THE CHANGTANG AND NOMADIC PASTORALISM

Despite its name of "Northern Plateau," the western section of the Changtang is not a vast level plain but a myriad of valleys and plains of varying sizes separated by twisting mountain ridges which transect the land. Located in central and north Tibet, the Changtang contains about 69% of Tibet's land mass, spanning a thousand miles from the Indian state of Ladakh in the west to the Chinese province of Qinghai in the east. This majestic plateau is home to millions of head of domestic livestock, and about 25% of the TAR's total population of nearly two million people.

Nomadic pastoralism as a way of life developed relatively late in human history, arising only about 9,000-10,000 years ago in Southwest Asia at roughly the same time as agriculture. The earliest nomadic pastoralists lived in Southwest Asia, herding mostly sheep and goats. Slightly later, there is evidence in South Asia of a sizable cattle-herding culture. Tibet's nomads represent one of the last great examples of the nomadic pastoral way of life once common in many regions of the world.

It is not known when nomadic pastoralism first emerged in Tibet, but it is doubtful that large-scale nomadic pastoralism was possible prior to the domestication of the wild yak (known as Bos mutus or drong in Tibetan). This magnificent beast, related to the ox and our own domestic cow, is enormous. Males are typically six feet high at the shoulders, and their horns are so large that they are hollowed and used as containers to hold home-brewed barley beer. Unfortunately, archaeological research in Tibet is in its infancy and little is known about the domestication of the yak or the origins of nomadic pastoralism there, but it is not unlikely that domestication of the wild yak took place on the Tibetan Changtang where it is still found in its greatest numbers.

Lightweight cloth traveling (or "satellite") tents are pitched at a transient campsite in summer vegetation.
Dwarved by the Changtang's bleak mountains, the nomads pursue their traditional way of life. Under China's new economic and cultural policies, the hated commune was ended in 1981 and all its livestock divided among the nomads, the household again becoming the basic unit of production and consumption.

(right) For 8 to 9 months of the year the livestock graze on dried vegetation left standing at the end of the growing season. The golden hues of the dried grass look beautiful, but this is actually the most dangerous time for the nomads. A sudden heavy snowstorm can cloak the grasses and sedges with a thick layer of snow that freezes and prevents the livestock from feeding. With no stores of fodder to substitute, a family's herd can be decimated in a matter of days. Fortunately, heavy storms are rare and the intense sun usually reappears the next day and melts the snow.
The nomads of Pala are the descendents of these early yak-herding nomads who, perhaps several thousand years ago, began to move their herds around the Changtang where they captured the energy locked in the wild grasses and converted it into food, clothing and shelter.

Nomadic pastoralism continues to flourish in Tibet because the nomads have no competitors, unlike the other well-known traditional nomadic areas in Southwest Asia (Iran, Turkey, Afghanistan, Pakistan) and Africa. There, farmers have encroached on nomadic pasturelands and, with the help of governments hostile to the nomadic way of life, driven the nomadic pastoralists into progressively more marginal lands, often forcing them to emigrate and take work in the non-pastoral economy. Here, however, the extreme high altitude and bitter climate of the Tibetan Changtang have effectively precluded agriculture as an economic alternative, even with today’s technology. Not only is the growing season too short for crops, but the weather is far too unpredictable. For example, every afternoon for two weeks in mid-August 1987, we experienced violent hail storms which would certainly have destroyed a ripening grain crop. If there were no nomads to utilize the high plateau in Tibet, it would revert to the wild fauna, not to other humans. Successive governments in Tibet have sought to control the Changtang’s nomads and their products, not displace them.

(above) Too long interdigitating lines of goats tied for milking. The orange dye indicates ownership. The nomads have a clear-cut division of labor. Women are mainly responsible for milking, butter making, and camp work, while the men do the traveling and trading.

(left) Precipitation in Pala is monsoonal. From late June to September moisture-laden winds blow across the Himalayas from India and provide the Changtang the water essential for plant growth. At Pala’s extremely high altitude, much of this falls in the form of snow, sleet, and hail.
Pala is located in the western Changtang, an area that is higher, drier and more severe climatically than the eastern portion. Sheep and goats, consequently, predominate in the west where grasses rarely get taller than a few inches, while yak are more abundant in the lusher eastern Changtang.

The western Changtang is one of the coldest and most inhospitable regions of the world, even though Pala, for example, is at the same latitude as New Orleans and Cairo. The reason for this is its altitude—the average altitude of the western Changtang being about 16,000 feet. Mean annual temperature drops roughly three degrees F for each 1,000 feet of altitude, so Pala's temperatures end up being like those of Alaska rather than New Orleans. The average temperature—the midpoint between the day's high and low—on the western Changtang is below 32 degrees F on more than 200 days in a year.

The Changtang, however, can be deceiving. Camped beside a glittering pristine lake with exotic waterfowl on a beautiful sunlit mid-summer day, the temperature in the sun can be 100 degrees F and the Changtang can seem an untouched paradise. But the reality of the Changtang is not the brief summer. Rather it is the bitter cold of fall which quickly dispels the warmth of August, dropping evening lows almost one degree Fahrenheit a night. By late September 1987, nighttime temperatures at the lowest (and warmest) of the Pala campsites (16,000 feet) were already in the low teens. And by late December, evening lows had dropped to minus 15-30 degrees F at this site, and were still decreasing. The effective temperature is even colder because of the wind chill factor—the western Changtang is exceptionally windy and sudden storm gusts can blow a rider off his horse or bury a traveler under drifts of freezing snow.

Diurnal variation (the difference between low and high temperatures in a single day), moreover, is huge. Noon temperatures of 35-40 degrees F frequently follow nighttime lows of -30 degrees F in the winter, and afternoon highs of 100 degrees F follow nighttime lows of 32 degrees F in the summer. From all points of view, the Changtang is one of the world's most extreme environments.

Roughly two-thirds of the landmass of the Tibet Autonomous Region is covered by the valleys, plains, and mountains of the Changtang.
SUNLIGHT ON THE CHANGTANG

One of the delights of life on the Changtang is the abundance of sunshine, particularly during winter when precipitation is rare. Tibet is one of the sunniest spots on the planet, receiving about 3,400 hours of sunlight per year, according to Chinese scientists. The western Changtang epitomizes this feature. In the dead of winter when temperatures regularly dip to −40°F at night, the sun moderates the daytime cold, warming the tent and all within it, and making the shepherds' daily trek less onerous. For us, too, the sun was a precious gift we eagerly anticipated. No matter how cold the evening low, and no matter how difficult it was to summon the willpower to exchange the warmth of our sleeping bags for a seat near the fire in our frigid tent, the prospect of blue skies and shining sun in a few hours always made the cold less burdensome.

The Changtang's sunshine also allowed us to use solar energy to generate electricity for our equipment. We used an advanced "cardboard" solar panel. This turned out to be indestructible, despite repeated trampling by the nomad's livestock, which frequently showed up while the panels were staked out around our tent (see photo, p. 190).

The uplifting and warming sunshine of the high Tibetan plateau, however, also may have a down side. Tibet has one of the highest prevalences of cataracts in the world, and many think this is caused by the intense ultraviolet radiation found at high altitudes.

(below) External poles and guy lines give the black tents a spider-like appearance. These tents are sewn locally from long strips of woven yak-hair cloth about 15 inches wide. Each tent consists of two separate mirror-image halves that are connected at the top by two short lengths of rope and toggles that loop over a wooden cross pole supported by front and back wood pillars inside the tent. A long open space along the top allows smoke to disperse and can be closed with a flap when it snows.
(above) Following a fierce late-afternoon summer hail storm, a Changtang rainbow arches over a nomad camp.

(left) At 16,700 feet, the strong sun quickly melts the snow on the plains.
To Westerners, the life of the nomads seems exceptionally difficult. No matter how cold the weather, no matter if it is snowing, hailing or raining, the nomads must milk and herd their animals. Our image of the arduousness of life in Pala is epitomized by the vivid memory of several nomad women bent over at the waist milking their animals as a blowing snow squall deposited a cold white layer on their backs. But to the nomads, the unpredictability and ferocity of nature is a given. They accept hardship and discomfort as a matter of fact, a part of the natural way of things. Thus, on that day, as on every other day, the women simply kept on milking. While readily acknowledging the harsh climate and the bone-chilling cold, they do not share our perception of their way of life, and both men and women feel their way of life is far easier than that of farmers. A nomad neighbor named Phuntsog who was a father of four and owner of a large herd explained it this way:

*Look, it is obvious that we have a very easy lifestyle. The grass grows by itself, the animals reproduce by themselves, they give milk and meat without our doing anything, so how can you say our way of life is hard? We don’t have to dig up the earth to sow seeds nor do any of the other difficult and unpleasant tasks that the farmers do. And we have much leisure time. You can see for yourself that in the summer scores of farmers come here to work for us, but do we go to work for them? As I have told you several times, the farmers’ lifestyle is difficult, not ours.*

Phuntsog’s views reflect the deep conviction with which the nomads adhere to their customs and cherish their way of life. Although looked down upon by farmers and townsfolk in Tibet as simple, uncouth, and backward, and although they have little in the way of material possessions, the nomads are proud of their ability to live on the Changtang and wrest from it a way of life that they view as leisurely. These tough, quiet people have an air of dignity and contentment that is difficult for outsiders (even other Tibetans) to reconcile with their arduous life and relative poverty of possessions. The nomads see themselves as masters of the environment; but this is a mastery fundamentally different from that which we know in the West, or even that understood by farmers in Tibet. One middle-aged friend eloquently expressed the strange combination of awe, respect and confidence that the nomads hold for the Changtang:

*We build no canals to irrigate pastures here, nor do we fence and sow our pastures with grass seeds to enhance yields. They tried to make us do this during the Cultural Revolution, but that is not our way of doing things. The Changtang is a ferocious place—we, you will see for yourself. One minute the air is calm and the sun is shining, the next it is hail ing. It is not possible to try to control and alter the Changtang. We do not try—instead we use our knowledge to adjust to it.*

The nomads twist huge hanks of wool into long skeins which are easier to store and transport.

At wool cutting, one or two nomads work inside a corral preparing the animals for shearing by tying their feet together. The trussed sheep are left at the feet of the shearsers who pull the new ones toward them as they finish, generally throwing a leg over the sheep’s neck to hold it still.
The nomads' mastery, therefore, consists of developing strategies to accommodate to the vagaries of the environment—not to alter or transform it. Though they feel they are completely vulnerable to the climate and environment, they are also confident that their traditional way of life allows them to survive the worst of nature's catastrophes.

Another facet of their self-image emerged on a quiet mid-August afternoon when we joined a group of six men and youths who were seated in front of a corral shearing their sheep. As we weighed the wool, we inquired about wool prices and, by extrapolation, the nomads' subsistence economy. Pemba, an old and wizened nomad, suddenly offered an interesting answer to our queries about how he and his fellow drokpa see their way of life. "You see," he said, pointing to the pile of wool at his side, "we live off the products of our animals. Every year our sheep provide wool, skins, meat, milk and butter which we use for food and clothes as well as for bartering with villagers to obtain barley, tea and so forth. And then every year virtually every adult female sheep gives us a new lamb. The same is true of our goats. So long as we can guide our animals to where there is grass, they take care of all our needs. They are our true provider and our measure of wealth—if they flourish, so do we."

This self-effacing understatement of their own role is one of the salient features of the nomads' world view. They typically describe their role passively, as simply letting the livestock follow their instincts, but we found that their subsistence economy is actually sophisticated, and that they are continuously monitoring conditions and responding to whatever impediments nature places in their way. These nomadic pastoralists, in fact, had a remarkable animal management system that balanced livestock and pastures, allowing them to inhabit the Changtang for centuries without destroying their resource base.

At the heart of that traditional system was their political position during the period before the Dalai Lama's 1959 flight into exile in India and China's assumption of direct administrative control over Tibet.
HISTORICAL BACKGROUND

The history of Chinese-Tibetan relations is complex, each country’s position differing depending on what period over the past 1,200 years is under discussion. Matters are further complicated because these relations were never governed by formal treaties or agreements that spelled out the rights and obligations of each side. Not surprisingly, when the status of Tibet became a major international issue after the fall of the Manchu (Ch’ing) Dynasty in China in 1911, both sides expressed diametrically opposite views of the past. Whereas the new leaders of Republican and Nationalist China insisted that Tibet was an integral part of China, the Tibetans argued that their relationship with China had been that of “priest” and “patron,” the Manchu Emperors of China being lay patrons of the Dalai Lamas and Tibet, and that Tibet had always operated under its own rulers, officials, language and laws. This is not the forum to explore the merits of these claims and counterclaims, and it will suffice to say that while Tibet was loosely subordinate to China for several hundred years prior to 1911, between then and 1951, it functioned as a de facto independent political entity, although it never received de jure international recognition of an independent legal status separate from China.

The Nationalist Government of Chiang Kai-shek never agreed to this de facto independent status for Tibet, and throughout the 1911-51 period sought to assert various forms of Chinese control over it. But China was weak and did not succeed until the Chinese communists of Mao Zedung came to power in October 1949. A brief invasion of Eastern Tibet in October 1950 encircled and captured a large Tibetan defending force of about 10,000, together with one of Tibet’s four Cabinet Ministers who was serving there as Governor-General. With Tibet’s best force destroyed and the road to Lhasa virtually open, the new People’s Republic of China quickly succeeded in compelling a reluctant Tibetan government to accept a “17 Point Agreement for the Peaceful Liberation of Tibet.” This Agreement left the old politico-economic system (including the Dalai Lama) intact in exchange for Tibet’s formal acknowledgement of Chinese sovereignty over Tibet. The terms of this arrangement continued more or less in effect until 1959 when the Dalai Lama feared that the autonomy guaranteed in the 17 Point Agreement could not be maintained and fled into exile in India together with about 100,000 of his followers. From then on, China assumed complete and direct control. The traditional society had come to an end in Tibet.
This scene could have been described by a 19th-century explorer, so unchanged is the nomads’ basic technology.
NOMADS, LORDS AND ESTATES IN THE TRADITIONAL SOCIETY

We spent numerous hours sipping butter-tea in smoky tents talking to elderly nomads about the "old society" as they now refer to the traditional period before 1959. Trinley, the 63-year-old nomad mentioned earlier, was one of our best sources for this topic.

In the old society, we nomads of Pala were part of a large political entity (estate/feud) called Lagyab lhojang that consisted of 10 contiguous nomad groups belonging to (His Holiness) the Panchen Lama. The Panchen Lama owned all the pasture areas here and appointed officials from among us (the nomads) to oversee conflicts and collect taxes. He was our lord, although he never came here himself. I have never seen him... but we were under his rule.

The Panchen Lama was one of Tibet's greatest incarnations or incarnate lamas, second in stature only to the Dalai Lama himself. Tibetans, as Buddhists, adhere to the view that all sentient beings are part of a process of repeated reincarnation that spans eons and eons, but they go further than other Buddhists in believing that it is possible to identify the specific person who is the reincarnation of a great spiritual leader. They maintain that after the death of an incumbent incarnation, his "essence" selects a fetus to emanate or reincarnate into, this child being the new incarnate lama. The incumbent's followers search for this individual, guided by signs, portents, prophecies, as well as by tests that certify authenticity.

Once a spiritual leader is designated as an incarnation, his incarnation line continues over time—the current Dalai Lama, for example, is the 14th in his line of incarnations, and the Panchen Lama who died in 1989 was 10th in his. The property of incarnate lamas is passed down from incumbent to incumbent and accumulates over the centuries, the most famous incarnations becoming extremely wealthy and powerful. The Panchen Lama headed a huge fiefdom that had its own monk and aristocratic officials and controlled numerous farming and nomad estates (like Lagyab lhojang), whole districts, and thousands of subjects.

Yaks are used to transport all sorts of belongings, including infants too heavy to carry but too young to walk long distances. The cocoon-like bundle on the right yak is a young child.
The nomads of Pala, therefore, were the subjects of a religious lord, the Panchen Lama, to whom they paid taxes and provided corvee labor services. Their lord appointed the top officials in the area who, in turn, were responsible for maintaining law and order. Disputes that could not be settled on the local level were taken to the lord and his higher officials and, in theory, could ultimately be brought to the central government (headed by the Dalai Lama) if the lord could not satisfactorily adjudicate them.

The nomad families in Lagyab lhojang owned their herds, managing and disposing of them as they wished. But they were not free to leave the estate and move with their livestock to the estate of another lord, even if that lord welcomed them. They were hereditarily bound to Pala (Lagyab lhojang) and to their lord. If a situation arose where a family felt compelled to take its livestock and flee to a new lord (for example, due to a dispute with the lord’s officials), the receiving lord would normally have to negotiate a payment to the original lord to compensate for the loss.

The feudal-like “estate” system present in Lagyab lhojang paralleled that found in Tibet’s agricultural areas, both existing to ensure that religious and aristocratic elites (and the government itself) had a secure labor force to exploit the land they controlled. In essence, all land ultimately belonged to the central government in Lhasa, but over the centuries, segments of it had been granted to aristocratic families, great incarnate lamas, and monasteries for their upkeep and support. Since land alone, be it agricultural farm land or pastoral grassland, was not a means of support without the presence of laborers to work it, the Tibetan system made things easy for lords by attaching laborers to these land grants, in essence granting the lord an estate or fief much like the manorial estates of medieval Europe, Tzarist Russia, and feudal Japan.

Being “bound” to the estate of a lord, however, did not mean that one could never leave one’s village or encampment. So long as the obligations to one’s lord were fulfilled, and families could hire others to accomplish this, members of the household were free to go where they liked, including visits, trading trips, or pilgrimages. Lords were interested in maintaining the flow of goods from their estates, not in micro-managing the daily lives of their subjects.

To be a subject (“serf”), moreover, did not imply poverty. Many of the Panchen Lama’s subjects in Lagyab lhojang were wealthy, some owning very large herds of several thousand sheep and goats and many hundred yaks. Given this, it is not surprising to find that traditional nomad society contained important class distinctions. A stratum of poor nomads, for example, worked as full-time servants and hired laborers for wealthy nomads, even though both were subjects of the Panchen Lama.
The subjects of lords had rights as well as obligations, and so long as they fulfilled their obligations to the Panchen Lama, he could neither evict them nor refuse them access to his pastures. And although this was clearly no democracy, and could be oppressive when a lord and his officials were greedy, corrupt, and arrogant, generally the system was lax and the lord did not intrude into the nomads’ daily lives.

Beneath the lord, the key institution in *Lagyab ihojang* was the family. Members of a family shared a tent, cooked and ate together, and jointly managed their herd, decisions being made by the family head. Sharing and cooperation within the family contrasted with a norm of fierce independence between families. The ideal for nomad families was to be self-contained units, and they preferred to hire individuals from the class of poor and indigent nomads rather than negotiating with neighbors to share tasks such as herding.

Authority in the family was (and is) generally exercised by parents. Respect for parents is strong, and Tibetan ideals hold that one should show gratitude to one’s parents and obey their wishes; parents also normally control their family’s activities—for example, where to pasture on a given day, which livestock to sell or slaughter, and even when and whom to marry. The story of Drolma’s cancelled marriage is a poignant illustration:

When we returned to Pala in April 1988 after a few months stay in Lhasa, one of the first people we visited was our friend Norsam, a widower whose household included his 31-year-old daughter Drolma and two sons, one 20 and one 10 years old. As we caught up on events since our departure, we learned the sad news that Drolma’s betrothal to a nomad from another group had been broken. While Drolma alternated between pumping the bellows, refilling our tea cups, and tossing handfuls of sheep- and goat-dung pellets on the fire, her father explained.

About a year before, a 35-year-old nomad from another district asked Norsam for permission to marry Drolma. She approved of the man, and her father, after considerable thought, also agreed to the marriage—but only on certain conditions.
Parents in Pala generally still arrange the marriages of their children, particularly their daughters. Normally, all daughters and all but one son leave their parents' household at marriage, so that the ideal family consists of parents, unmarried children, and one married son with his spouse and children. If parents have no son, they try to secure an "adoptive groom" for their daughter, that is to say, to find a male who will marry their daughter and join their household, adopting their name. However, there are no rigid rules regarding who marries out, and parents sometimes decide to keep a daughter in their household even when they have sons. In reality, they evaluate which of their children will take the best care of them as they grow old, and decide on that basis, rather than by following an unvarying "custom." In this case, Norsam decided to keep his daughter with him, and stipulated that the prospective groom had to move into his household and become his live-in adoptive groom.

When we asked Norsam why he insisted on this when he still had two other unmarried sons living with him, he replied:

She is the best of my children —the one most likely to look after me well when I am no longer able to work... She obeys me; she never argues with me. She has real deep love for me... My (20-year-old) son Shibum does not respect me well, and (10-year-old) Rinchen is too small for me to know how he will turn out.

The prospective groom, however, had other ideas. He was employed as a messenger at the Tsatsey district headquarters three days’ ride south of Pala, and was looking for someone to live with him there. Accepting Norsam’s terms would have meant living alone in Tsatsey most of the time and visiting Drolma occasionally while she remained with her father. He, therefore, countered with a proposal that Norsam shift to a base camp just
The first braid on either side of the face is strung with pieces of turquoise, coral, agate, and beads. Nomad women have 50 to 100 braids.

a day’s horseback ride from Tsatsey where visiting would be easier. Norsam ultimately rejected this since he felt the change in the mix of grasses in the new area would harm his herd—and the groom responded by finding another bride.

Drolma abided by Norsam’s decision, although she really wanted to marry the man. Had she defied her father and simply gone to marry him, no one would have stopped her, but her respect for her father was too strong. She could not bring herself to disregard his wishes—so she put his feelings ahead of her own. Although we felt sorry for Drolma, we found Norsam’s assessment of the personalities of his offspring very astute and had to agree that in terms of his own welfare, Drolma seemed his best bet.

Parents, however, are not always able to enforce their will. Two years earlier, Norsam had given another son (three years older than Drolma) permission to marry if he brought the prospective bride to live in his household. A feisty single mother, she refused, informing Norsam’s son that she would only marry him if he came to live in her camp, i.e., with her parents. The son, torn between the two, finally disregarded his father’s wishes and went to live with the bride’s family. The father and son hardly speak to one another anymore.
THE NOMAD ECONOMY AND THE CYCLE OF ANNUAL MIGRATION

The nomads' economy is, on one level, simple. Households raise sheep, goats, and yak under a "natural" system of pastoral production. Their livestock are not fed any specially sown fodder plants or grains, and survive exclusively by grazing on range forage.

This complete reliance on the natural vegetation, however, creates difficulties because the Changtang's high altitude permits only a single, short, growing season. In mid-September, the Changtang's grasses and sedges stop growing and lie dormant. Foliage at this time dries and turns color, cloaking the plains and mountains with a beautiful yellow-rust hue. This beauty, however, heralds the most dangerous phase of the annual cycle for the nomads' herds. New vegetation does not reappear until the following late April or early May, and even then is initially so meager that it does not play a large role in the animals' subsistence for another month.\(^6\)

The consequence of this for their movement pattern is striking. Because there are no areas where the grass grows in winter, Pala nomads have no reason to migrate far in one year. Unlike nomads in Southwest Asia who typically move hundreds of miles in winter to lower regions where fresh grass is growing, Tibet's nomadic pastoralists cannot escape the harsh upland winter climate because all adjacent areas in Tibet have roughly the same single growing season. Their annual movement is only 10-40 miles. Indeed, they try to minimize travel, contending that it weakens livestock and increases mortality. As one nomad noted, why drive one's livestock on a long and tiring trek only to arrive at pastures no different from those available nearby?

Yak provide transport for heavy goods such as tents and are also relatively inexpensive riding animals.
Changtang livestock must forage for eight to nine months on dead plants left standing at the end of the growing season. The limiting factor is the amount of vegetation left at the end of summer, which must be sufficient to sustain livestock until the next year’s growth begins. Dorje, a thoughtful old nomad, explained their perspective on this: “The animals can survive in summer (and fall),” he said, “even if the rainfall is poor, but unless there is enough grazing then for them to build up stores of fat, many will not survive the harsh winter eating the poor fodder.”

To accomplish this, the Pala nomads move between two encampments—a main home-base three-season encampment used in winter, spring and summer, and a fall encampment. In late August or early to mid-September they make their major migration, leaving their home base for pasture areas usually one- to two-days’ walk away which have been left ungrazed all season. The nomads reside at these fall encampments (which are re-occupied year after year) until late December when the forage is just about exhausted. Then they return with their sheep and goats to the original home-base encampment and use the remaining vegetation until the next growing season.

This seasonal migration pattern accomplishes just what Dorje said had to be done. It fosters the growth of the fat reserves the livestock need by providing abundant forage in the form of hay for the critical three months immediately preceding the onset of winter. In a sense, it extends the period of the good grazing season by three to four months. At the same time, the fall migration guarantees that a last cover of standing vegetation will be preserved at the home base for use during winter and spring.
This basic two-part migration system is only one aspect of the nomads' livestock management strategy. They also split their herds to take advantage of the different capacities and accommodate the different needs of their livestock. For example, only the sheep and goats leave the fall site and return to home base in December. The dri move to a series of different winter locations situated higher up in the mountains. There they establish satellite, or secondary, encampments called kabrang, staffed by family members or hired hands. The yak finally return to the home base five months later in May.

The reason for this became clear one April morning when we visited a young nomad friend camped with his yak at 17,500 feet, a full 1,500 feet higher than his main home-base campsite.

My camp is higher now because yak prefer bang (a type of sedge in the Kobresia family) which is most abundant along high slopes like these. Yak, unlike sheep and goats, are able to bite off grass and to lick/pull it up with their tongues. Thus, in winter they have no trouble consuming the low-lying bang (which is normally only one to one and a half inches high). And although it is much colder up here, the yaks are impervious to cold. Thus my parents stay at the home-base campsite with the sheep and goats, while I spend the winter here with the yak in our kabrang (satellite camp).

The nomads also sometimes set aside a special pasture (or a section of the three-season location) for "birthing," and move pregnant sheep and goats there in spring when the lambs and kids are due.

Day-to-day assessment of local conditions also affects their movement. For example, in late spring 1988, vegetation became scarce around one home-base encampment and the three families moved their sheep and goats to a satellite camp one-and-a-half hours away. This saved the animals the energy expended on the daily three-hour roundtrip to the pasture, although it meant a daily two-hour roundtrip to the other side of the plain to fetch cooking and drinking water for the nomads themselves. This kind of micro-management based on local conditions works the other way as well. In the fall of 1987, one poor household headed by an elderly male skipped the arduous fall migration because the households at his home-base encampment agreed there was enough vegetation to sustain the additional grazing entailed by his remaining there. This practical empiricism characterizes the nomads' system of livestock management.

Finally, during the summer growing season, the nomads are careful to rotate livestock to different parts of the pasture area so that the vegetation regenerates (much like our lawns) for a number of days before another bout of grazing. Contrary to their unassuming comments that everything happens "naturally," the Pala nomads continuously observe and adjust to environmental conditions.
Another distinctive feature of the Pala nomads' way of life is the high value placed on remaining at their home-base encampment. This even has a special term: shi-ma. Although all the livestock move to the new pasture at the time of the fall migration, not all the nomads accompany the herds. Instead, a number prefer to remain at the home base.

The home-base encampment is located near one or more good sources of water and abundant vegetation for grazing, and is normally occupied for eight to nine months during winter-spring-summer. Households often shift their tents a few hundred yards once or twice during their stay at the home base to accommodate to the prevailing winds, but never more than a few hundred yards. There is no special order to the two to nine tents in an encampment; sometimes we found them side by side in a line, the guylines of one literally overlapping the next; in other instances they were more dispersed. We always found it interesting that living in this great empty wilderness where one can travel for entire days without ever seeing another soul or tent, the nomads preferred to pitch their tents literally overlapping each other. Even in the more dispersed camps, just several hundred yards typically separated the tents. Generally, each tent houses an entire family, but sometimes an elderly parent or a married child who is still part of the family will live next to the parents in his or her own tent, either eating at the main tent or having food brought from the main tent. Sometimes such individuals will join the main tent only for the main evening meal, making tea and tsamha themselves earlier in the day.

Since each nomad family expects to live in the same site year after year, the home-base site invariably contains a number of "improvements." For example, each household has a three- to four-foot-deep rectangular pit over which it pitches its tent in winter, and substantial stone or sod walls (windbreaks) surround these tent sites. These offer some protection from the relentless winds and bitter cold. The home base is also where wealthy households traditionally constructed small sod or mud-brick storehouses in which they kept their "possessions": carcasses, skins, and equipment such as ropes, saddles, and saddle bags. Nowadays some wealthy households construct small one-room or one-room-plus-storeroom dwellings, these being considered more comfortable in winter than tents.

Nomads hire villagers in the summer to do many tasks they find unpleasant: constructing corrals, prayer-walls, houses, and storerooms, and tanning sheep and goat skins. Here villagers who traveled 20 to 30 days are building a stone house and storeroom for a nomad who has prospered under the new economic policy. These houses are seen as functional equivalents of tents and do not change their self-image.
When the nomads move their herds to a new site in fall, the actual move is amazingly simple. After the animals are milked in the morning, the herders immediately start off with the livestock for the new site. At the same time, other household members take down the tent, loading it on to mele yaks that have been brought down from the mountains where they graze unsupervised until needed for transport. The various bags of grain, pots, churns, and so forth are tied onto a wooden yak saddle, a load being fastened by rope on each side, and one on top. A male yak can carry 100-200 pounds, so generally six to eight yak are plenty for a family. The entire operation from the start of taking the tent down to final departure takes one-and-a-half hours at most.
When a family's herds move to a pasture beyond the daily range of the home base, the family must also move with its tent (and belongings if they do not have a storeroom). However, the household head and his wife (or their elderly parents) often remain with the main yak-hair tent at the home base while their older children or hired shepherds take the livestock to the new pastures where a satellite camp is set up using either a smaller yak-hair tent or, more likely, a lightweight cloth “traveling” tent. Many households do not have enough members to simultaneously operate tents in two encampments, but the richer families generally maintain continual residence at the home base, hiring laborers to make up such deficits. They see it as the place with the most “conveniences.” The short distances between home base and satellite campsites make this easily manageable since it is almost always possible to reach a satellite camp within one day on horseback. A single family, therefore, may have several separate camps and herds at one time—for example, in spring a yak satellite camp high in the mountains, a pregnant sheep-goat satellite camp on a specially set-aside “birthing” area, and a home-base camp.

This desire to remain at the home base does not conflict with or contradict these people's identity as drokba. Although we call them nomads or nomadic pastoralists, their own self-image focuses primarily on being complete pastoralists (i.e., practicing no farming) rather than on moving their herds (nomadism) or even living in tents. If they had houses at each of their pasture sites, or if they never had to move between encampments, they would not consider that in any way incompatible with their identity as drokba. We suspect that if they knew English they would have no objection to being classified as “ranchers,” as the following incident illustrates.

In the winter of 1987 we were camped in a nomad traveling-style tent in a camp with both houses and tents. One friend, like many others, expressed concern for our well-being in this harsh and, for us, alien environment, and actually offered to move into his tent and lend us his much-prized new house, explaining that houses were warmer and reduced the incessant noise of the wind. When we refused, saying that we wanted to experience winter in a tent in the traditional nomad fashion, his face showed bewilderment and for days afterwards when he stopped by to visit, he reiterated how difficult it must be for us, and how much warmer and quieter it would be in his house. The other nomads in the encampment agreed completely with him and also advised us to move into his tiny one-room house. We finally realized that they did not share our image of drokba as “pastoralists living in tents.” For them, pastoralism, not tent dwelling, was the key. Living in a house instead of a tent was a matter of comfort, not basic identity. The richest nomad during the traditional period had a house, and a number of the wealthy nomads had had storerooms, so having a house was actually perceived by them as a status symbol.
Rambunctious yak often buck off their loads. They are also prone to flick their horns, which these men are careful to hold while adjusting a loose load.

We should add that, like most of what the nomads told us about the environment, our friend's advice on houses was accurate. On some evenings, the roar of the wind was so loud in our tent that we were unable to hear the Voice of America shortwave broadcasts even with the radio held inches from our ears.

Notwithstanding their affinity for their home base and their view of a house at the home base as one of the ultimate luxury items, the nomads do move in order to subsist, always living in tents at the satellite camps and usually living in tents at the home base.