conquest of north China. These regimes could only fill up Hebei’s military positions with relatives and trustworthy men, in order to ensure Hebei’s loyalty and to curb its separatist tendencies. Yet, during the chaotic, opportunist Five Dynasties 五代 (907–959) period, nobody, even a brother, was trustworthy and consistently loyal. The aforementioned An Zhongrong was not the only one who expressed the desire to become an emperor. In this sense, Hebei continued to produce potential rivals to the existing regimes. This ambivalent relationship between the Chinese regimes and Hebei helped sustain Hebei’s semi-autonomous status throughout the tenth century. When the Northern Song Dynasty came to power in 960, it inherited this complicated relationship with Hebei.

Before we move on to introduce the arrival of the Northern Song state, let us briefly return to the Yellow River. What was the river’s position in the long history of Hebei? In a less visible, marginal way, the river contributed to the formation and sustainment of Hebei’s geographical, political, and cultural singularity. It formed Hebei’s southern border, provided it a geographical division, and served it as a defensive barrier. It contributed to reinforce Hebei’s cultural, socio-economic, and political separation from the rest of China. Hence, it may seem shocking to modern readers that, after a thousand years of relative benignity and a marginal relationship with Hebei, the river chose this plain as its flooding victim and the geographical base of its new delta. Instead of continuing to guard Hebei and reinforce the long history of Hebei, the river crashed into the plain, transformed its environment, and contributed to the ending of Hebei’s self-sufficient, autonomous tradition. Before the eleventh century,
the Hebei people had carried out a vibrant social, economic, political, and cultural life, with little influence from the environmental entity of the Yellow River. They had been oblivious to the river’s bad temper and violent tendencies; history had not prepared them – either materially or mentally – for a deadly attack by the river. So what brought the river’s catastrophic impact upon these men and women?

This book suggests that the shift of the river’s course into Hebei in 1048 was a matter of probability. The probability is not evident in the present chapter, as the river and the plain had sustained a marginal relationship for a long time. But the next three chapters will show that, as time moved on to the late tenth century when the Northern Song state started to play a prominent historical role, the probability began to rise. I shall anatomize the history of the early Northern Song to demonstrate how the land of Hebei evolved from a region of political, socio-economic, and environmental autonomy to a region highly dependent on the state, which had less and less control over its own fate. I will point out that this fall in Hebei’s status made the region susceptible to environmental attacks, in particular when the state sought to channel the Yellow River’s disasters to plague Hebei. In order to unravel this trialectic relationship among the river, the plain, and the state, let us first look at the rise of the imperial state of the Northern Song, as another prominent actor in the making of history. The state’s need to manage Hebei and the Yellow River simultaneously, a story that will unfold over the next three chapters, eventually broke down the marginal relationship between the plain and the river and drew the two into an environmental co-inhabitance.