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Christopher B. Tarnowski
University of Georgia, Department of Anthropology

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Transforming Herds and Herders: Modeling the Evolution of Himalayan Pastoralism

Christopher B. Tarnowski
Department of Anthropology
University of Georgia

Introduction: Himalayan Subsistence Types

Adaptation to the constraints (and potentialities) of high-elevation, mountainous environments has been a popular theme of anthropologists, as well as geographers and other writers (Metz 1989). Orlove and Guillet (1985) discuss three generalized 'mountain subsistence types': *alpwirtschaft*; 'verticality'; and the 'montane production strategy.' All three fit loosely into an 'adaptationist perspective'; that is, each claims "that patterns of economic activity and social organization can be understood as responses to environmental constraints" (Orlove and Guillet 1985:7). Orlove and Guillet (1985:7) reveal, however, that like other such adaptationist arguments, and despite their immediate intuitive appeal, "they fail in adequately explaining the precise nature of the goals of adaptation, the specific mechanisms of the process of adaptation, and the selection among alternative means to the goals of adaptation."

Himalayan researchers in particular have struggled in their attempts to examine subsistence systems in ecological terms, in part, because of a too heavy and uncritical reliance on the notion of 'adaptation.' Despite the drawbacks listed above, many Himalayanists continue to adhere to the rigid (physical) environmental determinism inherent in these 'subsistence types' in their piecemeal attempts to describe such Himalayan subsistence systems as transhumant pastoralism. For instance, it is often said that the transhumant pastoral system is 'adapted to the lack of resources found at high elevations.' Other researchers have suffered from their tendency to focus almost exclusively on the supposed problems of deforestation, soil erosion, and the general deterioration of the mountain environment as described by Eckholm (1976) and Sterling (1976). Many envision change in the region as inevitably following a "rapid, irreversible, and destructive" trend (Orlove 1987: 98), labelled the "Himalayan crisis" (Ives and Messerli 1989), following (or even resulting from) the (uncritically assumed) universal progression towards permanent agriculture, increasing sedentarism, and the intensification of subsistence production. Similarly, this pattern is believed to result in attitudes about ecological change leading to cultural loss and (social, political, and non-human) environmental degradation.

This paper will address two major shortcomings of

much of the research conducted on transhumant pastoralism and ecological change in the Himalayas. First, there has been no attempt to construct an *ecosystem* model depicting a transhumant pastoral subsistence system, and second, despite substantial attention devoted to examining change (in the social, cultural, political, and/or physical environments), there has been a conspicuous lack of synthesis and holistic analysis. The aim of this paper is to present a holistic model of a transhumant pastoral subsistence system as it has changed during the present century. The following discussion and models are based primarily, though not exclusively, on the Thakali, a transhumant pastoral people inhabiting north-central Nepal and one of the few ethnic groups in the Himalayas whose changing circumstances have been given much analytical attention.¹

The Thakali² in the Early 20th Century: Trans-Himalayan Pastoral-Traders

The Thakali are an agro-pastoral and trading people who reside in the upper Kali Gandaki River valley of north-central Nepal, and have long been renowned as "traders and merchants of great economic and political acumen" (Messerschmidt 1982: 266). Thak Khola, the region of the Kali Gandaki in which the Thakali live, is a relatively isolated mountainous river valley wedged between the towering peaks of the Dhaulagiri and Annapurna Himalayan massif which rise to over 8,000 meters. It falls within the Nepalese administrative district of Mustang in Dhaulagiri Zone, and stretches approximately 55 kilometers (c. 35 miles) in length while the inhabited areas range in elevation from 2,500 meters to 4,000 meters (Messerschmidt 1982: 268).

In common with the rest of the Nepalese Himalayas, the Thak Khola region has a summer monsoon season which usually lasts from July until September and accounts for more than 90% of the total rainfall in the area (Messerschmidt and Gurung 1974). This seasonal fluctuation, with its contrasting wet, hot summers and cold, dry winters, together with climate and altitude/aspect, has played an important role in structuring the decisions to move livestock, when and where to cultivate, and the types of crops grown. The 'Seasonal Cycle' diagram (Figure 1) and the 'Herding Movement and Agricultural Activities' diagram (Figure 2) both illustrate the timing of pastoral and agricultural activities during the early

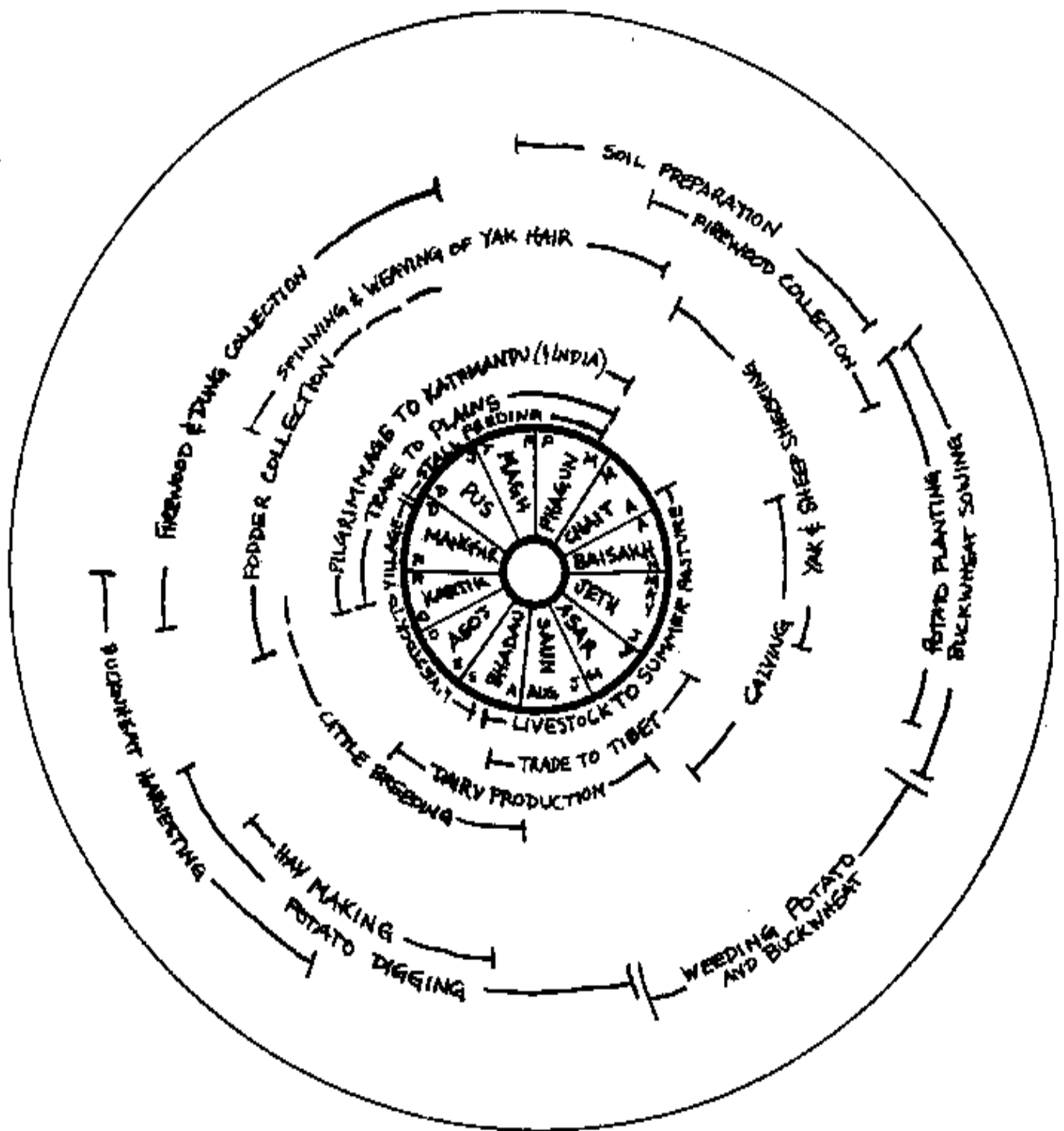


FIGURE 1: EARLY 20TH CENTURY SEASONAL CYCLE

This diagram depicts the main pastoral, trading and agricultural activities of the Thakali transhumant pastoral subsistence system. The activities located closer to the center of the diagram are considered to be of more 'central' importance to the subsistence system.

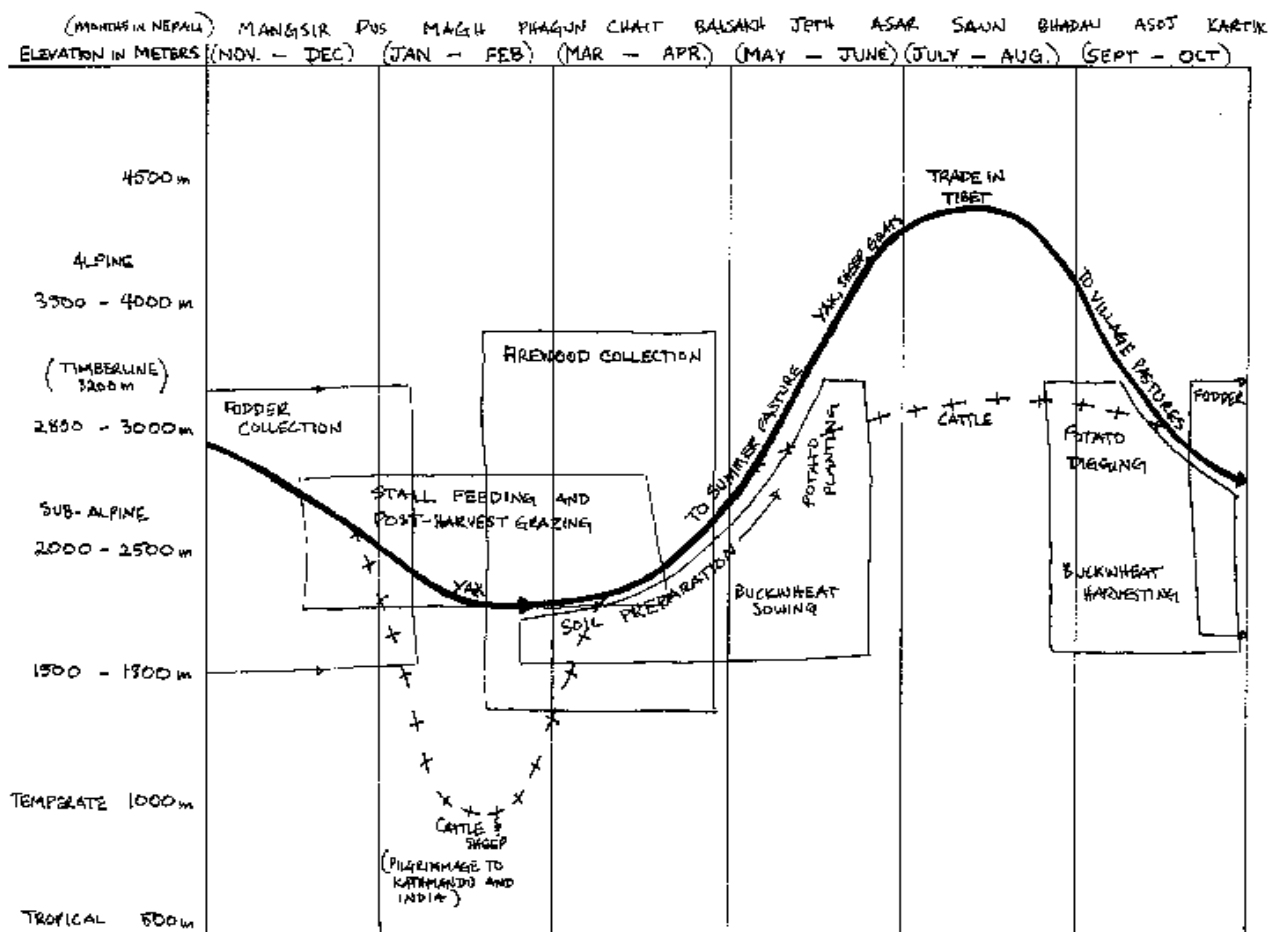


FIGURE 2: EARLY 20TH CENTURY HERDING MOVEMENTS AND AGRICULTURAL ACTIVITIES ACCORDING TO ELEVATION AND TIME OF YEAR (MOLNAR 1981)

Thakali 'Pastoral-Trade Phase' (Table 1). In Figure 1, the movement of livestock (i.e., herds consisting of yak, cattle, sheep and goats), which has been identified as the 'hub driving the subsistence system' and of *central* importance to the Thakali subsistence system, would begin in mid-April (in the Nepali month of *Chait*) following the preparation and plowing of agricultural fields. Between April and September, livestock (mostly the yak, sheep and goats) would be moved to high altitude (3,500 - 4,000 meters), communally-owned pastures north over high passes (some of which exceed 4,500 meters) to the Tibetan plateau. Cattle (portrayed by the

+++++ line in Figure 2) would typically only be taken to an elevation of 3,000 meters, whereas the more adept and physiologically adapted yak, sheep, and goats could be taken to higher elevations and used as pack animals. While the livestock moved to higher elevations (as in Figure 2), buckwheat, garden vegetables, and potatoes would be planted on fields at elevations below the grazing herds.³

While the herds grazed, the Thakali men would live in high pasture camps, called *goths*, and would engage in trade with local Tibetans. The 'Thakali Pastoral-Trade Sub-system'

¹ The following presentation and modeling of 'the Thakali way of life' is heavily indebted to, and based on, a rather selective reading of a number of writings on the Thakali. At best, my 'construction' of the Thakali may be thought of as an 'idealized' version derived from a synthesis of a number of relatively different Thakali communities.

² "Thakali" is a generic term for the Tibeto-Burman speaking residents of the Pauchgaun ("Five Villages") sub-region situated between the trading town of Tukche and the contemporary district headquarters town of Jomsom.

³ Buckwheat was the primary staple crop, although barley, wheat, maize, and millet were (and remain) important crops grown by the Thakali. Important garden vegetables include legumes, squash, soyabean, radish, spinach, and *pinalu*.

⁴ Yak were seldom brought below 3,000 meters and were never used in trade with plains peoples to the south because of the susceptibility of the Yak to bovine diseases present in cattle populations at low-elevations (Bjorness 1980).

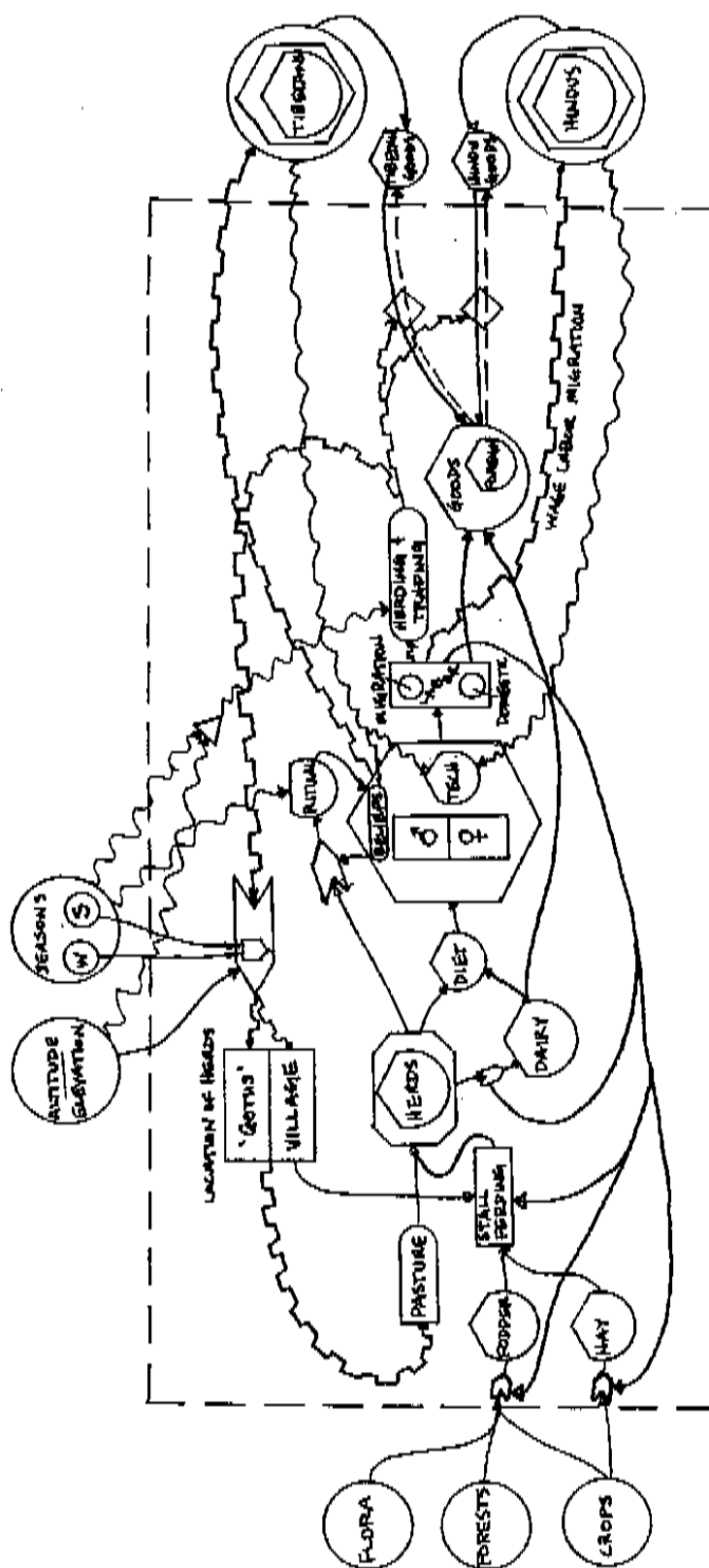


FIGURE 3: EARLY 20TH CENTURY HERDING-TRADE-BASED SUBSYSTEM (PASTORAL PHASE)

(Figure 3) and the 'Thakali Subsistence System' (Figures 4) depict the flow of goods and movement of Thakali men (illustrated on the far right hand side of both models) as they brought commodities from the low-elevation, Hindu region in the south to trade for Tibetan commodities (a proportion of which would be used in trade for Hindu commodities when some livestock were moved south to lower elevations during the winter months). In exchange for rice and other grains, oil, tea, chilis, spices, Nepali paper, cotton cloth, and a miscellany of metal utensils the Thakali would receive from their Tibetan trading partners salt, pelts, wool, sheep, goats, yaks, horses, mules, and some dairy products (Iijima 1963: 47).

The migration of livestock back over the passes south to lower-elevations and the village settlements would commence in late August or early September (Figures 1 and 2). As Figure 2 shows, by timing the movement in this way, the pastoral cycle is closely coordinated with agricultural activities to ensure that the potato and buckwheat fields would be harvested (beginning in mid-August) before the livestock move through the area. By the time the herds reach the village, where most of the livestock would remain throughout the winter (November to March, as in Figures 1 and 2), all of the crops would have been harvested (by women who account for a significantly large proportion of the domestic/local labor). While in the village, livestock would graze on the remaining crop residues and hay following the harvest from mid-October until late November at which time they would be stall-fed from fodder (i.e., leaf-litter, wild grasses) collected from nearby forests. The collection of fodder is typically done by women and adolescent boys and girls between November and February.

The second half of the trade system (as depicted in Figures 3 and 4), made possible by the migration of cattle and sheep to the plains (areas inhabited by Hindu populations), would begin in November and may last until mid-March.⁴ At this time, some of the Tibetan (and local Thakali) commodities would be traded for locally available goods (e.g., rice, spices, some manufactured goods). This migration to the plains also provided the opportunity to make pilgrimages to important Buddhist religious sites in Kathmandu, Lumbini (Buddha's birthplace), and India during the main festival season (October - November). Many other important religious rituals and cultural activities carried out locally occur throughout the year, although the most important, *Dasain*, occurs during the last week of September through to the end of the first week in October.

Other important activities during the year (as depicted in Figure 1) include dairy production, cattle breeding and calving, wool processing, and firewood collection. The breeding of cattle begins in late August so that the birth of calves occurs just prior to, and during, the monsoon when pastures and fodder are most abundant. This ensures an adequate food supply for the cow and calf. Similarly, dairy production is greatest from July to late September after the

calves have been weaned. Firewood collection (and forest management activities) occurs primarily between November and February (and again in March and April if necessary) during the least active time of the year; i.e., when labor demands for agricultural activities are at a low and most of the population is residing in the main village.

In addition to the above discussion pertaining to the main pastoral, trade, and agricultural activities and their timing (as represented in Figures 1, 2, and 3, as well as a portion of Figure 4), there remains to be discussed a number of important features necessary to understanding the entire 'Thakali Subsistence System' as depicted in Figure 4. In addition to a reliance on trade items from Tibet and India, the Thakali have long found themselves in contact with, and influenced by, two great religious traditions, Buddhism and Hinduism. This is depicted by the information flows to and from the Tibetan and Hindu sources located outside the permeable boundaries of the system. As a Tibeto-Burman speaking people, the Thakali identify themselves historically and religiously much more closely with Tibetans, while the Hindu influence, religious or otherwise, is much weaker (Furer-Haimendorf 1967: 167).

In part, because of the physical geography (i.e., the numerous high mountains and deep river gorges), travel east and west has been (and continues to be) difficult. As a result, both the influence and expansion of the government administration, even into the later half of the 20th century, has been weak and slow. During the early part of the 1900s, the government's influence was primarily confined to the in-flow of information with only a negligible out-flow of taxes in the form of goods and labor.

Important productive components in the non-human environment in Figure 4, other than pasture and agricultural fields, are 'trees,' 'flora,' and 'fauna.' As stated above, trees, or more precisely, naturally regenerating 'forests,' have been an important source of fodder for livestock and firewood for cooking. The use of open fires for cooking, a traditional Nepali practice, has a negative impact on the health of the Thakali (and nearly all Nepali populations who use such cooking methods). Similarly, forests are an important source not only for additional wild foods, such as fruits, nuts, berries, mushrooms, herbs, and a variety of medicinal products, but also provide most of the implements and construction materials for homes. While most of the trees in the region are the result of natural regeneration, some fruit trees have also been planted, with some of the extra produce being used in trade, particularly with Tibet.

Most of the non-domesticated flora, other than woody plants of the 'forest,' consist of wild grasses, weeds, flowers, and other plants without specific uses. With regard to non-domesticated fauna, a small percentage are game animals may sometimes be hunted for food. More commonly, they either compete with livestock for grazing resources or are predators or pests.

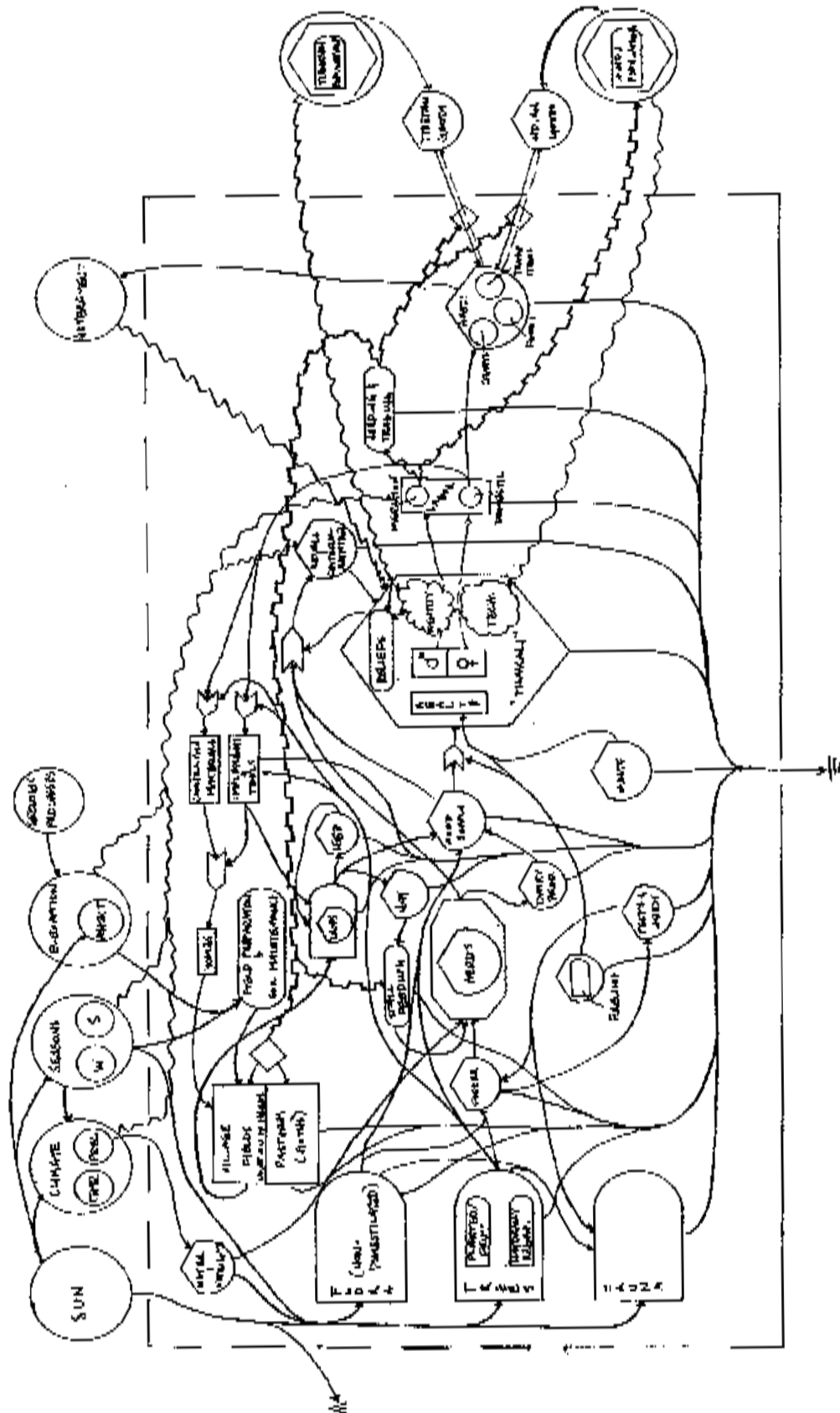


FIGURE 4: EARLY 20TH CENTURY 'THAKALI SUBSISTENCE SYSTEM'

The Transformation of the Thakali Subsistence System

Prior to the 1950s, Nepal's borders were open to trans-Himalayan traders such as the Thakali, but entirely closed to foreigners from the west. The political events of the 1950s, however, were of tremendous influence in effectively reversing this earlier situation, and in the process led to a profound set of inter-related transformations in the Thakali subsistence system. Table 1 lists some of the main characteristics of the Thakali pastoral-trading subsistence system prior to the 1950s, during the early 'Transitional Phase' of the 1950s and early 1960s, and the outcome as represented by the 'Contemporary Phase' depicted in Figures 5, 6, and 7.

The main political events under consideration began with the invasion of Tibet by the Chinese which eventually led to the closing of the Nepal-Tibetan (Chinese) border in 1959. As a result, the trading scene changed greatly in scope, kind, and direction. In essence there was a major decline (in fact, a near disappearance of) the entire trading-pastoral system as formerly practiced by the Thakali. However, offsetting this shock to the system was the nearly simultaneous opening of Nepal's borders to westerners. This resulted in an influx not only of a number of foreign travellers with their hopes set on climbing Nepal's many 8,000+ meter peaks, but also of development assistance principally from the United States, India, and the USSR.

Figure 5 depicts the results of the transition from herding and trade to a tourist-based system. As the traditional trading pattern linking Tibet and India was cut-off, the Thakali were effectively forced to rely more on field-agriculture and less on trade and the migration of their herds to high-elevation pastures. While livestock maintained some of their importance (particularly, for dairy and woollen products, and as plow animals), the composition and size of the herds did change dramatically; now there are relatively more sheep and goats than yaks and cattle, and the total number of animals is in some cases as little as 10% of what it was at the beginning of the century (Iijima 1963: 48). This is also represented in the 'Contemporary Seasonal Cycle' (Figure 6), as field agriculture has become more *central* to the Thakali subsistence system than pastoral activities. Highly significant, is the primary role played by tourist activities as they became a substitute for transhumant pastoral activities. It is particularly interesting that despite the near disappearance of herding, a primarily male activity, and its replacement with tourist activities, a relatively large percentage of Thakali women also are engaged in local tourist related activities. Here again, seasonality plays an important role as the main tourist seasons are in the fall (mid-September to late November) and spring (March to June) and therefore do not conflict with the period of greatest demand for agricultural labor, the burden of which is shouldered by women. Indeed, many Thakali women have taken the opportunity to set up temporary taverns serving beer, liquor, and food to travelers, and are said to run these inns "entirely on their

own" - a situation that has been facilitated by the Buddhist belief system and the relative equality between the men and women in Thakali society (Furer-Haimendorf 1978: 354). The Thakali have been so successful in the tourist industry, that many Thakali have taken second homes in Kathmandu and Pokhara (Furer-Haimendorf 1978: 353). Another new feature is the increasing reliance on cash acquired from tourists in exchange for trekking services (needed for the increased demand for foreign-made goods, for local and tourist use).

Another major, new influence (as illustrated in Figure 7) has been the influx of foreign aid, used to fund numerous development projects and support an expanding government administration. In fact, it has only been since the 1960s that the Government of Nepal began pursuing a policy of national development and economic unification. Some of the most important results of this development assistance was that it led to the construction of roads, the provision of electricity to many regions, and an increase in the number of schools. The impact of this greater access to a modern education has been said to have "produced a generation of Thakalis whose 'traditional' cognitive orientation is being replaced by a scientific atheism" (Messerschmidt 1982: 265). A potentially more serious outcome of increased educational opportunities is that, in some instances, it has led to greater social contact with Hindus, employment in the government administration, and a greater orientation towards Hindu religious beliefs and behaviors (Iijima 1963: 48-49). This process of Hinduization, or 'sanskritization' (see Srinivas 1956), can be attributed to the relatively recent (during the 1960s and 1970s) and considerable (even irrevocable) changes in social forms, religious orientations, and material culture in a concerted effort to conform (and 'adapt') to the changing socio-economic, political, and ecological circumstances around them (Iijima 1963; Furer-Haimendorff 1974, 1978; Messerschmidt 1982: 266).

The resulting pattern of change experienced by the Thakali is in some cases similar to, and in others, different from, the changes experienced by a number of other prominent transhumant pastoral trading groups. Similar to the Thakali, the Sherpa of the Khumbu (Mount Everest) region have been extremely successful in taking advantage of the huge number of tourists making their way to Everest Base Camp and other popular scenic mountain locations (Furer-Haimendorf 1978, 1984). They too, merely substituted their former trading and pastoral activities for an increasing dedication to field agriculture and trekking (Fisher 1990: 56; Furer-Haimendorf 1974: 104-5, 1978: 341). And like the Tibetan Buddhist Thakali, the Sherpa are "still firm believers in the Buddhist doctrine" (Furer-Haimendorf 1978: 343).

Not all transhumant pastoralists have followed the same path, however. The Kham Magar, also of the Kali Gandaki River valley, and the Gurungs, of the eastern slopes of the Annapurna massif, have experienced more drastic and profound changes. Unlike their counterparts, the Magar and Gurungs have not been as successful in the tourist industry.

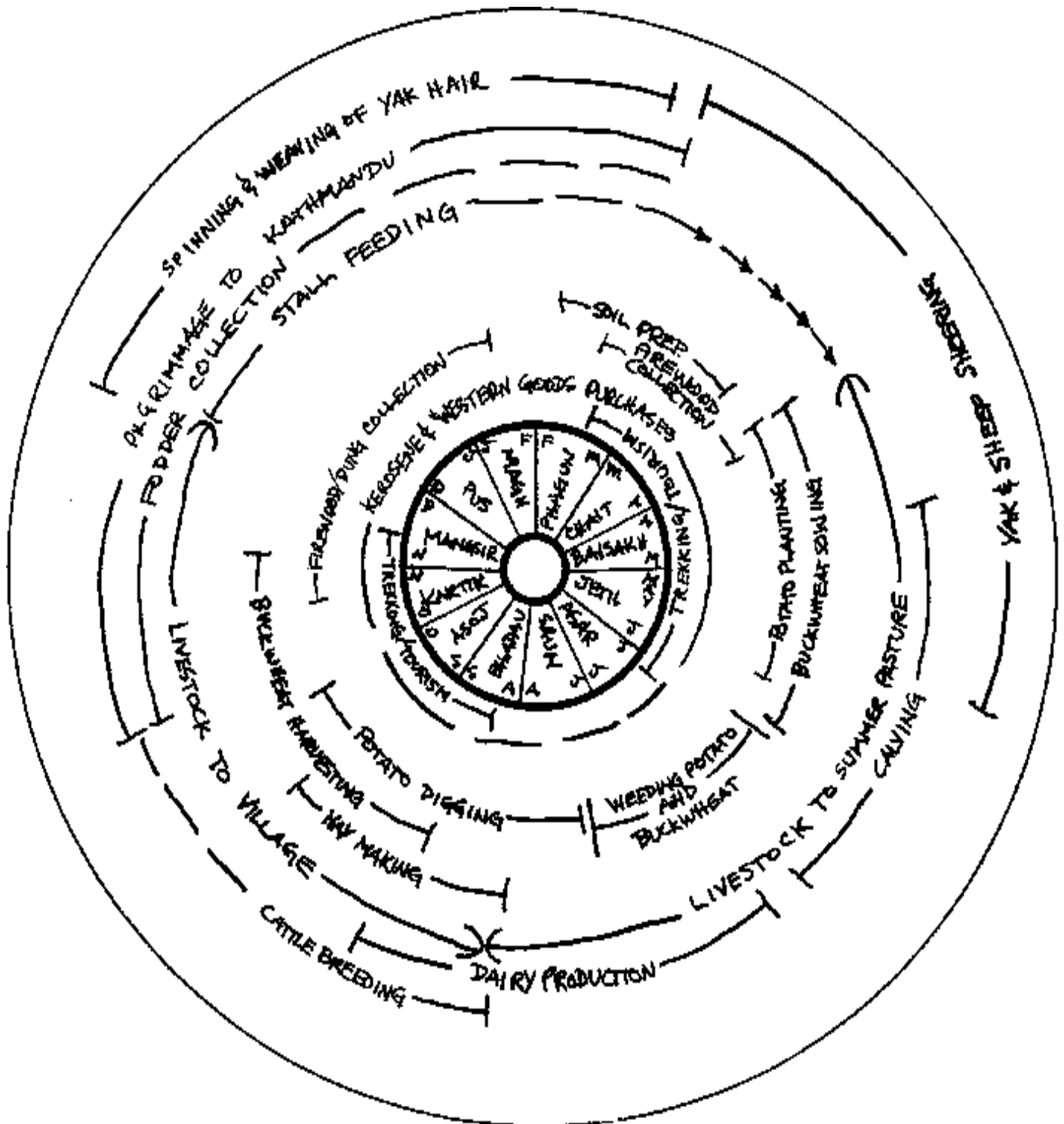


FIGURE 6: CONTEMPO

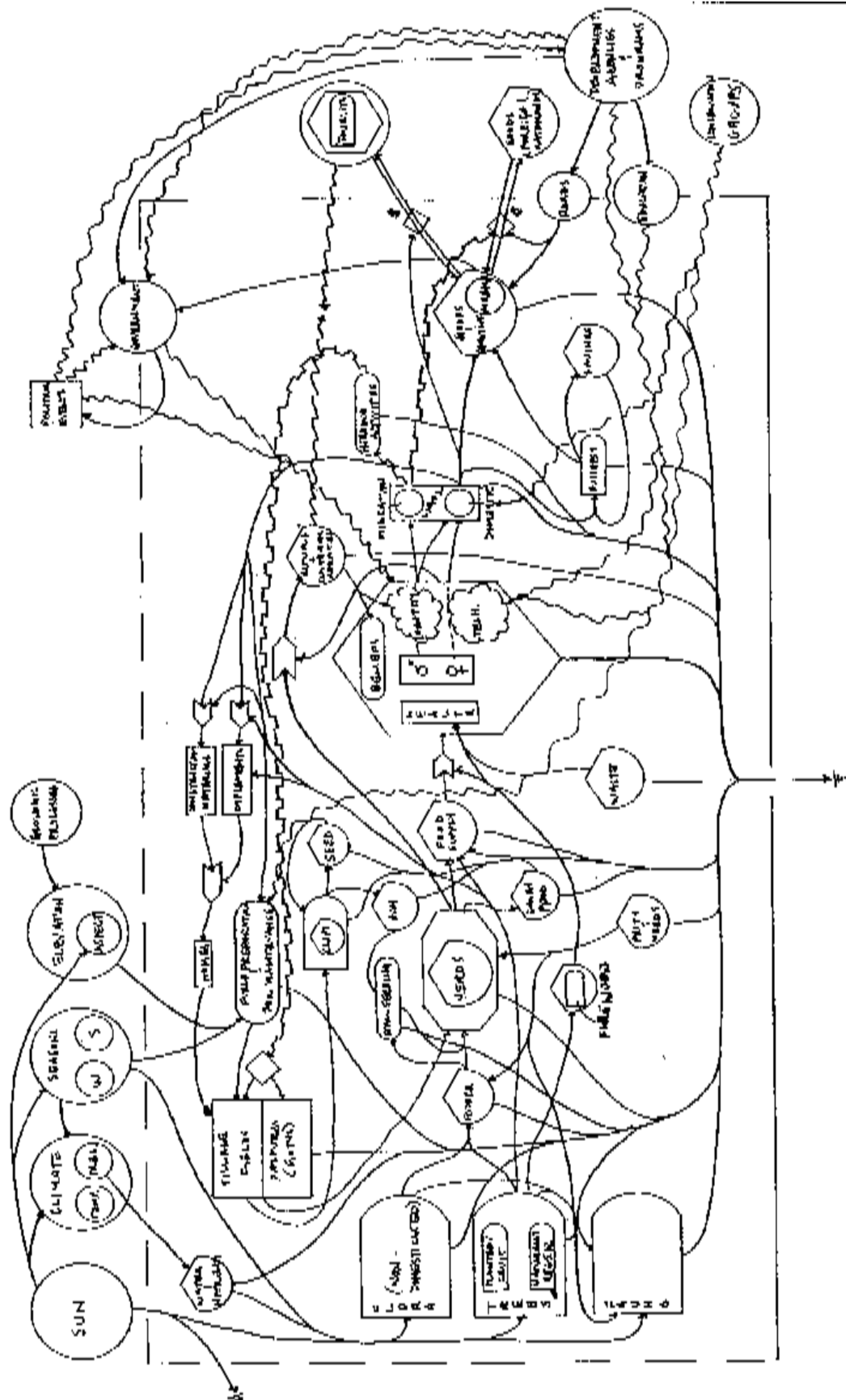


FIGURE 7: CONTEMPORARY 'THAKALI SUBSISTENCE SYSTEM'

Instead they have abandoned their higher elevation settlements for more productive, terraced agricultural fields so as to grow rice, and have tended to place a greater emphasis on labor migration in search of employment in the government administration and the famous Gurkha Regiments (Messerschmidt 1976: 176; Molnar 1981: 38). Perhaps more significant, is the much greater degree to which the Magars and Gurungs have adopted Hindu beliefs and behaviors. Many families have completely abandoned the observance of Buddhist rituals in favor of Hindu ceremonies in the hopes of increasing their caste status through the process of 'sanskritization.'

Conclusion: Continuity in Change and the Need for Holistic Systems Models

Despite the frequent emphasis on irrevocable social and (physical) environmental change, there is no conclusive evidence to suggest that the Thakali way of life is disappearing. Specifically, it does not appear as though all Thakalis are abandoning their Buddhist beliefs and practices in favor of Hinduism, nor has the Thakali culture necessarily undergone irrevocable change. Manzardo (1978) who initially spoke of the "rapid end" of Thakali culture, more recently concluded that the apparent changes in Thakali religious identity is merely an elaborate facade, a carefully staged example of Goffman's (1959) "impression management." Underneath this facade, the 'Thakali identity' has remained solidly conservative and strongly rooted in historical traditions. But why do anthropologists have this attitude about 'irrevocable change,' 'cultural loss,' and other negative attitudes to cultural and ecological change?

Most Himalayanists, it seems, have overreacted to "change," and, more importantly, have overlooked the evidence for cultural continuity. Messerschmidt claims that one of the reasons for this has been "insufficient historical perspective" on the part of researchers (1982: 266). This criticism is echoed by Orlove and Guillet (1985). The latter argue, quite convincingly, for the importance of a historical perspective, most notably, "a longer time frame" in the construction of a mountain subsistence type (1985: 11). A further problem, identified by Messerschmidt (1982), is the analytical problem of focusing on single elements, elements disconnected from the total system. He states that "[i]t is as if seeing the discontinuous elements of change at every twist and turn of the empirical data is a sort of 'cultural compulsive' built into our professional world view" (1982: 267). This analytical disability is a serious barrier to the holistic thinking necessary for an ecosystemic approach, whether change is a central feature or not. Perhaps one of the main advantages of portraying the Thakali system (and the changes affecting it) in a graphic ecosystem model format is that it enables illustration of which aspects of the system have changed, which have not, and what the primary influences, or causes, have been, so as to better illuminate the nature and affect of change on the total (whole/holistic) system.

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