



Grassland management and views of nature in China since 1949: regional policies and local changes in Uxin Ju, inner Mongolia

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Abstract

This paper surveys grassland management in China during the socialist period that began in 1949, examining state policies and local practices as well as views of nature underlying both. The case study is set in Uxin Ju, a Mongol-dominated community in western Inner Mongolia that enjoyed a national reputation in the 1960s for its enthusiasm in the campaign to transform its sandy land. This paper adopts a historical-cultural perspective. The grassland is a historical category whose formulation by the state has changed with the political-economic ideologies of the regime. At the same time, local views of the grassland have also changed, which facilitated the adoption of aggressive grassland practices. By examining grassland management and local change as a cultural process, this paper seeks to understand a dimension of grassland change that has not attracted much study in China. In several ways this paper contributes to the study of environmental history in socialist China. First, it adds to a complex appraisal of regional environmental change during the Mao era by demonstrating both grassland improvement and degradation in Uxin Ju. Second, this paper locates the agency of the local people in both predictable and surprising ways, both in resistance to and appropriation of state policies. Third, by covering the entire socialist period from 1949, this paper lends insights into the understanding of continuities and breaks in grassland management between the Mao (1949–1976) and post-Mao (1976–present) eras.

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1. Introduction

Socialist China has had a tumultuous relationship with the environment. During the Mao era between 1949 and 1976, China treated the environment harshly. Shapiro (2001), for example, argues that the mistreatment of humans in class warfare led to the destruction of the environment: forests were cut, slopes eroded, grassland opened, and lakes filled. During the post-Mao era, as the state shifted its focus from class struggle to economic development, the government has paid more attention to environmental issues (Qu, 1989; XBW, 2000). But even as some environmental problems

have been alleviated, the single-minded pursuit of economic growth has led to continued urban air and water pollution and rural land degradation (Jahiel, 1997; Muldavin, 2000). These national trends in environmental history during China's socialist period have been discussed by Edmonds (1994), Smil (1984, 1993), and, to a lesser extent, Jahiel (1997), Ross (1988), and Sanders (1999).

While national-level environmental studies have offered us important insights into the general state of China's environment and national policies, their national focus has resulted in their insufficient attention to the complexity in regional environmental realities. Also lacking is serious treatment of environmental practices and perceptions that can best be understood in the context of local human-environmental conditions.

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Understanding China's diverse environmental history requires analyses at regional and local scales. Taking Uxin Ju, a community in western Inner Mongolia, as a case study, this paper surveys changes in regional policies and local practices in grassland management, examining changing views of nature in both official discourses and local residents' perceptions since 1949. This long-range study not only offers a window into China's environmental history during the entire socialist period, but also provides an opportunity for comparisons of environmental affairs between the Mao and post-Mao eras.

This paper adopts a historical-cultural perspective. In particular, it considers the grassland as a historical category whose formulation by the state has changed with political-economic policies. Following the notion that perceptions of nature have important environmental consequences (Cronon, 1996; Escobar, 1999), this paper examines grassland change as a cultural process. Combining the concern for political-economic processes in political ecology and the attention to environmental discourses in post-structural environmental studies, I explore the state's ideologies of nature as part of a large political-economic change, and examine local people's views of nature as they interact with the state. Environmental discourses/perceptions and landscape change are mutually constituted (Escobar, 1996; Peet and Watts, 1996; Zimmerer, 2000); not only do meanings ascribed to the environment actively shape environmental policies and resource use (Bryant, 2001; Fairhead and Leach, 1998; Vandergeest et al., 1999), but environmental change can also alter or promote particular discourses and attitudes toward nature. Informed by these understandings, this paper examines how the state's environmental discourses have brought about changes in local grassland practices and the landscape, and how these changes have led to alterations in local views of nature, which in turn further enhance intensive grassland practices. "State" and "local" are not, however, monolithic and essential categories (Moore, 1999, 1996); thus, this paper acknowledges political tensions between the central and regional governments, and pays attention to the linkage between state discourses and local views of nature.

This historical-cultural approach corresponds to a less explored dimension in Chinese environmental studies. While official ideologies of the environment have been underscored (e.g., Shapiro, 2001; on the Mao era; Williams, 2001 on post-Mao grassland management), local views and perceptions of the environment have attracted less attention (except, perhaps, Humphrey and Sneath, 1996). Much of the existing work has focused on the physical aspects of environmental change (e.g., Li et al., 2000; Zhang and Skarpe, 1995), evolution and implementation of environmental policies (e.g., Jahiel, 1997; Longworth and Williamson, 1993; Smil,

1984, 1993), and the political and economic aspects of regional or local environmental degradation (e.g., Hershkovitz, 1993; Muldavin, 1997, 2000; Williams, 2001). Not only does historical-cultural perspective help us understand the underlying forces of political-economic processes and environmental changes, exploring the connection between official discourses and local views of nature also offers a window into the deeply entangled relationship between state and society.

This paper contributes to Chinese environmental studies in several ways. First, it adds to a complex appraisal of regional environmental change during the Mao era by demonstrating both grassland improvement and degradation in Uxin Ju. Recently, the meta-narrative of the Mao era as a uniformly "dark age" has been challenged (see Gao, 1999; Han, 2000; Ho, 2003; Qin, 1995). During the Great Leap Forward (1958–1961), for example, while trees were felled in other parts of China to feed thousands of steel-making furnaces (Shapiro, 2001), the Inner Mongolia region promoted the planting of trees and shrubs to transform the desert (Ulanhu, 1990). During the Cultural Revolution (1966–1976), however, while political interference was less in rural areas as compared to the Great Leap years (Gao, 1999; Han, 2000), the Inner Mongolian grassland suffered the most serious damage since the establishment of socialism. Significant geographic differences in regional policies and ecological conditions account for diverse regional and local changes.

Second, this paper locates the agency of the local people in both predictable and surprising ways. Local resistance is a common response to attempted state control over a region's resources (see Bryant and Bailey, 1997; Scott, 1998; Williams, 2001), and Uxin Ju's experience during the Cultural Revolution exemplifies this. As the state opened the grassland against the Mongols' interests, people in Uxin Ju resisted. Over time, however, the policies of this period left no significant effects on local views of the grassland. In contrast, lasting changes in local practices and views of nature occurred precisely when the local people appropriated state policies as they appeared to follow along with the state's ideologies. During the Great Leap Forward and the ensuing years, Mongols in Uxin Ju actively engaged in the campaign to transform the grassland, efforts which gained them a national reputation. During the post-Mao era, they also actively participated in the state's new project of economic modernization by managing their grassland more intensively. Both periods have had profound impacts on the Mongols' grassland use and attitudes toward the grassland to the present day.

My third contribution concerns the trajectory of environmental history in socialist China. While the Mao and post-Mao eras have promoted different environmental policies, this paper will show considerable continuity between the two eras in grassland management, both in the

way the environment was seen by the state and in the ways that local practices and perceptions have changed. For example, despite their different policies, the two eras have dealt with nature similarly, as both treated the grassland primarily as a political or economic instrument, and as local grassland practices developed during the 1950s and 1960s have become fundamental in supporting the post-Mao grassland management. Significant differences between the approaches of the two eras also exist, such as the recent sensitivity to ecological conditions. Understanding these historical continuities and breaks in grassland management can help inform China's search for a more sustainable environment.

This paper is organized according to four stages of grassland management in Uxin Ju: grassland protection (1949–1957), the campaign to reform the sandy grassland (1958–1965), the destruction and politicization of the grassland (1966–1976), and the so-called “scientific” management approach (1976–present). During each stage, the state, out of politico-economic concerns, promoted a distinct view of nature: from first seeing the grassland as the basis for the Mongolian economy, to viewing nature as insufficient given the demands of socialism, to treating grassland as a tool of political struggle, to post-1976 scientific management designed to meet the needs of economic development. In the meantime, grassland practices in Uxin Ju have evolved from protection and small-scale planting to large-scale interventions and more intensive use; significant cultural change has also followed. Uxin Ju is a Mongol-dominated community, and in the traditional attitude of its residents, nature is sacred and the grassland is unchangeable by humans. This attitude has gradually been replaced by views that consider nature to be inadequate, malleable, and in need of reform in order to improve the local economy. The traditional ties between Mongolian identity and nomadic grazing have also been weakened, making room for more intensive land management. While this paper will primarily follow a temporal order, I will reflect in its conclusion on continuities and breaks in grassland management between the Mao and post-Mao eras.¹

2. First stage: Grassland protection from 1949 to 1957

Uxin Ju is a Mongolian *sum* (township) in Uxin banner, Ih-Ju league, Inner Mongolia Autonomous Region (see Fig. 1).² Located at the center of the Mu Us Sandy

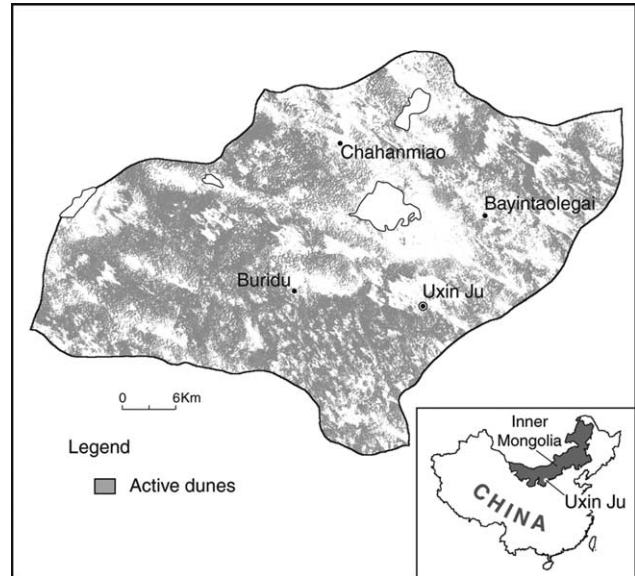


Fig. 1. Uxin Ju's geographical location and sandy environment.

Land, Uxin Ju is dry and its soil sandy. Average annual precipitation is only 320 mm. Of its total area of 1744 km², more than half is covered by moving sand dunes. The rest of the landscape is vegetated by shrubby vegetation on sandy soil and grass-covered lowlands. The area's economy is centered around livestock grazing. From 1949 to 1957, Uxin Ju had about 2000 people, 95% of whom were Mongols. By 1992, the population had doubled as had the overall percentage of Chinese within the population. However, most of the Chinese work in local factories, while the Mongols have remained dominant in the rural areas, constituting 93% of those managing the grassland (Uxin Ju Statistics, 2001).

This section will first discuss regional grassland policies, then examine local experiences in Uxin Ju. To understand regional policies in Inner Mongolia, its historical and cultural background must be appreciated within the political context of socialist China. During the Qing (1644–1911) and Republic (1911–1949) periods, the Chinese controlled Inner Mongolia and opened its grassland to farming, and the Mongolian lifestyle of livestock grazing became severely threatened (Barfield, 1989; Liang, 1991). Ih-Ju league, the area surrounding Uxin Ju, experienced some of the most serious grassland destruction (Qi, 1991). Prior to taking over Ih-Ju league, the Chinese Communist Party, to gain the trust of the Mongols, issued a notice in 1948 stating that it would guarantee the protection of the grasslands and to respect the Mongolian way of life (Liang, 1991). After the establishment of the socialist regime in 1949, the regional government, led by the Mongol leader Ulanhu, reestablished the grasslands as the basis for the Mongolian way of life, and livestock grazing as the cornerstone of the

¹ The study is based on archival research and in-depth interviews with 80 Mongols from various economic levels and ages, conducted in the summers of 1998, 1999, and 2001.

² The administrative levels of *sum*, banner, league, and autonomous regions are equivalent to township, county, prefecture, and province in China's political hierarchy. Ih-Ju league was renamed Ordos City in 2001, but I continue to use Ih-Ju league due to the period being addressed in this paper.

“Mongolian economy”. Access to the grassland and the development of a livestock economy were seen as the keys to resolving historical conflicts between the Chinese and Mongols (Ulanhu, 1990, p. 224). Grassland management not only concerned the state of the environment, but also provided a focal point for the Mongolian cultural renewal.

Grassland protection and its effective use were among the key regional policies between 1949 and 1957. A 1951 regional policy mandated the protection of grassland from being converted to cropland (*baohu muchang jinzhi kaihuang*). Local governments also established corresponding administrations and issued their own decrees for grassland protection. For example, in 1950, Uxin banner established a Department of Construction, which was in charge of farming, grazing, forestry, and hydrologic control, and, in a 1953 notification, the banner government outlawed the cutting of trees and tall shrubs (Uxin Department of Forestry, 1990, p. 163). Chinese immigration into Inner Mongolia was discouraged and even forbidden so as to protect the Mongolian way of life.

Regional politics also encouraged pastoral recovery. By 1952, democratic reform (*minzhu gaige*) had retrieved control of the grassland from Mongol princes and lama temples and distributed it to all herders, especially the poor, to graze freely. Private ownership of livestock continued, but wages for the hired herders were increased to ensure fairness. Mongols welcomed the policy of grassland protection and responded enthusiastically to the call to increase livestock. Freedom for their livestock to graze and better pay for hired laborers also gave the poor herders hope for a better life.

Grassland management during this period was in a state of transition. Although the pressure to make the grassland productive had increased, the newer practices had yet to overtake traditional ones. Inner Mongolia was not yet closely integrated into the national politics of the socialist regime, and its regional grassland policies showed considerable sensitivity to regional history and culture. For example, while landlords were persecuted and their properties were seized in other parts of China, Inner Mongolia implemented a policy known as the “three-no’s”: no execution of herd-owners, no redistribution of livestock, and no class differentiation among herders (Bulag, 2000). In Uxin Ju, although herd owners were criticized, class identity was not officially assigned until 1966, after which class struggles intensified. In terms of the grassland, while small-scale experiments in grass and shrub planting were conducted, the grassland was still seen as nature’s endowment, and protection was the key strategy for its management. Although acceptance of human intervention was beginning to emerge, as seen in Ih-Ju league’s 1952 proposal to remove poisonous grass from the grassland and to plant grass and the *Caragana* spp. shrub to supplement

fodder (YMDBW, 1994), significant human intervention in the grassland did not occur until after 1958.

In Uxin Ju, the Mongols responded with enthusiasm to the state’s call for pastoral recovery. Livestock numbers declined sharply during the civil war prior to 1949, so the Mongols were keen on increasing their herds. The goal of the first five-year plan of 1953–1957 was to transform the “primitive” nomadic condition into a managed, settled nomadism. During a series of interviews I conducted from 1998 to 2001, my informants from poor-herder backgrounds recounted that only after 1949 did they start to build permanent houses;³ during this time, their herds also increased rapidly. Some of the measures to increase livestock, such as rotational grazing and disease prevention, continued traditional Mongolian practices; but others, such as livestock shelter building, well digging, and wolf eradication, were entirely new, reflecting the more aggressive management practices advocated by the state. Breed improvement also started slowly; many people, for example, were initially suspicious of new varieties of sheep. In 1955, Uxin Ju was given an improved male sheep by Uxin banner, but people speculated that the lambs born of the sheep would be hairless and short-tailed and that the meat would be bland. By 1957, however, livestock improvement had begun in earnest. As a result of these interventions, livestock numbers in Uxin banner doubled between 1949 and 1957 (interviews, 1999; 2001; Uxin Banner, 2000).

In comparison to the successes of livestock management, attempts at grassland improvement had only limited results during this period. Although tree and shrub planting was advocated by the regional government, the planting was limited to, at best, several *mu* (15 *mu* = 1 ha) of *Artemisia* and *Salix* shrubs around people’s houses. Few people planted grasses, since goats would quickly destroy them. Tree planting was even more limited. Wuyuntu, a key informant, recalled that an old man named Buribasuu planted trees, but his livestock were weak and sickly. Since grass does not grow well under trees, the elders believed that planting trees would cause harm to livestock. Herders did not realize that the trees’ leaves could be eaten by their animals, and furthermore, they believed that “there was enough grass on the pasture” for their animals (interviews, 1999; 2001).

In two ways, however, this stage of grassland protection established the foundation for the next three stages of intensive grassland management. Socially, it brought the herders into organized socialist institutions, and ideologically, it helped spread the view of nature as inadequate for human purposes without intervention.

³ Before 1949, poor Mongols only used very primitive temporary dwellings made of the branches of *Salix*, a local shrub.

Mutual-help teams started in 1953 when seven households in Chahanmiao village were organized in a group. After that, more households in Uxin Ju joined mutual-help teams or cooperatives (Uxin Banner, 2000). An organized life had already begun, which provided an institutional base for the aggressive grassland campaigns to come. In grassland management, although protection served as the main strategy, both the government and Mongol herders had begun to sense the need for grassland improvement through human intervention.

3. Second stage: the origin of Grassland construction from 1958 to 1965

The Great Leap Forward movement started in 1958 following the communist party's call to build socialism "greater, faster, better, and more economically" (*duo kuai hao sheng*). This urgency served as a catalyst to bring Inner Mongolia closely in line with national politics. With an increase in national political pressure, Mongolian participation in collectivism increased as well. By 1955, only 40% of pastoral households had joined mutual-help teams in Inner Mongolia, but only three years later, by the end of 1958 and beginning of 1959, Inner Mongolia had collectivized all of its livestock and grasslands and established communes in a mere three months (XBW, 2000, p. 158). Uxin banner took only about 20 days to complete this remarkable transition. This started 25 years of collective management of the grassland, lasting until the disbanding of communes in 1984.

Even though Ulanhu was able to implement some unique regional policies to protect the Inner Mongolian grassland, the traditional Chinese bias that viewed grassland as merely wasteland continued to threaten Inner Mongolia. In 1958, facing the mounting pressure from the center to support socialism, Ulanhu, in order to continue to protect the grassland, applied the "socialist" principle to grassland management—a method Bulag names "resistance-within-collaboration" (Bulag, 2002, p. 191). The concept of "grassland construction" was born in this context. The word "construction" (*jian-she*) means to build, construct, or strengthen—shades of meaning pointing to human intention and intervention. Strengthening the idea of grassland construction was a radical trust in human power, a trust typical of socialist ideology. While grassland protection had previously relied on natural productivity, now, the practice of "grassland construction" depicted nature as insufficient, in need of reform and transformation. This new principle of grassland management closely followed Mao's belief that the proletariat possesses all the power needed to transform the natural world (Hubbell and Selden, 1994). According to Samuels (1978), Mao perceived opposing forces in both the landscape and the cosmos,

and believed that only through constant struggle could unity be achieved. The attempt to "reshape (reform) the objective world" or the landscape was also a way to "reshape (reform) man himself." Popular slogans described a "battle with nature (*xiang daziran kaizhan*)" that should be undertaken in order to "alter the heaven and change the earth (*gaitian huandi*)."⁴

Grassland construction began with shrub planting and desert transformation. Prior to 1958, Ih-Ju league promoted the planting of *Salix* and *Caragana* shrubs on semi-fixed sandy land. The league's 1957 work report proposed the following plan for 1958 and beyond: "Improve 5 million *mu* of grassland in 3 years, eradicate horse-poisoning grass in 3 years, plant shrubs on most sandy land in 5 years." In 1958, Ulanhu gave a talk on "transforming the desert," in which he said, "If we transform 10,000 *mu* of desert we can increase pasture for thousands of livestock, so the benefit is great" (Ulanhu, 1990, pp. 160–161). A campaign to turn the desert green soon spread across the Inner Mongolian grasslands.

Beginning in 1958, the Mongols in Uxin Ju actively participated in the campaign to transform sandy land. The previous year, drought had caused 11% of its livestock to die, and Uxin Ju ranked lowest in the competition for socialist development in Uxin banner. One of the causes of livestock death in 1957 was a toxic grass, known as "horse-poisoning grass" (*Oxytropis glabra*, in the legume family), which flourished during drought and killed many livestock. The *sum* decided that this grass had to be removed.

A mass campaign to intervene on the grassland was mobilized for the first time in Uxin Ju, but it ran counter to traditional beliefs. According to Tseren (1996), traditional Mongolian philosophy views culture as an extension of nature—nature and culture co-exist, and the concept of reforming nature does not exist. This non-confrontational attitude toward nature is reflected in the Mongols' love for grass and water (interviews, 1999). With regard to the horse-poisoning grass, traditional Mongolian belief held that it was a sacred plant to be appeased, not eradicated. They feared that, should the grass be removed, the gods would be offended (interviews, 2001).⁵ The decision to remove horse-poisoning

⁴ Although these phrases did not exist in the traditional Mongolian language, they have now entered into the Mongolian life as translations. Note that they did not traditionally exist in the Chinese language either, but were invented by the socialist regime to mobilize people. While some scholars (Shapiro, 2001; Samuels, 1978) seek the root of environmental destruction in traditional Chinese philosophy, it seems that the Maoist antagonism to nature was a drastic break from the Confucian idea of the "unity of heaven and man (*tian ren he yi*)."⁵ See Murphey (1967) for a detailed discussion of Chinese traditional philosophies.

⁵ The notion of an all-powerful god determining the state of nature and human life can be traced to the Mongolian shamanic tradition.

grass, therefore, was met with strong opposition from elders and lamas. The *sum* used political meetings to rally support, and local leaders encouraged rhetoric that compared horse-poisoning grass to herdlords of the old society, arguing that both had brought harm to the poor herders. This effectively silenced the opposition, making its stance politically risky.

Over 1300 people were mobilized, more than half of the entire population, acting like soldiers on a battlefield. Organized into four teams, they worked, ate, and slept on the grassland, removing the poisonous grass with hands and shovels during the day and attending meetings to strengthen socialist thought reform in the evening. Amazingly, after only 24 days, they had removed this toxic species from 28,000 ha of grassland (*Renmin Ribao*, Dec. 2nd, 1965). The next year, the livestock death rate was reduced to 3% from 11% of the previous year (*Uxin Ju Statistics*, 2001).

The removal of the horse-poisoning grass marked a turning point in grassland management in both Uxin Ju *sum* and Inner Mongolia. Landscape started to be actively transformed in a socialist project, and the idea of improvement became a guiding principle for grassland management. As a commune was established in Uxin Ju toward the end of 1958, organized mobilization continued and other grassland ventures quickly followed, starting with a 1959 campaign to transform sandy land by planting shrubs. Many people were mobilized to plant on the sand dunes, but this time, nature did not surrender easily, as the dry and windy environment parched most of the plantings. However, after several years of trial and error and a tremendous amount of effort, a system of measures for sand dune improvement was established. This system was summarized by the pastoralists as “block the front and pull the back” and “boots first, robe second, and then hat.” Planting of trees and shrubs started from the bottom of the sand dunes on both the windward (front) and leeward (back) sides—the vegetation grew to wrap around the sand dunes like boots. After the “boots” were stabilized, planting continued upward to the tops of the sand dunes, covering them with “robes” and, finally, “hats.” The sand dunes were thus turned green. These methods were summarized by the Uxin Ju Sand Control Station and applied to other parts of Inner Mongolia. By 1965, Uxin Ju had turned about 4000 ha of sand dunes into green pastures (*Renmin Ribao*, Dec. 2nd, 1965).⁶

⁶ Based on my research, this figure is realistic. In 1966, a year after Uxin Ju was named the “Pastoral Dazhai,” a movement to investigate cadre corruption sent a team to Uxin Ju. The team verified the figures reported by Uxin Ju in grassland improvement, and concluded that the reported figures were authentic. My own interviews conducted in 1999 and 2001 also confirmed significant grassland improvement during the grassland campaign.

Other land-transformation projects undertaken by the people of Uxin Ju included planting trees (mainly *Salix matsudana*), enclosing grassland areas, fighting floods, and irrigating croplands. Grassland enclosure deserves particular mention, as it was invented in Uxin Ju, later spreading to other parts of Inner Mongolia. Initially, enclosures were established to protect planted trees and crops. Soon, grass for winter hay was also protected in large enclosures sometimes more than 70 ha each.⁷ By 1965, more than 100 such enclosures were established (*ibid*).

The Uxin Ju Mongols’ initial compliance with socialist ideology may be explained by political coercion, but subsequent changes in their perceptions of nature should be seen as an active agency. Among the 80 informants I interviewed, I queried 57 on their views of the grassland campaign during this period, including both participants in the campaign and youth to whom the campaign was only a historical legacy. All commented that the direction of grassland construction as promoted by the campaign was correct, even though some pointed out the shortcomings in specific planting methods (for details, see *Jiang, submitted*).⁸ Here, I quote one typical remark:

Pastoral development started from 1958 was forced by natural and economic conditions; removing horse-poisoning grass was a good deed. At a time when grazing relied on nature (*kao tian yang xu*), Uxin-Ju *sum* adopted “grassland construction” for the first time. These were great initiatives. Only through grassland construction can we increase grassland and pastoral economy.

The Mongols’ eventual acceptance of the campaign is not surprising, although it was a reversal from their initial resistance. The Chinese centralized, “top-down” style of politics does not encourage building public support before pushing its policies; thus, changes in behavior often result from political pressures alone. It is also common, however, for changes in perception to follow, especially when people find the results appealing (*Jiang, 1999*). In Uxin Ju, following the campaign, the Mongols were encouraged by the grassland improvements. A pragmatic view of nature found its way into the Mongolian value system. Nature became seen not only as reformable but as needing to be improved in order to

⁷ The making of enclosures also reflected the aggressive approach of socialism to the environment. Instead of the barbed wire used today, lowland grass sod was dug up to build enclosures, not only a laborious undertaking but also detrimental to some of the high-quality lowland pasture.

⁸ These shortcomings include its less effective sandy land conversion method (wind block was not used in the beginning), as well as lack of attention to ensure the survival of new plantings in the collective style of management. In comparison, plantings nowadays are much better maintained by households.

meet human economic needs (interviews, 1998; 1999; 2001). Traditional views of nature were abandoned, along with the traditional reliance on nature's bounty.

Over time, as the Mongols began to accept the grassland campaign, they invested their energy and ingenuity. But what motivated the Mongols to adopt the radical ideology of the Chinese state, which runs contrary to their traditional beliefs? The answer can be investigated from three perspectives. First, a worshipful relationship with nature was not always advantageous for the Mongols. This often took the form of servile submission, as, for example, in the effort to appease the noxious grass. Seeing the benefits brought by the removal of the horse-poisoning grass, Mongols changed their mind about the sacred nature of the grass. Its removal became a common practice after the first campaign,⁹ and all of my informants judged the decision to undertake the removal effort to be correct (interviews, 1999; 2001).

Second, aggressive action was prompted by the adverse grazing conditions that already existed in Uxin Ju. As the regional government promoted the permanent settlement of herders starting in 1951 (see Hao, 1987, p. 152), both people and livestock became more confined to specific areas of grassland. As human and livestock populations grew, they exerted more demands on the landscape. In the meantime, grassland degradation posed serious problems for livestock survival, while moving sand threatened both the grassland and human settlements. With pastoral mobility sharply reduced, improving the grassland within the administrative territory became the only way to increase herd sizes and to improve the quality of life. The effort of Uxin Ju Mongols in grassland construction was a way to adapt to their new social and environmental conditions.

Third, the socialist ideological campaign, especially the radical hope provided by the socialist vision, did have tremendous appeal to some people, especially to the young. To many Mongols, if a better economy could be achieved through the removal of a "sacred" grass, then socialism must have more magic to offer, even a better life in a better homeland.

While the Mongols' views of nature came to resemble those of the state, their goals were, however, uniquely theirs. While the state had pushed its glorious visions of socialism at the national or even international level, its grand goals remained vague as they applied to Uxin Ju. For example, what did it mean for Uxin Ju if the nation were able to catch up with England and America in 10 years? What would the Mongols stand to gain if the country became a strong socialist state? The image of

communism—that of having all needs met—was too quick to crumble to have any real power in their imaginations. In the end, it was concrete economic achievements, including increases in herd sizes and available pasture, that inspired the Mongols of Uxin Ju (interviews, 2001).

In 1965, after Dazhai, a village in Shanxi Province, emerged as a model for socialist development, a "Learning from Dazhai" movement quickly spread over China (see Xiao, 1996). To counterbalance the farming focus of the Dazhai model, Ulanhu anointed Uxin Ju as the "pastoral Dazhai" for its effort to improve the grasslands (Bulag, 2002). On December 2nd, 1965, the official newspaper *Renmin Ribao* (*People's Daily*) praised Uxin Ju's achievements on its front page. Soon, people from pastoral areas across China came to visit and learn from Uxin Ju; international delegations were even received. But Uxin Ju's reputation, as well as its grassland campaign, was soon to suffer.

4. Third stage: Grassland politicization during the cultural revolution (1966–1976)

The disastrous environmental effect of the Cultural Revolution (1966–1976) is well known (see Shapiro, 2001). In Inner Mongolia, Ulanhu lost power to the leftist faction at the central government, and was persecuted at the start of the Cultural Revolution. The subsequent political chaos threw Inner Mongolia into disarray (Sneath, 2000), and political struggle overwhelmed the economy and environment. The centrally appointed new regional leadership inflicted great harm to both the Mongols and their grasslands. While political meddling in most of China's rural areas was lessened during the Cultural Revolution (Gao, 1999; Han, 2000), in Inner Mongolia, the Cultural Revolution was more politically, economically, and environmentally destructive in comparison with the Great Leap Forward.

With the removal of Ulanhu came the demise of the grassland for which he had previously advocated protection and improvement. Mongolian leaders who prioritized livestock grazing over farming on the grasslands were branded anti-revolutionary. Prior to 1966, even though the grassland was being politicized, the cultural and economic implications of grassland policies were considered as well. During the late 1960s, however, grassland policy became a blatant political tool devoid of economic rationale (see also Shapiro, 2001). For example, in 1965, the Ih-Ju League leader Baoyinbatu advocated "planting grass and trees and improving sheep/goat varieties". Following this call, Uxin Ju *sum* planted *Medicago sativa* grass, a high-quality fodder. However, in 1967, when Baiyinbaotu was persecuted for being a follower of Ulanhu, the planted *M. sativa* in Uxin Ju was literally uprooted as a way to "remove

⁹ In the late 1960s, an herbicide was invented to kill the horse-poisoning grass. However, its large-scale application has been difficult and manual removal is common to this day.

Baoyinbatu's political roots" (interviews, 1999). This incident epitomizes a period of gruesome, politically driven destruction of the grassland.

Not surprisingly, this period saw the most severe damage to the Inner Mongolian grassland. Prior to 1966, the Ulanhu-led Inner Mongolia government was, for the most part, able to protect the grassland, despite occasional openings of grassland areas to farming. For example, state pressure to increase grain production during the aftermath of the Great Leap famine led to one such opening. But grassland destruction was most detrimental during 1969–1971. Following closely the national "grain first" policy, the leftist regional leadership issued a call to increase cropland in Inner Mongolia, claiming that "pastoralists do not eat unethical grain (*mumin buchi kuixin liang*)"—meaning that grain was unethical if it was not self-produced. According to Peng and Yin (2001), cropland newly opened between 1966 and 1976 totaled 1 million ha in Inner Mongolia, which was roughly a quarter of the region's total amount of cropland in 1949. In Ih-Ju league, grassland was opened in areas with less than 300 mm of annual precipitation, causing sanded areas to expand (Jiang, 1999). The devastating impact of grassland opening was intensified by overgrazing, as the government encouraged an increase in livestock numbers. As a result, grassland degradation accelerated. In Ih-Ju league, by 1972, 72% of its grassland had been sandified (Ih-Ju League, 1994, pp. 189–192).

Uxin Ju, like all Inner Mongolian pastoral areas, did not escape grassland destruction. Several months after its christening as the "pastoral Dazhai" model, the chaos of the Cultural Revolution swept over Inner Mongolia. The grassland campaign was put to a stop. In order to promote cultivation, the Uxin Ju Party Branch invited the Chinese to teach the Mongols farming techniques. The Mongols, however, did not agree with the decision to open grassland and fought with the Chinese immigrants over the issue. However, political pressure prevailed, and large areas of sandy land were opened. During field visits (1998, 1999, 2001), my informants often pointed out areas of grassland, mostly degraded, that had been opened for cultivation during the Cultural Revolution. In 1970, croplands increased to 1625 ha from 275 ha in 1966 (Uxin Ju Statistics, 2001). The newly opened croplands were mostly on sandy areas. Low yielding, they were soon abandoned and were quickly overtaken by sand that moved on to cover adjacent grassland.

The fate of Uxin Ju as China's pastoral model closely followed the political tide. From 1968 to 1970, when political persecution and the "grain first" policy prevailed, Uxin Ju's achievements in grassland construction and sand control became problematic. Reports of Uxin Ju disappeared, and visitations stopped. In 1971, after the then-Premier Zhou Enlai criticized Inner Mongolia's

grain policy in a speech delivered at the 1970 North China Agricultural Conference, pastoral development was resurrected as the core of the regional economy (Bao, 2001). Newly opened cropland was returned to pastoral use. Uxin Ju was again heralded as the "pastoral Dazhai", and official reports and visitations resumed. However, Uxin Ju's fame never again reached its initial height, nor did its grassland campaign regain its previous scale. Pastoralists were quickly drawn into the political wave of "Criticizing Lin Biao"¹⁰ and much energy was devoted to political meetings. Grassland improvement continued with much less energy. A few showcase sites were maintained and a limited number of trees planted, especially along the road to Uxin Ju. By 1975, the total area of planted trees amounted to only 366 ha (Uxin Department of Forestry, 1990, p. 21). In comparison, 10 years later, in 1985, tree cover reached an area of 1810 ha (ibid, p. 34). Uxin Ju's *sum* leader Dong told me during a 1992 interview, "The direction of pastoral Dazhai was correct, but because it was affected by political leftism [during the Cultural Revolution], the emphasis was on propaganda and the practical effect was neglected". According to Huhelao, a key informant,

[Uxin Ju] was a nationally cited pastoral model, and leaders devoted themselves to mass movement propaganda and to monitoring anti-revolutionary activities. Meanwhile, we devoted most of our time and dairy products to receiving visiting delegations from all over China. Income decreased.

The oppressive politics during the Cultural Revolution suppressed the Mongols but failed to convince them. In the end, my interviews suggest that the politicization of grassland policies left no effect on Mongolian views of grassland, which remain centered on its economic significance. The extremist policies of the Cultural Revolution have now receded into history, but have left traces on grassland areas that remind people mainly of past harms done to the environment. My interviews suggest that Mongols did not regard this period of grassland destruction as a part of their *own* history. Minimizing the Cultural Revolution in their accounts, both local government officials and residents connect current grassland management strategies to the 1958–1965 legacy of the "pastoral Dazhai." Mongols in Uxin Ju still consider "pastoral Dazhai" a fitting model and a proud experience (interviews, 1999; 2001). In the 1990s, the local government proposed a revival of the "pastoral Dazhai" spirit with a new slogan:

¹⁰ In 1971, Li Biao, then vice-chairman of China, failed in an attempt to plot a coup against Mao. He was said to have died in an airplane crash as he was fleeing to the Soviet Union.

“Unite our efforts, dare new initiatives, reach high standards, and create another glory” (*tuanjie fenjin, yongyu chuangxin, zhengming shengwei, zaizao huihuang*) (interviews, 1999). The influence of the “pastoral Dazhai” period on present day grassland management will become clear in the next section.

5. Fourth stage: The post-reform Grassland management after 1976

The Cultural Revolution ended in 1976 with the passing of Mao. Facing a near-bankrupt economy, China desperately needed to place development on the national agenda. Economic reform was launched in 1978, and with it came the loosening of government control and a transition from collective to household resource management. A market economy was introduced in the late 1980s, exposing China to the forces of globalization. In Inner Mongolia, under newly appointed members of the regional government,¹¹ the grassland was re-emphasized in an effort to “chant the ‘grass-tree’ mantra and develop pastoral economy” (XBW, 2000). This reemphasis on the grassland and the pastoral economy, however, should not be seen as a return to the 1950s, since post-reform grassland management has been implemented under a new system—that of a household-based economy—and supported by entirely new ideologies: economic modernization and the application of ecological science.

From 1983 to 1985, a new resource use institution, the Household Responsibility System, was implemented in Inner Mongolia, distributing first livestock (1983), and then usable grassland (1984–1985) to households; the commune system was dismantled in the meantime (1984). This two-tier responsibility system was reinforced in 1986 and 1997, and the length of a grassland contract was extended from an indefinite term to a period of 30–50 years. The Household Responsibility System stimulated a rapid increase in the planting of trees, shrubs and grass. Grassland enclosure was also promoted, and although some pastoral areas have not carried it out or have carried it out only partially (see Ho, 2000; Thwaites et al., 1998; Williams, 2001), others, including Uxin banner, have laced their grassland with barbed wires. As households gained more control in resource management, grassland improvements continued, with more significant results. By 1996, tree and shrub planting brought the total forested area in Uxin banner to 210,300 ha, an increase of almost fourfold from 1975.

While the landscape has ceased to be a political battleground, it has now become an instrument for economic development. Grassland strategy has evolved from the grassland construction of the 1950s to 1970s to the “family pasture” (*jiating muchang*), integrating the grassland into the pastoral economic system. A modern form of grassland management centered around the household, the family pasture has five components: improved grassland, irrigated fodder cultivation, protective vegetation, mechanization, and forage processing. Here, the definition of “pasture” has been expanded to include all the necessary components to produce fodder and feed. An increase in livestock off-take ratio is also encouraged in order to promote marketization.

Following economic development, ecological science became the second principle of grassland management. Humbled by the disasters caused by the ignoring of natural conditions before 1976, the state recognized that nature’s laws had to be respected. However, its understanding of “ecology” is remarkably narrow. Rather than the original emphasis on ecological complexity and interconnection, “ecology” has been equated, in Inner Mongolia, with planting trees, shrubs, and grass, and controlling sandy land. Science has been used as a discursive instrument for aggressive landscape re-engineering in order to achieve economic growth. In essence, this stage of management is “scientific” largely in name. Being “scientific,” however, both the government and local people now are more sanguine about grassland improvement. While an awareness of ecological science has helped curb the brutal mistreatment of the grassland, the emphasis on science has a component of rational optimism that carries its own dangers of transgressing nature’s limits.

Governmental ecological programs have increased since 1978, starting with the North China Shelterbelt Program (*sanbei fanghulin gongcheng*) that has promoted tree planting in North China in order to protect its dry lands from degradation (see Jiang, 1999, p. 129). Since then, funding for ecological improvement has increased. In 2001, Uxin banner received over 40 million Yuan (about 5 million US dollars), doubling its annual funding in just three years, and an increase of fifteen times from the level of the late 1980s. About half of the funding was directed to planting on the grassland (interviews, 2001). Recently, the national policy to develop western China has also brought in more funding for ecological improvement (Feng, 2000).

While the household-based and market-oriented pastoral economy has stimulated unprecedented grassland improvement, it has not shown an advantage in comparison to the planned economy of the collective era in controlling overgrazing and the opening of grassland areas. The market economy carries a drive for development similar to the linear growth projected by the planned economy; thus, it intensifies resource use (Muldavin,

¹¹ Ulanhu was rehabilitated in 1973, appointed as a member of the politburo in 1977, and later, as a vice-chairman. His son Buhe was appointed the chairman of Inner Mongolia Autonomous Region in 1983 (Sneath, 2000, 127).

1997) and exacerbates grassland degradation (Thwaites et al., 1998). Overgrazing has worsened. In 1987, Inner Mongolia's carrying capacity of livestock was surpassed by 30% (Bao et al., 1997); by 1997, overgrazing had reached 100% (Yao et al., 2001). During the same period, the percentage of degraded grassland increased from 40% to 70% (ibid). Meanwhile, cultivation continued to encroach on grasslands, leading to what was considered a new wave of grassland opening from 1986 to 1996 (Bao et al., 1998). Although occurring mostly in eastern Inner Mongolia, where physical conditions are more suitable for farming, this period of grassland conversion produced 1 million ha of new farmland, matching the amount converted during the Cultural Revolution.

Uxin Ju, lauded as a national model in landscape transformation during the Mao era, saw the most significant landscape improvement after 1976. Tree, shrub, and grass plantings have increased rapidly, and usable grassland has been enclosed in barbed wire. The aggressive grassland practices developed during 1958 to 1966 have become the backbone of current grassland management strategies, and have expanded the most rapidly on the grassland since 1976. For example, in 1976, each household possessed, on average, about 200 planted trees; by 1999, about two-thirds of the households I interviewed owned more than 1000 trees. Irrigation also increased rapidly, and irrigable cropland rose from 126 ha in 1976 to 680 ha in 1997. About half of the sandy grassland that was distributed to households has been improved through seeding or planting (interviews, 1999, 2001). The most planted tree species is willow (*Salix matsudana*), whose leaves are used to supplement fodder in the cold season. On the irrigable cropland, corn has been the main crop, which provides fodder and feed for livestock. Planted trees and cultivated crops have become important components in both the landscape and the livestock economy.

Cultural change has accompanied the changes in the landscape, particularly in three important aspects that are closely related to grassland and its use. First, continuing the trend that was set out during the grassland campaign of 1958–1966, Mongols in Uxin Ju have further consolidated their views that nature is neither reliable nor sufficient to support economic growth. Grassland improvement has become an important part of economic planning in every household I visited. People's optimism about the human capacity to improve the landscape has only been magnified in the post-Mao era, as planting has brought about more tangible economic benefits under the household economy.

The second aspect of cultural change is the reduced mobility in both livestock and lifestyle. Household-based grassland enclosures have limited previously mobile livestock to inside fenced areas. With this fixation, goats, the Mongols' traditional livestock, have been gradually eliminated because of their tendency to break

through fences and to destroy the planted trees and shrubs. In place of goats are the more docile sheep that graze more easily inside fences. In the 1950s, there were three goats for every sheep, but by 1997, only 324 goats remained while sheep numbered 68,934 (Uxin Ju Statistics, 2001). After five decades of government promotion and facilitated by the intensive use and allocation of grassland to the households, herders have now become almost entirely sedentary, rendering traditional nomadism obsolete.

The third and most far-reaching cultural transformation is the Mongols' changing view of livestock grazing. In the past, Mongols had attached their ethnic identity to grazing, the basis of the Mongolian economy. Now, with the influence of marketization, many Mongols have started to emphasize economic gain regardless of traditional practices. This change in emphasis echoes the view of many Mongolian leaders and scholars who advocate abandoning traditional practices and developing a modern economy (interviews, 2001; Bao et al., 1997). In answering my question about the most significant features of Mongolian culture, my interviewees pointed to the Mongolian language, the banners Mongols hang in front of their houses, and their heritage tracing back to Genghis Khan (see Jiang, 2004). They showed no particular concern about losing their cultural identity with the adoption of planting and farming. Such material practices as livestock grazing are no longer seen as essential features of Mongolian culture, while symbolic features such as language and heritage are now more heavily emphasized. This shift opens room for more external influences on local land-use practices and grassland management techniques.

Of the four stages I have discussed since 1949, the current stage has seen the most consistency between the state environmental ideology and local goals for grassland management: both point to an economic end. While such consistency reflects welcome state policies that prioritize economic development and allow individuals more freedom in resource use, it unfortunately has not guaranteed a long-term environmental sustainability. While aggressive planting, sowing, and irrigating have improved certain areas, other locations continue to degrade, and moving sand has expanded. Sand expansion is not only attributed to overgrazing, but also to various land improvement practices, which, by overdrawing groundwater, cause the groundwater table to lower in sandy areas. Remote sensing analysis shows that from 1973 to 1997, although improved land cover of high-biomass increased from 6793 to 28,580 ha, moving sand also increased from 43,010 to 80,643 ha and land degradation continued. Increased land degradation, exacerbated by destructive improvement practices, illustrates a serious limitation of current grassland management techniques (for details, see Jiang, 2004).

6. Conclusion

Uxin Ju's story from 1949 to the present does not yield a simple progression of grassland degradation or improvement, but a complicated historical-cultural interweaving of grassland change. Some general trends may, however, be drawn from both regional policies and local changes. Grassland management in Inner Mongolia has been an aggressive landscape project under the socialist regime. Over the four stages of grassland policies since 1949, the state has used the grassland as a path to the Mongolian cultural revival (1949–1957), a means of socialist development (1958–1965), a tool of political control (1966–1976), and, more recently (since 1976), an instrument for economic development. The trend points toward increased human intervention and more intensive management practices, leading to more significant impact on the landscape, both productive and destructive. Such a progression underlies local practices in Uxin Ju as well, which have evolved from livestock shelter building to toxic grass removal, to sand control, to planting, seeding, and farming. Cultural change in Uxin Ju has accompanied grassland transformation. Traditional obedience to nature's forces has been replaced with a view that considers the grasslands to be inadequate and in need of improvement. Moreover, Mongols have shifted their emphasis away from nomadic grazing as a particular Mongolian identity and toward symbolic features of language and heritage. This shift, in turn, facilitates the continuation of aggressive grassland management.

Uxin Ju has been a community that largely followed the state directives, especially during the campaigns from 1958 to 1965 to transform desert areas, and in the recent household-based grassland management. Uxin Ju's residents, however, exerted their own agency in several ways. The first was in their extraordinary enthusiasm for grassland improvements, which earned Uxin Ju national reputation in 1965. Second, in answer to local conditions, local people developed specific practices to improve sandy land, such as sand dune conversion and grassland enclosure. Third, perhaps a more important aspect of local agency can be seen in changes in the residents' views of nature. As local views became more consistent with aggressive grassland management practices, it became easier for the state to extract local cooperation. Although Uxin Ju followed state policies closely, its local goals in grassland management have not always been consistent with those of the state. Local rationale has remained centered on the economy, even when the state used the grassland as a political tool. Uxin Ju, while cooperating with the state, has done so for its own purposes.

Further conclusions can be drawn concerning the continuities and breaks in grassland management during the Mao and post-Mao eras. Clearly, considerable diver-

sity existed in both eras; therefore, this comparison only captures a general picture. Still, such a comparison can serve both to make historical connections and to inform sustainable grassland use in the future. To consider the similarities between the two eras first, one finds that both have viewed the environment as an instrument, a political one in the Mao era and an economic one in the post-Mao era. Both periods have used the grassland aggressively, as in the conversion of sandy land into pasture and the planting of trees and shrubs. In practice, both eras have neglected or overestimated nature's capacities. In the first era, political zeal led to a destructive ignorance of ecological limitations, while in the second, economic goals have led to an overestimation of the landscape's capacity to support more trees and irrigation. In their grassland practices, the two eras have produced both improvement and degradation. During the Mao era, while the desert campaign transformed some areas of moving sand into pastures, the opening of grassland and the increase of herd sizes led to serious land degradation. During the post-Mao era, while economic incentives under the household economy encouraged more aggressive grassland improvements, they also promoted overgrazing—both of which have, directly or indirectly, contributed to grassland degradation.

Considerable continuities also exist between the two eras. With its policies, the Mao era provided an ideological basis for the post-Mao era's aggressive management by promoting a view of nature as inherently insufficient for human needs. Local grassland practices developed during the Great Leap period and the ensuing years in the 1960s, such as sand dune control, grassland enclosure, and tree and shrub planting, provided the backbone for the recent stage of market-based grassland management. Since the 1958 campaign to remove the toxic grass, local views of nature have increasingly shifted to treat nature as inadequate and to trust in human ability to improve the grassland. To put it differently, the nature campaigns of the first era prepared the area for the second era's intensive management. It is no wonder that Sanders (1999) argues that despite their different rhetoric, the Mao and post-Mao policies have created similarly distressing environmental outcomes.

Differences between the two eras of grassland management, however, cannot be ignored. What distinguishes the post-Mao era from its predecessor has primarily been its steady focus on grassland improvement and on more beneficial economic outcomes. In tree planting, attention has been given to match each species with suitable ecological locations. Although cropland has been expanded in Inner Mongolia (including Uxin Ju), more suitable locations and farming methods have been promoted, either in choosing humid areas of eastern Inner Mongolia for cropland expansion or by mandating irrigation on dry areas (as in Uxin Ju). With the

increased concern for efficiency under the household economy, grassland improvement has been conducted at a much faster pace and produced more visible economic benefits. While the market modernization of the post-Mao era has not cured the ills of the environment, it has shown an advantage over the early collective regime by reducing human and environmental suffering and by improving economic well-being. It appears that the post-Mao era, while leaving much to be desired, has offered the beginning of a hope for a more sustainable environment.

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