

Man and the Biosphere

The Chinese National Committee for Man and the Biosphere

SPECIAL ISSUE

Mongolian Horse

Why are Mongolian horses, the creatures galloping about on Inner Mongolian grasslands for several thousand years, dying out so quickly?

Horseherds-Experts:

Conversation Beyond Time and Space

US\$5.00





The Silingol Grassland. Photo: He Ping



The Mongolian Horse – Taking us on a Long Journey

Our editing team

There are, perhaps, only a few animals in the world that are as deeply embedded into a culture as is the Mongolian Horse. This is an animal whose fate is so closely tied to a people that its situation is an indicator of both the health of the external environment and the culture upon which it relies. As the numbers of these animals dwindle, it evokes such sadness from the hearts of the people who have lived with it day in and day out on the grasslands for centuries.

The rapid decline of the Mongolian Horse, an animal that once galloped in great numbers on the grasslands, is of serious concern today. However, we did not realize how grave was its plight when we chose the Mongolian Horse as this issue's main topic. It wasn't until we arrived at the grasslands and started talking to the nomads and horse herders that we eventually got stuck into ever-expanding and seemingly endless debate and contemplation about such deep issues as what is the fate of mankind. We were deeply touched by the culture of the people of the grasslands and we are deeply grateful to the Mongolian Horse because of its unique appeal which has helped to carry this conversation on a long journey far and wide.

In our contemporary culture where we are constantly seeking to satisfy our material desires, we are obsessed with judging everything through an economic perspective. It is thanks to the Mongolian Horse that we were pulled out of this obsession. The nomads' love for the horse cannot be explained through an economic perspective. In fact, the decline of the horse is happening just because of economic reasons. Thus, we are compelled to search for the true value of Mongolian horse. What we discovered was that the horse has an ecological and a cultural value far more precious than any monetary value. And from this conclusion we ask: if we can recognize the value of the Mongolian Horse beyond its economic benefit, why can't we do that for the other things around us?

Many people blame population growth and year-after-year droughts for the degradation of the grasslands. But the wire fence that has been erected to stop the free movement of the horse should be another important clue. The wire fence is a pointer to how the grassland management system, which replaced the thousands-of-years-old nomadic lifestyle, may also be contributing to the decline of the grasslands.

How a region develops should be guided by that area's natural conditions, particularly when the conditions are arid and the environment is vulnerable. The decline of the Mongolian Horse is another warning that blind development and an overreliance on modern technology, while ignoring local and traditional wisdom, can lead us, consciously or unconsciously, away from nature and towards disaster. We are not advocating a simple return to the past. Rather, we are calling for a change in our attitude to one that is more in tune with nature.

When we cut up the formerly boundless grasslands into tens of thousands of wire-fenced in paddocks we lost sight of the true value and significance of the grasslands. The plight of the grasslands is an indication of the damage wrought by human exploitation. The grasslands have been divided by policy makers, academics and administrators. That is why we invited specialists from various academic backgrounds to participate in this discussion.

The grasslands' ecological welfare is tied closely with culture. It depends on, after all, how people wish to make a living from the grasslands. That is why it is impossible to discuss the fate of the grasslands without including the local people who rely on them to survive – the nomads and horse herders. Any policy from some higher authority on how the grasslands should be managed can only be successful if the local people are willing and how much of their voice is incorporated into the decision making. The problem is that such decisions are made with pure economic gain in mind and local people struggle to understand the language and concepts and also struggle to find channels to get their voices heard. So we travelled to the Silin ghol (Xilinguole) Grasslands to speak with the horse herders and help them to get their voices heard.

As well as the value the herders place on the Mongolian Horse, we have also come to realize that this animal has another value – it has helped us reflect on ecological and cultural issues. And that is one more reason for us to be grateful to the Mongolian Horse.





Man and the Biosphere

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-Editor



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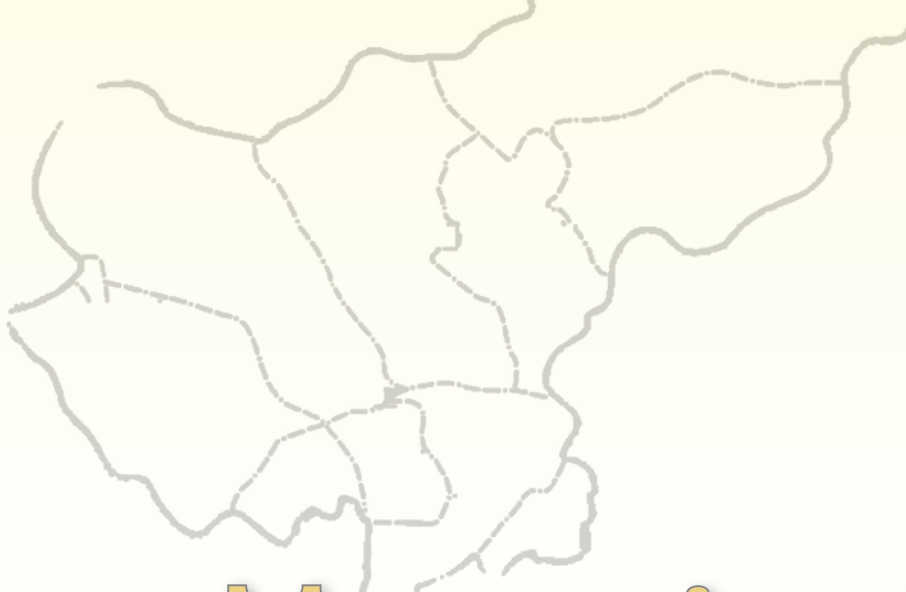
Man and the Biosphere Programme launched by the UNESCO, is a global scientific programme related to the relationship between mankind and the environment.



DIALOGUES ABOUT MONGOLIAN HORSE (I)

Photo: He Ping





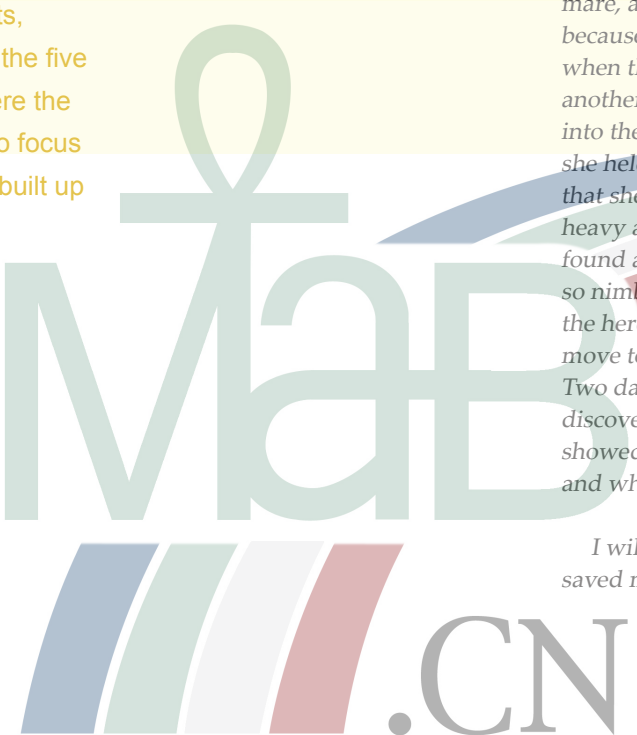
Memories from the horse herders:

PART ONE

Lin Lan

The extinction of any species is a tragedy. All living things leave traces on our planet and they have irreplaceable value. However, too often a species disappears without anyone raising a warning. Our planet cannot afford to keep losing life like this. The serious decline in Mongolian Horses on the grasslands has prompted us to investigate the key causes and research ways to rescue it.

Our investigation team was composed of nine people and included ecologists, sociologists, postgraduate students, reporters and photographers. Our final route traced a path across the five northern hoshuu (Mongolian counties) of Silin ghol aimag (a prefecture-level League) where the largest numbers of Mongolian Horses are found. After careful consideration, we decided to focus on interviews with former and current horse herders because it is these people who have built up the closest contact with, and the deepest feelings for, these vanishing animals.



Day X, August, 2006

Thought for the day: Nomads cannot live without their horses

It is the last day of our investigation. Looking at the notes we have taken in the past fortnight – there are some 100,000 characters – we find that everything is connected to horses. To say these notes are “stories” would be a bit far-fetched, because they are intermittent and sometimes lack structure – no lead, climax or conclusion. However, looking back, the “stories” are very touching. The horse herders talk of nothing but their horses. They talk about their horses as if they are still living with them even though they don’t own horses any more. Perhaps, as outsiders, we can never hope to fully understand a herder’s feelings toward the horses. I have tried to pick out the most moving horse stories that illustrate the wisdom of the herders and their compassion for an animal that I can now say I profoundly admire.

Namsarai:

“During the big snow storm in the spring of 1982, about 10 people and a lot of horses died in Juun Ujumucin. I trekked for two days and two nights in that storm following the herd. I remember very well that the “white-feathered wind” began at about 10 o’clock in the morning and I had to go with the herd, as horses like to run with the wind. They just went on and on and I had to keep up with them, covering some 30 kilometers at one stretch without stopping. I was totally unprepared, so I didn’t have any food with me. The “white-feathered wind” was so strong, I couldn’t see anything and I lost my sense of direction. I just followed the herd for two days and two nights. In the beginning, I was riding a mare, as we normally ride female horses in the winter because they are better able to deal with the cold. But when the mare was too exhausted to go on, I lassoed another horse from the herd and got on. The mare fell into the snow and died. All the time I was riding her, she held on. It was only when I found another horse that she dropped down and died. The snow was very heavy and more than a meter deep. I was lucky to have found a good horse that could jump. If the horse wasn’t so nimble I might well have been trampled to death by the herd. This horse was very smart and never tried to move to the front of the herd. She just stayed behind. Two days later, someone at the sumu (Mongolian town) discovered I was missing when all the other herders showed up without me. So they sent a search party out and when I was found, my legs were frozen stiff.

I will be forever grateful to those two horses that saved my life. The second horse passed away from old

age much later in 1988. I miss her because I would be dead if it wasn’t for her. I buried her body in the wild but I kept her tail with me. We usually skin horses before we bury them, but I didn’t do that to her.”

Shami:

“I was 10 years old in 1945. My silver-grey horse at that time was the same age as me. It was seized by the Mongolian Army and taken to the Republic of Mongolia. I never stopped missing it because we had grown up together. One day, 18 years later, straight out of the blue, that horse came back home all by itself. No one was riding it. I guess it missed its homeland too much. The morning it came back, I saw it standing by the well. It still carried the brand made by my family. Even though it had been missing for so long, I recognized it at once. I don’t know if it had just come straight back from Mongolia or if it had been roaming around for a long time. The old folk always told me that this horse was very smart and would remember its own way back home even if it was very far away.

Now I am getting old and I don’t have any horses anymore. I can only watch TV programs about horses. In fact, I watch almost nothing else but stories about Mongolian horses on the Mongolian language channel. There are one or two horse programs a week. When my children want to watch something else at the same time, I won’t say anything but I will feel unhappy.”

Secenbatu:

“I grew up on horseback, lassoing and taming horses. Life was good. It was fun because it was not only work, it was like sport and entertainment too.



Photo: He Ping

After I stopped riding horses, my body began to ache all over and my health began to turn bad.

As a horse herder, my job was mainly to take care of the herd, taming and lassoing horses. At that time there were no cars or motorbikes on the grasslands. The horse was the only viable means of transportation. A horse herder must catch a horse from the herd whenever someone needs an animal. You will also need to lasso the horses whenever it comes time to cut the mane and brand the animals. So lassoing is a very important skill. When you are lassoing, the horse you ride must be carefully chosen. It is selected from the herd and trained to improve its agility and obedience. This horse can recognize the target sheep or horse and can run it down right to the end. A good lassoing horse can make sudden turns during the chase and knows when to suddenly stop still once the target is lassoed. All you need to do is give it a small pat and it

will leap forward at once. It knows what direction to go by sensing where the body of its rider is leaning. A lassoing horse doesn't have to be tall and strong. A fat horse is not agile enough. The best kind of lassoing horse is small, agile and responsive.

There is not much difference between horses and people in this sense. Horses are very understanding although they cannot speak.

The horse is a chaste animal and never mates with another horse of the same clan. In a stallion herd [the basic unit of a horse family comprising one stallion, several mares and their foals, or about 20-30 horses], the stallion will drive a young horse away after it has grown up so it can go and join another herd. But now there are so few horses and the grasslands are fragmented by the wire fences, there is nowhere for these young horses to go, so they stay with their herd. Often a young mare is bitten and kicked by the stallion

as it tries to chase her out, but time and again she comes back to her original herd. She has no choice. What a poor thing!

There are a lot of people like me who worked with horses for more than 10 years. Now, with no more herds, we all feel something is missing in our lives. Often we horse herders will get together to drink and talk about the old times. We have so much to talk about when we talk about our horses. I am always thinking about the herds I took care of and my lassoing horse. I even dream about them."

Urtunastu:

"Horses don't sleep in the day-time. They fall asleep for a couple of hours standing up at night, usually at about 9 or 10 in the evening and also for a few hours just before daybreak. Once the horses wake up they start eating. Of the five traditional Mongolian grassland livestock – horses, camels, cattle, sheep and goats -- the horse is the only one that sleeps while standing. Sometimes if a horse gets into too deep a sleep it will fall over. On the grasslands, the wolf is the natural enemy of livestock. But horses are tough. When a herd acts together, the wolves have no chance to get close. But when the horses are sleeping they can't protect themselves. The wolves are smart and know when the horses are asleep. They follow and watch the horses and only attack once they have started sleeping. So the horse herder needs to keep watch in the night, guarding the horses. In the winter it is so hard to keep watch at night because it is so cold. Horses like to go with the wind, but the herder needs to prevent them from doing this. He needs to patrol back and forth, keeping a watchful eye. If wolves show up, you can shout to scare them away. A good stallion is capable of fighting wolves. It will run circles around the herd and beat off the wolves. Normally wolves attack in a pack of about a dozen. If attacked like this, the stallion and mares form a circle around the foals to protect them. When a horse is about two years old it is big enough to know how to fight wolves."

Daicing:

"One day at Juun Ujumucin, the "white-feathered wind" came and I got lost as visibility dropped to five meters. As I didn't know what to do, I just let the herd



Photo: Ayin

Photo: He Ping





Photo: He Ping



Photo: Eb



Photo: He Ping



Photo: He Ping

go off on its own because I knew the horses could pick the way better than I could. To my amazement, they guided me to a house. I was almost dead with cold. The first thing I asked the house owner was to give my horses a good feed.

I like to look at horses and figure them out. When someone is riding towards me, I first look at the horse before I look at the rider. A good horse can run without stopping for about 300 kilometers a day. In fact, a good horse has two nostrils on the outside and two on the inside making four in total. It can run fast because it can breathe easily. Good horses always sleep standing up, whereas foals will lie down to sleep. If you find a foal that can sleep while standing then it's a good one and is the best candidate for a stallion.

In our Mongolian language, there are many words for the different colors of horses. We have 108 words. Just for the color red we have about a dozen words such as single-colored, twin-colored, mauve, purple, scarlet, pale red, bright red, claret and so on. We also have lots of words to describe how horses move. There are 48 of them such as galloping, trotting, sprinting, loping, etc."

We heard many more accounts similar to the above and quite a few that described how a horse had saved its owners life. In the eyes of the horse herders, the horse is not just an animal. Their eyes would light up whenever they started talking about their horses and their stories are filled with affection and often told in a soft and tender voice.

THE MONGOLIAN HORSE

— THE LIFE OF A HERDSMAN

Han Ying

Before we set off on our search for horse herders we telephoned a writer who had spent some time living in Inner Mongolia and asked him about the Mongolian Horse. This is what he told us: “It is natural that the horse will become extinct because it damages the grassland. With less and less grassland, the nomads don’t want to keep horses any more, even if they are asked to.” We have heard these kinds of words many times before. At the time we did not want to accept what he said. But we noted down his thoughts as we prepared for this special “Mongolian Horse” edition. This is how we recorded it. “After machines have replaced the Mongolian Horse, people will have not only lost a form of transport but also an affectionate friend. But that is not a reason to stop the march towards mechanization. If the Mongolian Horse ever dies out, we would like this issue to be an elegy to this noble animal.”

After we finished our journey from the east to the west of Silin ghol, we noticed how few horses there were left and we were also impressed by how many nomads said that they couldn’t live without the Mongolian Horse. We never imagined that the horse would vanish so fast or that the nomads would be so attached to this animal. In the end, we were more puzzled and had more questions than when we first started, which was the most unexpected outcome from this trip. Why do the nomads love the

horse so much? And how have they allowed the horse to virtually vanish before their eyes? Is it inevitable that the Mongolian Horse will become extinct? These questions are all related to the future of the grasslands and the conflict between modernity and tradition. We sought some answers from several scientists after the journey. When all the interviews were finished we found to our surprise that the number of horse herders and the number of scientists we talked to was both 20. And so it is like we have created a dialogue between the two groups of people across time and space.

After we met a Fellow of the Chinese Academy of Sciences, Professor Wu Changxin, from China Agricultural University, we learnt that he was also Chair of the China Horse Society. This is the only organization dedicated to studying a farm animal – there is no equivalent for the sheep or the cow, which shows that the horse occupies a special position compared to the other farm animals. In his laboratory, our conversation covered several questions including what was so important about the Mongolian Horse and whether the government should give it special protection. We asked these questions because the nomads had left such a deep impression on us. In their eyes, the Mongolian Horse is precious and they had said they hoped the government would take steps to protect it.

Professor Wu Changxin (China Agricultural University, Chairman, China Horse Society):

The Mongolian Horse is well-adapted with very high endurance levels and a resistance to disease, both outstanding traits that have developed over a long period of time through natural and human selection on the Mongolian Steppe.

The number of Mongolian Horses has fallen very rapidly, particularly in recent years. The Inner Mongolia Autonomous Region used to have over one million horses. Currently it is estimated that there are 700,000 to 800,000, and this number is still falling. Other provinces or regions that used to have over one million horses – for example Xinjiang and Heilongjiang – are also finding that the numbers of their horses are declining.

China has 23 local breeds of horse. Ranking at the top is the Mongolian Horse with 17 different local breeds, including the Silin ghol horse and Khorchin

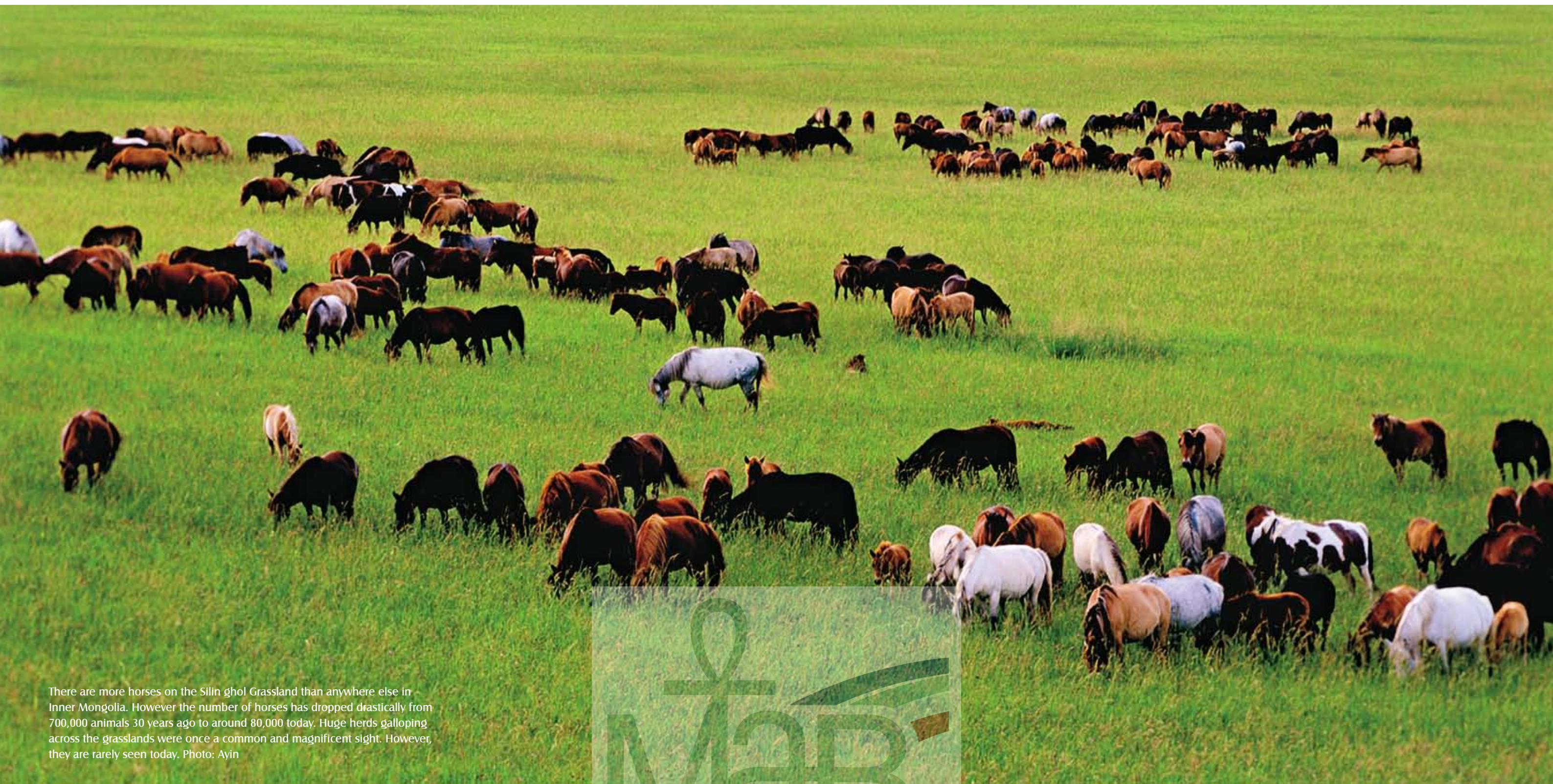
Anchitherium gobiense is the earliest known species of wild horse to exist on the Mongolian Steppe. Horse fossils, dating back more than 10 million years, have been discovered on the Silin ghol grasslands.

horse. China attaches great importance to protecting these local breeds. One chapter of the Animal Husbandry Law is especially designated to “livestock genetic resources protection.” The chapter’s opening clause reads: “The state should establish a livestock genetic resource protection system. Governments at all levels should take measures to ensure livestock



Photo: Ayin





There are more horses on the Silin ghol Grassland than anywhere else in Inner Mongolia. However the number of horses has dropped drastically from 700,000 animals 30 years ago to around 80,000 today. Huge herds galloping across the grasslands were once a common and magnificent sight. However, they are rarely seen today. Photo: Ayin



Herds of horses this size used to be a common sight on the grasslands. Photo: He Ping



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With globalization, many species are disappearing. The Chinese government has put the Mongolian Horse on its list of protected species classified under livestock and poultry genetic resources.

genetic resource protection by listing livestock genetic resource protection expenditure in the fiscal budget.” Its fourth clause states: “Departments related to animal husbandry and veterinary administration should compile and publicize a provincial livestock genetic resource protection list in accordance with the national plan for protecting livestock genetic resources and use and the local conditions of livestock genetic resources, which should be filed at the relevant department of animal husbandry and veterinary administration of the State Council for the record.” As far as I know, the Mongolian Horse is listed as a protected species on the first national list of livestock and poultry genetic resources protection issued by the Ministry of Agriculture in 2000. I believe that the government of the Inner Mongolia Autonomous Region has already adopted measures, and will adopt more, to protect the Mongolian Horse. Of course, the horse is very important to the nomads and they feel deeply about it.

The government has recognized the value of the Mongolian Horse, and has established measures to protect it. The nomads must be relieved to hear about this. However, economic pressures are changing the fate of many livestock species. This trend appears to be unshakeable and makes no allowances for human

emotion or attachment. This is what confounds the nomads.

Even though the nomads may say: “We can’t live without the Mongolian Horse,” it won’t save the horse from the pressure of economic progress. After Professor Wu pointed out the nomads have a special connection with the horse, we decided to continue our investigation on this front. We visited Yang Bayar, an associate professor and expert on Mongolian Horse culture. He has studied this area for many years. His doctoral dissertation, written in the Mongolian People’s Republic, is on the Mongolian Horse. Our questions for him were: Why do the nomads say they can’t live without their horses? Is it just because of money?

Dr Yang Bayar (Associate Professor, Tourism College of Inner-Mongolia Normal University):

I have always wanted to find something that my ethnic group believes in and I finally concluded that this was the Mongolian Horse. The animal is not just important in an economic sense but the relationship between the nomads and their horses is their connection with nature. The nomads have chosen the five traditional livestock of the grassland because of their special relationship with nature. This is the crux of their connection -- it is just a law of nature. And because of this, the nomads have developed feelings for their horses and these feelings are subtle and contain elements of harmony between humans and nature. It is only through accepting this that we can understand how the nomads relate to the five traditional grassland livestock. Nomads grow up relating to nature in this way. They are closest to the horse because they spend more time together. Their relationship with the horse is essentially how they relate to nature. Through their horses, the Mongolian people acquire wisdom and gain knowledge of nature.

Nomads pass on their knowledge of their horses through folk culture. It is passed on from generation to generation as a kind of cultural heritage. And it is very valuable. The human-horse relationship is simply one aspect of Mongolian culture.

These thoughts take us away from looking at the horse as just a tool to make money. The horse is also important ecologically and culturally for the Mongolian people. We could sense this in the kinds of things the nomads told us, including: “We don’t have much to talk about except horses and we don’t have much fun unless it’s with our horses;” “My health has gotten poorer and I get ill more often since I stopped riding;” and “The grassland is not beautiful any more now the horses have gone.” Some nomads refused to give up their horses even though keeping them meant

they lost money. “The horse is my life,” they said. Economic concerns may have filtered out much of this but knowing that some people still believe in the Mongolian Horse has encouraged us to pursue this new perspective.

Yang Bayar:

The Mongolian nomads are entering a modern civilization from their traditional roots when they all rode horses. Some of the nomads have given up their horses and now the horse has grown further and further from their daily lives. The Mongolian Horse has actually become a kind of spirit in the hearts of the Mongolian people. Why is it that a nomad will get teary when the conversation turns to the Mongolian Horse? They can get even more emotional than when they talk about their family. The spirit of the horse is so strong that it is carved deep in their hearts. The horse has in one sense become a deity as well as the cultural symbol for the ethnic group. Even though horse numbers have been declining, the spirit of the horse has been etched into the Mongolian mindset and that leads them to new achievements. Only by seeing it from this perspective can we truly appreciate the relationship between Mongolians and their horses.

This union between the Mongolian people and the horse is an ancient one. Even before horses were tamed, people worshipped them for their speed and power. With domestication, people then admired them for their obedience and their role in nomadic life. They became irreplaceable for herding and for going to war. The horses allowed the natural instincts and passion of the nomads to be ignited in a kind of wildness. The Mongolians have amassed great strength from their partnership with the horse. It is a kind of cultural achievement in human history. The horse, in fact, has been influential in shaping the Mongolian people’s character, in particular their dynamic and forward-looking spirit.

Horses have often saved human lives and so humans and horses have become interdependent and inseparable. There are many stories in epics and legends which tell of a horse sacrificing its own life to save that of their master. Old ballads depict the horse-human relationship as sometimes stronger than that between two brothers. In some cases, these stories are not fiction, they are fact for many nomads. The fate of humans and the Mongolian horse is tightly intertwined. When a Mongolian person rides a horse he is filled with happiness and courage. Pain and sorrows disappear.

From Dr Yang’s words we begin to feel that we have found the answer to why so many nomads said they couldn’t live without their horses. Could anyone abandon such a strong friendship, based on

such depth of trust? Of course not. That’s the power of the Mongolian culture: a culture that we can only read about, but a culture that runs in the veins of the nomads.

During our journey we were fortunate enough to come across several rodeo shows. Although there are fewer and fewer horses, the rodeo is still an unforgettable sight.

“The herd gallops past, with a trail of dust in its wake. Their thundering hooves shake the ground and their neighing reaches up to the sky, adding immense animation and vigor to the normally quiet grassland. Such a scene can send any spectator’s heart thumping and blood boiling. It is impossible to remain untouched by the sight of this majestic animal that has grown up on the steppe or to be un-awed by its spirit of freedom, and the elation and jubilation of all the horse herders. It is a perfect moment in time displaying the stamina, gallantry, ingenuity and team work of the Mongolian people. It is a gala, a celebration, a jubilant party and a festival that has been held on the grasslands for generations.

After flipping back through our notebooks we found that we had a much deeper insight now. The Mongolian Horse is important because it ties people to nature, and this is the key to understanding how the nomadic culture developed and what the future may hold in store for the nomads. Nothing can replace the horse in this role and that is why the nomads have developed such a strong attachment for it.

But the question remains how can this relationship be preserved when economic pressures are trying to break it? Can a compromise be made? This is the natural question now.

Wu Changxin:

Different parts of the grasslands have developed different uses for the horse. In Xinjiang, people keep horses for their meat, milk, and hormones that they extract from the urine of pregnant mares. In Inner Mongolia, horses could also be used to make money. For example, we could learn how other countries manage horse racing and develop it here. It can also be adjusted to fit in with local traditions such as the Nadam festival. The government could set aside Inner Mongolia as a “special zone” where betting on horse races could be allowed and developed into an industry. Many jobs could be created in the fields of horse breeding, training, and racing, and at the same time preserve local cultural traditions and protect the horse. We might still lose some horses but at least they won’t become extinct. First we need the government to enact a new policy and then we need to create a market. Horses also produce good meat, although they are not as productive as cattle. Horse meat contains little fat and is healthier option than beef. Russian and Japanese

people enjoy eating horse meat and so there is a market for it. The only drawback is that current demand is limited.

Yang Bayar:

How can we develop an industry to exploit raising horses? Horses can be used for several useful products including the mane, tail, skin, meat and milk. As a matter of fact, everything on a horse has some value depending on how you use it. Horse racing can generate a lot of money, but it is not legal in much of the country. As people’s living standards rise, there will be more room for an industry selling horse products to develop. Many academics have suggested developing a tourism industry, which of course would need a lot of horses in Inner Mongolia. Horses can be used to transport tourists and they are also a symbol of the grasslands and so any Inner Mongolia cultural tours need horses. Many tourists would love to ride and watch the Mongolian Horse. And this alone could make it economically viable to protect it.

It appears that money can be made from the

Mongolian Horse. Many people have thought about this problem as a solution to the threat of the horse’s extinction. Some local governments have been encouraging local people to replenish their horse herds and horses are no longer counted in the quota of livestock allowed on the grasslands. Families that specialize in training horses have begun to emerge. Some nomads have even started their own Horse Associations. All this indicates that people are worried about the fate of the horse and that they are trying to protect it.

However, the situation is not so simple. There are also underlying problems of grassland degradation, privatization, wire-fencing, and ecological resettlement. These problems are also tied to the fate of the Mongolian Horse and because of this complexity, in a sense, our research has only just begun.

throughout the rest of China. Researchers say the horses in Mongolia are definitely descendents of the Mongolian Plateau wild horse, the Dahe. It was the Mongolians who first domesticated the species.

Since domestication, the Mongolian horse has undergone further evolution to become a separate species of the horse family which has received universal recognition. The Mongolian horse on average is 125 to 130 cm high and weighs around 300 kilos. Its hooves are tough and it has excellent power, endurance, agility and trainability. It has always been an Anda (friend) of China’s nomads.

The Mongolian horse has evolved to become fully adapted to life on the steppe. It is one of the few animal species that refuses to mate with close relatives. When a young mare reaches a certain age, the parents drive her away from the herd to start a new life with another herd. This behavior effectively prevents degeneration from inbreeding. An average horse herd has about 10 to 20 individuals. The Mongolian people call it a “stallion’s herd”, since it is led by a male horse. The male plays the role of leader and protector. When the herd is under attack from predators, such as wolves, the adults surround the young in a circle with their heads to the center and their hind legs to the outside ready to kick attackers. The stallion stays out of the circle and runs around it, neighing fiercely, to frighten off the predators.

Ever since the connection between the Mongolian horse and Mongolian people came into being, it has left a profound and far-reaching impact on the lifestyle, value, aesthetics, personality and culture of the Mongolian people. They have ridden from the past into the modern world, effectively on horseback. Their nomadic lifestyle is completely dependent on their use of horse power. By domesticating and making friends with the horses, the Mongolian people have created a unique culture and reshaped their own identity. On the one hand, the Mongolians have domesticated the horse, but on the other, the horse has had a huge effect on them. Once they had the horse, the Mongol people chose a nomadic lifestyle that was in harmony with the ecosystem. They invented the stirrup, which freed up the hands when riding. This meant that even on long journeys people could use their hands to hunt and fight on horseback. Because of their long relationship with the horse, the Mongolians very early on, began to understand the importance of speed and the concept of time. Because of this they built up the incredible transcontinental Mongolian empire which stretched across two thirds of Eurasia. Together, man and horse have weathered good years and lean years, ups and downs, creating a deep bond between the two. The Mongolian people draw inspiration and courage from their horses, that bear them up in times of difficulty. Over time, the horse has profoundly affected the character and spirit of the Mongolian people.

The fact that the two have been through such hard times and have relied on each other has turned the horse from a symbol, and a totem, into something very personal, something tied to the national spirit of the Mongolian people. Their worship is rational, their perception of, and compassion for, the horse has gone from elementary to enlightened. They have a spiritual connection with the horse. Despite the horse losing its importance in the daily life of the modern Mongolian, it remains a crucial symbol of the ethnic group. The Mongolian horse is an immortal monument in the hearts of the Mongolian people.

Viewpoint

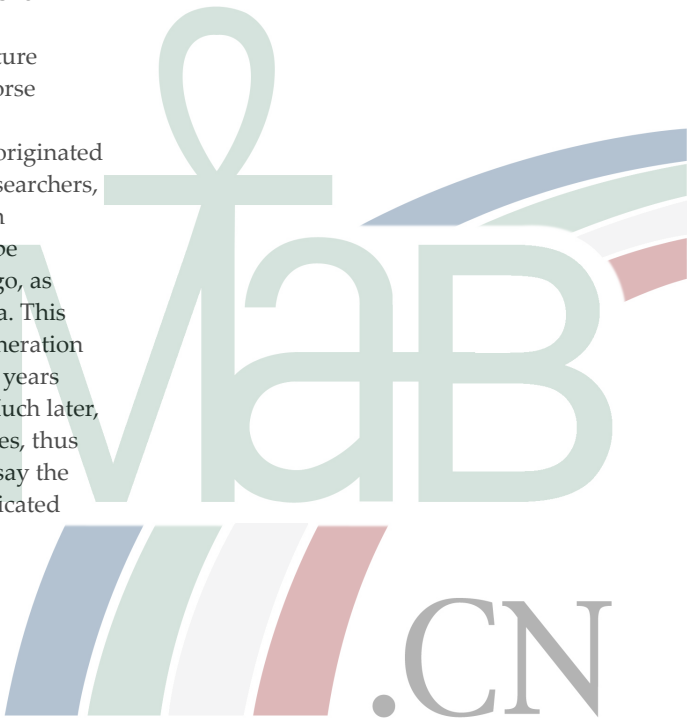
The Mongolians and the Mongolian Horse

Yang Bayar, Wang Jing'an

The Mongolian horse is a species of the horse family which has lived on the wide steppe of north central Asia since ancient times. Its name comes from the Mongolian grasslands that the local people have shared with the horses for hundreds of years.

Mongolians are known as “the people on horseback,” and their culture is interconnected with the horse, hence the existence of “Mongolian Horse Culture.”

Today’s domesticated Mongolian horse, called Dahe in Mongolian, originated from the wild horses living on the Mongolian Plateau. According to researchers, the earliest horse that lived in Inner Mongolia was called Anchitherium gobiensis. Fossils of the species have been found on the Silin ghol steppe and are approximately 10 million years old. About five million years ago, as Anchitherium gobiensis died off, Sinhippus zitteli emerged in the area. This animal was a larger version of Anchitherium, and was from the last generation of the three-toed horse that was about to become extinct. Some 100,000 years ago, equus linnaeus – the modern day Dahe and its family emerged. Much later, between 8,000 and 5,000 years ago, humans started domesticating horses, thus bringing about a connection between people and the animals. Experts say the Mongolian Dahe may have been the ancestor of the wild horse domesticated



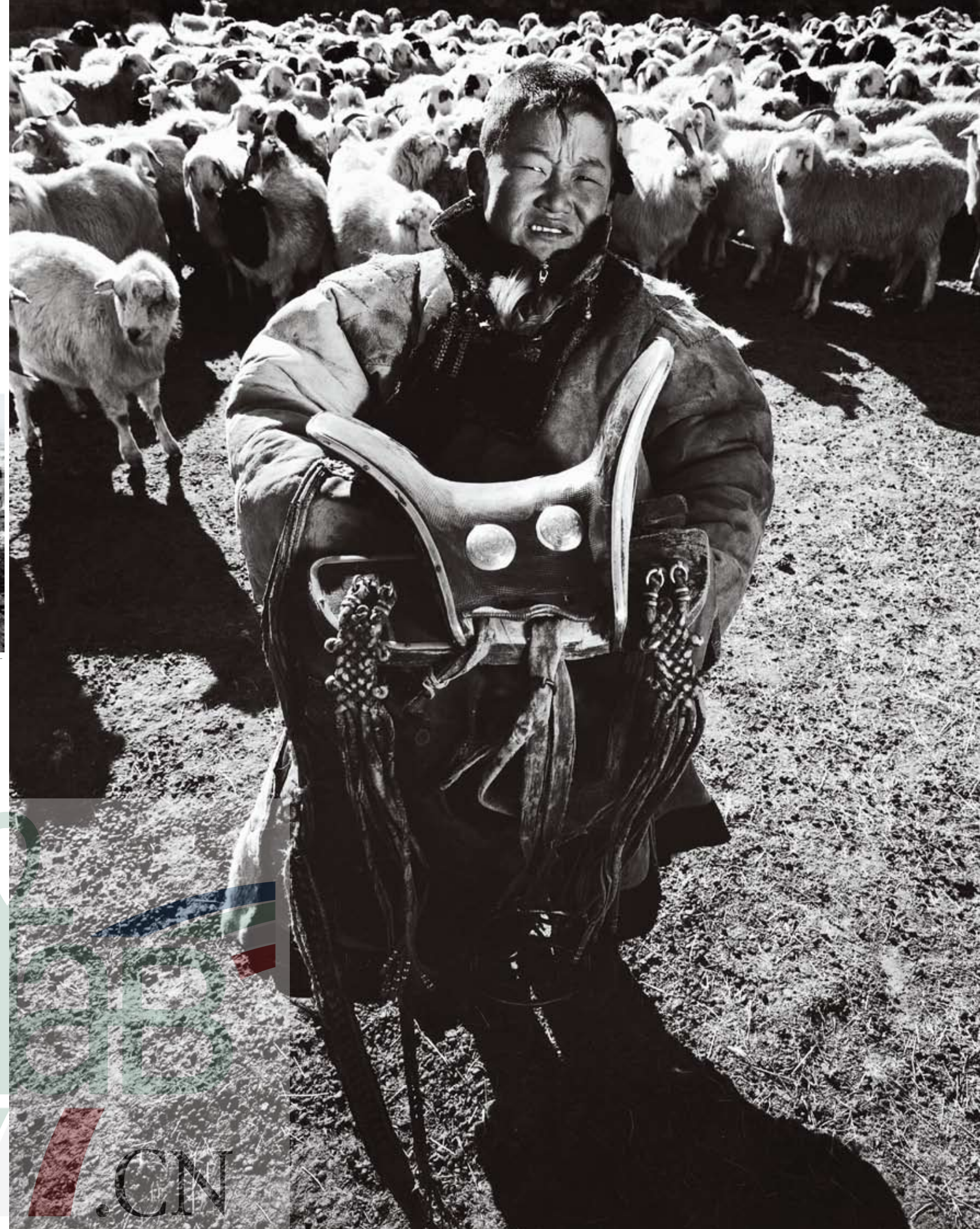


MAN ON HORSEBACK

Text and photo: Ayin

I am from Hinggan aimag (a prefecture-level League) and have been taking photos of the Juun Ujumucin Grassland in Silin ghol aimag for nearly 10 years. As a Mongolian photographer, I have witnessed how the traditions and culture of the people of the grasslands have disappeared or changed over the past decade. I never expected grassland degeneration and desertification to become this serious so fast. The only thing I can do is to use my camera to record my cultural heritage and the environment and use these images to promote the protection of both. I believe the grassland is a single entity that cannot be divided.

The impact of market forces on the grasslands has been tremendous. In my photos, there are very few horses because they have mostly been replaced by motorbikes. Nowadays people's lives have been filled with the pursuit of money and material belongings. In the old days these weren't important to the nomads. Since 1997, I have taken more than 100,000 black and white photos, but it is still not enough. There are some things that have vanished completely. They are lost forever.





DIALOGUES ABOUT MONGOLIAN HORSE (II)



Memories from the horse herders:

PART TWO

Lin Lan

Thought for the day:
I Only Want My Grasslands



Thought for the day:
We have to go back to collectivism

Thought for the day:
The degraded grasslands are getting closer and closer



The grassland at Juun Ujumucin is dry and patchy. There had been no rain for a long time. Photo: Han Ying

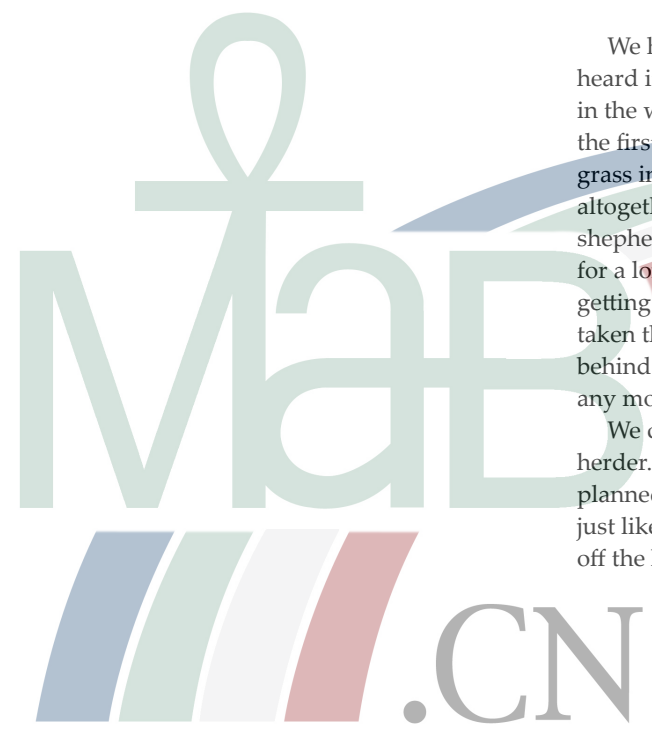
Day X, August 2006
Thought for the day: I Only Want My Grasslands

We headed to Juun Ujumucin today because we had heard it has the best grasslands in China, perhaps even in the whole world. However, when we came across the first flock of sheep, there was only sparse and short grass interspersed with barren patches of pebbles: altogether a pretty depressing sight. We talked with a shepherd who told us that there had not been any rain for a long time and that every year the grasslands were getting worse. Some nomads who had the means had taken their animals to lease paddocks. He had stayed behind because he didn't have enough money to rent any more land.

We continued on our way after farewelling the lone herder. We had not arranged any interviews as we planned to talk to whoever we came across on our way, just like the young shepherd we had just met. Not far off the highway we spotted a white yurt and decided



secebatu was the first horse herder we interviewed. After he lost his horses he made his living as a wrestler. Photo: Yu Yonggang





Secenbatu wishes that his daughter would leave this place, the further the better, but he is full of affection for the grasslands himself. Photo: Han Ying

to pay a visit to the owner. Looking down from the highway, the yurt looked really close, but as soon as we tried to pick a path between the wire-fenced paddocks, we lost our way. It took us quite a time to finally reach the yurt.

A man emerged from the tent with his head bowed. He looked Mongolian in the truest sense -- tall and sturdy and with masculine features. He looked astonished to see us but invited us inside his yurt to drink milk tea, as is the Mongolian custom. He became our first formal interview with a horse herder.

My name is Secenbatu and I am 42 years old. I am a real horse herder. Of course I mean in the past not now. These days there are only a couple of horses in my home because it is impossible to keep a large herd now. I began riding horses when I was six years old but didn't start going to school until I was nine. I dropped out of school when I was 12 and began looking after horses with my dad. When I was 15, I had the skills to catch the wildest horse. My father was a horse herder too. He watched over a herd of some 500 horses. I only wrestle these days because we cannot keep large herds. Although I have won the Jangga [a wreath made

of colorful strings worn around the neck awarded to recurring champions], I only have the money I win from wrestling, at the Nadam Fair, to support my family. Although herding is history for me, I remember that my life with the horses was a happy one.

It all changed in 1992 when the grassland was distributed as 133.3 hectare holdings to each household. Soon, the rich families fenced off their holdings, which prevented their neighbors' horses from intruding, while their own horses were still free to graze on the unfenced holdings of other households. Slowly more and more people started fencing off their land. Even the poorer herdsmen found ways to do it. Steel mesh was everywhere. As every herdsman knows, horses need to run at least 15 km a day and they can't do that in the small enclosures that sprang up around individual households and so the numbers of horses started dropping. In 1992 there were around 1,600, but today we have only about 200 in the whole of ghacaa (Mongolian village or collective period Production Brigade).

At that time, people started saying "One horse has five mouths -- one real mouth and four hooves," meaning that horses were damaging the grassland.

As all the horses were trapped in their enclosures and unable to go anywhere, they trampled the grass in their small areas and destroyed it. Horses aren't like sheep. You can sell a sheep for money after a year, but you need to keep a horse for three years before you can sell it. The return is too slow, so herdsmen began selling off their horses. It is the same in my home. We don't have a herd anymore, just 900 sheep.

Although we have pastureland for our own private use, every year it gets worse and worse. To protect land from overgrazing, the government banned people from herding their animals on it for several months a year. At that time, we had to keep out herds inside the pens and feed them hay and fodder. Sheep don't like to eat fodder and they easily fall sick when they are kept like this. But goats are hardier. During the grazing ban, pastureland supervisor would patrol every day, seizing people's animals and fining them for letting their sheep out. We don't make much money and life is really hard. We have to pay for grass, fodder, and the fines.

My biggest worry at the moment is all this talk of mining the grassland. I heard they found coal in shallow seams buried on the grassland. Some 66.7 ha. of my land is in that area. The developer is promising to pay US \$ 3,462 per ha. as compensation which means I can collect over US \$ 230,000. That is a lot of money. But I'd rather leave my grassland alone than have the money. The grassland is my home. After the grassland is ruined by mining, where can I go?

My daughter is in the first year of senior high school. Although I only studied two years of primary school and have never been away from the grassland, I want my daughter to carry on studying and leave this area. The further away the better, because I am really not sure if the grassland will still be here when she finishes school...

Secenbatu really looked like I imagined a horse herder to look. He was tough and strong yet talked in a soft voice, all the while keeping his head lowered. Even so, he was very observant. He said he believed the drastic decline in the number of horses was related to the wire fences which were put up all over the grasslands following the start of the "Household Contract Responsibility System". However, we wanted to talk to other herders to test his theory first. Everyone in the team was pretty shocked when he suddenly declared: "I don't want US \$ 230,000. I only want my grasslands and my home." We could see that he was upset about his uncertain future. Although he has a strong attachment to his horses and to the grassland, he was still keen to give his children a chance to leave the area. There is a definite struggle between a traditional way of life and modern society.

Day X, August 2006

Key words of the day: The degraded grasslands are getting closer and closer

Today was our second day. We arrived at Sumu-Mandubulag (Thriving Spring Water in Mongolian) at the easternmost part of Juun Ujumucin in the morning. The climate was not so dry here and the grassland was a lush green sprinkled with wild flowers blooming everywhere. This is the place where the author of the novel Wolf Totem, Jiang Rong, lived when he was sent down to the countryside from the city during the Cultural Revolution.

We made some inquiries and learnt that two brothers, both veteran horse herders, lived not far out of town so we set off to look for them. We soon arrived at a brick house which had a glass-walled extension. It must be warm in there even in the winter and we could see that it was furnished with modern fittings.

Just as we were looking round, a lean and short old man that looked to be in his sixties emerged. When we told him that we wanted to interview him, he blurted out impatiently in Mongolian: "There is nothing to talk about! We have no more horses, so what is there to say?!" We were embarrassed because of his abrupt



Jadina said he felt helpless about the increasing numbers of people living on the grasslands. Many of them are hired sheep herders from outside the region. Photo: Yu Yonggang

Naringol River is one of the landmarks of Silin
ghol Grassland. A large lead-zinc mine is being
constructed next to it nowadays. Once it goes
into operation, the Naringol will be doomed.
Photo: Ayin



rejection, however, before we could say anything, another old man came out and invited us inside.

These two men were the brothers. It was the elder brother that had snapped at us and the younger one that had let us in. As we started talking about the Mongolian Horse with the younger brother, the older one came in and listened for a while, silently. And then he started to speak.

I am sorry for what I did just now. I'm fed up with journalists because so many of them have come but few have ever asked about horses.

I am Jadina. I'm 59 years old. He is Namsarai and he's 56. We were both horse herders. You will never find a Mongolian who doesn't like horses. But since the grasslands were divided up there are now fewer and fewer horses. These animals need a lot of space and often trespass on other people's grassland by jumping the fences. In the old days everyone was friendly to each other but since the land was divided up now we keep getting into arguments and sometimes even fights. People started getting rid of their horses, saying they were no use any more. And so the grasslands have gone bad.

Before privatization, nobody thought such things would happen. Everybody wanted privatization. Under collectivism, people only earned work points (merits) but under privatization, everyone works for themselves. But now we have nowhere else to go and we have to make do with what we have here. The grasslands have gone from bad to worse. On the TV we saw that the situation out at Sunid Juun Hoshuu and Sunid Baruun Hoshuu, where the climate is drier is even worse. In the spring they have a lot of dust storms and absolutely no grass. The dying grasslands are getting closer and closer to our home. We are very worried.

Many people say the grasslands are dying because of too many livestock. But the Ujumucin Grassland has always had a lot of livestock. The number of livestock now is no more than before. In the old days, the grasslands didn't die, so why are they dying now?

I think the real reason is because there are too many people here. There are more locals for a start and also there are more people from outside who have settled here. In the beginning, the outsiders started small-scale businesses but then later they also began raising livestock after they were given some grassland. In 1987 and 1988, when the grasslands were divided up, these outsiders were also given holdings. Those who didn't have livestock leased them out to others and later brought their whole family to live out here. Some locals also hired people from outside to look after their livestock. So we have more and more people now. I am also hiring a shepherd because my children have all grown up and no longer want to work on the land.



Sheep heading for water. Photo: Yu Yonggang

They are useless with the animals. Me and my brother are too old to work and so we hired a family from Shuluun Caghaan Hoshuu to help out. They have been here three years now. They are a nomadic Mongolian family. They have leased out their land back home and came out here to work.

The horse is a good animal and we Mongolians cannot live without them. As long as you have horses, you don't need to worry about anything. Even the best car cannot take the place of a horse. In the middle of a

snow storm horses can find grass to eat. They can forge a path through the snow so that sheep can follow and also find grass to eat. For a nomad, horses are more useful than motorbikes. Motorbikes are noisy and they scare the flock. If the bike breaks down on the grassland how are you going to repair it? But as long as you have a horse you can face anything on the grassland. Petrol prices are rising sharply. How long can you tend a flock with a bike? Without our horses we would have to abandon our grazing animals and set up a pig farm.

Young people are useless. They just sell off the horses and buy motorbikes. They don't listen to their parents and they only want to enjoy themselves. They would rather go to sumu (Mongolian town)to drink and dance. They don't want to hear about horses. The TV and radio are always telling the young ones to listen to their parents and teachers but they never do. If we push them they threaten to hang themselves. They don't want to drink their mother's milk, they just want to drink the state's milk [beer]. They don't listen to us



Nowadays it is very common to see farmers on motorbikes herding their animals. Some people even believe that it is a sign that the nomads are becoming modernized. Photo: Li Yingxin

anymore and so we can do nothing except let them have their way.

There are mines all over the grasslands these days and they cause a lot of damage. The iron mine here is run by someone from Chifeng [city] and there is also a lead/zinc mine. We nomads don't know about such things. Our grasslands will be barren like Sunid juun hoshuu and Sunid Baruun Hoshuu before long and that will be a terrible thing.

Although we got off to a bad start, by the end of the interview we were reluctant to leave. The nomads are simple and warm people, and I never expected them to be so articulate in explaining their views. The old herder had linked grassland privatization and the construction of the wire-fencing directly to the decline in horses and degeneration of the grasslands, just as Secenbatu had told us a day earlier. Both of them also blamed mining for damaging the grasslands. It seemed like both of them had been upset about the situation for a long time.

Jadina took us to Naringol, his summer grassland, in the afternoon. It's a place with a meandering river and a broad valley along the banks. Jadina says there used to be a lot of nice rivers like the Naringol on the

grasslands but now only this river is left. And even this river is running low. The herds of cattle and sheep, which could be found all over the grasslands in the past, are all gone. When the land was privatized, the river was also divided into sections and public use during the summer was forbidden. Iron and zinc mines were built in the area and they drew a lot of water from the river and from the underground water table for ore washing. How long will it be before this beautiful river, known as the symbol of the Ujumucin Grassland, runs dry? Will Mandubulag – the Thriving Spring Water – also dry up too?

Day X August, 2006
Thought for the day: We have to go back to collectivism

Today our visit continued on to Juun Ujumucin. For the first time since arriving in the grasslands we saw a herd of horses. About a hundred horses were charging towards a well by the highway, stirring up a trail of dirt behind them like smoke. An agile young nomad wearing a baseball cap and carrying a lasso was

following behind on a motorcycle. Such an incongruous pair of objects –the bike and the traditional lasso -- is now a familiar sight on the grasslands. The young man is taking his horses to water.

My name is Colmon and I have been herding horses since 1974. I still have some 80 horses, which I keep with my neighbors' animals. In the collective period, there were no boundaries on the grassland and few conflicts between ghacaas. There was no definite borderline even between sumus. We had many horses on the little grassland. When the grazing land was privatized, each household only received a small holding. The grass has deteriorated and the horses are gone. In the past, all the herders lived roughly the same; people earned work-points for their work. We were never rich but no one was left out. Now, there are more and more poor people. In one ghacaa alone, there are 40 to 50 bankrupt households. That's about half of all the families there.

I have been a Production Brigade leader for some 30 years and it's only now I have to worry about poverty. Those families that have lost out didn't know how to manage the pasture they received and now their livestock are gone. They can't compete with the savvy outsiders. When they got desperate, they started borrowing from the loan sharks and they just got poorer and poorer. Now they are forced to lease out their grassland. The outsiders don't care about the land, they just want to make a quick buck. They herd too many sheep and the land gets overgrazed. By the time they have gone, the land is bare. The ghacaa is powerless to intervene. Those poor families who leased out the land are unwilling to stop and they have the paperwork and the right to keep on doing it. The ghacaa has no say.

Colmon, a Production Brigade leader for over 30 years, told us that if collectivization was reintroduced then grassland degeneration and poverty would be a thing of the past. Photo: Yu Yonggang



The Ghacaa Committee has tried many ways to help them, but nothing works. If you give them sheep, the flock is soon gone. I believe that if there had been no privatization, the grassland would not have degraded and there wouldn't be this kind of poverty. In order to save the grassland and lift them out of poverty, the only answer, perhaps, is to restore the collective action and rotational grazing. In the commune, everyone had a job and people worked together.

Herding livestock by motorbike has been encouraged. This pursuit of modernization is blind and has been promoted indiscriminately. In our ghacaa, almost everyone uses a motorbike to herd these days. It's very rare to see a herder on horseback, especially if they also own a motorbike. Between the sumu, it's a race to see how many motorbikes a family can own, or if they can even afford a car. The motorcycles and cars are status symbols. In the past there were no herdless herders but now there are some who don't have a herd but own a motorbike. There is nothing good about motorbikes. Hoof prints can hold grass seeds and water and are better than the plow. The earth is supple and soft in areas that have horses. When large herds of horses run over the grasslands, that land will soon grow green. But the grassland that is flattened by bike tyres only gets harder and harder. Of course there are some people who argue that horses also damage grassland. To a degree that is true. But we can't have total mechanization and eliminate the horses just for that. As long as there are grazing livestock, there has to be horses.

The Mongolian tent, the yurt, has changed too. Nowadays people build their yurts with steel, the wicker framework has gone out of fashion. Although steel is stronger and cheaper, it is much heavier. If we still moved around using the Lele ox-cart to carry these yurts, it would be too heavy.

"We have to go back to the collective action and the nomadic way of life if we want the grasslands to recover," said Colmon, a former Production Brigade leader of 30 years standing. And with that simple statement we are drawn back to the question of how best to manage the grasslands. His words sparked heated debate amongst us. Although we knew that privatization had its problems, we had never considered that going back to collective action was the answer. Does going back to collectivism represent progress or regression? How could we decide? As people adapt to external conditions, then new systems and institutions are created. But it looks like a traditional system of group action was abandoned too readily. Is that the reason why the Mongolian Horse faces extinction?

WIRE FENCING— AND THE DEATH OF MONGOLIAN HORSE-HERDING

Han Ying

When discussing the deterioration of the steppe, people often nostalgically recall a line from the Chale (an ethnic group once existed in Chinese history) Chant: “As the wind bends the grass low, the cattle and sheep are revealed.” As a matter of fact, we don’t have to go far back in time to see when the grasslands were undamaged. Compared with five or six years ago, the Silin ghol pasture has undergone drastic changes, particularly in the western part. Now the pasture is made up of sparse grass and pebbles on a wind-swept prairie with wire mesh and angle-iron poles – the dominant mark of change on the grassland - the wire fence.

One of the specialists examining changes in the grasslands is Wang Xiaoyi, the translator of *Seeing Like a State*. Around the end of 2006, he posted a message on the internet to initiate a debate on wire fencing, the symbol of these changes.

Wang Xiaoyi (Research Fellow, Institute of Sociology, Chinese Academy of Social Sciences):

The wire fence has many functions: When it is used as a symbol of possession and as a line of demarcation, its purpose is not just to keep the herd inside. The fence also represents government and international organization concern and support for herders. Before any fences were erected, people believed the fences would introduce modern management techniques and protect the degenerating grasslands. Some people believed fencing would bring about a new future.

The construction of the wire fences has been one of the greatest investments in the management of the grasslands. It has swallowed up significant funds from both the government and international organizations, as well as the lifetime savings of herders. However, the result of this massive project is controversial.

These comments from Professor Wang raise some apt questions to open our discussion about wire fencing. While it is true that the wire fence symbolizes many things, I wonder if its proponents ever considered how it would affect the Mongolian horse?

We learned that in 2006, 3,333,333 hectares of grassland in Sunid Juun Hoshuu (Monglian County) was almost completely divided up by wire fences. Each enclosure had an area of 666.7 hectares, effectively chopping the pastureland into thousands of pieces. If it takes four tons of steel mesh to make one enclosure, then there are about 10,000 tons of wire in the county. The amount in the whole of the Silin ghol grassland is even greater! According to the figures we obtained, we calculated that half of the 19,333,333 ha. of grassland in the Aimag (a prefecture-level League) was fenced off, with almost 280,000 km of fencing costing about 0.2 billion dollars. The grassland of the Aimag was split into roughly 15,000 blocks of 666.7 ha. each using about 60,000 tons of steel. In other words, it would take 7,200 eight-ton trucks to transport the fencing materials to all corners of the Silin ghol grassland. Such a huge effort illustrates the determination of the people of the region.

But these tons and tons of steel have blocked the range of the Mongolian horse. They have lost the space in which they once ran free. This was not the intention

In the past there
were no wire
fences on the
grasslands. Some
20 years ago
farmland was
privatized and
steel and concrete
fences were put
up all over the
grasslands like a
web.

There are
about 200,000
kilometers of wire
fencing enclosing
some 10,000
herder holdings
in the Silin ghol
grassland. As the
fences go up, the
freedom-loving
Mongolian Horse
has fewer places
to run.

of the fence builders, but it is now the outcome. After speaking to the horsemen we have reached an unequivocal conclusion: the wire fences are killing off the Mongolian horse.

The herders told us there were no fences on the grasslands before. The first enclosures began in the 1970s and were made of rocks and used for storing grass and keeping cattle in rough weather. We do not know exactly how many enclosures there were, but there were only a few. Towards the end of the 1990s, as privatization took hold, large enclosures appeared, marking out the property of each household. The construction material also changed from stone to steel mesh, poles, and concrete. Privatization heralded a new era for the grasslands, stamping a seal of modernity on the steppe with cement and steel.

The fences that curtailed the horse-herds came about because of privatization. This leads us to another issue – the Household Contract Responsibility System -- controversial from the very beginning.

Dividing up the grassland and sharing it out among households has destroyed the land and the tacit agreement between humans and nature. It is like the land has undergone a complicated surgery. Perhaps this change or ‘surgery’ was inevitable, considering the onward path of development. But six or seven years on we can see whether such a ‘surgery’ was a success or not.

In fact, the herders we talked to gave us conflicting opinions. They said: “The Household Contract Responsibility System is good because it means the grassland is ours now.” But they also said that the land they can use is smaller. “The pasture is ruined because our animals have to stay in one spot all year round.” How can we resolve this problem, that the herders appreciate they now have ownership of the land, but that ownership has helped to ruin the land? At least, the herder’s views have revealed the relationship between privatization and grassland deterioration.

Confronted with this dilemma, we interviewed some specialists who have been observing the development of the grassland and the changes it has caused in nomadic herders’ lives.

Enkhe (Professor, Mongolian Studies Center, Inner Mongolia University):

It is an undeniable fact that the rapid degeneration of the grassland is widespread and has taken place since privatization and the construction of wire fences. The 33 hoshuu (Mongolian counties) have different natural conditions in terms of temperature, vegetation and rainfall, which all affect animal husbandry. The Household Contract Responsibility System (privatization) started in the cropping areas but is only suitable for some regions and only suitable to varying degrees. In grassland areas such as Hulun Buir and

Wire fences didn't start to appear on the grasslands until the 1970's. In the old days some enclosures were built with rocks and were used to store hay for the winter or for protecting animals in bad weather. By the 1990's, large-scale fields marked by wire fences began to appear to mark out each family's allotted land under the "Household Responsibility System." So the nomads went from rocks to steel wire, concrete posts and steel. Photo: Huang Yongzhao



Silin ghol, a traditional nomadic lifestyle existed until the 1980s.. Herder mobility and rotational grazing are innately logical for these landscapes. They make good use of resources and do not damage the environment. However, the Household Contract Responsibility System changed all that.

The Household Contract Responsibility System never took into account that traditional herding groups did not put a price on grassland resources and divided them up without erecting fences. Instead, fencing was based on a misunderstanding that the steppe lacked any form of regulation. The grassland is a resource that needs to be evaluated as a whole. Although they had no fences, herding groups knew their grazing boundaries up until the 1980s. Only when there was serious drought or snow storms did people move their herds

onto neighboring land where they could shelter free of charge as was the tradition. This was the unwritten law of the land. This customary rule of law was rarely broken on the steppe. Isolated incidents happened only in the 1960s and 1970s and they were related to outside influences. Wire fencing has cost the State an enormous amount of money and has disrupted herding methods. It is not sufficient to say their hardships have been caused by a decline in demand for livestock products.

Bao Qingwu (Research Fellow, Inner Mongolia Academy of Social Sciences):

The degeneration of the grassland has its natural cause. Although there has been no major decrease in

As the Mongolian Horse disappears from the grasslands, and changes in pastoral practices develop, the nomadic tradition is dying out.



rainfall, the higher temperatures brought on by global warming have caused greater evaporation and dried out the grasslands, making grass difficult to germinate, grow and seed. The problem is that policies are just copied from those used for other types of agricultural land-use. The People's Republic of Mongolia (Outer Mongolia) and Inner Mongolia are located on the same Mongolian Plateau and share similar natural conditions. In the Mongolian Republic, grassland degradation has only occurred in areas where stocking rates are high in the summer. In the Republic of Mongolia, the grassland is still green, in sharp contrast to Inner Mongolia's vast barrenness.

While grassland privatization was well-intentioned, the replication of the Household Contract Responsibility System in the Mongolian steppe has forced livestock to graze in the same small paddocks



These fences of steel wire and concrete posts are stopping the Mongolian Horse from running free. Photo: Yu Yoggang

Photo:Yu Yonggang



Photo: Hang Ying

With land constantly being re-parceled out, the old wire fences have to be pulled up and new ones erected. Maintaining these fences has become routine to most nomads.

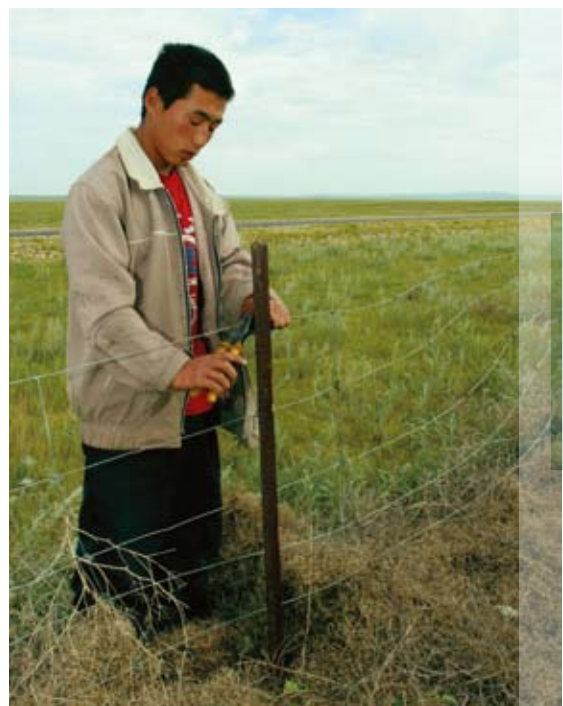


Photo: Yu yonggang



Photo: Yu yonggang



All these tons of steel shipped on to the grasslands mark a new era. Photo: Yu yonggang

Photo: Erdenitogtoh



Photo: Buhculuu

all year round. The Programs for Ecological Migration have not restored grassland vegetation; instead the land has been further divided up as newcomers arrive. The relocated herders have been driven into poverty and burdened with heavy debts instead.

The grassland is still a mystery to us; we have yet to fully comprehend its ecology. While it is easy to copy ecological studies carried out in developed countries in the West and in farming regions of the hinterland, the real situation of the grassland economy and culture is different. Ignoring local conditions and ethnic characteristics and just duplicating policies from the hinterland in Inner Mongolia has turned out to be disastrous.

The Household Contract Responsibility System was drawn up with good intentions. It was based on the assumption that communal ownership or use can lead to abuses that cause damage or even disaster. Thinking about this gave rise to the idea of a ‘Tragedy of the Commons’. Its supporters advocate for privatization as a way to protect resources through the Household Contract System. Based on the logic that “everyone loves their child” – and so will love their own land -- the Household Contract Responsibility System was welcomed in the beginning by everyone, including herders. They had so many hopes and dreams, and were unaware of the implications of the system. A few years later, they discovered that the system did not mean that grassland was treated like a child. They saw their beloved horses disappear and the pasture degenerate. The policy of preventing a ‘Tragedy of the Commons’ has created its own tragedy.

Wang Xiaoyi:

Research has shown that the theory of the ‘Tragedy of the Commons’ is too simple. The problems of communal ownership stem from a lack of management, instead of the commons themselves. Before the Household Contract Responsibility System, the grassland was not an unregulated communal space.

Mongolian herding groups had a system for grassland use. For example, they divided up the grazing land among themselves to avoid competition for limited resources and to use different segments in different seasons. According to customary practice, some pastures were reserved for special use. However, after the Household Contract Responsibility System divided grassland among households, in theory at least, local government no longer played a role in grassland management. Without effective administration, the grassland just degenerated. Thus communal use did not harm the grassland, but privatization did.

Space is limited and so exclusive ownership of the grassland is impossible. The grassland is an organic ecosystem which cannot be partitioned artificially. The herds need different kinds of grass, water resources, and space that do not exist on a single household allocation. The whole grassland is interrelated and interactive. The degeneration of any one part affects the surrounding areas. Establishing exclusive enclosures is expensive. Many poorer herders cannot afford the wire fences needed to partition off their land.

Privatization has also brought changes in interpersonal relations. The herders say that conflicts over pasture rights are now common because livestock don’t recognize boundaries. If they can, they will roam at will, thus dragging their owners into arguments. Some herders need more land but cannot afford to rent pasture from other families. The result is that the livestock overgraze the allocation they have been given because the land is being used too intensively and they cannot move to another area. This ruins the grassland and forces higher prices to rent other people’s pasture. Privatization has turned the herders into ‘rational economic beings’. The group-based values that had been practiced for hundreds of years have given way to individualism. Some say that this is development, while others say it has widened the divide between rich and poor and hastened environmental deterioration. It depends on your value system which view you take.

The wire fence is a symbol of the system and was introduced to avoid problems with common use. Its failure has been greater than the tragedy wrought by natural disasters.

The Household Contract Responsibility System has strengthened the trend for nomadic herders groups to move into fixed settlements. Later, they started erecting wire fences and moving under the so-called ecological migration program. All these activities moved the Mongolians further and further away from nomadic traditions that had once been an integral part of life on the grassland. The speed of this ecological ‘tragedy’ has been escalating.

Why do herders have such a contradictory attitude towards the Household Contract Responsibility System? Perhaps it is because the choice they face is conflicting in itself: to gain one thing they have to lose another. They are now more efficient, but private ownership has damaged the environment and eroded their traditions. Perhaps it would be a good idea to return to the nomadic lifestyle and re-learn the traditional system.

Oronci (Research Fellow, Inner Mongolia Academy of Social Sciences):

The achievement of Yuan Dynasty (1206-1370) was built on livestock. The larger and more mobile the herd, the greater the Mongol’s capacity to support their armies. After the demise of the Yuan, the nomadic area shrunk and herds got smaller. During the Qing Dynasty (1644-1911), people were organized into hoshuus (county-level administrative units) where the leader of each hoshuu was a feudal lord. Their fiefdoms were awarded by the emperor for exclusive use. All herding was done within one fiefdom or hoshuu. Inside a hoshuu, there were only vague customary boundaries. The upper echelons of the herder social hierarchy were called Baiyin. They didn’t own pasture and had to pay tribute to the overlord. Baiyin wanted big herds. However, –the size of their herds was set by how many men there were in the household and so there was always a limit. A Hot was composed of several herding households. It was the basic economic unit and had a certain number of livestock. When collectivization was brought in after Liberation in the 1950s, the Baiyin livestock was made public and their pasture holdings redistributed. Paddocks got smaller. Shortly before the Cultural Revolution (1966-1976), the grassland was divided in accordance with the size of the Production Brigade. Within one Brigade, scores of households were divided into dozens of herding groups (Hot) that shared the same grazing land. At that time, the system supported seasonal rotational grazing.

Enkhe:

In the past, in the minds of the overlords, the grassland was not their own but a gift from heaven. While the overlord had the power to make decisions,

every herder also had land use rights. There was nothing ambiguous. It was never ‘everyone eating from the same wok’, as alleged by some. Each household had its own space. In times of crises, people took care of each other. They freely grazed their herds on neighboring land, which is not the case now. While people did argue over land in those days, all of the quarrels were settled via the mediation of local dignitaries.

Legislators today probably never imagined that the Household Contract Responsibility System could have such disastrous results. So how did a policy aimed at protecting the environment have the opposite result?

Wang Xiaoyi:

The Household Contract Responsibility System and the erection of wire fences was the result of the state’s simple and explicit policy to directly manage the grassland. The policy calls for the owner of each clearly defined block of land to be clearly named. The situation is like Scott’s Seeing Like a State. Everything a government official knows about the grassland is gathered from reports and figures. However, this kind of paper-based knowledge is very far from reality.

This simple and explicit policy of household contracting was drawn up without using the vast store of local knowledge. The grassland is complicated and herders have developed different ways of using the land depending on local conditions. For example, herders in Huliin Shar Dagi, Muu Usu and Silin ghol all have different ways of using the grassland. Even in the same area, herders may have different methods because of the different ecology and culture of herding groups. By contrast, state policy is simplistic and arbitrary, and ignores this diversity. The conventional rules of the grassland have been formulated through long negotiations over time. When the state attempts to replace traditions with its authority, the result is that the old rules are abandoned and the new ones don’t work.

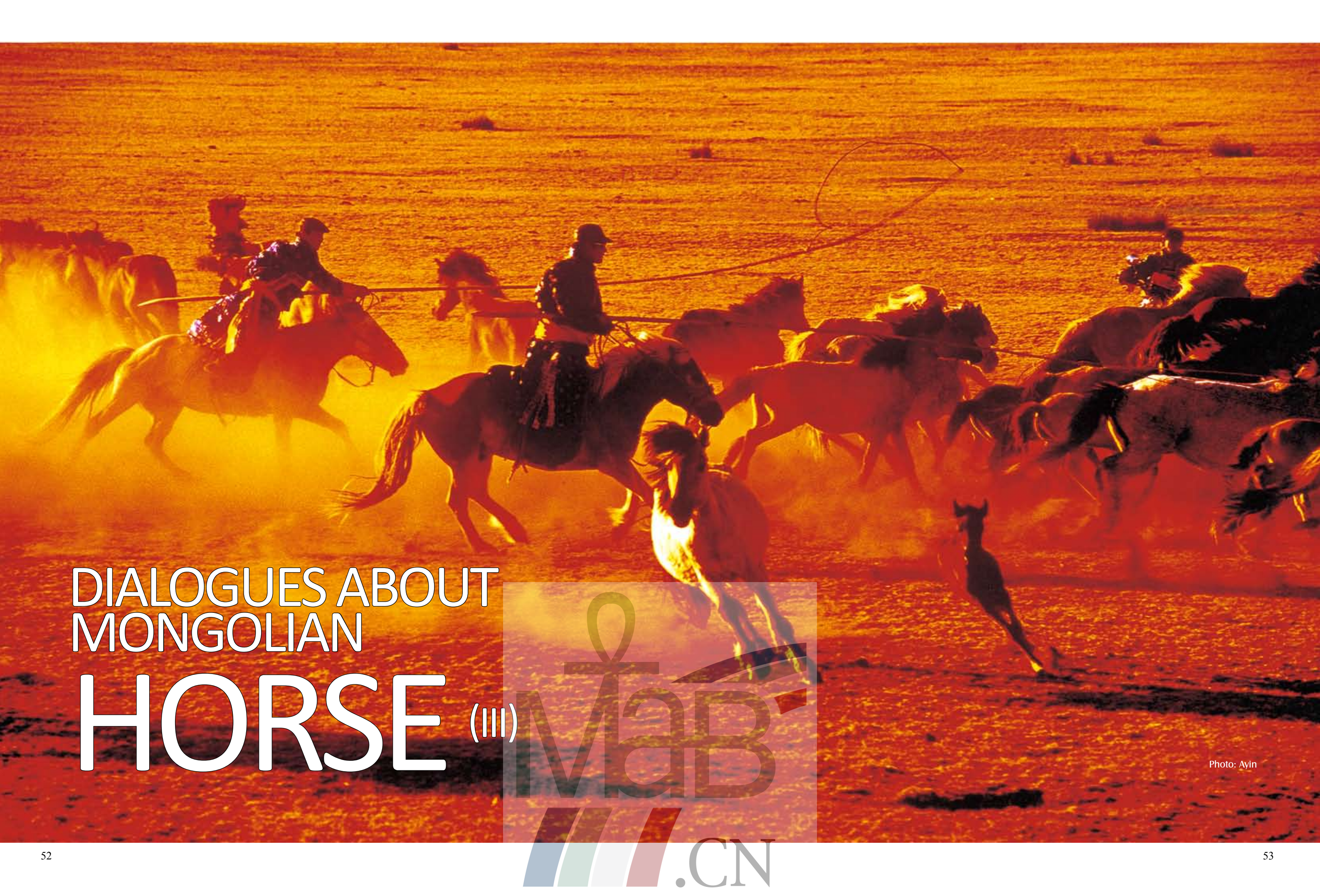
Going back to the vast stretches of wire fence on the grassland – not only have they killed off the Mongolian horse but also the nomadic system and its inherent local wisdom. The degradation of the grassland is an unanticipated result of state policy.

The tons upon tons of steel mesh have scarred the once pure contours of the steppe. Is this the mark our generation wants to leave behind? Maybe one day we will have to fork out huge sums of money to remove all these wire fences. The fence has taught us a lesson about changes in the grasslands. As well as revealing problems of drought and overgrazing, the wire fence tells us that this new policy is one of the most important factors in grassland deterioration.

MAN ON HORSEBACK

Photo: Ayin





DIALOGUES ABOUT
MONGOLIAN
HORSE (III)

Photo: Ayin

Memories from the horse herders:

PART THREE

Lin Lan

Thought for the day:
Only sheep are left on
the grasslands



Thought for the day:
Living in the salt
sandstorm



Thought for the day:
A comeback For
collective action



Thought for the day:
Dilemma in the
migrant village



Thought for the day:
There will be disaster
without rotational
grazing



Altan's earthen house has nothing growing around it. It is often like this near the human settlements where the grass is killed by the trampling of the herds. Photo: Yu Yonggang

Day X August, 2006
Thought for the day: Only sheep are
left on the grasslands

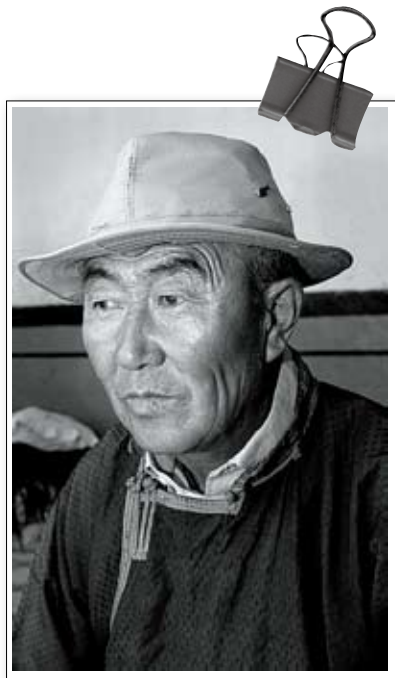
Today we entered Sunid Baruun Hoshuu (Mongolian county) the westernmost and driest part of the Silin ghol Grassland. Several fellow team members who came here in 2002 were surprised to see that the once ubiquitous and hardy plant, caragana, had been wiped out by the drought. Caragana is a flowering bush that has an extensive root system. Underground, the roots stretch to three times the size of the bush above ground, or about 2 to 3 meters to seek out water. Caragana is a plant that is well adapted to a dry environment. Does its demise signify that the underground water table is declining? If that is true, what caused this? The death of the caragana has left us all wondering. Just then, we spotted a group of adobe buildings just off the road and we drove directly over to visit the owner, Altan.

I am 66 years old and I have spent my whole life on

the grassland. My family have been horse herders since my grandfather's time. Mongolians can't live without horses. Horses are our life.

But, look at it now. There are no camels and no horses. We don't even have any cattle. It all began with the privatization of the grassland. After the land was divided, each family had its own holding and couldn't move around freely like before. There are enclosures everywhere. Our herds can only stay inside the fences and everyone treasures their own grassland. No one allows other people's herds to come in and graze. The horses are worst off. Because the holdings aren't big enough for them, they often cause trouble by getting into neighboring pastures, so people don't keep horses anymore. Cattle need tall grass; they eat by pulling up the blades with their tongues. As the grassland has deteriorated, there is less grass for cattle and so even they are gone.

We only have sheep and goats now. All the milk and dairy products in my house are bought in shops. We haven't kept cows since 1997. Even the milk we put in our tea every day is powdered milk from the shop. The



Altan, 66, has given up on cattle since 1997. All the dairy products consumed are purchased from the store and even the beef is the factory processed frozen stuff. Photo: Yu Yonggang

beef we eat is the same. You Beijingers say you prefer beef and mutton from the grassland, because it tastes better and is healthier. But we herders have to buy frozen, factory-processed beef from Beijing. Some of the poorer households don't even have sheep and so they only eat pork. In the past, you'd never hear of a herder who had to eat pork all year round!

Every year the grassland gets worse. It all began in the 1990s but really got serious in 2001. The land is bare. When the wind blows the soil turns to sand. The sand grains get into the wool and the sheep have a real problem to get them out. Without enough grass, the sheep grow thin. They can't fatten because they are tired by walking with all that weight of sand. Someone told me that some sheep have to carry more than 10 kilos of sand in their wool. Some sheep have so much sand that it weighs them down and they can't get up. The owner has to hire help to get it out. But you can't remove all the sand in a herd of hundreds of sheep and what happens if you get the sand off and then there's a sandstorm the next day? You are back to square one. The sand trapped in the sheep's wool forms hard clumps, as hard as wood. Some men hire themselves

out as laborers to dust the sand off sheep and sweep the sand out of enclosures. They ask for US \$ 0.26 per sheep. Sometimes they use their hands to get the sand off. As the sand absorbs heat, after a while under the sun, it gets so hot that it burns the wool off piece by piece, exposing the flesh underneath. Some of these men develop blisters because the sand is so hot. When you want to shear the sheep you can cut or pull the wool off; the wool you get is really poor quality. Wool prices have fallen from US \$ 23-26 to US \$ 15-17 per 500 grams.

The caragana you saw on the road must have been

killed by the drought. We had no rain last fall and it has been dry since. Because of all the serious sandstorms and low humidity this year, the plant roots have been exposed and killed by the hot sun. It was never so hot before on the grassland; the weather was cooler.

A lot of minerals have been discovered in the region -- iron ore and calcium carbide and there have been people digging for them. There is always black smoke pouring from the chimneys of a calcium carbide factory not far from here. When the soot falls on the grass, the grass turns black. When the sheep eat the grass, they become strange. Their teeth grow long and slanted, and

they can't eat anymore. Their wool also turns black; even the taste of the meat is different from before. We are very worried because we don't know what the effect is on humans, though there is nothing we can do. No matter who we ask, the answer is the same: "It's a government order. If you have a complaint, take it to the central government." How can we herders go to the central authorities? In addition to the calcium carbide plant, they have also built a number of smelting works with big chimneys spitting out smoke day in and day out. As herders, it pains our hearts to see that. This grassland is ours, but it is dying. Our lives are over.



In the backdrop of Altan's herd is the vague image of the smoke-emitting factory. The pollutants released by the smeltery have turned the wool of the sheep black and their teeth aslant. Photo: Yu Yonggang

We spent some time with Altan and his flock. In the distance, wisps of white smoke could be seen rising up, making the sky smoggy. Apart from all the sheep, we didn't see any other large livestock on the grassland. Altan himself said he didn't know how long he would be able to keep his sheep. On the way back in the car, no one had the heart to speak. Perhaps, like me, everyone was thinking about how Altan had to keep cleaning sand off his sheep.

Day X August, 2006
Thought for the day: Living in the salt sandstorm

Today we drove past Caghaan nuur in Abagha Hoshuu. The name Caghaan nuur means “white lake”. The lake is famous in the media because this huge 80-square-kilometer body of water, the largest in Silin ghol, has completely dried up. We met Zheng Baiyu, who came here years ago when he was a young man to be “re-educated”. These past few years, he has spent his retirement trying to save the lake. He has witnessed the changes and how the drought has caused disastrous consequences to the nomads here. He introduced us to Shami, an old horse herder in his seventies, who told us about repeated onslaughts from fearsome sandstorms.

I am 71 years old and I was a horse herder for some 20 years when I was young. Today I have only four or



Shami and his droughty pastutreland. Photo: Yu Yonggang



The sun-eclipsing alkaline dust storm. Photo: Zheng Baiyu.



The bottom of a dried lake of Caghaan nuur is covered with a thick layer of whitish alkaline powder. It is said that this stuff is the main component of the sand storms which has not only brought troubles to the city dwellers but also, even more so, unforeseen hazards to the herders living in the area.
Photo: Zheng Baiyu

five horses for riding and so I am very sad. But society has to develop and advance. The horse has had no choice but to give way to all the motorbikes and cars.

As well as losing our horses, we have also lost our Caghaan nuur. Back when I herded horses, the two lakes were full. The larger lake was salty and undrinkable, but the smaller lake had good water for drinking. We were lucky to have these two lakes and also the best grassland around. Now the big lake is gone and I don't know why. The smaller lake is also shrinking and maybe that will dry up soon too.

As the lakes dry up we suffer from more and more sandstorms. The winds start in the spring during lambing time. My winter/spring camp is on the downwind side of the lake basin. When the winds start, the whole sky turns white. The livestock can't go out and they just huddle in their enclosures. People can't go outside either and even at home it is difficult to breathe. The white stuff is salt that is blown out of the bottom of the dry lake. It settles in your hair and in your eyebrows. If it gets into your nose or throat it makes you cough and your eyes turn red and teary. It is very painful. In the house, thick layers of salt dust pile up. Several hundred households on the downwind side are affected just like mine. When the storm is over, the livestock have turned white, especially the dark-colored cattle. You can't tell which animals belong to whom and the salt dust damages the wool. This year we had storms like this for about 40 days. It happened every day without a break and it was very hard to live through. The salt dust also kills the grass. Patch after patch just dies off. Wherever the dust settles, nothing can grow. The wire fence also rusts when it gets covered with the salt dust. New wire, that usually takes three or four years to rust, is damaged in just a year and needs to be replaced. In a windy place like this, the wire fence has bits of grass trapped in it which catch the sand. Sometimes an entire fence can get buried in sand or toppled over from the weight of sand trapped in this way.

Our grassland has gone bad too. In recent years more wild onion plants are growing here and there is less grass. Bushes [caragana] that we never saw here before have now started to grow and I don't know why. It's getting warmer here every year and there is no rain.

The old man spoke with an even tone throughout, and when he finished we were left speechless. The media is always reporting sandstorms in the city but we hardly ever hear about how they are affecting the people in the countryside. If we had never come to the grassland then we would never have known about this. Shouldn't the media feel ashamed to ignore such an important story?

Zheng Baiyu said it was likely water diversion from the rivers that feed the lake had led to the drying of Caghaan nuur. Over the past few years he has been

working with two other retired scientists to find ways to bring Caghaan nuur back to life. They created the name "salt sandstorm" to emphasize that the dust is actually salt carried thousands of kilometers from dried-up lakes on grasslands like Caghaan nuur. They send their research and analyses to the State Council and their efforts have been reported by CCTV [China's national television station] on a program called The Old Men and the Sand which identifies the source of the sand in the sandstorms. Desertification projects typically have budgets of over US \$ 12,000,000, but these men are working literally with their bare hands. If they are able to solve the problem of the dry lakes, they hope that people living out here on the grasslands will no longer suffer from the terrible salt dust.

Day X August, 2006 Thought for the day: Dilemma in the migrant village

We entered Sunid Juun Hoshuu in west Silin ghol. Although I had heard that the further west you go in Silin ghol, the drier it is, I had never imagined such aridity. There is nothing that looks like grass that grows here. The wind has long ago blown away all the topsoil, leaving rocks and pebbles that feel like they are radiating heat under the burning sun. On the highway, in the distance, you can see what looks like a shimmering wet patch just like rain, but when you get



Bayancang in front of the fodder field, the hope of the whole village. Photo: Yu Yonggang



The white flowers are that of the wild onion (*allium polyrrhizum*). The emergence of the dense wild onions is an indicator of the grassland degeneration. Photo: Han Ying

there it disappears – it was just a mirage, a common phenomenon in hot and dry places. In the distance, we saw a person holding an umbrella and tending to his flock. This was a new sight on the grasslands.

We continued on our way and then we saw something miraculous: a large field with whitish and purplish patches. As we got closer they became white and purple flowers and we began to detect a sharp aroma that smelt like onions or chives. The ecologist told us that the plants were wild onions but that it was not a good sign. Wild onions are a sign of grassland degeneration and desertification. Many varieties of different grasses should grow on a healthy area of

grassland, but now there is only the wild onion. In the winter, the onion plants wither, leaving the land barren and the animals with nothing to eat.

Further along the road we arrived at some corn fields. Nearby was a new village. From its design it was clearly a so-called ‘Ecological Migrant Village’. The corn fields belonged to them and were being used to grow animal feed.

We had heard about the government policy of ‘Ecological Migration’ to address the grassland degradation problem. Nomads from the worst areas were relocated and the degraded grasslands closed off from grazing to help them recover. Many of these



Photo: Yu Yongang



It takes about 3 days for the gigantic sprinkler system to make one round, which is supported by 5 motor-driven wells, pumping up more than 100 tons of water an hour. Despite the system, the field newly watered still sees the corn leaves curling up. Photo: Han Ying

migrant villages were nicknamed “dairy cow villages” because their main industry was raising cows for milk. Each village can house anything from several dozen to 100 households all working together.

We headed to the village leader’s house. We were surprised to learn that Bayancang, who was in his late 50’s, used to be a horse herder too.

During the collective period, I looked after some 210 horses. Later on I drove a cart. When I moved here, they elected me village leader.

This village is home to about 80 households and was set up three years ago. There are lots of Migrant Villages, just like this one, in Silin ghol aimag. The people come from all different sumu (Mongolian towns) and hoshuu (Mongolian counties). They are no longer allowed to use their grasslands to graze livestock. We raise dairy cows here following directions from the government. They [the government] built us houses and animal pens and have given us preferential treatment. Not everyone is allowed to live here. There are conditions that must be met. You must own your own livestock and have some savings in the bank. Most of the households here are the better-off families because these are the ones that can afford to buy the dairy cows in the first place. I moved here because my family’s grassland was in pretty bad shape and I also had some savings. I gave my sheep to someone else to look after. A lot of the villagers are in the same situation as me. We were attracted by the preferential policies and we believed that these [highly productive] dairy cows would be a good business. Basically we hoped to get rich by taking this step.

But actually the situation is not as good as we had hoped. All the cows come from Australia and they are not used to the climate here. They also need very high quality feed. They need a lot of care and have to be fed three times a day with hay, once a day with feed, and another once a day with fresh grass. You need at least two people working full-time to take care of them. You also have to pay for the hay and feed and so we all lost money in the beginning. We used our small savings to pay for this. Now there are 380 cows in my village with 230 of them producing milk. We have found out that if we care for them well the cows will produce more milk. The best cow can produce 40 kg of milk a day, with the average cow giving about 20 kg. These cows only produce a decent amount of milk for four months every year. For the rest of the year they only produce a small amount and for three months of the year they can’t be milked at all. The income from all this is just enough to cover the costs. By that I mean the money we get from selling the milk is all used up buying the feed. We can’t make any profit. So after three years we are worse off than we were at the start.

Some families couldn’t take it and so they moved back, abandoning their cattle and their new homes.



Before the Chantosili Migrants' Village we see a couple herding sheep on a motorbike holding a parasol. On a scorching day, the ground that has lost its vegetation radiates burning heat. Photo: Yu Yonggang

They built this village for 120 families but after many people left we only had about 50 households for a while. This year, about 30 of them came back because they couldn't make a living on the grassland either. There simply wasn't any grassland for them to use. It was better to keep on raising dairy cattle. We are in a bad situation. We don't have any alternative but to keep on trying with the dairy farms.

I heard that the government is planning to send some of the nomads to go and live in the cities. I am sure that won't work because we don't know how to do business and none of us have any skills with which to find a job. I am very worried now. I am not sure that

it will work out here in our village for me, never mind thinking about going to try out life in the city. Should we ask the nomads to stay in a place where they can't make a living? If you want to go to the city then you need more than just a sack of flour to live off. You can't solve this problem just by providing people with somewhere to live.

The problem with the grasslands only started to happen about 10 years ago. Before that droughts would last at most for about a year. Rain would surely come within that time. Now it never rains, however long you wait. Also, the grasslands have been destroyed by privatization and the division of the land with wire

Migrants' Villages depending mainly on dairy cow rearing are numerous and the cows are high-yield species imported from abroad, which are called Hei Bai Hua (white and black) by the locals. Photo: Yu Yonggang



We arrived at village party secretary Haserdeni's house at 9 am and didn't leave until 5 pm. The sheep have been waiting for their turns to drink but because of the dropping of the underground water level, the whole herd has yet to finish drinking after a long day of waiting. Photo: Yu Yonggang



fences. The livestock can't move around freely and they get agitated. They end up trampling more than they eat. We can't do anything. The grassland is already destroyed. We are luckier than others as we still have our cattle. It would be better, though, if we could lower the cost of keeping them so we could start to make a profit.

A few years back, when we were going through a very tough time, many people here went to lodge complaints to the government. After this the government gave us about 66.7 ha. of land to grow cattle feed. It has a sprinkler system, five motor-driven wells and six holding ponds for storing water. Altogether it cost about RMB 1.4 million (US \$ 179,487) to build. We have planted a field with high-yield corn, and so far it is growing well. If this is successful then our production costs will lower.

But there are still problems. The wells and sprinkler system are working well but we have to pay for all the electricity and that's about US \$ 513 every year. The wells pump up 100 tons of water an hour and we have to switch them off sometimes because there is not a lot of water underground. But we need more water for the corn because we need a lot of it to feed the cows and make a living. It is all we can think about.

We have stopped complaining to the government. The leaders used to be afraid of us and they wouldn't

dare come here and visit because they thought we would cause trouble. Actually, the government has been good to us. At the 60th anniversary of the founding of the hoshuu, each household in my village donated US \$ 0.64 and we used 700 kg of milk to make a 60-kilogram giant milk curd cake that was 30 cm thick and 60 cm wide. We had to bake it in pieces in four separate ovens and we gave it to the government as a gift. They have often accused us of making trouble and we just wanted to say we were good citizens.

After leaving Bayancang's house we went to have a look at the corn field that all the villagers were pinning their hopes on. The gigantic wheel-line irrigator was rotating slowly and sending out a thin mist of spray under the scorching sun. However, most of the water was evaporating before it had a chance to sink into the soil. It takes three days for the machines to cover the whole field and because there is not enough water some of the crop leaves were already curling up.

One of the scientists with us just shook his head. He said that using water in such an extravagant fashion in Inner Mongolia, a place desperately short of water, was a crime. Most of the water just evaporates and little ends up watering the plants and helping to increase production. How can a balance be struck between water usage and helping these people make a living? The problems that troubled Bayancang began to

trouble us too. It looked like the government had the best intentions, but we wondered if trying to grow a high-yield crop in such a dry environment was really the best idea. Perhaps it was only going to make a bad situation worse and there might be more ecological consequences?

Day X August 2006 Thought for the Day: A comeback For collective action

Today we visited a co-operative that the nomads had founded themselves at Sunid Juun Hoshuu. Over the past few days many of the nomads told us that the wire fencing is responsible for the grasslands going bad. Now it seems that some of them have decided to do something about it rather than just complaining about the situation.

The grassland here is in pretty bad shape. Sand has piled up on the downwind sides of houses and livestock pens. The owner of one house is a man in his fifties. He is lean and smart looking. When we arrived he came up and greeted us, shaking our hands. He looked like he was an experienced man.

I am Hasocir and I have been the Party Secretary of



Hasocir is planning to set up a cooperative and intends to take the nearby herders' pastures and livestock as shares and put them under collective operation so as to solve the problems brought along by pasture leasing. Photo: Yu Yonggang

this ghacaa [Mongolian village] for 16 years. Although I have never been a horse herder, my father was a very good one. He loved his horses very much and when I was young he only allowed us to ride the tame animals. He lost some 100 horses in the big snow storm of 1977 and he was so sad that he cried for days. Later, he told the brigade [village] leader that he wanted to leave. He came back six months later with 50 or so of the lost horses.

However, when they re-distributed the livestock, my family only got given about a dozen horses and these were sold off when the grassland was privatized. My father didn't tell us how he felt, but I know he often missed his horses. He made a suggestion that all the households should put their horses together into a big herd and families could take turns looking after them. But his proposal was never adopted.

Before he died he said to me: "I didn't protect the grasslands enough and I know privatization will lead to problems. You must protect the grasslands well and educate the children." I have always remembered his words and tried to do as he had wished.

In my 16 years as Ghacaa Party Secretary, I have seen how the environment and the livings standards for people have fallen right in front of my eyes. These problems began with privatization. The sheep used to hide in grass that was so high you couldn't see them. Now that never happens. Many poor households make a living by renting out their strip of grassland and because rent is rising they are able to make a good living, especially after selling off all their sheep. They have more money than those families that kept their animals. And now the grassland is ruined, just like that.

One of the nomads here did that. He rented out his 40 hectare of land which was grazed with 3,000 sheep. He got US \$1.3 a month per sheep, and made US \$ 3,900 a month. But the grasslands are totally destroyed now. We have no power to intervene because it is his private holding. He has the right to rent it out or keep livestock on it if he wants.

In recent years we are seeing more and more sandstorms. In the past you would get big winds in the spring but they would be over in a few days. Now it is windy for almost half of the year. We keep getting sandstorms, one after the other. On very windy days, the sheep stay in the pens and refuse to go out. Then you have to hand-feed them with grass and feed.

Things cannot go on like this with everyone just looking after themselves. The consequences are growing grave. I believe collective action is the answer to the grassland problem and to lifting the poor out of poverty. It was my father who suggested putting everyone's horses into one big herd and it was my idea to get rid of the fences and ask the villagers to pool their land and livestock together. It works like shares and at the end of the year we can pay them dividends.

By doing this we can have a larger area of grassland that we can use by rotation according to the season, giving the land a chance to recover. But we are in the early days and there are a lot of difficulties ahead.

We heard that more and more co-operatives were beginning to be set up: a trend that was beginning to arouse a lot of attention. Perhaps, it will be the start of a new change that will help these people out of a difficult situation. Hasocir's co-operative has a clear objective: to address the problems associated with renting out land. Before we left, we all shook hands warmly, and we promised to come back next year when we hoped that his herder co-operative would be running successfully.

Day X August 2006

Thought for the day: There will be disaster without rotational grazing

Today, we continued our investigation at Sunid Juun Hoshuu. We planned to visit Haserdeni, an old friend of ours. We had visited his yurt last year when we were conducting our preparatory survey. We also wanted to see him because we had heard he still had his herd of 80 horses when everyone else around him was selling off their animals. He still went round, as in the collective period, calling on his neighbors and helping to clip, brand and castrate the horses. He didn't make any money doing this. Such traditional activities are rarely seen today on the grasslands. So out of curiosity, we paid him a return visit.

He is a stern-faced man and very taciturn but when

the topic turns to horses or grassland then his eyes begin to sparkle. He would talk to us excitedly, all the while gesticulating with his hands. Although we didn't understand what he was saying because we didn't understand Mongolian, it was easy to see his sincerity and his warmth from the expression in his eyes. He told us that the five traditional Mongolian livestock were just like the fingers on one hand: if you take all of them together then you can make a strong and well-rounded fist. We were often surprised that wonderful metaphors like this often came from gentle nomads who were so shy that they would blush when they first met strangers. They have an understanding and knowledge of the grasslands that is more lucid and vivid than many scientist's.

To get to this house, we had to pick our way around a maze of wire fences. He was still reticent. He told his wife to serve us tea and offered us the meat on his table and then there was silence. It was only when we started talking about horses that he started to speak. We asked him about the Mongolian Horse, and the old man just poured out his heart to us.

I started herding horses when I was 16 and have been doing it for 32 years now. In the past, we had herds of some 300 to 400 horses that we grazed on different land according to the season. There was no fear of a "dark disaster" (snowless winter) or "white disaster" (snowstorm) because we could move freely with our herds on horseback. The harsher the disaster, the more important the horses became.

The biggest snowstorm I saw was in the winter of 1977. The summer before it was relatively dry, but in the winter the snow was so deep that it came up to the necks of the camels. At that time, I had cattle, sheep and horses. My wife took care of the sheep, my father the cattle, and I was responsible for the horses. The elders often told us that when snowstorms came, the horses should be driven over the land first to expose the grass beneath the snow. Then the sheep could follow because they could graze in the areas left clear by the hoof prints. That year there was too much snow and the summer drought had left the grass low and sparse. With so much snow, even after the horses broke up the ice, the oxen and sheep could hardly find anything to eat. Our herds almost died out. Only the 400 strong horses under my care survived; we only lost about a dozen animals. Horses are smart, they know where the snow-cover is lighter. Fighting the bitter cold and exhaustion, they headed steadily north and reached a more sheltered area and survived. Horses from all over the region headed to the same spot. In the end, there were more than 10,000 of them. The great herd under the overcast sky was a majestic sight.

It's not the same anymore. When we are hit by natural disasters, the horses have nowhere to go and

they survive no better than the sheep.

On New Year's Day in 2000 we were hit by another snowstorm. By this time the grassland had been privatized, cut up among households and demarcated by wire fences. You couldn't drive your herd into someone else's paddock. My family had to stay put because there was nowhere else to go. The horses, of course, tried to escape because they must have known a better place to go to shelter from the storm. My children had to go out on motorbikes to drive them back, again and again and again. The horses didn't know there is no such thing as grassland anymore where they could roam freely.

In that winter I lost about half of my 200 horses. They froze to death, mostly one to two year-olds, bleeding from their noses and ears. I had never seen anything like it before; I had only heard about such things from the elders. If we could have gone somewhere else, many of the horses wouldn't have died. Now if you want to move your animals you have to pay. In the beginning, maybe we could have afforded it, about US \$ 0.38 a month per hectare. Now it is US \$ 2.56 per month for one sheep. It is too expensive! And the price is still going up.

I heard the authorities are planning to introduce rotational grazing. This means fencing up our pasture into even smaller pieces. Tradition tells us not to divide up the same piece of land because different areas have different kinds of grasses. A plot with the same type of grass cannot satisfy the needs of the livestock in different seasons. For instance, in the summer you need to graze cattle on land with water, say nearby a river, because they need to drink more. But in the winter you need land with tall grass so that it is not all covered up by snow.

The camels are all gone now and we are afraid the horses will soon be gone as well. Just as a landscape needs trees, the grassland needs all five kinds of livestock. As herders that's the only way our lives can be complete.

Haserdeni's words were clear and direct. For a nomad, this topic is a very simple one. The grassland is a healthy place and can only be kept alive if the five kinds of Mongolian livestock are herded using rotational grazing. If this doesn't happen then the water goes stagnant and all kinds of problems start to appear. His words and thoughts were a bright spot in our investigation.

He is showing us his pastures and says the grass has been deteriorating day after day since wire fences were erected to mark out each individual's paddocks. Photo: Han Ying

THE GRASSLANDS — A HEAVEN-SENT HOME FOR THE MONGOLIAN HORSE

Han Ying

China has traditionally viewed the nomadic lifestyle as one in which one is constantly searching for water and grass. Over the last few decades, this lifestyle has also become associated with a diverse range of concepts including “hardship,” “backwardness,” “romance,” and “harmony.” The conflicting nature of these concepts has given us much puzzlement when we have tried to understand life on the vast Mongolian steppes.

During our journey, when we were searching for the horse herders, we often heard stories about the terrible snowstorm of 1977. That year the grassland was blanketed by a thick layer of snow right from the onset of winter. This was the time that the nomads were all trying to drive their herds towards the winter pasturelands. On the grasslands, migration has long been used as a way to survive winters. However, that year, because the Silin ghol Grassland was completely covered by snow, the animals and nomads had nowhere to go. The snow continued falling and there was nothing they could do. With the snow drifts so deep, the animals couldn’t find any food to eat. They died one after another. The nomads piled up the dead bodies of the animals into shelters for the living ones. One morning, one nomad found that his sheep had huddled so tightly together during the night that some

sheep had died from the weight of the others that had climbed on top of them. A few days later, the sheep were so hungry that they had started eating each other’s wool. Some of them died from exposure after they had lost their wool and their bloodied skin was exposed. The cattle started eating their willow-twigs enclosures and dead rats. Eventually, they even chased people so they could eat their clothes. The camels would stretch their necks up to tear down and eat the willow-twigs roof of the animal sheds. It was a horrific storm.

In the spring, when the snow began to melt, animal corpses were scattered everywhere. Every county suffered great losses, many losing up to 70% of their animals with some as much as 98%.

That year, 1977, is a terrible memory, when the grassland showed its worst side and delivered a crushing blow to the nomads. In the face of such a disaster the nomads were left helpless. It exposed the vulnerability of their traditional way of life and people naturally wanted to stop such a calamity from ever happening again. It was from that point onwards that many people started regarding the nomadic lifestyle as “backward.” After that people sped up the pace of change and started building permanent animal enclosures, houses, settlements and digging wells.

Brick houses replaced earthen ones; permanent animal sheds replaced open-air enclosures; and wells were equipped with motorized pumps. All these changes brought about better conditions for both the people and the animals during winter. Nonetheless, these improvements still didn’t make the practice of raising animals on the grasslands less vulnerable to natural disasters. Instead, it brought about other problems for the grasslands, so that people these days are now reminiscent of the old nomadic lifestyle.

Why did this happen? Why are the grasslands so problematic? Why can man not control them? Have efforts to help protect the animals in the winter-time actually helped to cause the degeneration of the grasslands? Delving deep into these questions, we find that something unfathomable seems to control the fate of living things on the grasslands. To understand the true nature of the grasslands we interviewed several scientists and asked them why did people follow the nomadic lifestyle for thousands of years.

Liu Shurun (Professor, Grassland Phytotaxonomist, Inner Mongolia Institute of Education) :

The grasslands of Inner Mongolia are part of the Eurasian Steppe with dramatic regional and seasonal variations in moisture and temperature conditions. The amount of evaporation is high due to the thin topsoil and wind force. With such a vulnerable environment, productivity is low and unstable. Because of the high rate of surface evaporation, the ground surface is mainly composed of unevenly deposited substances. It is only by moving constantly that livestock are able to ingest wholesome feed and obtain enough nutrition. It is like saying there are only “specialized shops” and no “department stores” on the grassland requiring you

to travel all over the place to get everything you need. The people and animals have traditionally dealt with natural disasters and disease by constantly moving from place to place. Migratory herding is the best adaptation to life on the grasslands.

Nacin (Researcher, Asia Aridity Institute, Meiji University, Japan) :

The Mongolian Plateau is shaped like a giant dish, with precipitation low in the middle and higher on the periphery. The vegetation growth correlates to precipitation rates. This is most apparent in the drier regions where grass output fluctuates basically in parallel with rainfall. Under these specific circumstances, migratory herding is the most effective way to utilize the grassland. “Precipitation,” “grass output fluctuation” and “migratory grazing” are closely correlated.

Migratory herding allows livestock to choose what kind of grass to feed on and produces high quality meat and milk that tastes totally different from those produced by animals reared in enclosures. According to my investigation in the Mongolian People’s Republic, of the 2,600 species of plants, nearly 600 are livestock edibles or favorites. The wholesomeness of the grass produces much higher quality animal products than those obtained from animals reared on artificial fodder. In addition, being a form of self-adjustment, migratory grazing keeps livestock healthy. For many animals, their mental health -- separate from their food intake -- strongly affects the quality of their meat and milk. And last but not least, the Mongolian Plateau’s austere climate plays a role in natural selection, weeding out the weak and allowing the best and healthiest genes to survive.

The Silin ghol Grasslands are home to hundreds of different plant species, the famous Mongolian Horse and the Ujumucin sheep and local farmers produce fresh organic meat and milk. In short, the grasslands are irreplaceable.



When the grass is gone from the ground, sand would be blown into the air when it is windy, which gets stuck in the wool of the sheep. The undernourished sheep are weighed down to the ground, as each has to carry as much as 10 kilos of sand. The heat absorbed by the sand burns the wool off and the sheep have to wear “clothes” to protect them from being frozen to death. Photo: Buhculuu



Yu Changqing (Director Eco-protection Institute, Tsinghua University):

The grasslands of Inner Mongolia have evolved through natural selection under arid or semi-arid conditions and are of ecological importance. The reason that migratory grazing has had such a long history is two-fold. Firstly, the grasslands have limited resources, and secondly, it is connected with human adaptation to the natural environment. Take the horse for example. A nomadic lifestyle using horses has been a sustainable way of managing the grasslands. To transform the grasslands into farmland, making the nomads into stationary farmers, is an ecological disaster. Simply transplanting agricultural policies that work in the lowlands onto the grasslands simply cannot work. It is also very difficult to replant grass on damaged grassland. It is not the same as replanting trees. Considering that some hoofed animals on the plateau are facing extinction, great efforts should be made to conserve the five farm animals, including the horse, because they are an important part of the grasslands’ ecosystem.



Photo : Buhculuu

Photo : Buhculuu



Clumps of sand stuck on the sheep are as hard as wood blocks. With the heat absorbed, the sand can get so hot under the sun that it burns the wool off the sheep and reveals bloody patches on their bodies. When people try to get rid of the sand for the sheep, their hands may blister for the burning heat. Photo: Ayin



Bai Tugjijab (Grassland ecologist, resident in the United States) :

An important feature of the steppe is its low and unstable primary productivity. The return constant of animal husbandry can only be speculated on an approximate basis over a large area, as stable output on a small scale is impossible. Kept in enclosures, both the herds and the grasslands may be destroyed entirely by a drought that lasts for three consecutive years. Migratory grazing, on the other hand, can minimize losses and maintain the health of the overall ecosystem. Under the nomadic tradition, humans follow the law of nature, although at the same time they have to endure hardship to protect their livestock and the grasslands.

The consensus from these scientists is that the nomadic way of life is the best adaptation to life on the grasslands. Abandoning this way of life has been both hard and costly. And as the price grows ever higher, people have the impulse to return to their former way of life. It appears that it is impossible for man to force the grasslands to maintain a stable environment and thus it is impossible for mankind to find a happy solution to life on the Steppe. Why did people start to betray the laws of nature in the name of the “common prosperity for people and animals?”

Bai Tugjijab :

In nature, there exists a so-called “tithe law”, in other words herbivores feed on one tenth of the grasslands, and then carnivores feed on one tenth of the herbivores. By this I mean that the total area of grasslands consumed by both livestock and wild animals should be kept to a maximum of 10%. Currently there exists a system which decides on how big a herd can be simply by looking at how much grassland they need. This is how the farming community thinks but it is not in line with what nature can provide. You have to draw a line between natural grasslands and farmland. The former nomadic practices did not exploit the grasslands completely. They always left enough room for the grasslands to recover and thus preserved the natural food chain.

Nacin :

Because of the drastic variations in precipitation on the grasslands, grazing capacity cannot be kept stable. Though an average value could be surmised, the figure can be deceptive and is seldom valid, because the real situation may vary dramatically. The mistake people have made on the Inner Mongolian Grassland is their pursuit of

Courtesy of Silin Ghol Daily



Photo : Buhculuu



Photo : Cui Hancheng

Decertified pastureland. The wire fence catches grass that stops the sand and after a number of sand storms, the fence is buried and leveled. Photo: Zheng Baiyu



an invariable herd size and animal production capacity in the face of fluctuating productivity.

Xing Qi (President Inner Mongolia Survey and Design Institute) :

Human-managed intensive production techniques are not compatible with arid and eco-vulnerable regions such as these grasslands. On the contrary, “extensive” production is appropriate. Every nomadic family requires a pastureland of a certain area for their herd to move about on. Grazing pressure on the grasslands has to be adjusted in accordance with variations in the conditions to allow the land to recover. The problem is that the area of pasture for many families is inadequate for this type of grazing.

Namjil :

Grass output on natural grassland varies with changes in precipitation. At Silin ghol, for example, with sufficient precipitation, the grass grows very well and 10 million livestock would leave no visible impact. In dry years, however, when the grass suffers, keeping several million animals could be a problem. Therefore, the grazing capacity has to be determined scientifically according to the conditions. Currently, a fixed target, for example one sheep for every 1.3 or 2 hectare, is set regardless of that year’s conditions. In fact, in a year of serious drought, even 6.7 hectare might not be enough for one sheep. With ample rainfall, however, one sheep could effectively be reared on less than 0.67 hectare of grassland. Therefore, grazing capacity should be flexible and adjust to external conditions.

Humans have already learned to make use of the land by examining its characteristics – how arid it is, how vulnerable it is, and how all this fluctuates. But humans also have an urge to break free from the fetters



Sand clearing is a new industry on the grasslands. After a sandstorm, there would be people calling on each household offering their service to clear the sand from the courtyard and animal pens. Photo: Buhculuu

of “heaven”; they aspire to leave behind traditional “extensive” forms of agriculture and instead move to the more modern “intensive” model. Although we have not questioned whether this urge is a correct one, we must consider that the result may in fact be negative. When we put this impulse into practice, we must not turn a blind eye to the fundamental nature of the grassland. What we have learnt about the Mongolian Steppes here is a good case study for us to examine.

During our search for horse herders, the most shocking sight we saw was a huge modern sprinkler system that had been set up in one of the driest and least reclaimable areas of Silin ghol. The sprinklers were working day and night irrigating corn fields belonging to a dairy farming Migrant Village. In the 1960’s and 1970’s, efforts to reclaim the land ended up in desertification. People learnt painful lessons that time. That is why we couldn’t understand why something so against common sense such as this could happen again. In the 1960’s and 1970’s, disastrous land

The grasslands are frequently blighted by natural disasters. In 1977, a cruel snowstorm killed off more than 70% of livestock in many areas. It was the catalyst for people to devise methods to avoid further calamities.



reclamation attempts took place in the southeastern part of Silin ghol where the weather conditions are better. Now they are emerging in the arid northwest, except now they have a new purpose. Before they tried to grow grain for food and now they are growing corn for fodder. And all this is in the name of “eco-conservation”!

We visited this Migrant Village and the director also happened to be a former horse herder. He told us that the village was quite new, only three years old, and depended solely on dairy farming. The high-yield cows had been imported and the villagers came from various regions including some from neighboring hoshuu’s (Mongolian county) . Corn fields covering 66.7 hectare in area had had sprinkler systems installed and they were all funded through government grants. The irrigation water was free but they had to pay for the electricity used to power the pumps for the sprinklers. It appeared that the villagers had never considered that there would be costs involved. They had merely put their hope in a good harvest because up until then they had lost money in rearing the dairy cattle.

How is it that something that is called an eco-conservation project can violate the laws of ecology? We put this question to several scientists who have studied the eco-migration issue on the grasslands in recent years.

Bao Zhiming (Professor, China Nationalities University) :

Eco-migration is a complicated issue. The logic of government policy is kind of simplistic, and is purported to address two issues at the same time – ecological balance and poverty – by relocating populations. It is designed to solve ecological problems by moving people away from ecologically vulnerable regions and addresses the issue of poverty by relocating poverty-stricken villagers to work in dairy farming under government guidance and support in so-called Migrant



At time of migrating to a new pasture, water wagon has to follow the herd. In some places, the herders have to rent trucks to transport their sheep to a new location. Photo : Cui Hancheng

Photo: Buhculuu

Villages. Its intentions are well meant but in reality when it is implemented there are many questions. For example, whether it is feasible to relocate large numbers of people from the grasslands in such a short time; whether the grasslands’ limited resources are really suited to dairy farming; whether dairy farming can actually generate a better income for the people or whether efforts to raise dairy cows will actually result in even more serious problems were neither properly considered nor properly dealt with. In our survey, we discovered that the original eco-conservation objective was gradually neglected over the course of time as populations were relocated. Furthermore, as dairy farming requires a very high initial investment and takes time to deliver an investment return, those nomads who took part in this project, people from eco-vulnerable regions and degenerated grasslands, are hardly seeing any benefit. Therefore, the objective of “poverty alleviation” has not been achieved. The government has controlled and promoted such “eco-

migration,” and called it an “eco-conservation” endeavor.

In a sense, you could say “eco-migrants” is a “manufactured” concept. That is to say, it has been made by a combination of government power and vested interests dating back some time. The “eco-migration” policy is primarily a crisis plan whereas the grasslands have been suffering for much longer. The sandstorms that threatened Beijing, Tianjin and the “Green Olympics” slogan were the catalyst for the government to launch this crisis plan. Following media coverage there was public concern and then the issue became one of state concern too. Because this is essentially a crisis response then there has been a lack of integrated and long-term planning in the policy-making process right from the very beginning. Secondly, the “eco-migration” policy has largely been promoted and implemented by local governments. Under current policies, local governments and their employees are rewarded for economic growth. By

launching new economic development projects, local governments are hoping not only to earn more money, but they can expect to be rewarded with more funds and promotions. But these governments are not rewarded for protecting the environment, conservation is not part of the incentive mechanism and this means local authorities have very little motivation to take into account the consequences to the environment of any economic development project. Bearing that in mind, it is not hard to understand why “eco-conservation” projects often degenerate into simple economic development plans, with the original goal of environmental conservation long abandoned and left as an empty promise.

We also discovered, in the driest region of Silin ghol, a Migrant Village that was renting out to a company 266.7 hectare of land that had been allocated to the village by the government for the express purpose of growing corn. The land was being used to grow potatoes instead and was being watered by a state-funded sprinkler system. The details of the rental were complicated but whatever they were, growing potatoes to sell to the rest of China in a drought-stricken region using a sprinkler system is absurd. It is because of

When we listened to their stories we realized that the sandstorms we experience in the cities are nothing compared to the storms that these people here have to endure. We cannot imagine the hardship that they face. We also did not know what could be done to address this problem. These problems are intangible but real. How can they be connected with the aim of achieving a “Green Olympics?”

In the northern part of Silin ghol, when we were traveling from the east to the west, we witnessed a sequence of changes: a progressively drier climate and more serious eco-deterioration. The climate is naturally drier in the west but now the eastern parts are also suffering more and more droughts. And this trend is accelerating. Once a horse herder in eastern Silin ghol told us: “I heard about the serious grassland degeneration in the western part on television a few years ago. Now it has arrived in the east.” What can we learn from these changes? Is it warning us that humans going against the laws of nature are changing the grasslands and adding to the already harsh conditions on the steppes? We have already raised many reasons for the degeneration of the grasslands, and now scientists are suggesting another key reason. This is that people have over-estimated their ability to

artificial and can also be plots used for grazing or for the harvesting of hay. Steppe, on the other hand, is an area of land with natural herbaceous plants and it can be described as a vulnerable ecological system of arid or semi-arid land. It is the result of millions of years of natural evolution. And because of this we have to be very careful when we change the nature of the Steppe. In the same way that we cannot create an ocean, we cannot make a Steppe. But “making a Steppe” has become a fashionable tagline of late and is just another example of how some people have mistakenly come to regard the Steppe as just another piece of farmland. The Steppe is not only the home of livestock, it is also a country’s natural barrier, and the cradle of an ethnic group. It is a book recording the long history of natural evolution.

Yi Jin (Professor of Forage Physiology and Ecology Inner Mongolia University of Agriculture) :

Our former Range Science Society has changed its name to the Agrostology Society and the Range Science

of financial and water resources in buying up overseas seeds and keeping these grassy areas watered. We must learn important lessons from this.

The Silin ghol Steppe is some 700 kilometers long, east to west, and 400 kilometers wide, south to north. There are several different types of grasses on the Steppe which vary according to the climatic and geographic conditions. Most of the grassland is also used as pastureland so it is acceptable to call them pastureland. But it is incorrect to refer to it collectively as pastureland without taking into account the different environmental conditions. This is particularly important when it comes to drawing up policy when it is crucial that the different conditions are considered. This is the most likely reason that the grasslands have been degenerating from west to east. If the policies for Silin ghol were to be duplicated across the whole of Inner Mongolia, that would result in an unimaginable outcome. We could carry this one stage further and postulate: what would happen if we specified that every area in the country that contained some kind of grass was to be known as grassland and there was to be one fixed policy to cover them all? If that was to

Mankind’s efforts to tame the grasslands are hampered by natural conditions including the lack of rainfall and the unstable nature of the environment. Because of this, the most appropriate model for living on the grasslands is the nomadic lifestyle.

When humans began demanding that the grasslands produce even when natural conditions made it difficult the pressure on the land was too great. This is the main reason for the degeneration of the grasslands.

murky vested interests that it has happened. Research conducted on the Migrant Villages by scientists can offer a sociological perspective on this ecological problem. Beneath this discordant relationship between man and nature, there is often a man and man relationship that is driven by private interests.

Towards the latter half of our journey, we discovered something which shocked us even more. In recent years, sandstorms have been happening ever more frequently. In the spring of 2006, locals were battered by sandstorms that lasted for more than 40 days without a break. Their sheep would literally collapse from the weight of the sand and salt that caught in their wool and people would suffer great difficulty in breathing.

make change. In fact this is also seen in the academic definition of the “Steppe.”

Bai Tugjijab:

Steppe, grassland and pastureland are often confused. Many researchers working on the Steppe, also call it grassland or pastureland and this is our biggest problem, I believe. The true definition of grassland is an area of land mainly containing herbaceous plants and it can exist under a variety of climatic conditions. Grassland can be natural but it can also be artificial – for example a lawn is also a grassland. Pastureland is a term used in animal husbandry and it refers to an area used for grazing. Pastureland can also be natural or

Journal into the Agrostology Journal. Agrostology is the branch of botany that deals with grasses. This change in name has actually disoriented many people. It now means that our studies have less to do with the Steppe itself and more to do with studies of urban lawns and gardening. The lawn industry has been thriving since the 1990 Asian Games. We have been importing grass seeds from foreign countries and thus have sprung a lawn industry which has been employed in greening the cityscape. Now there are many lawns and golf courses in northern Chinese cities, even some of those on the grasslands, that require a lot of water. This lawn industry has done nothing to help the grasslands themselves but is swallowing huge amounts

happen all of Inner Mongolia’s five farm animals would all be replaced by imported dairy cows. Although policy makers are supposed to take into account the conditions on the ground, when decisions are made by various levels these differences are filtered out in a process of generalization. What happens is that natural variety is ignored and man’s ability to make changes is given extraordinary weight.



MAN ON HORSEBACK



Photo: Ayin





Photo : He Ping



DIALOGUES ABOUT MONGOLIAN HORSE (IV)



Memories from the horse herders:

PART FOUR

Lin Lan

Thought for the day:
Finding a way to
rotate pastures



Thought for the day:
Finding a way to
rotate pastures



Thought for the day:
Going against the trend
by raising horses



Soyol, is only six years old and she is already riding horses with her father. This picture of father and daughter riding side by side silhouetted against the setting sun makes a beautiful image. Today, few children of her age can ride. Photo: Yu Yonggang

Day X August 2006 Thought for the day: Finding a way to rotate pastures

During this visit we have rarely caught sight of horses. Just occasionally we have seen a few horses roaming about on the grasslands through the windows of our car. The image of a huge galloping herd may well now be consigned to history. Has our trip become a memorial trip for the Mongolian Horse?

Last night, as we were driving back to our hotel, we were drawn to the sight of a little child on the back of a horse and herding cattle. The horse was trotting leisurely as the sun was setting below the horizon. When we got out of the car to speak to the child we were surprised to see that it was a girl! It was the first time on this trip that we had seen a child herding cattle on horseback and we were all very excited. Soon the girl's father arrived, also on horseback. Her name is Erdeni Soyol and she is six years old. She learnt to ride



Surgel demonstrates how accomplished he is at lassoing. His family is the richest in the ghacaa (village) with a herd of around 80 horses. Photo: Yu Yonggang



Most of the nomads in the neighborhood have gathered to show us their lassoing skills. Photo: Yu Yonggang

last year. She said only about four or five people in her Ghacaa (Mongolian village) still ride horses. Erdeni Soyol loves to ride and her father said he was glad that this tradition could be passed onto his daughter. She was currently practicing horse racing and would compete in next year's Nadam Fair. When we told her father that we wanted to interview horse herders he invited us to meet him the following day. His sister's family owned a herd of some 80 horses. It was a chance sent from heaven and we accepted immediately.

Then the father and daughter rode off into the dusk, chatting with each other all the while. The image of them leaning forward slightly on their horses against the setting sun was a perfect picture. It encapsulated the very special relationship Mongolian people have with their horses.

The next morning we went to meet the girl's father as agreed and he led us to his sister's house. The family was quite well off and was known around these parts as the one with the biggest horse herd. In a short while the man of the house began to talk to us.

My name is Surgel and I am 40 years old. I began looking after horses when I was 20 years old. Many years ago both my family and my wife's family had quite a number of horses, so many that sometimes we needed to hire extra hands because we couldn't do it all by ourselves. Several major fires broke out in the 1980's. One, in 1988, killed almost all the cattle and sheep. By that time, the ghacaa had already distributed the livestock to individual households, every family had their own animals and their own bit of grassland so everyone had to bear the loss of that fire alone.

But out here on the grassland we Mongolians have our own ways. We have a tradition called "Surug," where if a family has too many animals they can lend them to another family to look after. The new owner



Surgel realized that the grasslands would go into degradation around a drinking spot or human settlement and he thus decided to build a water tank for his animals at a distance from his home. Water is delivered to the drinking spot with a wagon on a daily basis. Photo: Yu Yonggang

promises to return the same number of animals back at a certain time, his payment being any newborn animals or a sum of money. After the big fire, many families benefitted from this Surug practice and now we have 1,500 sheep today from a flock of 150 back then.

We were happy with this system of sharing livestock and grassland. Nowadays, we all have to work for ourselves. Even if we lose everything, we can try hard and use our intelligence. After we lost everything in the fire, we worked hard and now we can live well.

My family only owns about 933 ha. of grassland but that will be trampled to death by our sheep in a few years. That's why I have rented a further 1000 ha. of land and I will rotate the use of it with my own land. The different farm animals each have their own characteristics. In one place, horses stay on the outside because they can run the fastest and the furthest. The sheep stay close to the water in the middle while the cattle like to stay close to the house. They stay in circles just like that, one inside the other.

But the land we have to use is still not big enough, our horses cannot run freely. Disputes start up whenever they trespass on someone else's land. We had a big drought in 2000 and ever since then the grassland has gotten worse.

When people first settled here they began digging wells. Our cattle and sheep all head to the same place to drink. In the old days when we were true nomads, the sheep would head to the river to drink during the summer, but now the land is privatized you have to make sure there is water to drink on your own pasture because the area with the river no longer belongs to you. The land is suffering because it is repeatedly being trampled. When you got here you must have seen how sandy the grassland is near my house. If nothing is done, all the grasslands will just die.

I am trying to do something about it. I built a concrete water trough quite far from my house and filled it with enough water for the animals to drink every day. This stops them from trampling on the already damaged grass area near my house. Once the area by this trough starts to suffer from all the trampling I will build another trough somewhere else on my land. It costs tens of thousands of RMB to build a trough but it's better to do this than just let the grassland die.

Winter grassland is the most important to us nomads because the animals are very vulnerable at this time. In such a cold place like this, livestock can die from the cold or die from starvation if there no grass to eat. Because of this, many families built their homes and animal shelters on the winter grassland so that both people and animals could enjoy better conditions during the winter. The problem is that the winter grassland suffers more and it is used for more than half the year. So instead, my family built our house on the



The ponies are tied to their mothers who are milked every two hours. Photo: Han Ying

summer grassland and during the winter we live in our yurt and follow the animals around from pasture to pasture. Anytime that we notice the grassland is bad we move on. The sheep follow the horses during the winter. They can feed on the horse dung and the horses clear a path in the snow so the sheep can get at the grass. It is very windy here and the wind chill often freezes the snow into a thick icy crust. The sheep can't break through the snow to get at the grass on their own. If you are a nomad and don't have any horses you are in trouble. That's why lots of our neighbors come to us to ask if they can borrow our horses. Although more animals are exposed to the cold if we use our horses, it's more important to make sure they all have access to good grass. Anyway, those animals that die from exposure to the cold are the weakest. The ones that survive are the strongest and the best.

Rotational grazing is better for both the animals and the environment. Both my wife and I practiced rotational grazing when we were young so both of us are always trying to give the animals a chance to move around. The sheep themselves know what grass is best to eat, and where and when to go to find it. They even know what kind of medicinal herbs to eat when they feel sick. But now they can't move around it's all different. They only have the choice of a few kinds of grass. In winter it's important that the animals can get a source of saltpeter but they can't find it now so I ship in five or six tons of saltpeter soil for them in the winter. But this cannot be as good for them as being able to roam around.

We are pretty well off these days. People often ask us why we don't built a bigger house since we have the money. But we don't want to do that, we have been living in yurts since we were children. In fact we don't even like living in any house, big or small. Why do we need to build more storeys? Other people tell us we should relax and enjoy our savings but we are used to doing work. We wouldn't feel good if we stopped. We just want to do a good job looking after our horses, cattle and sheep.

We asked Surgel if he could bring the family's horse herd back here from out on the grasslands. He agreed and when the neighbors heard what he planned to do they also joined in, some on horses, others on motorbikes, lassoes in hand and laughing. Actually the herd was not that large with about 100 horses at most. Even so, when the whole herd thundered past, the ground began to shake under our feet: a truly indescribable experience. The nomads looked both happy and proud and this sight caused us to feel nostalgic for the times when herds of 500 or 600 horses together would gallop across the grasslands.

The horse is truly an amazing animal. It is not docile like the cow or sheep, and neither does it beg affection

by wagging its tail like a dog. It is both elegant and beautiful and has a majestic sense of pride.

Day X August 2006 Thought for the day: Horse conservation as a new industry

Today we visited a special "station" which depends on horses in Baruun Ujumucin. We have already witnessed the helplessness of nomads in the face of the Mongolian Horse's disappearance and we wondered how this "station" was faring.

The "station" was made up of a couple of yurts on a small plain surrounded by hills and next to a tourist camp. At the front were several mares tied to poles with their foals. A woman was busy skillfully milking one of the mares. Unlike cows, horses can only produce a small amount of milk. After the woman milked all the mares the bucket was still only half full. Then the owners, two smart-looking young men in their early 30's, showed up. We sat down on the aromatic grass and started talking.

Tumenbayar:

My name is Tumenbayar. I first started looking after horses when I finished high school. That was 10 years ago. Now my herd is about 100 strong from just 20



Tumen Bayar and his wife served us kurmiss (an alcoholic drink made with horse milk.) Selling kurmiss and organizing horse races have given them good reasons to keep their horses. Photo: Yu Yonggang



back then. I have so many horses because not only do I love horses but I believe that as their numbers fall they are more valuable. When something becomes rare it becomes more valuable. My biggest problem is the shrinking grasslands. So that I can keep my horses, I have handed over my family's 600-odd sheep to someone else under the Surug system. I had no choice. You need good grassland to raise horses properly.

Some people say that the horses are putting too much pressure on the grasslands. But I disagree. Horses don't do any damage because they only feed

on the top part of the grass and don't pull out the root. They also roam around a lot when they are feeding. The grassland only suffers if the horses aren't allowed to roam about and are kept in small paddocks. That's the reason that so many people are getting rid of their horses now.

The horses and camels, once the top two of the five traditional types of livestock, are not so common these days. Because these animals are not usually slaughtered for their meat, people prefer to raise cattle and sheep which they can sell and then use motorbikes and cars

The yurt in the picture is Tumen Bayar's home. Photo: Han Ying

for transport. Youngsters these days don't know how to ride and can't even name all the colors of the horses. Our store of knowledge on the Mongolian Horse is vanishing.

That's why Jirandan and I founded the Mongolian Horse Culture Association. Several families have already joined us. We hold a Nadam rally every year on the 23rd May with a range of events, including a long-distance horse race, a pony race, horse-breaking, lassoing, switching, branding, shearing, and so on as well as a horse culture quiz. We have been holding these events for the past three years and our main purpose is to help young people learn about our horses. More and more people have been joining and now we have about 16 families who are members. Some young children who weren't interested in riding in the beginning are now starting to learn.

My main income of about RMB 20,000 (US \$ 2,564) a year comes mainly from making kumiss [an alcoholic drink made with mare's milk]. On top of that, I can also make about RMB 30,000 (US \$ 3,846) from the Nadam festival. All of this money I make comes from my horses. If I raised sheep instead, I could only make about RMB 20,000 (US \$ 2564) a year at most. I sell the kumiss to the hotels, Mongolian medicine clinics and to tourists, in this Hoshuu. Kumiss is good for your health, it can help lower blood pressure and it's good for your lungs and stomach as well as helping women with pregnancy problems. I read a lot of books and thought for a long time before I started milking horses. I had heard that people used to milk horses but the practice had largely disappeared. I milk about a dozen mares every two hours and get about a quarter of a kilogram from each. Every year you can milk the horses for at most about two months.

Jirandan:

My name is Jirandan and I began herding horses once I finished primary school. I had always looked up to those people who had horses and I thought they were smart. Because I loved horses so much I stopped going to school so I could spend time with them. My family has tended horses for generations. I guess I was just influenced by that.

There are five people in my family now and each of us got 47.7 ha, of grassland when it was distributed. It is basically just enough for our sheep but not for our horses. Horses can't be kept in small paddocks because they need to run about a lot. There are no more camels now and just a few horses are left. If we lost the horses, would the cattle be next to go? We Mongolians can't go on like this. That's why I joined Bayar and founded the Mongolian Horse Culture Association.

My family uses the Surug system. So that we can keep our horses, we have given our sheep to someone else to look after. I get RMB 80 (US \$ 10.3) per sheep

Jirandan and Tumen bayar founded the Horse Culture Association together. It is an encouraging sign that the Mongolian Horse is making a comeback. Photo: Han Ying



Horse. I think we should start protecting the horse just like we protect wildlife.

When we were in Tumenbayar's yurt we tried some of his home-made kumiss. It tasted more like yoghurt than alcohol, a bit sour but delicious. It's not strong, you can drink a bucketful without getting drunk. Although Jirandan told us about all the problems with raising horses their business is a new experiment and needs to be tested. We wondered if efforts like these to make money from the horses, the kumiss, and the festival can actually save the Mongolian Horse. Whatever happens, what we have seen here is the nomads' strong attachment to their horses and from this we draw a lot of hope for their future.

Day X August 2006 Thought for the day: Going against the trend by raising horses

Leaving Baruun Ujumucin, we headed eastward to visit Erdenibatu, a horse herder in Abagha Hoshuu. When we arrived, he was putting his three-year-old son on the sleek back of a two-year-old pony. Although the child's face was crumpled in fear and he was screaming, his father did not budge. "How can a herdsman's son be afraid of a horse?" he kept telling him. He told his son to sit still on the horse while his wife stood nearby and encouraged him.

At first glance, it was clear this family was both traditional and hard-working. The mother soon offered us some of her homemade kumiss.

Erdenibatu:

I started raising horses in 1983 when the livestock were distributed among the households. I have about 100 horses now, which is quite a lot for Abagha hoshuu and even the whole of Silin ghol aimag.

Although my father didn't keep horses, my uncle on my mother's side used to be a horse herder. I guess I just like horses and I taught myself everything I need to know about them.

The situation for the horses turned bad after the grassland was privatized because it stopped them being able to run around freely. My family has three areas of grasslands and they are all in different places and all pretty small. Other people's animals often come and eat my grass but it is too expensive to build a wire fence. Things were much better under the Production Brigade [during the period of the People's Commune].

When privatization was introduced my family owned all five types of grazing livestock. We had more than 1,000 sheep. But in the past few years we have had more and more troubles. All our animals stay inside their fenced-in pasture. Either the cattle and sheep will



Erdenibatu and his wife are teaching their son to ride. Photo: Han Ying

die of boredom or they will kill the grass by all their trampling. That's why I decided to sell off my other animals and just focus on horses. If I hadn't given up my sheep, my grasslands would all be finished by now. When you look after animals you have to keep moving their grazing areas. I would have needed to rent some more land if I had kept my sheep. Horses are the best because they can move much further than cattle and sheep.

I think I made the right decision. Horses fetch a better price than the other animals. And although they don't produce as much milk we can sell it for a much higher price than cow's milk.

Every winter we have to move and it's good that the horses aren't afraid of snowstorms. The whole of Silin ghol aimag suffered heavy losses in the snow disaster of 2000 but not a single horse of mine was killed. The problem is that the health of my horses is suffering from having them fenced in because they cannot run around freely.

And it's not only the horses that have been affected by privatization. The grasslands have also suffered. Every year when the sandstorms start the winds are so strong that they can strip the paint off the cars and the license plates are blanked out by the sand. The wire fences also cause problems between neighbors. Whenever someone's animals stray into someone else's land it causes arguments. Sheep are the worst at destroying the grassland. They do more damage than



Photo : Yu yonggang

the horses. The horses just pick at some good grass and then they move on but the sheep keep eating at the same spot until there is no more grass left. My family has 100 horses, whereas most families with sheep will have about 400 sheep. That's 400 hooves against 1,600 hooves. Tell me which is the more destructive?

The key to successful horse-rearing is having a big enough patch of grassland. If the government could give us preferential treatment and let us rent lower-priced pasture then things would be better.

We have heard repeatedly that grassland privatization has caused the numbers of horses to fall and has destroyed the grasslands. Erdenibatu has not given up hope and still keeps his herd of horses. We view his decision to go against the trend with respect.

We were also impressed with his patience in teaching his young child to ride. Maybe in a few years there won't be any children brave enough to ride a pony. If the Mongolians decided to go back and lead a nomadic way of life would there be anyone left with the skills to pick up a lasso?

THE MONGOLIAN HORSE — THE FUTURE OF A CULTURE

Han Ying

During our 20-odd-day journey searching for horse herders we came across many contradictions and situations that confused us. For example the nomads have great affection for the horses yet many have abandoned their animals; some complain that the grasslands are now home to too many people, yet these same people hire workers from outside the region; there is acceptance that land is being over-grazed yet some farmers are rearing yet more livestock on their wire-fenced holdings, while others are converting more of the grassland into crop fields; eco-conservation projects are being launched that damage the environment; and, as incomes rise, more harm is being done to the environment. It seems that people are more confused than ever when dealing with the grasslands. Can the problems of the grasslands ever be solved?

Surgel from Juun Ujumucin may have an answer. He is practicing rotational grazing on his 666.7 hectares of grassland. In the winter, when everyone else is sheltering in their homes, he lives in a yurt and follows his animals because that way he doesn't put so much pressure on the grassland. He built a watering hole for his livestock to limit the damage their feet do by trampling on the grassland. He has also rented an extra 666.7 hectares of grassland for his sheep to be looked after by the Surug system. And because of this he now has room to expand his horse herd. He is also planning to rent a bit of extra land for his horses. He regards all five traditional livestock of the grassland

as indispensable, although he regrets the fact that no one keeps camels any longer. He is also planning to get together with other households to make collective use of the grasslands. He said that his family and his wife's family have nomadic roots going back generations and neither of them will relinquish this lifestyle.

Surgel is one of the most successful men we met on our journey. He is happy because he is constantly moving. The loss of the nomadic lifestyle is one of the main causes of all the grassland problems.

Liu Shurun:

Because of climatic fluctuations, eco-vulnerability and low productivity, stable development on the grassland can only be achieved through rotational grazing in an extensive manner. That's why all grassland animals are good runners. Grass grows better around a yurt because animals do not graze there. We could say yurts keep the grassland healthy. Recently I visited a place called Taibusi Hoshuu in Silin ghol, where there were many people and the land resources were limited. The privately-owned fields were not demarcated by wire fences. People there grazed their livestock collectively. Although there were many sheep, there were no signs of grassland degeneration because the animals had a relatively large area to roam around on. This demonstrates the advantages of rotational grazing. The contradictions you have seen on the grasslands of Inner Mongolia are the result of two

The people of the grasslands are faced with a difficult choice – settling down means a better quality of life but the nomadic lifestyle is better for the grasslands.

different ways of thinking. One is "movement" and the other, "settlement." At the core of nomadic culture is the idea that you must constantly be on the move to cope with the grasslands' unstable nature. Such a strategy underlies a holistic view of the grass-livestock-human relationship. It makes use of the grassland in a flexible and extensive way. At the core of farming culture is the idea that you must stay in one place, it is a strategy for dealing with a single-product economy in a centralized and intensive manner. The two strategies are not compatible and their relative advantages and disadvantages form the body of the debate that goes on about the grasslands today.

Most people on the grasslands would say that their lives are better today than they were before. Although they may have complaints, their living standards have certainly improved. These higher living standards have arisen because of the emergence of this "sedentary" lifestyle, but this also causes, inadvertently, eco-degeneration. People are obviously happy about their higher living standards, but they are unhappy about the cost to the grasslands. Thus we have a situation where people are enjoying a better life but the grasslands are suffering as a result.

What led to this situation? Why did people decide to abandon the nomadic lifestyle and pursue a sedentary one instead? Here are some thoughts on this from some scientists that we interviewed.

Yu Mouchang (Professor, Postgraduate Studies Institute, Chinese Academy of Social Sciences Chair, China Environmental Ethics Society) :

Two of the main causes of grassland degeneration are the growing numbers of people coupled with human greed. Some modern technologies that have

been introduced have also contributed to exacerbating these environmental problems. Raising animals on arid grassland is not an easy thing to do and it is not realistic to demand high yields in this situation. And when tradition is replaced by modern solutions then the situation becomes even more difficult. Modernization should only be carried out if, at the same time, you can respect traditions and protect the environment. That's what sustainable development means.

The environmental issue is essentially a question of culture. The global environmental crisis can be seen as a cultural crisis, in some ways it is the manifestation of the negative or backward aspects of human nature. For us to enjoy a healthy culture in modern times we should also consider maintaining the good parts of our traditional culture.

Yang Bayar:

A society that only focuses on developing its economy but doesn't protect its culture is an immature one. When the "Household Contract Responsibility System" was adopted on the grassland it did not take into account traditional culture in the same way that agricultural reform ignored the nature of animal husbandry in the cropping region. That is why so many problems have appeared. It would be better, when drawing up policy, to also consider the indigenous culture. Cultures cannot simply replace each other. They should be merged instead. Therefore the problems on the grasslands cannot be understood properly just from an economic perspective. They also have to be understood from a cultural perspective. Take, for example, the Mongolian Horse. The nomads don't look at it as simply a tool. The horse is also their friend and a kind of spirit too.

Bo Jirgal (Inner Mongolia Autonomous Region Party School):

From a unilineal evolutionary perspective, the



nomadic lifestyle is regarded as “unenlightened” and “backward.” But this way of looking at life is unbalanced. It is crucially important to adopt another perspective. The vast steppe has evolved to be the way it is partly because of the nomadic lifestyle and this nomadic lifestyle evolved into a civilization because it stressed harmony between humans and nature. The nomadic lifestyle is both natural and sustainable. If we look at it this way, the nomadic lifestyle is not backward at all. It is a system which modern day science is promoting; one which is reliable and sustainable.

The two key points in the discussion above are: “The environmental issue is essentially a question of culture,” and “A society that only focuses on developing its economy but doesn’t protect its culture is an immature one.” To really understand the changes that are happening on the grasslands we must think about cultural changes too. During our journey many people told us that they felt that they would be left

Surgel’s idea of giving his animals different places to drink is a breakthrough. Perhaps we can use modern technology to improve the nomadic way of life and not simply to replace it.

The horse herders show such spirit and elation when they are handling their animals. This scene captures the bravery, wisdom and team spirit of the Mongolian people. These traditions from the grasslands are a celebration, a ritual and a gala. Photo : Jigha



behind if they didn’t change their traditional way of thinking. That’s how they explained why so many nomads fell into poverty. Many nomads also said this. Colmon, a ghacaa (administrative village, or collective period production brigade) head for over 30 years at Juun Ujumucin, said his ghacaa had very little grassland but a large number of livestock. The grasslands have deteriorated rapidly since the adoption of the “Household Contract Responsibility System” and about half of the families there have dropped back into poverty. He told us he was very worried and had tried many ways to help, but had not succeeded. Now he believes that the only way to solve the problem is to

Photo : Yu Yonggang



Photo : Eb

pull down the wire fences and go back to a system of collectivization. He kept repeating this to us and asked us to tell the authorities. But what is at the heart of this problem? We should look at cultural changes for the answer. If we look at the problem from our modern cultural perspective we might say that the nomads who have become poor are lazy or stupid or simply that they don't know how to do business. But from their traditional cultural perspective they are simply following their own customs. Different people will see the situation from completely different perspectives. However the grasslands are deteriorating and the nomads are getting poorer so should we still use a pure economic development model that stresses efficiency? If you look at the problem in relation to cultural and material criteria, you might be very shocked at what you see.

Oronci:

The other mistake that we have made is to replace traditional knowledge with modern technology. The nomads have accumulated much wisdom over hundreds of years through practical experience. A culture is built up gradually from observations and experiences. How can these traditional nomads communicate with the scientific world? Their way of thinking is so different from that promoted by the modern scientific community. Science is all about measuring responses to certain conditions whereas culture grows organically from people's experiences

and changes as the environment changes. Nomadic culture is alive and is constantly changing. It is an experiment that cannot be repeated under pre-determined conditions. Therefore it doesn't make sense for scientists to dictate to the nomads how and where and when to herd their animals. The scientists can help the nomads by giving them some guidelines but they cannot give them precise instructions. In real life, culture is vibrant and changes all the time. Modern science cannot replace traditional culture. Science just won't work for the nomads. Working under a so-called "scientific framework" actually takes you further from reality. The answer is to find a meeting point where science and the nomadic culture can engage. In other words, we must blend scientific knowledge and practical knowledge together.

Ma Guoqing (Professor Anthropology, Sun Yat-sen University; Secretary General, China Anthropology of Art Society):

The nomadic lifestyle is connected with local culture. I call it folk eco-knowledge whenever it concerns the local ecology. In their dealings with nature, the nomads rely on traditional knowledge. The concepts of rotational grazing and the use of seasonal pastures are practices that have developed over time. These practices cannot work unless the community

also adapts to them. What I am talking about is a blend of ecology and sociology. If people settle down in one place and try to breed improved livestock it won't work unless it is compatible with the local culture. If policies are enacted which go against this then it could endanger an entire local culture and this is hard to correct. It is like a severed food chain.

Motorcycles began to appear on the grasslands at about the same time as privatization was introduced. Just a few years ago people said that owning a motorbike or a car was a sign of affluence but now it is a very common sight. Many nomads ride them when they are herding livestock on the grasslands. In the old days, every nomad owned a herd of horses. These days many of them no longer have horses but every nomad has a motorbike. Despite this, we heard a lot of complaints about motorbikes on our trip. Many nomads say the motorbike is not as good as a horse because you can't ride it in heavy snow or across a ditch or marshland whereas a horse can negotiate all of these. The hoof prints of a horse work like a plough, making a bed for grass seeds and helping to retain

water. When horses run across the grassland they soften the earth, but when a motorbike is driven across it the ground turns hard. During lambing time, you cannot approach a sheep herd on a motorbike although it is fine to ride a horse. People also grumble about rising petrol prices. Many nomads say horses are much better because the only fuel they need is grass. Horses are economic and pollution-free. One old horse herder said a motorbike may be good for a long journey but it is not good for looking after a herd. But many nomads have sold off all their horses and only have motorbikes left. It is ironic that they have abandoned the best transport for the grasslands and replaced it with the worst.

The motorbike was never designed to herd animals on grassland so maybe it is unfair to be so harsh. And we can still recognize the value of adding modern technology to help the nomads, as long as cultural needs are taken into account. Many new techniques and equipment have been introduced over the past few years, including: the wire fence, controlled grazing, stall-feeding, breed improvement, high-yield dairy cattle, commercial livestock production,

After 20 years of the "Household Contract Responsibility System," people are beginning to go back to the collectivization years. There are plans to tear down the wire fences and put livestock under joint management.

Photo : He Ping



sprinkler systems and brick houses etc. The case of the motorcycle is an interesting one to examine because we can see the consequences of introducing modern technologies to the grassland. It is a lesson to us not to simply introduce new techniques and new equipment without taking into account any adverse influence they may have to the grasslands. We may be introducing these technologies to solve one problem, but we may create more problems by introducing them. It appears that modernizing is causing the grasslands a lot of trouble.

Ma Guoqing:

One reason for the problems on the grasslands is that changes have happened so fast. In fact, you can look at it as another “Great Leap Forward.” Since the adoption of “Reform and Opening” in 1978, people have been in too much of a hurry and policies have been passed too quickly. People are afraid if they don’t move fast enough they will be left behind. But culture is being abandoned in this haste. There should be diversity with development. There should be several options to consider carefully not just one. I think all of us should ensure that our cultural heritage is protected. But we have all been moving too fast and we haven’t had time to slow down and just think. Is that rational?

Yang Bayar:

We need to think about why improving material conditions have moved us away from nature. We need to look at how we define quality of life. Quality of life should be about our happiness not about the number of material possessions we own. Even though nomads do not have many possessions, they have a high degree of contentment. It is a matter of opinion whether you can describe their quality of life as being low or not. A healthy society should be able to tolerate many different lifestyles, allowing people to co-exist together and to develop in their own way. Just like the natural world has biodiversity, people’s lifestyles and farming styles should also be diverse. If the nomadic way of life was to vanish then it would affect many of us. For example, there would be less organic meat available. There is a lot of inconsistency in our lives – in politics and in the law and also in academic viewpoints. Various disciplines, such as sociology, economics, cultural studies and ecology all have their own focuses. In our daily lives, we often neglect one thing to achieve our goals, just like society has often stressed economic development at the expense of the environment. We must not allow the unpolluted grasslands to vanish. It would be a terrible loss that mankind would not be able to reverse.

The aim of development is to raise people’s living standards. However, sometimes development is achieved at great cost. We sometimes need to stop and think about this development and not just scamper blindly down the development path without considering what we are doing. We came across a ghacaa in Sunid Baruun Hoshuu whose grassland 20 years ago had been pristine and had fed all of the five traditional varieties of livestock. Today it had degenerated so much that all the camels and horses had gone. Recently too, cattle had also disappeared so that only sheep and goats still lived there. Not far away was a factory and the locals said they were worried that their sheep and goats would get sick from the pollution. This ghacaa is a good example of how development can come at great cost. Metaphorically speaking, it is a bit like someone transporting all their belongings on a bumpy road to a new and better home but once they arrive at the new house they realize that along the way they have dropped some of their most precious belongings. How can we avoid doing this? Our only choice is to slow the pace of development and make sure we know exactly where we are going and checking that our belongings are properly protected.

Many people are now asking whether it’s possible to reintroduce nomadic traditions. We have also thought

a lot about this question. Surgel’s water trough is a great idea but perhaps we could have a water wagon to replace the concrete trough. In that way it would be cheaper and easier to transport drinking water as the herd moves around. In the same way we could introduce mobile homes for the nomads – maybe a bit like the caravans that people use in the west for travelling. What we are trying to say is that we could use all our modern technological knowledge to update the nomadic tradition but still keep the “mobile” elements. We should support and promote the nomadic lifestyle instead of just simply getting rid of it. That might help improve both people’s lives and the quality of the grasslands.

Yang Bayar:

I wonder if we could look at the modernization of animal husbandry from a different perspective. Why do we have to make a choice between a modern lifestyle or a nomadic lifestyle? The nomadic tradition was a natural choice our forebears made to adapt to the geographic conditions over thousands of years. It is rational, scientific and in many ways conforms to the requirements of modernization that we are promoting now. A lot of things from the nomadic tradition are worth learning and studying even today. Why can’t we consider a modern form of the nomadic lifestyle? We have invented environmentally-friendly technologies such as solar panels to generate power so why can’t we do the same with the nomadic lifestyle? We can use modern science and blend it with traditions instead of just replacing one with the other. One of the reasons we haven’t is that we don’t properly understand the nomadic lifestyle or the special relationship between the environment and the nomadic way of herding. By rejecting the nomadic lifestyle outright we have also rejected scientific sustainable development.

Xing Qi:

I still believe nomads need to modernize their way of life. They want to live in better houses and enjoy modern comforts too. We should increase efforts to develop wind and solar energy on the grasslands and build up infrastructure such as animal drinking facilities and mobile enclosures. We could make better use of the grasslands if we introduced modern science and technology but also took into account natural conditions. To manage such a vulnerable ecosystem we need to keep core elements of the nomadic tradition and establish a model to balance the needs of the grasslands and the livestock. For example, we could change the grazing system to one which is migratory; encourage the storage of grass in good years; bring in grass from other regions in bad years; and encourage farmers to give their livestock more space and better feed by renting out their grassland to each other. How



Photo : Jigha

To merge the best of nomadic wisdom with scientific wisdom, to meld the modern with the traditional, requires the spirit of the Mongolian Horse to help us break through the “wire fences” in our minds.

Photo : He Ping



Photo : Ayin





Photo : Eb

much grazing is allowed should be adjusted according to actual conditions. We have the technology – such as grassland surveillance technology – to do this.

These scientists agree that modern science and technology have the capacity to support the nomadic lifestyle, and our only difficulty is changing the way we think. On our journey, we heard some nomads say that they wanted to get rid of the wire fence and return to the collectivization system. In fact, some nomads had already reverted back by themselves. The grasslands have already gone through two decades of change, so the answer might not be a simple introduction of technological help. We are talking about an institutional change here. But the ideas have come direct from the nomads themselves and this is worth noting.

Dalangtai (Research Fellow, Tsuuria Center for the Study of Ecology in Inner Mongolia's Pastoral Region, Inner Mongolia):

Before 1949, Inner Mongolia was under the rule of lords. During the collective period, from 1953 to 1986, productivity on the grassland was high and there was a fair number of livestock. More importantly, the era proved that efficiency could only be raised under collectivization. It would be very difficult to make a complete return to the nomadic way of life. Nonetheless, we can still consider mixing tradition with modernity. We are experimenting by mixing collective action, traditional lifestyles and modern models on the grasslands. It is difficult to redistribute the grasslands, but it is not impossible to put paddocks together and practice the old nomadic ways. By breaking up the boundaries set up under the “Household Contract Responsibility System” our project aims to help the nomads make joint use of the grasslands. Of course, joint management of individual household grassland allocations can be a complicated process.

Ma Guoqing:

The current preferential treatment towards the nomads is based on poverty alleviation. I wonder if we could change our way of thinking and make

these preferential policies aimed at protecting the environment instead. For instance, preferential policies could be given to those nomads practicing the nomadic lifestyle. The other people on the grasslands who aren't practicing the nomadic lifestyle could be encouraged to work outside of the nomadic areas so they wouldn't impinge on the nomads. The two parties could figure out a system so they complemented each other – eg. an eco-management system -- and this could be supported by the government in the form of subsidies.

On our way back to Beijing at the end of our Silin ghol tour, we drove through a farmland area. As more and more lush corn fields came into view, we were reminded of the corn fields with the drooping leaves watered by the sprinkler systems on the grasslands. It became clear then that farming practices should take advantage of regional conditions and in that way the problems of the grasslands could be solved. Of course, we know there are many obstacles to be overcome on the way. An “eco-management system” jointly established by nomads and non-nomads, as suggested by Ma Guoqing, is based on the idea that the two systems could complement each other. It is similar to a proposal from a few years ago which suggested Breeding Livestock in the North, and Rearing them in the South. In other words, breeding animals on the grasslands and transporting them south for fattening and slaughter. But so far these ideas have not become reality and that's probably because we have not yet changed our way of thinking. To do this requires a large scale institutional change.

It seems that it's about time that we wound up our discussion. But we can't stop thinking of the young horse herder in Abagha Hoshuu who would not relinquish his horses. He believed that the horses were key to breaking through the wire fences. Owning horses can help the nomads hold onto their traditional way of life, whereas cattle and sheep will sit passively by and wait for their doom. Are we like the horses, struggling against the wire fences? But our bonds are made from the orientation of our values.

Bo Jirgal:

It is a question of both culture and philosophy. The issues we are discussing: modernization and industrialization, are irrelevant without localization or regionalization. To modernize and industrialize we should also consider the nomads' indigenous knowledge, wisdom and intelligence. Indigenous knowledge is made up of a whole cultural system of values, norms, ways of thinking and aesthetics that have evolved as the nomads adapted to their particular living environment. When a culture settles in an area it is crucial for us to look at whether it suits the environment. Prevalent cultural and philosophical

perspectives regard tradition the same way as they regard modernization. Traditions should not just be preserved but they should be re-shaped and selected according to needs. In our discussions on the grasslands and the nomadic lifestyle, we have been unable to break free from the notion of unilineal evolution and have interpreted or misinterpreted nomadic civilization from the perspective of industrial or agricultural civilizations. As our pool of vocabulary and knowledge is built on the agronomic value framework, we are stuck in a labyrinth in which the debate tends to keep going back to the starting point. If we don't change the way we think then we can never solve the problem of the grasslands. It is a bit like someone yelling through a Japanese-made loudspeaker urging people not to buy Japanese products.

Yu Mouchang:

You not only find diversity in nature but you also find it within human culture. In Chinese philosophy, it is called “harmony with differences.” There are a lot of differences, discrepancies, and diversities living side by side in “harmony.” A community of symbiosis, coexistence and mutual prosperity. “Harmony” itself is made up different parts. Different environments are home to different species and these have created places where humans and nature live happily together. When we develop a livestock system, we have to respect biodiversity, cultural diversity, and the grasslands.

Protection of the environment is now a global concern. Our industrial civilization has reached a defining moment and what comes next will be a new era and we will all have to change our mindset. The developed world may not lead us into a new age of eco-civilization because they are too stuck on the old industrial development model. On the other hand, our traditional way of thinking, including the nomadic way of life on the grasslands, comes with the idea of living in peace with nature. What we need to do is find a new path. It could be another great contribution China could make to the world.

The fate of the Mongolian Horse has led us deeper and deeper into a discussion about development models and even to what is the fate of mankind. Saving the Mongolian Horse may turn out to be our own salvation. If we should fail and it becomes extinct, it would show us that we are not equipped to call ourselves a wise culture and perhaps we have no hope of creating a better human civilization. Faced with such a challenge, we need the spirit of the Mongolian Horse to free us from our ideological bonds.

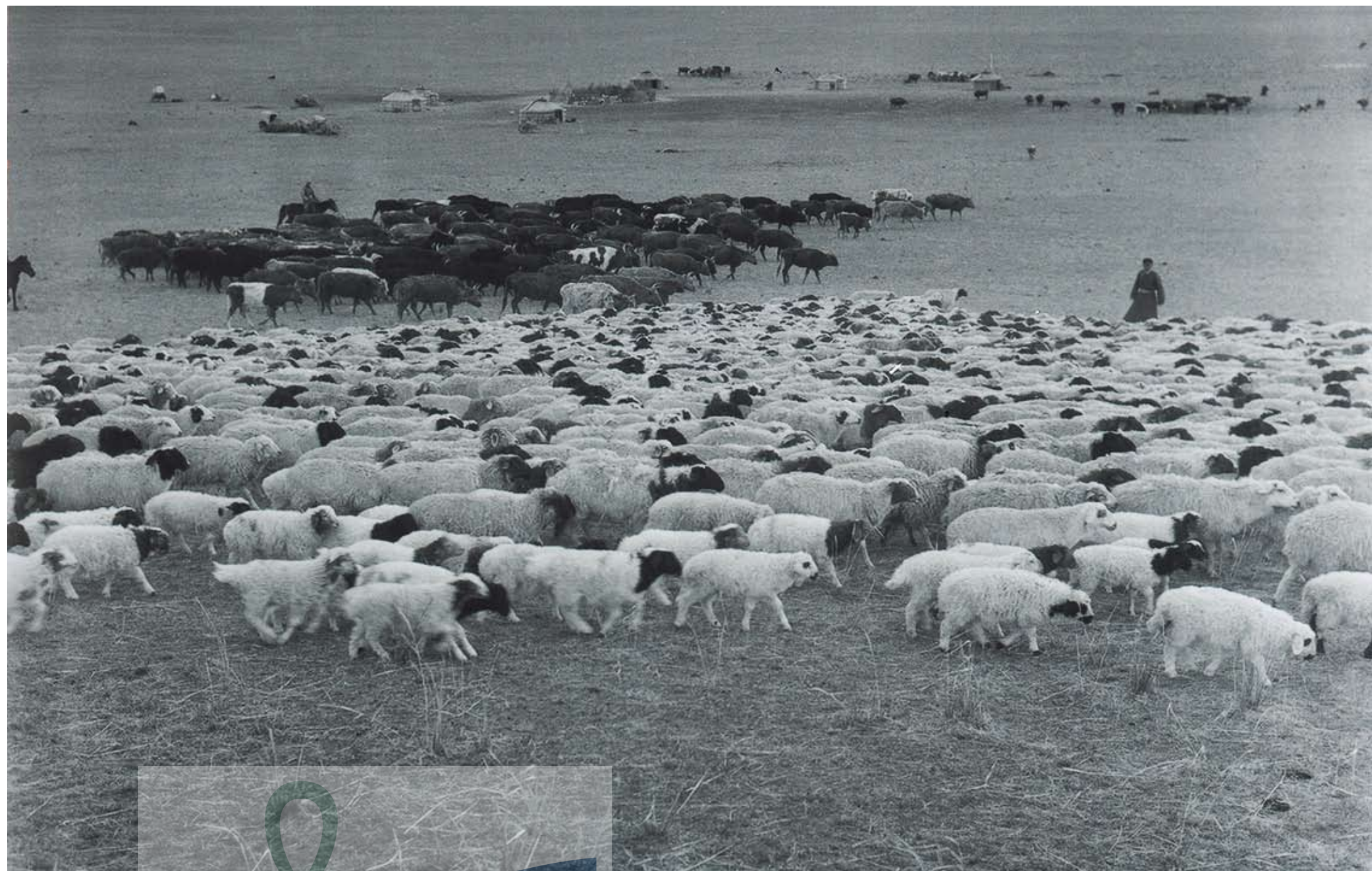


Photo : Eb



Photo Album: Those Old Nomadic Days



MAB
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This oil painting dates from 1986. The boy is called Chog and he is about 14 or 15 years old. This is about the time when livestock were starting to be distributed among individual households, just before the privatization of pasturelands. Now, 20 years later, the situation on the grasslands is very worrying. Desertification is largely caused by over-development and over-grazing. In the old days, the traditional nomadic way of life did no harm to the grasslands, now it has been replaced with privatized farms, the grassland is degenerating. Text and photo: Chen Jiquan (an artist specializing in oil painting and depicting grassland scenes. He lived in Juun Ujumucin, Silin ghol aimag (league), for 13 years from 1967)



A home on the grassland. Photo: Ayin

