Transhumant Groups and Subordination in Khyber Pakhtunkhwa, Pakistan

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Introduction

Subordination is based fundamentally on the concept of one group or individual exerting power over one or more different groups or individuals. In theory, therefore, subordinate societies would be social groups that are under the control of a more powerful, more important social group. Within archaeology, being able to both record subordinate groups and understand the relationship between subordinate and subordinating groups is a valid aim. However, as the investigation and interpretation of material culture, archaeology may often lack the means to do this. If material evidence for subordinate groups does not survive, or, equally importantly, if methodologies do not exist to distinguish between different groups, then subordinate groups may well remain unnoticed. This issue of archaeological ‘invisibility’ may prevent archaeologists from being able to investigate subordinate groups, or groups perceived as subordinate and their relationships with other groups. The presence of cultural filters and other taphonomic factors (see for example Reid and Young 2000), form a major barrier in the recognition of divisions within any group or society. This problem has been recognised in an attempt to define and apply a methodology for distinguishing superior and subordinate religious groups in urban Sri Lanka (Coningham and Young 1999).

Another equally serious problem relevant to issues of subordination is that of who is conducting the investigation. Should western archaeologists and ethnographers be exploring questions of subordination in regions such as South Asia, albeit from a (largely) post-colonial viewpoint? Within an area of considerable diversity in caste, class and religious structures, there are many very subtle power relations that may not be understood, or their significance appreciated, by outsiders. Developing methodologies that deal with such problems is very complex, and will be addressed only very briefly in this paper. However, it is important that such questions and problems are considered.

Farming, and by extension sedentism and the ownership of land, is seen as a necessary precursor of social complexity (Bender 2000: 201). Land and the control of land are therefore viewed as a resource over which power can be exerted. This can be seen within Khyber Pakhtunkhwa Province, Pakistan itself, where the dominant group today, Pathans or Pukhtans, own the majority of land. Furthermore, those who own land in low production areas have been noted as being more egalitarian in terms of social structure, whereas those groups occupying irrigated and, as a consequence, more productive land, are far more hierarchical, invariably part of a state system (Ahmed 1991: 7).

In contrast to the study of farming and sedentism, whereas transhumant groups are recognised in anthropology and ethnography (Barth 1956; 1969; Parkes 1987), and receive some attention in archaeology (Chang and
Tourtellette 1993; Halstead 1992; 1996; Lee and Bates 1974; Thomas 1999), the very seasonal mobility that defines such groups also makes them very difficult to detect archaeologically. Furthermore, this mobility also puts such communities in a unique position in relation to settled groups. Are transhumant groups subordinate? If they control their own mobility, are they subject to domination and control by superior, settled groups? This paper will address these questions of mobility and subordination primarily through the examination archaeologically and ethnographically of transhumant groups in Khyber Pakhtunkhwa, Pakistan.

Transhumant groups: selected studies in archaeology and ethnography

The investigation of nomadic groups in archaeology and ethnography has received greater attention than transhumant groups (eg Cribb 1987; 1991; Khazanov 1984). There are, however, some European studies where causes and origins of transhumance in prehistory have been considered as a strategy for the procurement of pasture for herds through seasonal movement. These include Lees and Bates’ (1974) work, where strong emphasis is placed on equal power within a reciprocal exchange network of mobile and sedentary groups. Chang and Tourtellette (1993) used their ethnographic studies of transhumant groups in Greece to build up a model of the types of material culture that may be apparent archeologically. They stress both the importance of structural remains and the observation and analysis of a range of ethnographic and archaeological data as a means of distinguishing mobile and sedentary groups.

Halstead discusses transhumant economies in the Pindhos Mountains of Greece, noting that “claims for transhumant pastoralism in prehistory are ultimately based, implicitly or explicitly, on analogy with recent mountain economies of the Mediterranean” (1990: 61). He also stresses that there is a lack of direct evidence for transhumant practice in archaeology, and further, that much of the wider Mediterranean activity is the result of recent (historically recorded) economic and environmental change that cannot be transferred directly back into prehistory (Halstead 1987: 79-80). While an element of pastoral mobility may well have been incorporated into the earliest prehistoric settlements known archaeologically in this region (c. 1000 BC), their lack of archaeological visibility means that separating them out from a mixed farming economy is very difficult (ibid. 72). Further, Halstead also notes that in many areas around the Mediterranean modern practices indicate very complex economic and social factors behind traditional subsistence strategies, and says that this is very significant in determining the types of information that we should aim to interpret from archaeological data (ibid. 86-7). Halstead suggests that some degree of pastoral mobility is perhaps inevitable and sensible in the Greek climate, in particular in agriculturally marginal areas (1996: 21). That such marginal areas are likely to have been settled after more fertile areas, raises questions about how transhumant groups occupying marginal areas may be perceived.

Gilbert (1983: 107) also recognised the range of subsistence strategies apparent in the archaeological record from Western Iran. Here transhumance, pastoral nomadism, and sedentary agriculture have been demonstrated as successful, as long as each group maintained social and economic links with each other. Based on the analysis of archaeological remains in the Khuzistan Steppe of South West Iran,
dated to c. 6000 BC, Gilbert's work concluded that while there were great difficulties recognising contact between sedentary and mobile groups on the basis of animal remains alone, careful discrimination and analysis combined with other types of material can indicate the presence (and also absence) of specialised pastoralism (1983: 108).

In terms of the visibility of mobile groups in the archaeological record, nomadic sites are more easily recognised than transient transhumant camps, but nomadic sites may be useful for some types of comparisons, and also as an indication of what may be significant in terms of material culture. Cribb (1991, 92-6) gives a list of features of nomadic camps, from structures through to faunal material that he says are indicative of temporary site occupation. Faunal material is considered problematic in terms of reconstructing herd patterns (Cribb 1987: 377). The results of extensive ethnoarchaeological analysis of mineral residues in manure and burnt dung, rock polish on the walls of shepherd's caves, as well as structural remains associated with herding, such as stock pens, were combined to produce a model of transhumance, then tested using archaeological data from sites in the Western Mediterranean (Brochier et al. 1992). The results from this study suggest that the use of caves and other stone structures in association with herding, was practiced as early as the beginning of the 5th millennium BC in this region (ibid. 98).

In South Asia, Mughal (1994: 53) carried out archaeological survey in the Cholistan desert in Punjab, Pakistan, which identified a significant number of nomadic sites dated to the Hakra (c. 3,500-3,000 BC) and Harappan periods (c. 3,000-1,800 BC). These sites were divided into two types, being either temporary camp sites or more permanent sites used intermittently (ibid. 58). From an analysis of the size and number of sites, Mughal has been able to distinguish changes over time that relate directly to formation and decline of the Harappan civilisation in this region (ibid. 61). Further, the results of this survey demonstrate the ongoing relationship between mobile and sedentary groups. Shaffer and Lichtenstein argue that cattle represented cultural wealth during the Harappan period in South Asia (1995: 144-5). Using the example of Oriyo Timbo, a Harappan site in India, they claim that as populations increased and agriculture developed, the problem of keeping herds away from crops also increased. This in turn is thought to have led to the creation of seasonally specialised cattle settlements, which then led to cattle being perceived as a focus of wealth and their handlers or herders as specialists, important within the developing settlement and kinship ties of the Harappan. In contrast, Kuzmina (1995) argues that while cattle were significant in the Indo-European economy, and the Eurasian steppes from the 4th-3rd millennium BC, at Harappa “the economy was based on irrigated agriculture while animal husbandry was of secondary importance” (ibid. 285).

Therefore, although the presence of transhumant groups in prehistory is acknowledged, their origins and role is the subject of often-contradictory debate. The tendency to consider transhumant groups as subordinates is likely to be the result of a number of factors, deriving from both ethnoarchaeological and archaeological research. In modern terms, nomadic and transhumant groups are often seen as displaced peoples, either straddling or battling national and international boundaries, and somehow ‘outside’ accepted economies and social groups. Their elusiveness in respect to the modern
concept of census (Mian 1955: 60; Mughal 1994: 53) means that they are thus placed beyond governmental and institutional planning and support. The fact that transhumant groups, even more than fully nomadic groups, are very hard to identify and define archaeologically, places them in a neglected, if not subordinate, position. As we will see below, the difficulties of disentangling transhumant from sedentary groups in terms of separate identities and contact is, at best, very difficult. This means that transhumant identities must often have been simply subsumed within the material culture of settled groups.

**Transhumance and Ethnicity in Khyber Pakhtunkhwa**

What is clear from any study of ethnicity in Khyber Pakhtunkhwa is that there are a number of different groups, and “in so far as the term ‘ethnic group’ has meaning in Pakistan it does not refer to large national minorities distinguished by a combination of race, language and culture. It refers, instead, to fairly small hereditary social groups defined in a variety of ways” (Wilber 1964: 53). While there is some disagreement between the name, number and ‘status’ (generally based on mode of subsistence) of these groups, there are some broad areas of agreement.

Today, Pathans or Pukhtuns dominate the population of Swat and the Vale of Peshawar is almost entirely Pathan (Lindholm 1982: 22). Gujars and Ajurs are frequently described as pastoral with mobile elements, although Wilber (1964: 60) is in complete opposition to this, stating that both Gujars and ‘Awans’ are “agriculturist”, while a group called Powindehs are nomadic. During recent interviews, Gujars were described, either by others, or by themselves, as pastoral, either transhumant or sedentary, while Ajurs tended to be perceived as nomadic, and both kept flocks of sheep and goat, herds of cattle and often one or two donkeys (Young 2002). Overlap, fluidity and interactions between the two, as noted below, were common and accepted.

Historical and anthropological accounts of subsistence patterns in northern Khyber Pakhtunkhwa may mention pastoral mobile groups, but the social composition of this region, for many centuries has been dominated by land owning Pathans. This has meant that Pathans and their means of subsistence have been the main focus for defining the dynamics and the complexity of group interaction. Biddulph (1880: 13) mentions herdsmen in the valleys of Indus Kohistan. Although he notes that their herds moved to neighbouring valleys for summer pasture, for which grazing access payment was made in the form of salt and tobacco, there is little exploration of the social identity or affiliations of these groups. Biddulph also mentions the presence of Goojurs (sic) who, along with other “men belonging to these inferior castes are of very dark complexion; coarse features and inferior physique” (ibid. 39), occupy a lowly social position in the caste and class system recorded at the time. The Punjabi speaking Goojurs, numerous in the valley of Swat, had herds of cattle, with animals numbering in thousands rather than hundreds. “They attach themselves to no locality, though perhaps for a generation the men frequented one pasture-ground, building rude hovels and making a poor pretence at cultivating small patches of ground; but a very small excuse seems to be sufficient to drive them, with their herds, in search of fresh pastures” (ibid. 40).

The Gazetteer of the Peshawar District for 1897-98 describes Gujars as the most significant of the non-Pathan population in this area, and further states that they are “the
original owners of the soil” (Punjab Government 1897-8: 125), which is in direct contrast to their description as a cattle owning, mobile people. Further, they are described as a “fine, healthy and athletic race” (ibid. 143), and are “comfortably, if not richly off...maintaining more independence than other tribes located among the Pathan” (ibid.). This discrepant or even contradictory discourse, gives some idea of the difficulties of both defining and describing the main social identities in this region.

Barth (1956: 1079) discussed three main ethnic groups in Swat: Pathans, Kohistanis and Gujars. These three were distinguishable (among other things) by their subsistence base, which was linked not only to this ethnic or social identity, but also, to the ecological niche each group occupies in Swat (ibid. 1082-3). While Kohistanis were summarised as agriculturalists with a pastoral transhumant element, and Gujars were originally described in his paper as nomadic pastoralists, Barth went on to discuss transhumant and agricultural elements of Gujar subsistence (ibid. 1083). Barth also very briefly noted the existence of a group called Ajer (sic), which he claimed were the nomadic sub-group of Gujars, and that Gujars can move between the transhumant and nomadic patterns. In a more recent work, describing the archaeology and people of Buner, a valley located to the east of the Swat River Valley, Gujars (sic) are said to have no hereditary claim to land, but rear cattle and practice cultivation on land leased from the Afghani owners (Khattak 1997: 34).

In his research in southern Khyber Pakhtunkhwa, Thomas (1983; 1986; 1999) has made use of analogy with modern subsistence practice to help interpret archaeological environmental material from sites in the Bannu Basin. Thomas has identified patterns in the environmental material from sites dated to between 4240-2040 BC (1999: 312, 314-5) that relate to the exploitation of both plants and animals, and then presented a range of possible interpretations of the material in terms of economic organisation.

Ethnographic fieldwork carried out in the northern valley of Swat in Khyber Pakhtunkhwa (Young 2002), shows that the current position is in fact even more complex than these accounts claim. There are many strategies employed to exploit the land and animals, and these are related to a number of factors. Five major distinct approaches to subsistence were identified through interview, and these are: winter transhumance (movement of family groups and animals south to the Vale of Peshawar during winter); inter-valley winter transhumance (movement of family groups and animals from the northern to the southern areas of Swat during winter); inter-valley summer transhumance (movement of family groups and animals from the southern up to the northern areas of Swat during summer); year-round pastoral nomadic movement; permanent sedentary agriculture and animal husbandry.

All the transhumant groups, whether moving between Swat and the Vale of Peshawar, or seasonally within the valleys, have a permanent home and land. For those who moved to avoid winter weather and grazing shortages, their permanent home is where they spent their spring, summer and autumn; for those who moved to avoid heat and find better grazing in summer mountain pastures, it was where they spent the autumn, winter and spring (Young 2002). Those who move seasonally within the valley sometimes, but not always, return to the same place, but those who take families and flocks down to the Vale of Peshawar reported that they always return to the same villages, and
usually to the same houses and farms. Those interviewed said that this was because their families had always done so, that their grandfathers, and their fathers before them had followed the same routes and stayed in the same places.

This enduring link is based on a relationship of mutual benefit. The transhumant herders are able to provide their flocks with good quality grazing throughout the winter, and their families with a temporary home. The landowners or farmers are often paid rent in the form of dung, which provides a much-needed fertiliser for their crops, and is a source of fuel and building material. The landowners or farmers are also able to take advantage of an increased potential labour force for the spring harvest (Young 2002). The Vale of Peshawar today is an agricultural area, where sedentary farmers grow wheat, sugar cane and sometimes animal fodder, and keep one or two buffalo or cattle, but no sheep or goats.

As noted above, Barth's analysis of the different subsistence strategies in Swat was based on the division of the population into different ethnic groups, who occupied distinct if closely linked 'ecologic niches' (1956: 1079). While the new work also shows that different ethnic groups do indeed tend to have different subsistence strategies, these strategies are by no means exclusive, and by no means closed to change. However, it is clear that in the Northern Valleys, different strategies are tied to many factors, including ethnic group, social standing, family habit, and also feeding animals. Given that all the groups discussed are operating within the same geographical and environmental constraints, they represent a range of very different survival strategies.

Archaeological investigation of transhumance in Khyber Pakhtunkhwa

In an attempt to distinguish between transhumant and sedentary groups in Khyber Pakhtunkhwa, the environmental material from sites in two contrasting areas was examined. The two areas were the northern valley of Swat and the Vale of Peshawar, where transhumant and sedentary groups are both evident, and have some interaction today. The site occupation periods are shown in Figure 1. The Swat sites; Ghaligai, Aligrama, Bir-Kot-gundai, Kalakoderay and Loebanr III (see Map 1) are all relatively small in size, and certainly fall short of the criteria commonly used to designate 'urban' (see eg Childe 1950; 1957; Coningham 1995; Trigger 1972). The site in the Vale of Peshawar, the Bala Hisar (High Fort) of Charsadda is undoubtedly urban, covering an area of c. 20ha, and is a 20m high Tell site (Ali et al. 1998; Wheeler 1962).
Map 1 Location of sites in the paper:
Table 2 shows the plant and animal taxon recovered and identified from each site, and the following is a brief summary of some of the main points apparent in this material. From the Swat sites there is evidence for the use of both wild and domesticated plant foods during the same periods, and there are also a wide range of cereals, including wheat, barley and rice, which indicates that both summer and winter crops were being grown (Costantini 1979; 1987). The presence of barley alongside wheat could be interpreted as production of the former for animals, with wheat more suited to human consumption. The animal assemblage is dominated by sheep/goat and cattle (Compagnoni 1979; 1987; Jawad 1998). Overall, the differences between the environmental material from each of the sites reviewed is as great as between these sites and the Bala Hisar of Charsadda.

The material from Charsadda differs in a number of ways. Only domesticated types were identified in the plant assemblage, and wheat was the only cereal recovered and identified with the exception of small quantities of rice husk recovered from later phases. There is a very narrow range of types in both the plant and animal assemblages, which may suggest that the site occupants or consumers were removed from the process and the areas of production. The presence of buffalo is very significant in terms of environmental factors and economic organisation, as the requirements for buffalo indicate. Wheat and lentil are winter crops, although it is possible to grow two wheat crops a year with irrigation.
When the archaeological and ethnographic data are examined together, it seems clear that in both cases there is no single subsistence strategy emerging for either area. There is, rather, what could be described as a mosaic of subsistence strategies in evidence. The ethnographic material shows a complexity and overlap in terms of the animals, crops and geographical area, which is reflected in the archaeological groups. The archaeological data would fit well with a model where crops and animals are both important, though different species and seasons may be important to different groups. However, the overlap between these groups at all stages, and between both sedentary groups in the Vale of Peshawar and mobile groups from Swat means that distinguishing settled and mobile groups at any given site would be dependent on determining more subtle discriminants than is possible with current data sets.

However, the ethnographic study shows the importance and the complexity of transhumant life ways. How do we move from an ethnographic model to being able to detect transhumant groups in archaeology, and begin to understand their contact with sedentary groups and relative status, as subordinate or non-subordinate societies? First, patterns of subsistence in Swat can be seen in the ethnographic material. They are clearly more complex than recorded by historical observers, or anthropologists such as Barth (1956), and they are also subject to ongoing change. This change is of course partly environmental, such as the building of the Swat River Canal in 1885 (Imperial Gazetteer of India 1904: 44), and partly the result of mobility in terms of social identity. Barth (1956: 1087-88) said that “the transhumant Gujar settlements in Kohistan represent groups of former nomads who were given permission by the neighbouring Kohistanis to settle, and they are kept politically subservient” which suggests that while change in subsistence pattern was possible, ethnic affiliations could not change. Yet during recent interviews in Swat, at least one family now describing themselves as Gujar, owning land and herds, were later reported by others in the village to be Ajur, who were aspiring to be Gujar on the basis of their newly acquired sedentary life style (Young 2002). Despite these, and many other factors, however, it is possible to view different subsistence strategies together within a landscape, and to propose an overall dynamic model of contact and interaction.

Second, there are major differences between the subsistence approaches of each group that may be detectable in archaeological assemblages.
The sort of issues that could be important here relate to seasonality of both crops and animals, including age and place at death of animals, and weeds associated with crops indicating weeding regimes and times and place of harvest. Types of animals kept and crops grown may also be indicators of the subsistence regime, or regimes in place; for example, barley as a suggested animal food, and buffalo as an indicator of sedentary groups (Patel 1997; Thomas 1999; Young et al. 2002). Thomas’ work in the Bannu Basin draws on such evidence from environmental archaeology, and integrates it with seasonal climate change, and evidence suggesting contact with other environmentally discrete areas (1999). The observed modern range of practice in this region at least in part informs the resulting archaeological model of settlement and subsistence change.

The archaeological studies of transhumant groups discussed above, all rely on ethnographic models to interpret archaeological remains, and all show how tentative this interpretation is. In fact, the presence of transhumant groups in prehistory is often suggested as likely on tangential or circumstantial rather than substantive evidence, such as Halstead’s proposal that some form of pastoral mobility is a necessary adjunct to the settlement of economically marginal land (1996: 21). It is this elusiveness in the archaeological record that may lead to the suggestion that transhumants were a subordinate group. Their presence and activities in modern Khyber Pakhtunkhwa show clearly that they are an accepted and integral part of rural life, contributing to sedentary economies in the Vale of Peshawar, as well as maintaining a permanent dwelling, cultivating land and herding flocks in their own valley.

To understand the position of transhumant groups in relation to sedentary groups in prehistory, it is necessary to produce an archaeological model that distinguishes the two. The first obvious step towards achieving this is to record in detail how transhumant settlements differ from sedentary settlements. The second step would then be to determine which specific aspects of contrast are likely to survive in the archaeological record. Once a methodology for distinguishing transhumants in the archaeological record has been established, then we can move forward to applying this model as a means of interpreting the evidence in terms of subordination.

Discussion

Subordination is necessarily the result of unequal power relations. Power is generally achieved through access to, or control over resources (Harfield 1988), and in turn, this is tied to increasing social complexity in areas of economic, social and political activity (Bender 2000; Knapp 1988). In very general terms, the means of producing a surplus, whether it is agricultural, artefactual or other, is perceived to be a concomitant aspect of social complexity, so increasing inequalities of power. However, as Parker-Pearson (1984) points out, surpluses can always be produced if a group has the means and desire to do so.

If we agree that the roots of social complexity, and by extension subordination, lie in the control of resources, and in this particular instance, farming and the ownership/control of land and all that this implies, how do we then view transhumant groups? Are they, and were they subordinate? Barth’s (1956: 1081) analysis claims that within the Pathan population “the political system depends on a strong hierarchical organisation of landowners” that extends into the political sphere. Further, the ‘floating population’ of nomadic and
transhumant Gujars are defined in terms of their political status by their dependence on their host, i.e., the sedentary Pathan population (ibid. 1088). More telling still, Barth goes on to say “the transhumant Gujar settlements in Kohistan represent groups of former nomads who were given permission by the neighbouring Kohistanis to settle, and they are kept politically subservient” (ibid. 1088). Thus, it would seem from Barth’s work that groups other than the Pathan farmers (who have their own internal hierarchy) are to some degree subordinate, and furthermore, this subordination has its roots in land ownership and length of residence.

The most recent ethnographic study of transhumant groups in Khyber Pakhtunkhwa suggests a somewhat different picture (Young 2002). First, members of transhumant and nomadic groups such as Gujars and Ajurs apparently have some ethnic and social mobility, which is tied into land ownership. Second, land ownership was noted as a fundamental aspect of many transhumant groups — indeed the whole concept of transhumance is one that is externally imposed. The people interviewed stated that their home or residence was the area or village where they owned or occupied land. The mobility aspect was clearly viewed as a practical strategy related to animal management. Third, the transhumant group moving the furthest (between Swat and the Vale of Peshawar) were clearly able to control the resources and surpluses of labour and dung, both of which are extremely valuable to agriculture in the Vale of Peshawar. This control of surplus ensured their repeated welcome at the same farms and villages year after year.

Therefore, it can be suggested that transhumant groups may not have the same political control as sedentary groups, but they do have a distinct role and certain ‘powers’ of their own. This difference may be perceived as one of subordination from the outside, but whether either the transhumant groups themselves, or even the sedentary farmers would view them as this, remains open to question. Further investigation may well show a group separate to the mainstream, but valuable in its own right — as a specialised minority, but not necessarily subordinate.

Does the archaeological evidence support an interpretation of transhumants as a subordinate group? The major problems here relate to both the types of sites so far excavated and the sampling strategies in place. Earlier interpretations of sites such as Loebanr III and Aligrama in Swat (Stacul 1969; 1994; 1996; Tusa 1979) suggested they were year round sites, occupied by sedentary agro-pastoralists. These interpretations were based on the structural evidence of pits as winter dwellings and “miniature pots that were used as containers for coagulating substances used in the treatment of milk and its by-products” (Tusa 1979: 687). Recently, there have been alternative interpretations based on the possibility of these pits being potential seed grain stores, or other storage (see Coningham & Sutherland 1998; Young et al. 2008; Young 2002). The environmental material collected and analysed from a number of sites in Swat is restricted, and the result of variable sampling strategies (Compagnoni 1979; 1987; Costantini 1979; 1987; Jawad 1998). This means that being able to apply with any confidence the subtle means of discrimination referred to above, to distinguish between sedentary and transhumant groups in prehistory, is severely hindered. It is possible at this stage to note some trends in the assemblages, and also compare the assemblages with that from the Vale of Peshawar (Young 2002). There are some significant differences
between these two areas in terms of the subsistence base, almost certainly due to a range of causes, which may include some degree of mobility.

However, these are very tentative suggestions, and what is really needed is a methodological approach that allows us to incorporate structural, artefactual and environmental evidence in an integrated way. Only by being able to detect sedentary and mobile groups with some confidence in the archaeological record, can we then begin to explore questions of power relation, inequality and subordination within and between these groups.
References


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Table 1. Summary Chronology: 14C dates from the Bala Hisar of Charsadda and the Valley of Swat

<table>
<thead>
<tr>
<th>Charsadda</th>
<th>Swat sites</th>
<th>Swat Chronology</th>
<th>Site</th>
<th>Date</th>
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<tbody>
<tr>
<td>Ali et al.</td>
<td>I Ghaligai</td>
<td>2970-2920 BCE</td>
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<tr>
<td></td>
<td>II Ghaligai</td>
<td>2520-2230 BCE</td>
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<td></td>
<td>III Ghaligai</td>
<td>2180 BCE</td>
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<td></td>
<td>IV Aligrama</td>
<td>1980-1870 BCE</td>
<td></td>
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<td></td>
<td>V Aligrama</td>
<td>1660-1560 BCE</td>
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<td>VI Ch VIII</td>
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<td>VII Phase A</td>
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<td></td>
<td>VIII Phase B</td>
<td>1380-1090 BCE</td>
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<td></td>
<td>IX Phase C</td>
<td>1260-990 BCE</td>
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<td></td>
<td>X Ch VI</td>
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<td>XI Phase C</td>
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Sources: Ali et al 1998; Coningham pers. comm.. 2000; Possehl 1994; Stacul 1987

Table 2. Summary of the plant & animal remains from the Bala Hisar of Charsadda & Swat Valley

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<th>Taxon</th>
<th>Aligrama</th>
<th>Bir-kot- gundai</th>
<th>Ghaligai</th>
<th>Kalaker -deray</th>
<th>Loebanr III</th>
<th>Bala Hisar</th>
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Sources: Compagnoni 1987, 1979; Costantini 1987, 1979; Jawad 1998; Young 2002