

# *Beyond Great Walls*

ENVIRONMENT, IDENTITY, AND DEVELOPMENT

ON THE CHINESE GRASSLANDS OF

INNER MONGOLIA

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## The Land in Cultural Context

Cultural realities—including attitudes, values, preferences, perceptions, and identities—can be just as important in shaping land use decisions as the material realities of political economy. I have already suggested that long-standing popular beliefs in a cosmic linkage between environmental harmony and political legitimacy might help explain some particular aspects of desert discourse in modern China. This chapter proposes a far more direct role for cultural factors in the process of land transformation, demonstrating that people relate to the land not just as individuals but also as members of a group with entrenched dispositions. In China, symbolic systems of environmental meaning actively shape the way rangeland policies are both designed in Beijing and implemented in Mongolian communities on the grasslands.

Ideological biases emanating from within the international community of scientists and scholars also have their effect on land use decisions halfway around the world. Contrasting worldviews and expectations among different cultural communities—urban Han Chinese, ethnic Mongolian pastoralist, and detached Western intellectual—thus constitute an important dimension of environmental controversy in Inner Mongolia.<sup>1</sup> These cultural realities are most acutely manifest in the conflicts that arise from an accelerating household enclosure movement. Since the national rangeland policies promote privatization and parcelization, there is both a spatial and ecological edge to the enclosure movement that needs to be explored.

### *Han Spatial Identity*

Early imperial China was an agricultural civilization that conceived of time and space in bounded and discrete increments, represented architecturally by the circle and square. Time was no abstract, homogenous

stream, but an accumulation of definite, closed, and discontinuous periods, seasons, and epochs. Space was likewise conceived as an unending accumulation of fixed locations (De Riencourt 1958: 78). The cosmological order of time and space was maintained through court ritual that centered the universe in the emperor in Beijing, with density gradually dissipating toward the peripheries, and ultimately consumed by chaos at the frontier (ibid., 79). The self-evident superiority of Chinese culture derived from its spatial proximity to heaven, and, likewise, the geographic distance of other places to the Chinese capital determined the relative degree of civilization attributed to their inhabitants (Q. E. Wang 1999: 292).

The outer extremities of the empire were thus demarcated by an elaborate system of fortifications and walls that have captured the imagination of the world. It is extremely difficult to separate history from myth in interpreting the Great Wall and its multiple significations for the Han Chinese over centuries (Waldron 1990). Nonetheless, any reasonable starting point must concede that these massive structures have been important and dynamic ideological markers in space.

The positions of the outermost great walls have expanded and contracted through history, so that areas on the outside in one period might be on the inside in another. The system of outer walls was never a permanent or tidy barrier separating mobile herders from sedentary farmers, or even Han Chinese from northern tribesmen. The imposing barricades functioned more like a screen than an envelope, because they allowed for economic and cultural exchanges. Still, the outermost great walls of Inner Mongolia have followed, approximately, the edges of two soil zones, with the interior being arable and the exterior more vulnerable to drought, crop failure, and erosion (Latimore 1941: 127).

The walls also clearly served as a visible ideological marker of domesticated space. In the words of Wakeman (1975: 71), "to the Chinese it marked the border between civilization and the barbarian hordes . . . that successively threatened native dynasties. To the nomads it was a barrier that challenged and beckoned." Anderson (1983: 26) once observed that premodern states typically defined themselves as cultural and political "centers" governing within territorial continuums that eventually dissolved into competing allegiances: "Borders were porous and indistinct, and sovereignties faded imperceptibly into one another." Relative to that general standard, the Great Wall system must be viewed as a rather remarkable delineation of cultural and territorial space, however permeable it may have been.

The frontier walls were not strictly military defenses but also direct instruments of agricultural extension. From the time the first Great Wall was unified during the Qin Dynasty (221–207 B.C.E.), a unique "farming-garrison" system was introduced to keep it operational. This involved the massive resettlement of civilian farmers into frontier areas, both to bolster the military garrison and to allow regional self-sufficiency in food supplies. In this way, irrigation systems were established and pasture conversion developed swiftly (Cheng 1984: 210). But the walls not only helped to extend the practices of agriculture; they also provided a forum by which to perpetuate the essential tradition of forced labor that made Chinese intensive agriculture possible in the first place (Latimore 1941: 128–130). In this sense, the frontier walls served ideological as well as military purposes.

Nested within the frontier walls, imperial China was a land characterized by stable city walls and diminishing space. Walled cities were the major landmarks of traditional China, with a proud and distinctive morphology that, despite gradual evolution of form, remained remarkably static through history (Chang Sen-dou 1977: 100). Marwyn and Carmencita Samuel (1989: 204) have described how space was further controlled and domesticated within those outer city walls: "The Confucian city, like the Confucian house and Confucian society, was highly regimented. Its layout and structure, epitomized by a seeming endless maze of walled compounds within walled compounds within walled compounds, were imbued with the signs of power, authority, and hierarchy, and nowhere more so than in the austere formality of imperial Beijing."

Of course, the rigid cosmography of early imperial China changed in subtle ways over the centuries, but some basic themes, such as spatial hierarchy and center/periphery relationships, have proven rather persistent (Q. E. Wang 1999). The space-oriented regimentation so characteristic of imperial China has not evaporated even over the last half-century. Jeffrey Meyer (1991: 4), in describing the architectural history of Beijing, has offered the following insightful commentary on Han spatiality:

"Wall" is what makes China, wall makes the city of Beijing, the Imperial city, the Forbidden city, and all subsidiary units down to country town, village, and private home. Give any Chinese some loose bricks and he will build a wall, a gate, and hire a gatekeeper to prevent the outsider from entering.

Walls are important to the Chinese because, over and above practical consideration (preventing thievery, resisting attack, and the like), the wall is the line clearly drawn between what is significant and what is insignificant, what is powerful and what is not powerful, who is kin and who is stranger, what is sacred and

not sacred. The Great Wall is the symbol of China par excellence. Traditionally it marked off civilization from barbarism; today it still marks off the "sacred land" from the rest of the world. . . .

Today walls are still a ubiquitous feature of the Chinese landscape. Even though a poor country, China lavishes an incredible amount of money on building walls where a non-Chinese would think them totally unnecessary. They are still much in favor in rural villages, and in the cities they now usually demarcate factories, businesses, schools, offices, and the other "work units" of socialist society. The Chinese passion for walls reflects their passion for clarity in human relationships, signifying an individual's identity and place within society. The Marxist revolution has in no way diminished the Chinese love of a wall. It is only that they are now built in different places, and define different units of meaning.

Even today, the cultural power of the "wall" runs deep in the national psyche. The Chinese themselves perceive the Great Wall as their greatest cultural relic and symbol (Cheng 1984: 17), though the nuances of that symbol are sometimes hotly debated. The Great Wall has alternately represented both the glory and tyranny of a Confucian heritage for centuries.<sup>2</sup> Under Communist leadership, it has been the object of public scorn (especially during the Great Leap Forward and the Cultural Revolution) at least as much as it has been the focus of patriotic adoration. Under restoration, it has represented the promise of a modern socialist future, and it sometimes serves as the token of an indestructible national spirit (Luo and Zhao 1986: i). There is a Chinese saying, "You cannot be considered a great man if you have not been to the Great Wall." China's national anthem enjoins the people to "build our new Great Wall with our very flesh and blood" (Cheng 1984: 7). Early in the 1980s, Deng Xiaoping hoped to inspire his countrymen along the path of economic reform with a special inscription: "Let us love our nation and restore our Great Wall" (Waldron 1990: 1).

Whether viewed in a negative or positive light, the myth of the Great Wall still maintains a powerful hold over the imagination of Han Chinese, who cherish their walls, their partitions, and their regimented space. Today, the landscape is still divided into a million interiors and exteriors. Despite the declaration of an Open Door Policy, barriers both visible and invisible dominate the landscape, perpetuating the ancient *neibu* (internal) mindset that has always separated Us from Them—Chinese from foreigners, Han from minorities, Party members from nonmembers, senior officials from rank and file.

### Han Ecological Identity

Han spatial orientations have involved an ecological counterpart. For centuries, Chinese literati viewed and described neighboring mobile peoples and their native homelands in the most disparaging terms. The people were considered to be "human-faced and animal-hearted," while the steppeland environment was "unfit for [truly human] habitation" (Waldron 1990: 38–39). Land and people were perceived in reciprocal images of savagery. "Just as their nature marked the limits of human character, their homeland was thought of as the edge of the world" (ibid., 39). The Chinese language employs numerous terms to signify the unfamiliar ecological zones of the northern frontier: *huang* (waste), *kuang* (vast), *wu* (overgrown), *ye* (untamed), *qiong* (impoverished), *xu* (emptiness). All of them are negative and convey a strong sense of malevolence. *Huang* is the most common and comprehensive single term applied. Meserve (1982: 61) has explained its subtle connotations:

*Huang* is "wu," land neglected, full of weeds, poor, vulgar. *Huang*, like "ye," is wildness and savagery, while the vast expanse that is also expressed in "kuang" adds to the menace of *huang*. It is land uncultivated, a land of drought and famine. *Huang* expresses the horror of devastation and desolation. . . . License in pleasure, total disregard of man or things, reckless excess—all are embodied in *huang*. It is time wasted. And *huang* can also mean a covering for a coffin—like "xu"—carrying with it the shadow of death.

Khan (1996: 128–129) has noted that *huang* implies moral deficiencies as well. The term suggests an absence of domestication and civility. Consequently, any land use that restructures or transforms open rangeland can only be ameliorative. "Thus, the positive term *kai* (open) is used to refer to the action of preparing a virgin land for farming: *kai huang*—to open up wasteland." This sense of pastoral depravity is further reinforced in the language by other idioms, such as *kui xin liang*. The term literally means "ill-conscenced grain." It is meant to dishonor the herdsmen who live off of grain they have not labored to produce (ibid., 140).

The power of such language has played a significant role in both motivating and rationalizing Han colonial incursions into Inner Mongolia over the last century. Migrating farmers poured into border regions under the authority of a government policy bearing the title "construct the frontier" (*jianshe bianjiang*). The migration policies gave teeth to a traditional Han perspective that any frontier lands that can be productively cultivated rightfully belong to the Han. Lattimore (1962: 417) reported

that “wherever the Chinese came, the Mongols had to get out. They suddenly found themselves stigmatized as a ‘backward’ people, ‘too primitive’ to take up the new Chinese agriculture—although they had not been too primitive to take up the old ‘mixed’ border economy. An entirely artificial line was drawn between ‘civilized’ agriculture and ‘primitive’ pastoral economy, dependent on livestock. To be a nomad was a kind of social crime.”

The derogatory Confucian attitudes were only strengthened by Marxist orthodoxy after 1949. The Marx-Lenin-Mao line of political thought held that natural rangeland has no intrinsic value as a resource because it embodies no labor.<sup>3</sup> Land of no value can hardly be “degraded,” no matter what the manner of exploitation. To central authorities, even marginal farmland was better than natural pasture, as the “grain first” policies of the collective era continually made clear.

Beijing has tended to view the native traditions of indigenous people to be as “worthless” as the land. This political philosophy is built upon a nineteenth-century European notion of cultural evolution that held that all societies pass through a series of known stages on the way toward modernization. Hunting and gathering was the most primitive form, followed by mobile pastoralism, sedentary agriculture, and then industrial society with its class contradictions that eventually precipitate the socialist state. From this point of view, the interests of the minorities are best served by rapid assimilation (Deal 1984: 23; Connor 1984: 428–430; Tapp 1995: 198). Just as agriculture could only raise the value of the land, sedentarization could only raise the cultural level of the people.

### *Mongol Spatial Identity*

In stark opposition to traditional and contemporary Han perceptions, the pastoral Mongols have historically loved the open steppe and its spatial freedom. Phrases taken from a classic poem written by an ancient nomad from the northern frontier effectively capture the aesthetic sentiment of an alternate spatiality.

As a great yurt are the heavens  
 Covering the steppe in all directions  
 Blue, blue is the sky  
 Vast, vast is the steppe  
 Here the grass bends with the breeze  
 Here are the cattle and sheep

(cited in Jagchid and Hyer 1979: 10)

The same landscape that would exhilarate a nomadic poet would drive a Han poet to despair. Honey (1992: 4) has recorded the sentiment of a Taoist sage who once left his homeland and familiar customs to seek counsel with Chinggis Khan. On his travels he became as obsessed with space as with food and clothing:

The land has no trees nor vegetation—only barren grasses. The sky produces ridges and mounds that swallow large mountains. The five grains do not mature (for food but provide fodder to) produce milk and kumiss: Now in hides and furs, and in a felt tent, I can only break out in smiles.

Traditional Mongol spatiality is rooted in a landscape characterized by mobility and mutability. Mobility is the very essence of herding. Whether on the plains of North America, the savannahs of Africa, or the steppes of Central Asia, pastoral peoples have always needed to move their animals regularly in response to the inevitable spatial and temporal patchiness of grassland resources. But herders and their animals are not the only things moving in their environment. The landscape itself shifts and moves out from under their feet as powerful forces of wind and water erosion transform the terrain day by day.

Production tied to mobility and mutability in such a direct fashion requires and instills an expansive spatial orientation. In nomadic societies, all aspects of social organization are conditioned by and subordinated to regular movement in open space. Every component of traditional Mongol culture—diet, dress, housing, labor, family form, marriage, fertility—functions in service of mobile stock-herding (Jagchid and Hyer 1979: 56; Pasternak and Salaff 1993: 170–197).

For Mongols of northern China living beyond the Great Wall, enclosed land was sometimes treated as a despised symbol of the cultivating Han civilization. The destruction of walls and other physical barriers has therefore frequently been an act of meaningful social expression. Even as imperial rulers of China, the Mongols (in sharp contrast to native dynasties and even the foreign Jin and Qing dynasties) never condoned the traditional Confucian tight regimentation of space and never themselves set about the business in any earnest fashion.

In earlier historical periods when spatial distinctions were more pronounced, Mongol assertions of power always involved the complete destruction of city walls. Chinggis Khan and his armies zealously eradicated any built structure on the landscape that was associated with settled agriculture. Grousset (1967: 245) reported how thoroughly and deliberately space was liberated under his command:

Towns were destroyed from pinnacle to cellar, as by an earthquake. Dams were similarly destroyed, irrigation channels cut and turned to swamp, seed burned, fruit trees sawn-off stumps. The screens of trees that had stood between the crops and invasion by the desert sands were down. The handiwork of thousands of years was leveled to steppe again; orchards were laid defenseless to the driving, all-penetrating sandstorms from steppe or desert. These oases . . . were nothing now but arid steppe, this by the nomads' aid making all once again its own.

The invading nomads could not imagine a useful purpose for either the agricultural populations or the tilled land that they conquered. Grousset (1967: 280–281) summarized their attitude: “Better to kill off all these useless folk who could neither tend a herd nor travel with them on their nomad migrations, better burn the harvest as they were destroying the towns, let the land lie untilled and be restored to its dignity as steppe.” Mongol confiscation of agricultural land for grazing continued in North China for more than a century after conquest (Schurmann 1956: 29).

Certainly this attitude was not just driven by aesthetics. Embedded within their violent assertions of spatial preference, Mongol warriors had a clear tactical and political-economic incentive to restructure the ecologies of rival sedentary societies. Still, after successful conquest, the majority of the population preferred to remain in their traditional habitat north of the Great Wall, where they could preserve familiar social and economic relations (Khazanov 1994: 245–248). Mongol armies were more interested in extortion than colonization into unfamiliar landscapes.

Even after establishing their empire over China, the Mongol founders of the Yuan Dynasty (1280–1368) were “unsympathetic to walled city construction” (Chang 1977: 75). For a time, the Mongols prevented the Chinese from building or repairing city walls in order to display their power. Moule (1957: 13) cites Marco Polo to make this point: “When the Yuan annexed the Sung they forbad[e] the building of city walls throughout the Empire in order to display its unity, and the inner and outer walls were leveled by the inhabitants day by day.” What walls the Mongols did leave standing simply deteriorated during the thirteenth and early fourteenth centuries, so that subsequent Ming rulers faced quite a task of restoration. Once the Mongols were finally expelled, the Ming dedicated the next two hundred years to rebuilding urban fortresses and the Great Wall itself, “lest remnant forces return from the north” (Cheng 1984: 7).

Even after the Yuan Dynasty, certain organizational features of Mongol nomadism helped to shape a traditional cultural system that remained firmly grounded in distinctive spatial characteristics. The Mongols practiced a Eurasian steppe variety of seminomadic (transhumant) pastoral-

ism characterized by extensive land use, seasonal change of pasture, and supplementary production from agriculture or hunting. Their migrations were usually regular, linear, meridional, and fairly stable, with well-defined temporal schedules of movement that did not involve great distances (Khazanov 1994: 50). In regions of Inner Mongolia, the total distance of seasonal migrations rarely reached 150 kilometers (Lattimore 1951: 73). Most households migrated to the same summer campgrounds year after year, returning to an even more permanent winter location sometimes only a few miles away (Lattimore 1962: 420). Contrary to negative caricatures, they did not practice an “aimless pursuit of water and grass” (*zhu shui cao er ju*), as the Chinese popular idiom implies.

Through modern history, Inner Mongolian herders have maintained expansive spatial horizons, yet with an emerging sense of attachment to place that has always remained subordinate to suprahousehold group affiliations. During the Ming (1368–1644) and Qing (1644–1911) dynasties, Mongol herders typically organized themselves into small supra-familial units, which consisted usually of two to twenty households that shared labor and helped to dilute environmental risks such as drought, flood, or blizzard. These groups were usually formed by agnatic kinship networks based upon mutual consensus. They were essentially residential units that formed both economic and ritual communities (Szykiewicz 1982: 25, 32). A level above that, several of these units (usually four to twenty) coordinated their land use and access to resources informally in territorial groups sharing a common name, such as “people of one valley” or “people using the same water source” (*ibid.*, 34). Under the Qing, Mongol nobles organized tribal peoples into banners (*qi*), which were then amalgamated into large political-administrative regions known as leagues (*meng*). This system created solid territorial identities for individual Mongols because it fixed rigid tribal borders—feudal subjects were forbidden to move out of their native banner (Bawden 1968: 109; Szykiewicz 1982: 20).

The traditional grazing system protected the principle of open range. Though land was formally under the control of feudal lords, customary law gave common herders unlimited rights to graze their herds wherever they pleased (in coordination with regular migrations) within the boundaries of their banner, with the exception of special pastures reserved for nobility (Szykiewicz 1982: 21; Bawden 1968: 89). In general, all of the land belonged to all of the inhabitants, so that wealth and social advancement depended primarily on the energy and competence of each in-

dividual (Lattimore 1962: 420). Though the potential for conflict over land use was great (especially during seasonal migrations), it rarely occurred, evidently because principles of proper grazing were well understood and widely practiced (Szynkiewicz 1982: 23).

After decades of social turbulence and warfare early in the twentieth century, regular organizational patterns did not resume in the grasslands until after the Communist "liberation." By 1959, most pastoral areas in northern China were fully collectivized. Within the collective structure, herding households were subdivided into smaller and smaller units of organization. The township collective (commune) was composed of brigades, brigades were composed of production teams, which in turn were composed of *duguilong* (several households grouped by proximity of residence into single production and consumption units). For two decades, the collective administration tightly regulated pasture use and almost every aspect of animal husbandry production. Collectivization resulted in fewer herding households who assumed responsibility for large, single-species herds. The remaining households worked in teams to process animal products, carry out construction, cultivate fields, or undertake a variety of utility tasks (such as eradicating wolves).

During the collective era, brigade pastures in eastern Wengniute were divided into three general grazing zones: cattle herders enjoyed the best pastures closest to residential centers, sheep herders occupied the band of second-tier pastures, and goat herders lived on the most distant scrubland. The herders remained in place after decollectivization, but the pastures formerly under their management had to be shared initially with two, three, or four other households. These groups formed the *lianhu* (cooperative households) of the reform era discussed in Chapters 5 and 7. Today, many households still express a proud sense of identity with particular pasture areas, especially those who have been rooted in one place since the collective era.

### *Mongol Ecological Identity*

Traditional Mongol society reciprocated the Han disdain for alternative lifestyles. Prior to collectivization, Mongol herders of eastern Inner Mongolia maintained a degree of cultural contempt for neighboring farmers, their sedentary lifestyle, and their intensive land use. For example, Jagchid and Hyer (1979: 316) have documented the Mongols' extensive style of cereal production and the local attitudes that motivated it. In Nasihan and the northern territories of what is now Chifeng City prefec-

ture, residents used a special sickle with a long handle so that they could stand upright while cutting grass. Seeds were then broadcast by hand and the herds displaced to other pastures until fall harvest. According to Jagchid and Hyer, "this type of agriculture shows the attitude of the nomadic or pastoral Mongol who needed some agricultural products, but did not want to dig in the dirt or stoop in the back-breaking manner necessary when using the short-handled sickles of the Chinese farmer." They wanted the same cereal produce but felt compelled to preserve a separate (dignified) identity. Lattimore (1934: 77) specifically reported the hostile traditional attitudes toward intensive agriculture:

The Mongol who settled down did not do so because he felt it was a step up in civilization; he was resigned to it as a makeshift. In the same way, at the present time, the successful Mongol is the man of tents and herds. If the Mongol settles down, it is because he has been crowded by Chinese colonization until there is no room for his herds. Nothing that he gains can compensate him for the feeling of loss.

The Mongolian language, no less than Mandarin Chinese, reveals important clues about traditional attitudes toward resource utilization. Whereas the Han looked upon cultivation as "opening up wasteland," Mongol herders traditionally viewed the same activity in strongly negative terms. They called it *gajir qagalaqu*, or "shattering the land" (Khan 1996: 128). Lattimore (1934: 65) also saw in traditional Mongol vocabulary a moral perspective on the depravity of Chinese land use:

The term "hard" is used of Mongols and the term "soft" of Chinese. These terms do not stand only for physical robustness, but for the moral "hardness" of the man who lives in the saddle and makes his camp where he pleases, as against the moral "softness" of the man who is in bondage to the land he tills or the merchandise in which he deals, to his goods and his comfort, the safety of his roof and his walled town.

An especially significant point about traditional Mongolian land use patterns is the acute attention to landscape details that it required. Lattimore (1941: 242) discussed this point carefully:

"Dominant" is not really the right word to describe the influence which the lie of the land has on the life of the Mongol. "Pervasive" is better. While the site of a monastery or the placing of an *oboo* [stone memorial] may be in part a poetic expression of the way in which the life of Mongols conforms to the land, just to be Mongol means to conform to these imprecise but nonetheless valid rules. They have to do with things that are real and utilitarian, like the relation of exposure to drainage and pasture and the relation of lines of movement to areas of pasture. The rules are imprecise and relative because you yourself, the herdsman, live all

your life by compromise. You have no permanently fixed point of reference in terms of "home" and "property," but you do have a succession of temporary fixed points. . . . If you are an apt herdsman, with the right "feel" for what your cattle need, it is likely to be because you have also the right feel for the lie of the land.

Of course, the Chinese are world renowned for their attention to landscape as developed in the traditional practices of *feng shui*, or the art of placement. *Feng shui* asserts that people are intimately affected by their immediate surroundings. Some landscapes are more auspicious than others, and strategic human construction can enhance or block the flow of natural forces at any particular location. As Bruun (1995: 176) has explained, "In this thinking, the environment should be utilized thoughtfully, since harmful interference hits back like a boomerang." Informed geomancy was the means to achieve stable harmony with the natural order, and every last farmer paid attention to the sacred principles.

It is less well known that the Mongols developed and practiced their own intricate system of environmental observation. In fact, Lattimore believed that Chinese geomancy itself developed out of principles first borrowed from nomadic peoples of the steppe (1941: 237). In any case, Mongol herders have historically been extremely attentive to the subtleties of landscape features, both as directional markers and as matters of practical concern. Herders must pay strict attention to the slope of hills and water, the direction of prevailing wind and prevailing sun, the probabilities of subsoil water, and other landscape features for the most obvious of reasons: if they do not, their herds will not live to see the spring. According to Lattimore (1941: 238), such attention to landscape was but one manifestation of a primal attitude towards nature: "Underlying such observances there is a genuine, sensitive and much deeper feeling that man should accommodate his needs and the use he makes of the land for himself and his herds to what one might call the needs and rights of the land itself."

Mongol herders, like Han farmers, thus traditionally nurtured their own spatial and ecological preferences. For both groups, cultural land use preferences have been rooted in the practical concerns of optimal food procurement. In arid regions, institutionalized mobility ensures the greatest access to a variety of key resources that are both ephemeral and required in differential quantities throughout the year. Though much has changed over the last century, distinctive routines, values, and perceptual thresholds still exist and inform local land use decisions.

### *The Relevance of Western Assumptions*

Cultural perspectives from the industrialized Western nations also play an active role in domestic environmental conflicts that arise when developing nations like China come to rely upon (or merely accept) the influences of global capital and international institutions to boost modernization efforts. The assumptions and biases of Western intellectuals can have a considerable effect upon public interpretations of environmental changes, policy goals and implementation decisions, and even the very process of scientific data collection and knowledge construction.

#### SHAPING PUBLIC INTERPRETATION

Western scientific literature on land degradation almost universally regards dune sand as nothing but a menace. Sand patches are primarily characterized (in a scale-insensitive manner) as blights upon the land—pockets of deterioration that eventually "radiate out" to form expanding deserts (Nelson 1990: 17). Although desertified land is not necessarily always portrayed as mere wasteland in these scientific discussions, the notion that sand might be part of a preferred indigenous environment remains quite distant. The following account is fairly representative: "Desertification usually begins as a patch on the landscape where land abuse has become excessive. From that patch, which might be around a watering point or in a cultivated field, land degradation spreads outward if the abuse continues." (Dregne 1983: 7). Other accounts often establish a more emotional tone. For example, the 1978 United Nations Conference on Desertification asserted that "desertification breaks out, usually at times of drought stress, in areas of naturally vulnerable land subject to pressures of land use. These degraded patches, like a skin disease, link up to carry the process over extended areas" (quoted in Mainguet 1994: 1). Some accounts are even more graphic: "Desertification is not about spreading deserts. It is a rash which breaks out in patches wherever the planet's skin is mistreated" (Timberlake 1985: 60).

Curiously, book after book treats dune sand almost exclusively in the context of environmental hazard. At the more sensational extremes, dune sand is even indiscriminately demonized as a sure sign of natural (even moral) disorder (see Sears 1980; WCED 1987; Rifkin 1991). The image of a ticking time bomb best exemplifies this popular perspective: "In a little less than 200 years at the current rate of desertification there will not be a single, fully productive hectare of land on earth" (UNEP 1987: 17).



Only rarely have resource management studies in arid zones mentioned any favorable qualities associated with sand. In a significant exception, Tsoar and Zohar (1985: 184) have optimistically conceptualized active dunes around the world as the "largest potential reserves of soil" to feed an overpopulated world. They have argued that various thermal and percolation properties of sand soil create "a favourable substratum" that can support a "denser and more perennial vegetation than heavier soils such as loess" (189). Likewise, Kovda et al. (1979: 442) have reported on the potential for sandy soils optimally to retain and release moisture and nutrients to well-adapted plants.

With minimal exception, there has been almost no attention to the functional role of dune sand either among pastoral peoples in general, or among Mongol herders in particular. The flurry of research now coming out of Mongolia tends to stress the essential point that what are perceived as critical resources inevitably vary from place to place, according to season and local ecological characteristics. Besides the need for a wide variety of forage, resources that have been explicitly itemized as strategic include the distribution of water points, moist depressions, wells, salt licks, tree groves, and windward hillslopes (Szynkiewicz 1982: 20-23; Mearns 1991: 31, 1993b: 77). In one brief sentence, Mearns (1993b: 84) does indicate that sand dunes help provide relative warmth and shelter for certain communities near the Gobi. Nonetheless, to my knowledge, no research has yet reflected upon dune sand as a culturally valued environmental patch.

Yet my experiences indicate that the herders of Nasihan township exhibit a surprising degree of tolerance of, appreciation for, and even preference for dune sand at certain spatio-temporal scales. I will return to this issue in greater detail in Chapter 9. The major point to be made here is simply that influential scholars and officials within the international community tend both to ignore the fact that stock-herding populations may hold distinctive views about their home environment and to dismiss the possibility that dune sand (in certain proportions) could function as a non-threatening and valued local resource.

#### SHAPING POLICY GOALS

In 1968, the American population biologist Garrett Hardin published a provocative essay entitled "The Tragedy of the Commons." Although his intention was to show that the freedom to have children leads to overpopulation (and oversaturated labor markets) and ultimately to declining

environmental quality for all, the essay's great legacy was its critical commentary on common-property resource management. Hardin was concerned about societal arrangements in which benefits remained private while costs were passed on to the entire community. To make his abstract arguments more concrete, he presented the analogy of a herder grazing livestock on a public range. Each herder, he explained, would try to increase his own herd size as much as possible despite the awareness of declining pasture resources, thus demonstrating that the rational goals of individuals, if left unchecked by any higher authority, could easily lead to irrational and tragic consequences for the group. It may have been quite unintentional, but Hardin's vivid metaphor helped to popularize the view among influential intellectuals and institutions around the world that pastoral subsistence strategies were inherently destructive to the ecological environment and must be brought under control.

Hardin's essay added only incrementally to a long lineage of negative caricatures of pastoral peoples and pastoral production that inform mainstream administrative perspectives on rangeland ecology and livestock management throughout the developing world (see Scoones 1996; Fratkin 1997). Pastoralists have been denounced for maximizing their herds, refusing to sell livestock in formal markets, maintaining a diverse portfolio of animals (especially goats), resisting technological advances (such as artificial insemination to promote exotic breeds), and generally failing to "modernize" their production system. For all of these reasons, pastoral populations inhabiting dryland areas have been perceived primarily as disturbances within—rather than components of—the larger ecosystem. Yet much of this conventional animosity is based on cultural bias and misunderstanding rather than objective observation. Hostile sentiments seem rather well entrenched in agrarian-based societies. As one author has observed, "The goat embodies deep antagonisms between sedentary peasants and nomadic pastoralists that reach back to the dawn of civilization when the first Cain came to blows with the first Abel. Satan inherited Pan's horns, goatee, and hooves for reasons that remain fundamental if long forgotten. We are Cain's descendants" (Corbett 1991: 35).

Because Hardin's essay was published just before the onset (in the 1970s) of the catastrophic Sahelian Drought, in which thousands of livestock died and massive famine ensued, it was well timed to influence policy circles. His critical judgment of common-property resource management became the dominant analytical framework of international

development institutions for many years (Simon 1993). The popularity of his model may be related to its peculiar ability to generate both liberal and conservative political solutions—liberals use it to assert government obligations to assume control and protect common interests, while conservatives use it to assert the virtues of privatization (Peters 1987: 171–194).

The latter (conservative) view has been more dominant, however, and many international livestock development projects throughout the 1970s and 1980s attempted to parcelize and privatize national rangelands through the medium of fence-wire. Typically, large tracts of land that once accommodated multiple uses and various users became partitioned and distributed among single or small cluster households, always with highly significant consequences for land use and local social relations. New restrictions of access to land resources have been widely conceded to introduce troubling social inequities, but policy makers usually justify this result as the necessary cost of good stewardship. As Hardin (1968: 1248) so succinctly put it: “Injustice is preferable to total ruin.”

Yet the routine disposal of common lands and common herders does not always enhance prospects for sustainable land use. As recent government initiatives come of age, evidence mounts that privatization is no tidy solution to land management problems. Anthropologists, in particular, have labored at length to demonstrate the many oversimplifications inherent in Hardin’s interpretive framework (see McCay and Acheson 1987; Bromley and Cernea 1989; Feeny et al. 1990). In the last decade, numerous studies have stressed the general inapplicability of the model to traditional societies, demonstrating from ethnographic research that indigenous forms of land utilization do not in fact inevitably lead to range degradation (see Goldstein et al. 1990; McCabe 1990; Buzdar 1992). Other field studies argue conversely that privatization does not exactly guarantee conservative rangeland management (Sandford 1983; Little and Brokensha 1987). A third point of critique has been to show that the legal tenure system is itself less significant than other economic factors. Once a supportive production climate is created, agricultural yields and resource management both improve, no matter whether the land is held as a private or collective asset (Simon 1993; Cousins, Weiner, and Amin 1992).

Thus, there is by now considerable ethnographic evidence to support the position that common property resources are not inherently problematic. In any given location, common property status does not neces-

sarily lead to, nor suffice to explain, the event of resource depletion. Yet policies that are based on the flawed assumption that common property arrangements belong to an outdated earlier stage of social evolution continue to be adopted all over the world.

#### SHAPING SCIENTIFIC KNOWLEDGE

One of the most pervasive and ingrained philosophical axioms in Western intellectual history is the principle of dualism, which assumes that reality can be analytically divided into two broad categories, namely the apparent distinction between matter and mind (or body and soul, form and substance, nature and culture). This foundational premise accounts for the very organizational structure of Western science—those rigid walls of separation that still divide the sciences from the humanities and the natural sciences from the social sciences—and imposes cultural and institutional biases of great subtlety and consequence for the construction of rangeland science and resource management policies.

Over the last several decades, there has been a marked increase in institutional emphasis upon the need for interdisciplinary collaboration to address pressing environmental concerns, including deforestation and land degradation in dryland areas. Despite the explicit attempt to break down conceptual walls of disciplinary separation, it remains doubtful whether such projects have actually escaped the old conventions and intellectual dichotomies (see Hjort 1982; Shipton 1994). The immense frontier beyond that metaphorical “Great Wall” remains largely unexplored.

A fundamental obstacle to interdisciplinary collaboration is the absence of a common framework to talk about human–environment relations in nonconfrontational terms. The language of scientific analysis still requires privileging either nature or culture as a dominant force of environmental transformation. Even research that shares a common focus upon landscape ecology cannot get beyond the conceptual straightjacket (Bohm and Peat 1987; Naveh and Lieberman 1990). The intellectual division of labor between physical and social scientists has been especially rigid in the practice of Chinese grassland ecology, where social factors in ecosystem dynamics have been almost totally ignored (Loucks and Wu 1992: 80).

These realities have direct implications for the production of scientific knowledge in grassland communities. In the case of the GEMS project, disciplinary identities of participating scientists helped to channel them into rather conservative research alliance strategies. For the most part,

Western scholars collaborated with Chinese or Mongolian scholars from the same or closely related disciplines. Rarely did collaboration occur between natural and social scientists, as originally intended. And when it did occur (as in my case), collaboration tended to be more logistical than cognitive.<sup>4</sup> Thus, the structure of Western science helped to structure the kind of collaboration that could occur, the kind of research questions that could be asked, the kind of data that could be collected, the levels of funding that could be expected, and the channels through which scientific information eventually could be disseminated. The damage to scientific discovery follows primarily from the fact that the ideological and institutional tensions that exist between natural and social scientists within an international frame of reference help to conceal the ideological and institutional tensions that exist between urban Han and pastoral Mongol within a national and local frame of reference (see Williams 2000).

The invisibility of such cultural bias makes it easy for the Western scientist to be unaware that alternative representations of nature even exist in Inner Mongolia. The structure of engagement with local data generally compels them to endorse rather than challenge the Chinese discourse concerning the causes and culprits of land degradation and the policies considered necessary to control them. I witnessed this process in operation, as the research station hosted many international delegations during my year of residency.<sup>5</sup> I was astonished that delegation upon delegation verbally endorsed the Han perspective and the full range of national grassland policies by the time they left the research station. Their comments generally conformed to the sentiment explicitly communicated by one European scientist that “the work of the research station perfectly matches the needs of the local community.”

Natural scientists from Western nations and Japan almost invariably rely upon Han scientists for access to practically all field data. They do not speak local languages and so receive their critical orientation primarily through the filter of translation. They do not stay long enough to explore beyond a predesignated tour route. They gain no access to those in the community who dispute the research station’s version of reality. Even if they do come across such people, they hear nothing unorthodox for want of time to establish a trusting relationship. But they usually do not seek out local inhabitants, because they perceive no need. Western scientists naively consider their hosts to be the “local experts,” even though Han scientists see themselves as outsiders who work in an alien environment among alien people. Undoubtedly, Han scientists do develop an

identifiable expertise through their laborious field research. I am not arguing that all of their data is contaminated or that they have no valid perspective by which to interpret ecological change. But their experiences and knowledge base must not be construed as “local,” “insider,” or “native,” given Inner Mongolia’s colonial history.

It will be possible to return to this discussion in the concluding chapter, but for now, the essential point is that the sustained intellectual dichotomy between nature and culture carries adverse practical consequences for scientific investigation. At a minimum, it allows distortions of data to go undetected, it conceals the linkages between science and social power, and it prevents dialogue between competing knowledge systems that must occur in order to improve understanding of environmental transformation.