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LIFE AND ECONOMIC PATTERNS OF NOMADS ON THE EASTERN TIBET PLATEAU: 'BROG PA AND SA MA 'BROG IN 'DZAM THANG

by

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Numerous examples world-wide demonstrate the displacement of a nomadic way of life for economic and political reasons, in which mobile herders are forced to adopt sedentary lifestyles, with their pastures reduced in favour of arable farmland. Does such a displacement also apply to the nomadic way of life on the Tibetan plateau?

This paper gives an account of the present situation of nomads in eastern Tibet, and then briefly considers future directions of nomadism as suggested by a consideration of one local region in which the research was conducted. I begin with a description of the ecological environment that considers the possibilities of land-use in the area. This is followed by a comparison of the life and economic patterns of two different forms of nomadism. I conclude with a discussion of the chances of survival of nomadism on the Tibetan plateau.

The field investigation was carried out between the years 1990 and 1992 in co-operation with the Academia Sinica in Chengdu. The research area is located in the eastern part of the Tibetan plateau, in 'Dzam Thang 'county' (Chin. xian) which is located east of Serthar and west of Aba counties and is part of the Aba (rNga Ba) Autonomous Tibetan Prefecture (see Map 4). It is a remote region that has been largely ignored from the scientific standpoint. Tibetans made up 80 per cent of the total population of nearly 29,000 inhabitants in 1985 (Ao Chepu 1988: 928 et seq); approximately 75 per cent of Tibetans have a mobile life style.

'Dzam Thang forms a transitional region in many aspects. Two physical environmental surface structures which dominate the eastern part of the Tibetan plateau meet here: the north-eastern part of 'Dzam Thang is characterised by glacial, undulating plateaus (Thang) and the south-western part by deeply dissected and abundantly forested areas (Rong). The rDo sGang, the water shed between the northward flowing Dzi Chu and the rDo Chu which drains to the south-east, forms the boundary between the two surface structures.

The mountain zone between 2,650 and 3,600 metres is characterised by forests and fields. The upper boundary line for cultivation is approximately 3,600 metres. In the climatically favoured southern 'Dzam Thang, the areas under cultivation lie in the valley broadenings of the rDo Chu and on the mountain slopes. In addition to barley and peas, which are the main crops of 'Dzam Thang, wheat, corn and hulled crops are also cultivated. In the northern part of the rDo Chu valley and in the valley of Dzi Chu the fields are located on loess terraces. The lower part of the ravine slopes are covered with deciduous forests and the upper parts with conifers. The tree line is 3,900 metres and on the southern exposed slopes about 100 metres lower. Wood export comprises the largest part of the county's commercial trade. Mushrooms and some of the medicinal herbs are collected and sold as cash crops by the inhabitants, also grow in this zone.

Above this is an intermediate zone with shrub vegetation that merges into the alpine zone that extends up to 4,500 metres. Some 60 per cent of the entire area of 'Dzam Thang consists of grassland, 85 per cent of which is used as pasture. Alpine meadows which make up 87 per cent
Plate 3.1 – Eastern Tibet, 'Dzam Thang: traditional box-type black tent.
Angela Manderscheid, 9th September 1992

Plate 3.2 – Eastern Tibet, 'Dzam Thang: isolated Brog pa winter house, 3,650 metres.
Angela Manderscheid, 29th October 1992
of the pastures are most relevant for animal husbandry. In terms of volume these are followed by subalpine shrub meadows (10 per cent), mountain open forest grasslands (1 per cent) and swamp meadows (1.5 per cent), according to oral information given by the local government in 1991.

Scholz 1994: 72 defines animal breeders as nomads according to these features:
- if they practice mainly or solely animal husbandry as their means of subsistence,
- if they are forced to change their location according to the availability of pasture,
- if their material culture corresponds to this life style.

In addition to raising livestock, farming and trading also may be practised, but animal husbandry has to be the main determinant of settlement pattern and mobility. Local variations in nomadism reflect an optimal use of the natural environment, and in 'Dzam Thang the different forms of nomadism cover the entire spectrum from completely mobile groups of pure pastoralists, drokpa ('Brog Pa) through to some mobile groups who practice arable agriculture as well as pastoralism (Sa Ma 'Brog) to the very few sedentary groups. These groups differ in life style, mobility and economic pattern.

The data presented here allows a comparison of the life and economic patterns of 'Brog Pa and Sa Ma 'Brog households in northern 'Dzam Thang. The illustrations (Fig 1 and Fig 2) show seasonal production altitude levels, and the mobility of individual family members, indicating:
- how long the individual family members remain on one altitude level,
- what type of housing they use there,
- which persons move between the levels, including how often and for what reason.

Fig 1 is illustrative of pure pastoral groups that rely exclusively on animal husbandry. In 'Dzam Thang a pure pastoral household with five members owns 100–200 domestic animals consisting almost exclusively of yaks and dris ('bri female yak). Neither yak and dri hybrids (usually a cross between a dri and a cattle-bull) nor sheep and goats are herded by pure pastoralists in 'Dzam Thang. In summer a dri produces 1–1.5 litres of milk daily, not taking into account the quantity which her calves consume. In winter the amount is reduced to 0.2–0.3 litres per day (Cal Li 1986: 64, Plate 15). The main part of this milk production is processed into butter, half of which is consumed by the family. The rest is either sold immediately or stored to be sold when the need for cash arises, for example to buy a thorough-bred horse or to pay hospital bills. The economic production of the nomads is mainly for their own subsistence. However, in order to purchase essential grains and other goods, they must also produce goods for trading. Their main cash income comes from selling livestock and medicinal herbs.

The pure pastoral family occupies four production altitude levels during the course of the year. They stay for five and a half months on the winter pasture ranges, 15–20 days in the intermediate camp and six months in the summer pasture area. The seasonal migration always takes place in family units or with the ‘settlement community’ (Yul)¹ along with the entire herd.

Once a month from the winter settlement the head of the family or tent-holder moves to the rural township centre to have barley ground (see Fig 1, [1]), to go shopping in private or state-owned stores (Fig 1, [2]), to visit the monastery, friends and relatives and to buy new grain with grain vouchers (Chin. liang piao) at the state grain-office (also [2]). Since 1993 these grain vouchers have been abolished in 'Dzam Thang but during the period of the research they were still being used by the nomads for acquiring grain.

¹ Yul, literally ‘country, region, location, place’ – here settlement community.
Fig. 1: Production altitude levels and mobility of 'Brog Pa households (2. Dui of 'Dzam Thang Xiang)

A 'Rural township' centre 'Dzam Thang (3550 m)
1 grain milling 2 shopping

C Winter settlement Sangri (3700 m) WW winter pasture (3700–3800 m)
3 Avena sowing 4 hay harvest 5 winter house repair

D Intermediate camp (3800 m) ZW intermediate pasture (3800–3900 m)

E Summer camp (4000 m) SW summer pasture (4000–4500 m)

Source: Author's investigations, 1991/92
Fig. 2: Production altitude levels and mobility of Sa Ma 'Brog

A 'Rural township' centre Ka Thog (3340 m)
2 shopping
B Village administrative area Shug Nang (3450 m)
1 grain milling 6 ploughing/grain sowing 7 grain harvest 8 threshing 9 house repair
C Winter settlement Sa Mar (3750 m) WW winter pasture (3750-3900 m)
3 Avena sowing 4 hay harvest 5 winter house repair
D Intermediate camp (3800 m) ZW intermediate pasture (3800-4000 m)
E Summer camp (3900 m) SW summer pasture (3900-4300 m)

Sources: Author's investigations, 1991/92
The traditional abode of pure pastoral families in summer as well as in winter was the tent (Plate 3.1). Following political instructions first given during the Cultural Revolution, which came down through the prefecture level, winter houses are being built (Plate 3.2). As the wind in winter blows primarily from the north, the house is built in the shelter of a south-exposed slope; at the end of winter the herd is kept in the protected enclosure in front of the house.

At the beginning of April the pure pastoral household moves with the herd from this winter house at an altitude of 3,700 metres to an intermediate camp 100 metres higher and 15 km away. The dates for this seasonal migration are fixed by the local administration, apparently at prefecture level. In the beginning of May the head of the family and his wife ride from the intermediate camp to the winter settlement in order to sow *Avena sativa* around the winter house (Fig 1, [3]). This oat species is suitable for winter-fodder and must be planted following a government (prefecture or higher) directive intended to prevent the starvation of animals in the winter.

From this intermediate camp they move 25 km to a summer tented-camp, which is at an altitude of 4,000 metres. The form of the main tents of Tibet is the black-tent, which also serves as the mobile housing for the nomads in Pakistan, Afghanistan, Arabia, Egypt and as far away as Mauritania. The eastern type of tent shown here (Plate 3.1) differs from the central Tibetan type by its box-form, and the outer poles on which the tent is hung.

The head of the family (tent-holder) travels from the summer pasture down to the rural township centre only after the grain harvesting in September (Fig 1). The greater relative distance of 40 km, and the increase in the animal husbandry tasks, discourage monthly visits to the rural township centre during the summer. Milk must be processed, the yaks have to be sheared, greater pasturing distances must be covered, and medicinal herbs have to be gathered.

At the end of September the tent-holder and his wife visit their winter abode for five days in order to harvest hay and *Avena* (Fig 1, [4]). During their stay they also begin to insulate the house for winter.

Unlike *Sa Ma 'Brog* and despite the lower temperatures these pure pastoralists (*'Brog Pa*) remain on the high altitude pastures in October. The use of remote regions and the extended stay in summer pastures form a good fodder base for their large herds.

Fig 2 illustrates the settlement, mobility and economic patterns of *Sa Ma 'Brog* households from Shug Nang ‘village administrative area/village area centre’, (Chin.) *cun*.

During their stay on the uppermost altitude level, the life and economic patterns of the pure pastoralist and *Sa Ma 'Brog* are similar to one another. However, the production altitudes of the pure pastoralists are generally higher than those of *Sa Ma 'Brog* and also at a greater distance from the minor rural centre and rural township centres. The winter settlement of the households from Shug Nang village area (Chin. *cun*) centre, at an altitude of 3,750 metres, is called *Sa dMar* (literally ‘red earth’). While the simple winter houses of the pure pastoralists *Chus* centres in Dzi Chu valley usually stand rather isolated, the *Sa Ma 'Brog* live in comfortable winter houses that form a village-like settlement in *Sa dMar* grouped around a central monastery (Plate 3.3). Next to the houses one can see the plots of land growing *Avena*.

The *Sa Ma 'Brog* have one production altitude level more than the pure pastoralists, the so-called *cun* level. On this level all families have fields and most families have large houses

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2 In *Dzam Thang* each ‘rural township’ (Chin. *xiang*) is divided into around ten village administrative areas (*cun*); formerly *Dzam Thang* was divided into only three *chus* (Chin. *qu*). Hence here *chus* or Chin. *qu* cannot be equated with *cun*.
Plate 3.3 – Eastern Tibet, 'Dzem Thang: Sa Ma Brog winter settlement at Sa dMar, 3,650 metres. 

Plate 3.4 – Eastern Tibet, 'Dzam Thang: Chus centres in Dzi Chu valley, 3,450 metres. 
(Plate 3.4). These serve as the base for the family during the ten-day harvesting period in September (Fig 2, [7]). In addition, the house is used by the family head when he comes once a month to have the barley ground at the central mill in the cun centre (Fig 2, [1]). In April, the tent-holder and his wife live in the house for five days while ploughing and sowing the grain (Fig 2, [6]). In autumn the nomad’s wife stays again for threshing (Fig 2, [8]). In the economic process the house serves as a granary and as a storeroom for the agricultural tools.

In Shug Nang a family owns on average 0.08 hectare (1.2 mu) of arable land with a barley yield of 1.5–2.5 tonnes/ha (200–300 jin/mu). The fields can be cultivated with barley every two years. In the intermediate year they either plant green peas or let the fields lie fallow, depending on how important the field cultivation is to each particular nomadic household. The per capita yield per person is between 12–18 kg (24–36 jin) a year. In addition, in recent times each person could purchase 150 kg (300 jin) of grain per year with a grain voucher, but they must purchase any additional grain they require direct from the free market.

The richly-furnished houses of the ‘village administrative area’ centres normally are occupied only at the occasions mentioned above while planting and harvesting, but in some cases older family members reside at the houses all year round. In most of the areas examined in the field, houses in cultivated areas were empty almost all year round, and the winter-house formed the central point of their life. Only in the southern part of Dzam Thang, with its more favourable climatic conditions, are some semi-sedentary groups able to produce enough grain to meet their entire requirements for consumption. Here, the core-family lives year-round in the house near the fields which makes such intensive farming possible. This practice, combined with sometimes large herds that are looked after by two family members in the high altitude pastures, allows them to be completely self-supporting in their food-production.

Some differences in the mobility, life and economic patterns between the two mobile groups can be summarized as follows:

The Sa Ma ‘Brog generally own a smaller number of livestock than the pure pastoralists. In Shug Nang ‘village administrative area’, for example, a Sa Ma ‘Brog family owns approximately 60 livestock, 12 per cent of which are small livestock. Despite smaller animal numbers, the entire work load of the Sa Ma ‘Brog is higher, especially for the women who are responsible for the complete milk-processing as well as the ‘earth-bound’ jobs such as harvesting. The work load reaches its peak in autumn when the lactation of the dri is at its highest point and the harvest must also be brought in. Here, the Sa Ma ‘Brog’s diverse economic activities require a greater degree of mobility between the different altitude levels. At the same time, the longer period of stay in the winter settlement, their comfortable winter houses, and their houses near the fields indicate a more sedentary lifestyle compared to that of the pure pastoralists.

The movement of the herds of both nomadic groups takes place only on the upper three levels. The pure animal breeders use the pasture areas situated far away from the cultivated lands, and their production levels are located at higher altitudes. Thus, as a result of complementary land-use at various altitudes, the different groups do not have to compete with one another for land.

We can conclude with some comments on the possible future directions for nomadism in Tibet. Before 1980 Chinese agrarian policy was aimed largely at providing a sufficient supply of basic commodities, and in particular grain, for the population through the voucher/ration-card system. Since then there have been attempts to reform the agrarian sector to create a market-oriented production system. Previously, there was hardly any need for the nomad’s products in the Chinese market, but in recent times an increasing demand for milk products and beef can be observed throughout China. The consumption of milk and milk products, neglected until a few
years ago, is now a rising trend, especially in the cities (Länderbericht Volksrepublik China 1993: 67).

In 1989, 24 per cent of the entire Chinese cattle population grazed on the high altitude pastures of the four provinces of Gansu, Qinghai, Sichuan and the Tibetan Autonomous Region, where animal husbandry is predominantly carried out by the nomadic Tibetan pastoralists. The cattle from these four provinces produced 17 per cent of the entire Chinese milk production and 18 per cent of the total beef consumed (China Statistical Yearbook 1991: 362, 364).

Increased production is necessary in order to keep up with the rising demand in these provinces and this is being achieved through intensified animal husbandry. The measures undertaken include the introduction of improved cattle breeds, the supply of winter fodder, regimented seasonal use of fenced pastures to increase primary production, and investment in secondary processing to promote access to national markets for the products of the nomads. For example, the construction of a meat factory was agreed upon in 'Dzam Thang in 1992, and production began in 1994. Here, yak meat is frozen and preserved in cans. However, the marketing of animal products, such as making them suitable for the consumer and the transportation to the markets, still poses problems. For example, for several weeks during the year the road connecting the Chinese plains and 'Dzam Thang is often impassable for large trucks due to landslides or flooding.

At the time of this field investigation between 1990 and 1992 most of the nomads in 'Dzam Thang were rather sceptical about the new measures. It was against their Buddhist principles to kill more animals than necessary for their subsistence; they also feared that they would be required to sell a proportion of their herd according to a state quota system. At the same time, the nomads also had a desire for cash, a point already suggested by their intensive gathering of mushrooms and medicinal plants as cash crops. How well these marketing opportunities have been accepted by nomads can be seen in Hongyuan, where a milk powder factory was established in 1980. There, the nomads deliver more than the required quota of milk to the factory.

There is an increasing demand for animal products, and an insight by the national agricultural authorities that there is no better use for the high altitude pastures of Tibet than for animal breeding. It follows that mobile herding in Tibet may well not be completely supplanted, as has been the case in other regions of the world. However, over a longer period of time, development could lead to nomads becoming animal breeders, oriented towards a market production system. As a result, the traditional life and economic patterns which still constitute Tibetan nomadism today, could still eventually disappear.

REFERENCES CITED


Cai Li (1986), Si chuan mao niu (The Sichuan Yak). Chengdu, China (in Chinese).


Hongyuan was also the site for a proposed UN-financed animal breeding research farm.