

PART I

THE ARCHAIC CULTURAL HORIZON SITES OF UPPER TIBET

1 An Introduction to the Author's Archaeological Exploration of Upper Tibet and Survey Methodology

I began my travels in Upper Tibet (Byang-thang and sTod) in the mid-1980s, a golden period of exploration on the high Plateau.¹ This was a heady time when a small group of explorers were reaching places in Tibet never before visited by foreigners. During my initial years of peregrination in Upper Tibet, I began to notice unusual manmade formations and ruins but did not pay much attention to them. In the early 1990s, having acquired the requisite cultural and linguistic skills, I turned much of my scholarly energy to the documentation of archaeological remains and the elucidation of the ancient cultural history of Upper Tibet. This has remained the focus of my research ever since. In the course of my fieldwork, I have had the good fortune to visit every county and virtually every township in the great Tibetan upland north and west of Lhasa. My archaeological surveys in the region have therefore proven geographically all-inclusive.

On my earlier visits to Upper Tibet, an immense region of approximately 700,000 km², I spent a great deal of time on foot.² On more recent expeditions, I have depended on motor vehicles and hired crews to expedite reaching highly remote places and the process of documentation. Despite having access to vehicles, fairly long distances still had to be hiked or ridden on horseback due to the rugged nature of the terrain. Many sites located on mountaintops and escarpments, or in gorges and caves, are only accessible on foot. The physical rigors of these expeditions should not be underestimated. Upper Tibet is a tough environment in which to work and the pace of study has been intensive.

In 2001, I launched the four-month-long Upper Tibet Antiquities Expedition (UTAE), which clocked around 8500 km in vehicles and several hundred more on foot and on horseback. On this expedition, I was able to document 90 archaeological sites in Bar-yangs, Pu-rang, Khyung-lung, Gu-ge lho-smad, Chu-gsum, rGod-tshang, northern Ru-thog, Nag-tshang rong-dmar, and also at Dang-ra g.yu-mtsho. In 2002, I set off on the High Tibet Circle Expedition (HTCE), which was of four months duration as well. This expedition yielded information on more than 100 archaeological sites, the overwhelming majority of which had never been documented. On the HTCE, I covered 13,200 km by motor vehicle, and trekked considerable distances on foot and on horseback. The main thrust of exploration included Bar-yangs, La-snga mtsho, Gangs rin-po-che, Za-rang, Ru-thog, northern sGer-rtse, Ngang-la ring-mtsho, mTsho-chen, Dang-ra g.yu-mtsho,

¹ For articles summarizing some of my early travels in Tibet see Bellezza: 2004b; 2003d; 1993.

² Earlier archaeological survey expeditions include Four Fountains of Tibet (1992), Divine Dyads (1994, 1995), Byang-thang Cultural History Phase II, (1997, 1998), Changthang Circuit Expedition (1999), and Upper Tibet Circumnavigation Expedition (2000).

the rTa-rgo range, and Bar-tha.³ In 2003, exploration was conducted on the High Tibet Antiquities Expedition (HTAE), which lasted just 48 days. On the HTAE, I was able to document around 40 archaeological sites by traveling more than 8000 km by motor vehicle. The geographic focus of exploration was the border areas situated in Ru-thog, rTsa-mda' and Pu-rang, the first access to many of these sectors by an outsider in 60 years. In 2004, I launched a three-month mission to Upper Tibet called the High Tibet Welfare Expedition (HTWE). The HTWE was carried out with the purpose of reconnoitering areas of Upper Tibet I had not previously visited or where more inquiry was required. The main areas for research and exploration included 'Dam-gzhung, g. Yag-pa, southern mTsho-gnyis, Dang-ra g.yu-mtsho, mTsho-chen, bSe-'khor, gZhung-pa, Ru-thog, sGar, and rTsa-mda'. In 2005, I embarked on the 45-day-long Tibet Upland Expedition (TUE), in order to survey sites across the breadth of much of Upper Tibet not reached on earlier campaigns. By continuing my forays in the region, I have been able to close the gaps in my geographic coverage and slowly but surely to visit most of the major basins and valleys of Upper Tibet south of the 33rd parallel.

In the winter of 2006, I conducted the four-week-long Tibet Ice Lakes Expedition (TILE) in order to reach six islands in four different lakes. By traversing the frozen surfaces of the lakes, I was able to survey Se-mo do (gNam mtsho), Do rta-sga and Do dril-bu (Da-roq mtsho), mTsho do (Ngang-la ring-mtsho), and Do ser and Do smug (La-ngag mtsho). In the spring of 2006, I completed my basic survey work, a 12-year-long enterprise. Known as the Tibet Highland Expedition (THE), the object of this 46-day excursion was to carry out reconnaissance in the northern Byang-thang, and to visit a few outstanding archaeological sites.

In surveys conducted since 2001, I have endeavored to expand and strengthen the methodological tools at my disposal. It has been necessary to further systematize the collection of data and to articulate this in forms that make it accessible to a wider range of Tibetologists, archaeologists and cultural historians. The survey data thus compiled have permitted the various types of archaeological assets present in the region, their patterns of distribution, environmental context, and structural qualities to be elucidated in greater clarity. Another vital component of this appraisal of Upper Tibetan archaeological sites has been the compilation of chronometric data derived from the radiometric and AMS assaying of organic samples. To date, I have submitted 18 samples for chronometric testing and analysis, permitting the initial direct dating of a few documented sites (see p. 25). This augmented methodological approach to the survey work has enabled me to position the sites chronicled within a more refined historical context, opening the way to new perspectives in the study of Tibetan textual sources. Generally speaking, these breakthroughs in the study of Upper Tibetan cultural development pertain to temporal controls, which encompass both the prehistoric and historic epochs.

The methodological regimen applied to the survey of monuments (residential and ceremonial) can be summarized as follows:

- 1) The pinpointing of the geographic coordinates, elevation and administrative location of each site. The determination of latitude, longitude and elevation was accomplished with the use of a GPS. In locating sites, reference is made to toponymic nomenclature employed in both historical (pre-modern) and Communist (modern) political geography.

³ A review of the archaeological discoveries made during the second phase of the HTCE are found in Don – grub Lha – gyal (Dondrup Lhagyal) 2003.

- 2) A description of the geographic and ecological settings of archaeological sites. In order to understand the physical environment shaping the function and placement of monuments, attention has been paid to slope gradients, general soil conditions, prominent landforms in the proximity, geomorphologic changes, and the endowment of natural resources.
- 3) The identification of the monumental types found at each archaeological site. This is carried out using a comprehensive typology of above-ground archaeological resources I have devised for Upper Tibet (see Section 4).
- 4) An analysis of the morphological, design and constructional traits of each structural component of an archaeological site. A study of how monuments were built and the types of materials that went into their construction is vital in differentiating the various typologies. The investigative focus has been directed towards determining ground plans, wall fabrics, the rendering and presentation of structures, patterns of usage, and the spatial arrangements of the various structural components making up a site.
- 5) The measurement of site dispersals and the dimensions of constituent structures. The overall extent of sites (measured in m²), and the length, width, height, and girth of monuments and their respective components.
- 6) The mapping of monuments (plans and topographic settings). Save for sketches of a few ground plans, the cartographic dimension has thus far been limited to overview and typological maps of archaeological sites.
- 7) The photography of the general settings of sites, all visible archaeological remains, and the current cultural scene.
- 8) The compilation of folklore, myths, legends, and historical accounts surrounding archaeological sites from local residents and cultural luminaries. I have endeavored to collect the oral traditions attached to the monuments surveyed in order to gain a firmer understanding of the chronology, function and significance of sites as conceived by indigenous sources.
- 9) The collection and translation of Tibetan textual sources pertinent to the function, cultural make-up, political affiliation, and chronology of monuments and the physical sites in which they are located. This facet of my study defines the interface between empirical and traditional historiographic approaches to understanding Upper Tibet's archaeological heritage.
- 10) An assessment of contemporary anthropogenic and environmental risks to the continued survival of archaeological monuments. This proactive component of research concerns issues related to the conservation and sustainability of archaeological assets.

The interrelated methodological regimen used in the surveys of rock art can be summarized as follows:

- 1) The pinpointing of the geographic coordinates, elevation and administrative location of each rock art site.
- 2) A description of the geographic and ecological settings of rock art sites.
- 3) An analysis of the physical characteristics, relative locations and techniques of manufacture of rock art.
- 4) The measurement of rock panels and individual compositions.
- 5) The mapping of rock art sites (geographic locations).
- 6) The photography of the general settings of rock art sites, individual compositions and the current culture-scape.
- 7) The compilation of folklore, myths, legends, and historical accounts surrounding rock art sites from local residents and cultural luminaries.

- 8) The collection and translation of Tibetan textual sources pertinent to the function, cultural orientation, political affiliation, and chronology of rock art sites and individual compositions.
- 9) An assessment of contemporary anthropogenic and environmental risks to the continued survival of rock art.

I have undertaken to document every visible archaeological site of the archaic cultural horizon on the vast Tibetan upland, and while falling short of this ambitious goal, I have been able to survey more than 600 monumental sites and 50 rock art sites throughout the region.⁴ I have been apprised of no less than 25 other potential archaic cultural horizon archaeological sites that I have not yet had the opportunity to visit. How many other sites with visible above-ground footprints exist in Upper Tibet remains to be determined. In particular, there must be many dozens of ancient burial grounds that have yet to be charted. This is indicated by the sheer number of tombs already documented, the oral tradition that holds that tombs are distributed all over Upper Tibet, and the practical difficulties in locating structures with little or no protrusion from the ground surface. The geographical thoroughness of the survey work clearly indicates, however, that a statistically significant cross-section of monument types and rock art has been documented.

Over 90% of the sites I have chronicled have not been identified or studied by other research teams. Rather than the application of remote sensing tools and aerial surveys to identify archaic cultural horizon archaeological assets in Upper Tibet, I have taken upon myself the laborious and time-consuming task of comprehensive field inspections. Visible detection of sites was facilitated in most places in Upper Tibet by poorly developed alpine and steppe soils, sparse vegetation cover, and high rates of surface erosion. As in any region, a percentage of the total number of Upper Tibetan archaeological assets is not amenable to surface detection. The percentage of sites that were overlooked because of the lack of visual apprehension, however, appears to be relatively low in the Byang-thang (given its prevailing topographic and vegetative features). Conversely, in the badlands of Gu-ge, a region of thick alluvial deposits and the regular occurrence of landslides, a much higher percentage of archaeological remains is probably obscured from view. A significant number of archaeological sites may have been overlooked in the still active agricultural communities of far western Tibet and Lake Dang-ra. In these regions it is likely that successive layers of human occupation have been hidden from view by the structural overlay of contemporary settlement.

The field inspection of archaeological remains has the advantage of furnishing positive identification and the procurement of definitive empirical information. My field surveys entailed visiting virtually every one of the approximately 250 townships (reckoned according to the number of townships existing prior to the 1999–2001 period of administrative consolidation in the TAR) in the 17 counties that comprise Upper Tibet west of Nag-chu city.⁵ During this 12-year campaign, I have spent nearly four years in the field, and covered more than 75,000 km by vehicle, and at least another 7500 km on foot and on horseback. In order to locate archaeological sites, I have conducted individual and collective interviews in all county seats, as well as in many township headquarters, monasteries, local villages, and pastoral settlements. In the course of my interviews with around 5000 people, I have met with a wide range of civil officials, monks, lay practitioners, farmers,

⁴ See tables listing the names and locations of sites at the end of this work.

⁵ Lha-sa prefecture: 'Dam-gzhung; Nag-chu prefecture: Nag-chu, A-mdo, dPal-mgon, Shan-rtsa, Nyi-ma, and mTsho-gnyis; gZhis-ka-rtsa prefecture: Ngam-ring, Sa-dga' and 'Brong-pa; mNga'-ris prefecture: mTsho-chen, sGer-tse/dGer-tse, dGe-rgyas, Ru-thog, sGar, rTsa-mda', and Pu-rang/sPu-rang/sPu-hrang.

and herders. Special emphasis was placed on allocating time to speak to those locally recognized as the most knowledgeable in their respective communities. The meticulous geographic coverage of the surveys, accomplished by canvassing large swathes of territory upwards of three to seven times each, has proven invaluable in understanding the distribution and overall configurations of the various types of archaic cultural horizon archaeological assets in Upper Tibet. Such comprehensive geographic coverage provides foundational data, which has served as the template for the textual and ethnoarchaeological inquiries upon which this book is based.

2 Criteria Used in the Determination of Archaic Sites

Before presenting an analysis of the various types of monuments and rock art, it is crucial to revisit what constitutes an archaic cultural horizon archaeological site in Upper Tibet. In brief, these are sites exhibiting physical and cultural qualities that predate the introduction and spread of Lamaism (systematized Bon and Buddhism) in Tibet. The establishment and particularly the usage of these archaeological sites, however, may have persisted for centuries after Buddhism gained a foothold in imperial Tibet. As I have already explained, the term 'archaic' is defined therefore in accordance with non-Lamaist cultural and architectural criteria.

The provisional identification of archaic monuments in Upper Tibet is made on the basis of the following physical and cultural criteria using inferential means:

- 1) Sites in Bon literature attributed to personages, events, facilities, and locations associated with the Zhang-zhung and Sum-pa kingdoms
 - 2) Monuments attributed in local oral traditions to the ancient Bon-po, the Mon, personalities in the Gling ge-sar epic, and the pantheon of genii loci
 - 3) Monuments exhibiting early design, constructional and morphological features
 - 4) The siting of monuments in now-abandoned environmental niches
 - 5) Monuments and rock art comparable to those documented in other regions of Tibet
 - 6) Monuments and rock art comparable to those documented in other Inner Asian territories
 - 7) Art and artifacts that exhibit primitive stylistic and fabrication traits
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- 1) Sites in Bon literature attributed to personages, events, facilities, and locations associated with the Zhang-zhung and Sum-pa kingdoms:

Especially when used in conjunction with other archaeological criteria, Tibetan literature is a precious indicator of the location and identity of archaic monuments. Bon (and to a lesser degree Buddhist) texts are an excellent and extensive source for legendary and quasi-historical accounts relating to places in Upper Tibet supposed to have been important centers of the ancient Zhang-zhung and Sum-pa kingdoms. These texts also provide biographical data about the lives of Zhang-zhung and Sum-pa saints, including information regarding their residences and political dealings with local potentates and foreign enemies. These literary accounts are framed in both the prehistoric epoch and early historic period, but their historicity remains obstinately difficult to corroborate. For the most part, Bon literary sources postdate the 11th century CE (centuries after the historical events they purport to chronicle) and are heavily colored with mythic and hagiographic content, significantly limiting their value as historical documents. This literature names geographic locations, some of which can be confidently correlated to the contemporary toponymic picture (places such as Ma-mig, Pu-rang, Gu-ge, Dang-ra, rTa-rgo, Ti-se, gNam-mtsho, and Thang-lha), while others either have not been identified or the identification is tentative. The chronology of Bon legendary and quasi-historical materials pertaining to Zhang-zhung and Sum-pa is uncontrolled (by associative events such as astronomical phenomena, natural disasters, cross-cultural references, or calendrical lore), which limits their use as indexes of time, except in the broadest sense.

Moreover, Bon sources have been subjected to an ongoing process of textual revision, altering the portrayal of early historical events. This expresses itself in two major ways: the idealization of past patterns of settlement and cultural achievement, and the reconfiguration of the archaic

cultural heritage using the language of Buddhism. However, Bon literature furnishes us with valuable contextual information on major centers of early settlement and their cultural and religious complexion. For one thing, a comparison of textual-based geographic lore related to Zhang-zhung with the patterns of archaic cultural horizon monumental distribution in Upper Tibet reveals a strong positive correlation.

- 2) Monuments attributed in local oral traditions to the ancient Bon-po, the Mon, personalities in the Gling ge-sar epic, and the pantheon of genii loci:

The oral traditions surrounding the archaic monuments of Upper Tibet tend to contrast with accounts connected to Buddhist monuments, in which piety and otherworldliness prevail. Since the ascent of Lamaism in Upper Tibet, circa 1000 to 1250 CE, religious attitudes developed that altered perceptions of the earlier cultural heritage of the region. Generally speaking, this recasting of history led to the archaic past being viewed with a considerable sense of fear and denial. As Buddhism and systematized Bon gradually took hold in Upper Tibet, transforming its culture and ethos, the push to reinterpret history gained momentum in society. The major effect of this historical reformulation has been to make the ancient past increasingly resemble Lamaism. In the contemporary sociocultural setting, the archaic monumental wealth of Upper Tibet has been compressed into just four major themes. This compression involves the reduction of the ancient cultural legacy into stereotypic narratives, which now stand as supposed factual representations of the past. This has led to the loss of most historical information once associated with the archaic archaeological assets in the oral tradition of Upper Tibet. The cognitive and affective forces enmeshed in this cultural transformation were not merely directed at highland archaeological sites, but came to express themselves in manifold social and political ways across the Tibetan world.

The four seminal legendary themes to which the discernment of archaic monuments has been reduced in popular Upper Tibetan culture comprise:

- i) Archaic monuments and rock art were produced by the ‘ancient Bon-po’, practitioners of the religion still existing in Tibet today. It is commonly believed that a form of the religion known as Black *bon* (*bon-nag*), in which animal and even human sacrifice played a part, blighted Upper Tibet.⁶ Ancient Bon and Black *bon* have become generic labels for all manner of early dwellers and sites on the high Plateau, especially in the eastern Byang-thang and among better educated traditionalists all over the region. Buddhist clerics and other cultural luminaries are well aware of the broad strokes of Tibetan history in their historiographic tradition, and readily transfer conceptions related to the religion of olden times to archaeological sites. Not all these attributions are pejorative, for the ancient Bon-po are regarded with a certain amount of awe and respect, especially when juxtaposed against the backdrop of archaeological sites. Clerics have divulged to me that the ancient Bon-po of Upper Tibet were capable of great engineering feats and demonstrations of endurance, which were subsequently lost. This attribution to the Bon-po of the hoary past, while containing a kernel of truth by recognizing cultural and historical continuities, tends to homogenize the past into a monochrome religious and social phenomenon.
- ii) Archaic monuments and rock art were created by the Mon/Mon-pa/bsKal-mon, a nebulous collection of ancient Himalayan and Transhimalayan peoples of unknown ethnogenesis. This

⁶ The prejudices and stereotypes that have cropped up concerning the Bon religion and Tibet’s ancient past, in the works of both natives and foreigners, are considered in Bjerken 2004; Martin 2001.

generic attribution is popular west of the 89th meridian in the Byang-thang and west of the 85th meridian south of the Transhimalayan ranges. Chronometric evidence demonstrates that legendary Mon sites are likely to have encompassed a huge span of time from the early first millennium BCE to the 13th century CE, and even later.⁷ The area in which the Mon are thought to have been active coincides with the core region of the Upper Tibetan archaic cultural horizon. This core region encompasses traditional notions of Zhang-zhung territoriality (Bellezza: in press). The Mon are usually perceived to have been non-Buddhist (Bon-po in some cases) and perhaps non-Bodic ethnically. They were also supposed to have been far more numerous than their later Tibetan counterparts, and to have possessed considerable building and cultural skills. In sGer-rtse and Ru-thog it is often thought that a pandemic or some other type of natural disaster wiped out the ancient Mon, making a clean slate of the landscape, which the Tibetans subsequently recolonized.⁸ The Mon are thought to have had a preference for the burial of the dead and most tombs west of the 89th meridian in Upper Tibet are ascribed to them.

- iii) Archaic monuments were created by various figures in the Gling ge-sar epic, Tibet's national epos. In addition to Gling ge-sar (Gling seng-chen) himself, his wife Lha-mo 'brug-mo and his female commander A-stag klu-mo are commonly believed to have constructed and inhabited archaic sites. Epic characters of an evil or ambivalent character are frequently connected to the archaeological monuments as well. The most popular of these in the eastern Byang-thang is bDud klu-btsan, the ruler of Yar-khams. He is supposed to have been a powerful rival of Ge-sar until his death at the hands of the epic hero. bDud klu-btsan's uncle, Khro-bo stobs-rgyal, is also credited with building a fortress in Bar-tha (Bellezza 2002a: 25). A problematic paternal uncle of Ge-sar, A-khu khro-thung, is said to have inhabited a mountaintop with tombs above the ground in gZhung-pa (Bellezza 2001: 157). Another questionable relative, gCen-po spa-rgyal-tsha sha-dkar, is thought to have built Ri-u dgon-pa, an all-stone corbelled religious complex in northeastern Ru-thog. There seems little historical justification for equating early archaeological sites with personalities in the Ge-sar stories. It appears that such folktales sprung up as an integral part of the recasting of archaic sites in what was seen to be a more acceptable religious light. The revising of the cultural history of Upper Tibet and its subsumption in the Ge-sar epic has proven to be a reductive exercise. Over the centuries, a welter of traditions that must have once been associated with archaic residential and ceremonial sites were stripped of their original significance and relegated to subtexts in the Tibetan epos.
- iv) Archaic monuments and rock art were magically created and inhabited by elemental spirits such as the *lha*, *klu*, *'dre*, *bdud*, *gnyan*, and *srin*. This is of course a purely mythic attribution. These indigenous semi-divine beings have an important capacity in Upper Tibetan society as ancestral and protective figures. They are also considered potentially harmful and significant care is taken by local residents to not offend them. The native spirits are believed to dwell in pristine places such as springs, lakes, mountains, and other natural landforms, as well as in

⁷ I have met Upper Tibetan residents who casually refer to ancient Buddhist sites as Mon monuments as well. This attribution of Buddhist monuments to the Mon appears to be quite common in Ladakh (La-dwags) and Zanskar (Zangs-dkar).

⁸ According to some old *'brog-pa*, in ancient times the Byang-thang was captured by the Mon. Later, Gling seng-chen of Tibet (equated in mNga'-ris with bSe-chen rgyal-po) led an army to the Byang-thang and pushed back the Mon. At that time many Mon-pa were killed and buried. These burials came to be called Mon-dur. Also in ancient times, there was a terrible epidemic that killed many Mon. These dead were buried as well. For that reason, the *'brog-pa* believe that should they come into contact with stones from these graves, an epidemic could be unleashed and wreck havoc on the countryside. See Gu-ge tshe-ring rgyal-po 2005, pp. 294, 295.

ancient archaeological sites. They are thought to be particularly sensitive to contamination from anthropogenic sources of pollution, and to cause illness in humans when affected in such a manner. There are several residential and ceremonial sites in Upper Tibet named after the chthonic *srin* and *klu*, which may be an allusion to their occupation by ancestral groups of Tibetans. As the archaeological sites are often considered haunted, they are traditionally shunned by local residents and rarely visited except for religious reasons. In the Communist period this abiding perception is undergoing change and sites are increasingly being viewed simply as sources of construction materials. The phrase *bka' gnyan-po* is frequently used to describe the dangerous or ambivalent qualities of archaic sites. In good circumstances, *bka' gnyan-po* places are neutral and exert no untoward influences on visitors, though given the least amount of provocation, they are thought able to unleash much damage. In contrast, Buddhist archaeological sites have less of a negative aura and are often perceived to be the dwelling places of powerful protector gods (*srung-ma*). The construction of Lamaist sites is never exclusively attributed to elemental spirits, although these preternatural beings may have been used by founding lamas as a workforce.

It is within these four simplistic legendary themes that cues pointing to the identification of archaic monuments must be sought. These legendary and mythic attributions are generally applied to sites that do not fall under the architectural ambit of Lamaist culture. They function as convenient intellectual categories to relegate awkward bits of early heritage (which by their very physical presence cannot be simply brushed aside) to a safe and distant ideological realm. While the oral tradition provides associative evidence of early settlement, it is not well suited to the collection of archaeological facts concerning archaic monuments and rock art. The oral tradition therefore is best applied as a non-specific and broadly inclusive interpretive anthropological tool.

3) Monuments exhibiting early design, constructional and morphological features:

An excellent indicator of the archaic status of archaeological monuments in Upper Tibet is the presence of distinguishing features in substance and form. These physical properties reflect different architectural conceptions and modes of execution than those exhibited by familiar Lamaist monuments. Of special note are the various funerary pillar monuments and necropoli of Upper Tibet. These types of monuments embody distinctive forms of abstraction and construction, the likes of which do not appear to have been adopted by Lamaist adherents. A different religious ethos required an alternative assemblage of monuments: rather than large burial complexes, Buddhism and systematized Bon saw fit to cover the landscape with *mchod-rten* (shrines) and walls with inscribed plaques, which are of a different order of architectural magnitude. In the domain of residential monuments great structural contrasts are seen between the all-stone corbelled edifices of early times and the later historic period Bon and Buddhist buildings built with wooden rafters. Aside from the very different methods and materials used in construction, the former structures are small-chambered, windowless and semi-subterranean, while Lamaist halls and temples have larger rooms, frequently windows or skylights, and are set prominently above the ground.

4) The siting of monuments in desolate environmental niches:

The specific geographic setting of archaeological sites provide some clues to their cultural identity. Many archaic residential monuments were built at high elevation and in special environmental niches that have long since been abandoned. These sites were not the object of sustained sedentary settlement in any way associated with the Lamaist cultural milieu of later times. A significant number of archaic sites are concentrated in defunct agricultural enclaves in far western

Tibet, and on headlands and islands across the breadth of the Upper Tibetan lake belt. Archaic residential sites are also found on lofty, inherently defensible summits and ridges, or at the heads of valleys at elevations sometimes exceeding 5000 m. Environmental degradation and changed cultural realities appear to be the motive forces behind the geographic shift from these specialized locations to the patterns of population distribution witnessed in more recent centuries. For the most part, the Lamaist religions chose lower-elevation valleys, basins and valleys for their major residential sites. Even when escarpments and mountain slopes were selected for the establishment of religious and political edifices, these are consistently located at a lower elevation than their archaic counterparts. Gangs ti-se is an excellent case in point: all around this sacred mountain one must climb above the existing Buddhist sites in order to reach those established in earlier times. The same patterns of settlement hold true for Dang-ra g.yu-mtsho where the archaic cultural horizon fastholds and religious centers loom over the contemporary Bon villages.

5) Monuments and rock art comparable to those in other regions of Tibet:

Comparative study of Upper Tibetan archaeological assets with their counterparts in Central Tibet and Eastern Tibet is another tool for ascertaining relative age and cultural affiliations. Unfortunately, very little reliable chronometric data has yet been assembled for archaic residential and ceremonial sites located in other regions of Tibet. Moreover, comprehensive archaeological surveys have yet to be launched outside Upper Tibet. The disorganized archeological data compiled in other regions of the Plateau impedes studies based on cross-referenced archaeological comparisons. As a result, the extent and nature of paleocultural affinities between Upper Tibet and Central Tibet and other regions of the Plateau have not been adequately determined.

In Upper Tibet and Central Tibet, quadrangle burial tumuli with inwardly sloping walls were built in the early historic period and most probably in prehistoric times as well. However, the all-stone corbelled residential edifices and pillar monuments that define the Upper Tibetan paleocultural ambit do not appear to be represented in Central Tibet. Khams and A-mdo also have varying assemblages of monuments (these are still not well catalogued). Nevertheless, the pastoral regions of A-mdo were host to a rock art tradition that is thematically and stylistically related to that of Upper Tibet. The areal variability marking archaeological assets is acknowledged in the Tibetan historical tradition, which assigns prehistoric Central Tibet and mDo-khams to different proto-tribal or quintessential groupings. Central Tibet is recorded as being dominated by Bod, Khams by Mi-nyag, and A-mdo by A-zha.

6) Monuments and rock art comparable to those in other Inner Asian territories:

Cross-cultural Inner Asian study is a fecund methodological approach for the determination of the identity and chronology of Upper Tibetan archaeological assets. This method has proven best suited to the interregional comparison of funerary sites that possess substantial above-ground structural elevations. Archaic funerary pillars and slab-wall structures are a case in point, where comparisons between the Upper Tibetan, Mongolian, Altaian and south Siberian types have borne good results. These basic monumental forms are dispersed throughout Inner Asia. As in other spheres where the technologies and cultural traditions of Inner Asia disseminated widely, chronological and cultural parallels between the funerary monument traditions of Upper Tibet and adjoining regions are indicated. The comparative study of Inner Asian rock art is also useful in delineating the amalgamative processes that brought Upper Tibet into functional and aesthetic congruity with its northern neighbors. The biggest drawback to cross-cultural analyses remains

the general shortage of good chronological controls for most sites in Upper Tibet. This will be remedied only when chronometric studies gain sufficient ground.

7) Art and artifacts that exhibit archaic stylistic and fabrication traits:

The aesthetic and technical analysis of art and artifacts is best used in conjunction with collateral archaeological data, but even alone it is a helpful method for estimating chronological values. The rock art record provides one of the best indexes of cultural evolution from the archaic to the Lamaist denomination. The prehistoric Upper Tibetan rock art tableaux are rich in compositions that depict economic, environmental and cultural matters related to the way of life in the region. These petroglyphs and pictographs are largely unrelated to Lamaist-inspired art and design as they developed in Tibet. Rock art exhibiting archaic themes (such as hunting scenes, the isolated portrayal of wild animals, and iconic motifs) continued to be produced well into historic times. This suggests that there was a good deal of cultural continuity between the prehistoric and historic epochs in Upper Tibet. Nonetheless, analogous subject matter reveals different modes of manual execution and stylistic presentation, valuable evidence in any attempt at chronological differentiation. As compared to rock art made in the prehistoric epoch, the later variants exhibit their own set production qualities and aesthetic refinement. Rock art of the historic epoch is either cruder or more polished. This inferred chronological progression is also discernable in other spheres of material culture. Artifacts such as copper alloy amulets, implements and weapons possess aesthetic and technical features indicative of relative age and cultural affiliation as well.

In addition to these indirect means of assessing archaic cultural status, the radiometric and AMS assaying of organic remains recovered from sites constitute the direct approach to dating. The criteria outlined above are all dependent on inferring chronological information from evidence that does not intrinsically lend itself to scientific verification. For these criteria to be validated, the conclusions drawn from the cultural identity, appearance and location of monuments and rock art must ultimately stand the test of chronometric verification. Over the last four years, I have begun the process of independent corroboration of the suppositions set forth above. I am intent on identifying the corpus of archaic structural and aesthetic forms in Upper Tibet in a more objective and reproducible fashion. In pursuance of this goal, I have to date submitted 18 samples for radiometric and AMS analysis (derived from both residential and ceremonial sites). The recovery and archaeometric assaying of far more samples from many more sites is demanded to definitively chart the chronology (and other objective values) of the Upper Tibetan archeological assemblage. Archaeometric inquiry is also essential in weeding out those sites surveyed that may not actually have an archaic cultural horizon status. Chronometric data assembled thus far have begun to corroborate the presumptions I have made concerning the temporal orientation of the sites surveyed.

3 The Chronology of Archaic Sites

The assembled chronometric and collateral data indicate that Upper Tibetan archaic monuments and rock art were produced over a wide spectrum of time, in both the prehistoric and historic settings. Two major epochs, each with two cultural phases, are provisionally indicated:

- I) Prehistoric epoch
 - 1) Iron Age
 - 2) Protohistoric period
- II) Historic epoch
 - 1) Early historic period
 - 2) Vestigial period

- I) Prehistoric epoch (early first millennium BCE to seventh century CE):

The first phase of the prehistoric epoch includes those sites that were founded in the early Iron Age (first half of first millennium BCE) and the developed Iron Age (middle and late first millennium BCE) of Inner Asia. Possibly late Bronze Age (circa 1200 to 800 BCE) affiliations are also indicated in the first phase of prehistoric Tibetan civilization, but this remains difficult to corroborate.⁹ A treatment of more remote prehistoric epochs (Paleolithic, Mesolithic, Neolithic) falls outside the purview of the current study.¹⁰ The second or later phase of the prehistoric epoch corresponds to the Tibetan anachronistic extension of the Iron Age marked by the Central Tibetan line of kings (late first millennium BCE to the seventh century CE). This second phase of the prehistoric epoch can be termed the protohistoric or legendary monarchal period due to the many Tibetan literary records that refer to the Central Tibetan kings of that time. There are also Bon texts purported to have been written in this timeframe though solid evidence for this allegation is lacking. These literary records include some assumed to have been first written in the Zhang-zhung and Sum-pa languages, which came to be translated into Tibetan during the imperial period. According to the Tibetan historical tradition, the Plateau of the Iron Age was divided into a number of petty states and governed by a succession of demigod chieftains. The protohistoric period in turn, is marked by the rise of the Yar-lung or sPu-rgyal dynasty beginning with King gNya'-khri btsan-po (traditional chronologies place him in the circa 200 BCE period).

⁹ At present the scant chronometric data do not demonstrate that any of the archaeological sites surveyed date to the late second millennium BCE or earlier. I suspect, however, that this current age limitation will be overcome as the pace of archaeological research intensifies and Bronze Age (especially late Bronze Age) structures can be positively identified. As in Central Tibet, some Upper Tibetan monuments may even prove to date to the Neolithic. This earlier periodization is particularly likely for tombs, because in all adjoining regions where chronometric and collateral archaeological data have been assembled, there are burials that predate the first millennium BCE. Another possible exception to the early Iron Age chronological basement are certain Upper Tibet rock art sites and compositions, which in terms of the techniques of manufacture and style conform to what some Central Asian rock art specialists would consider to be Bronze Age schema (see pp).

¹⁰ For reviews of these earlier epochs see Chayet 1994; Aldenderfer 2004. Sites attributed to the Paleolithic, Mesolithic and Neolithic have been discovered in Upper Tibet, but far more research is needed to determine when the high Plateau was first peopled and how these earlier occupations contributed to the later course of civilization in the region.

II) Historic epoch (early seventh century CE to present):

This first phase of the historic epoch, or the early historic period, chronologically corresponds with the Tibetan empire or imperial period and its troubled aftermath (seventh century to the end of the tenth century CE). It was in the imperial period that the first major introduction of Buddhism (*bstan-pa snga-dar*) into Tibet, the development of the Tibetan system of writing (*Bod yi-ge*), and the expansion of Tibetan political power across the entire Plateau and beyond occurred. The Upper Tibetan proto-states of Zhang-zhung and Sum-pa were amalgamated into the pan-Bodic polity of this period as well. The vestigial period includes all archaic monuments and rock art that continued to be created in Upper Tibet (late tenth century to mid 13th century CE). The production of some archaic cultural horizon archaeological assets appears to have continued for some centuries after the collapse of imperial Tibet. Certain surveyed tombs, strongholds and religious edifices are likely in this category. These architectural anachronisms seem to have been a cultural counterpoint to the inexorable process of Lamaist transformation. This period in Tibetan history is characterized by political reconsolidation, such as the formation of the Buddhist Gu-ge state in western Tibet in the late tenth century CE, and the ascendancy of the Sa-skyapa in the early 13th century CE.

At this juncture, the chronological values proposed above remain largely hypothetical and, with the exception of those few sites where chronometric data have been forthcoming, inexact and open to amendment. Nevertheless, this provisional chronology indicates that archaic cultural horizon archaeological monuments in Upper Tibet are a highly diverse group in terms of age and composition. By virtue of spanning the prehistoric and historic epochs, the sites surveyed represent a heritage of varying environmental dimensions, social forces, religious persuasions, and political orders, which are emblematic of cultural change in Upper Tibet over a period of no less than two millennia.

This work primarily treats the typological aspects of the study of archaic monuments and rock art as the basis for their periodization. Additional study, involving the vigorous application of chronometric methodologies, will be needed to create a precise chronology for each of the monument and rock art types surveyed. It is through such study that the cultural development of Upper Tibet and the nature of its intercourse with adjoining territories will come to be known in the kind of detail that such an important piece of the world's ancient heritage deserves. In addition to providing a model of cultural transition and adaptation in Upper Tibet, chronometric inquiry is required to determine the impacts of Late Holocene (2000 BCE to present) climatic deterioration on the various archaeological sites. Material culture studies are another area of archaeological research that has barely begun. The scientific recovery and study of utilitarian and ritual objects is of the utmost importance if we are to flesh out the cultural specifications, periods of usage, and environmental determinants at work at each of the sites catalogued.

4 A Typological Outline of Archaic Monuments and Rock Art

Below is an outline of the archaic cultural horizon monument and rock art typologies distributed above the ground in all areas of Upper Tibet. The monument typologies fall into two major divisions: residential (structures in which people resided or temporarily lived) and ceremonial (non-residential structures chiefly used for religious and burial purposes). Residential monuments are further divided according to their primary design traits and situational aspects. Ceremonial structures are subdivided according to their morphological and functional aspects. In Upper Tibet there are also minor physical remains associated with the ancient agricultural economy. Earthworks located in 'Dam-gzhung and sNying-drung may have had a residential and/or ceremonial function. Rock art of all types forms the aesthetic or graphic division of Upper Tibetan archaeological assets, while rock inscriptions are the epigraphic component.

I. *Residential Monuments*

- 1) Residential structures occupying summits (fortresses, breastworks, religious buildings, palaces, and related edifices)
 - a. All-stone corbelled buildings
 - b. Edifices with roofs built from timbers
 - c. Solitary rampart networks
- 2) Residential structures in other locations (religious and elite residences)
 - a. All-stone corbelled buildings
 - b. Other freestanding building types
 - c. Buildings integrating caves and overhangs in their construction

II. *Ceremonial Monuments*

- 1) Stelae and accompanying structures (funerary and non-funerary)
 - a. Isolated pillars (*rdo-ring*)
 - b. Pillars erected within a quadrate stone enclosure
 - c. Quadrangular arrays of pillars appended to edifices
 - d. Domestic pillars
- 2) Superficial structures (primarily funerary superstructures, burial and non-burial in function)
 - a. Single-course quadrate, ellipsoid and irregularly-shaped constructions (slab-wall and flush-block)
 - b. Double-course quadrate, ellipsoid and irregularly-shaped constructions (slab-wall and flush-block)
 - c. Heaped-wall enclosures
 - d. Quadrate mounds (*bang-so*)
 - e. Terraced constructions
- 3) Cubic mountaintop tombs
- 4) Shrines and miscellaneous constructions
 - a. Stone registers (*tho*)
 - b. Tabernacles (*lha-gtsug*, *gsas-mkhar* and *rten-mkhar*)

III. *Agricultural Structures*

- 1) Stone irrigation channels
- 2) Terracing
 - a) Retaining walls
 - b) Partition walls

IV. *Earthworks*

- 1) Rampart-like walls and platforms

V. *Rock Art and Epigraphy*

- 1) Petroglyphs
- 2) Pictographs
- 3) Inscriptions and ciphers

5 A Geographic, Morphological and Cross-cultural Analysis of Archaic Residential Monuments in Upper Tibet (Division I)

This division of archaic cultural horizon sites includes all types of monuments in Upper Tibet that were designed and built for residential activities.¹¹ Habitation may have consisted of permanent residency or that related to more transient activities (such as the visitation of temples where people did not board). These residential activities encompassed many aspects of ancient life, economic, political, religious, and domiciliary in nature. Archaic residential monuments seem to have first appeared by the middle first millennium BCE. An unbroken architectural tradition of constructing archaic style habitable structures extended into historic times. In a land where much of the population probably lived in tents and other temporary shelters from time immemorial, permanent habitation in well-built edifices must largely have been the domain of the higher strata of society. The level of physical and human resources needed to construct substantial residential centers could have been mustered only by those in powerful sociopolitical positions. A good deal of planning and workforce organization was required in building and maintaining these centers. As many of these archaic cultural horizon residential monuments are located away from the main zones of economic production (on summits, at the heads of remote valleys, on headlands and islands, etc.), their occupation was incumbent on the inhabitants being able to marshal vital resources such as food and fodder from environing areas. The production capacities of the agriculturalists and pastoralists, who dwelt in the basins and valleys, would have sustained the archaic residential centers, just as they did the monastic establishments of later times.

In the oral tradition of Upper Tibet, archaic cultural horizon habitations are said to have been the residences of the people of Zhang-zhung, the ancient Bon-po, that strange tribe known as the Mon, and cultural heroes such as Gling ge-sar and A-stag klu-mo. More fabulously, ancient habitations are reported to be the haunts of mischievous spirits known as the *bdud*, *gnyan*, *klu*, and *srin*. For example, the *srin* are credited with building the castle of rDzong pi-phi (A-49 of tables), and the *bdud* are said to have founded dBang-phyug mgon-po mkhar (A-51). Many other archaic residential centers are believed to have been taken over by local deities and, to a lesser or greater extent, are considered dangerous. The aforementioned term *bka' gnyan-po* (potentially hazardous) is generally used by Upper Tibetans to describe these sites. This aura of danger has traditionally dissuaded local residents from visiting and tampering with ancient habitations. To this day, it is not at all uncommon to find that many members of a community have not visited archaeological sites situated right in their midst.

Unfortunately, with the disintegration and secularization of Tibetan culture since the advent of the Chinese Communist period, those traditional compunctions protecting archaeological sites are falling by the wayside. I estimate that around 40% of all archaeological sites surveyed have undergone some degree of anthropogenic degradation in the last 40 years. Although the People's Republic of China has stringent laws regulating the management of archaeological sites, enforcement of these laws is still not very effective. This is a matter for grave concern and, if current trends continue, much of the archaeological wealth of Upper Tibet could be lost in the

¹¹ Reports of archaic residential centers east of my survey ambit include those noted in an article entitled *Thog ma'i gnas tshul dbang sgyur skor* (see Anonymous; no date of publication), p. 99. It concerns Sog-rdzong, and reads: "There are the ruins of old castle fortresses in 'Brod-zla and sMyos-long townships. Some elders report that it seems in the time before the sPu-ryal btsan-po (Tibetan emperor) Srong-btsan, they were a part of the Zhang-zhung *khri-sde* (administrative and military divisions) and that subsequently they were included in the horn (division) of Sum-pa."

next few decades. In the last 15 years, the pilferage of stones from archaeological resources in the region has become a growing problem.¹² The motivation for this destruction is purely economic.

5.1 Residential Structures Occupying Summits (Subdivision I.1)

In this residential grouping are all habitational structures located on summits and other lofty positions on mountains, ridges, hills, and high rock formations. Residential structures with this geographic aspect have an inherently defensive position. In this residential subdivision are edifices that functioned as fortresses and citadels (habitations designed and built for military and political purposes), temples and hermitages (buildings with a ritual or contemplative function), palaces (residences of the social elite), and breastworks (networks of ramparts or other types of defensive structures that were temporarily or permanently inhabited). From a visual appraisal of the remains, the specific occupational function of individual edifices can only be inferred. In any event, these strongholds, temples and hermitages appear to have been where the ruling and priestly classes resided, and from where they exercised their social influence and political control over the agriculturalist and pastoralist sectors of society.¹³

Residential complexes on summits are most heavily distributed in far western Tibet, with 70% (98 sites) of all sites surveyed found in Ru-thog, rTsa-mda', sGar, and Pu-rang. Moreover a full four-fifths of these far western sites are located in just two areas: Ru-thog (37 sites) and rTsa-mda' (40 sites). In contrast, there are only five summit sites (4% of the total) surveyed that are situated east of the 89th meridian. This indicates that elite sedentary cultural patterns in the eastern Byang-thang remained retarded throughout the archaic cultural horizon. The reasons for this scarcity of permanent defensive structures in the east are beclouded. Although the far eastern Byang-thang has the highest rainfall of any region in Upper Tibet ('Dam-gzhung excepted), it appears to have been more sparsely populated and/or of more limited strategic value than areas farther west. The remaining 36 summit sites (25% of the total) surveyed are scattered across the Byang-thang south of the 33rd parallel, with close to one third of these arrayed near the shores of Dang-ra g.yu-mtsho alone. Less than one fifth of the total number of summit sites surveyed are situated in exclusively

¹² I briefly discuss issues concerning the conservation of Upper Tibetan archaeological monuments in Bellezza 2003b. A particularly poignant case is Ri'u dgon-pa (B-25), located in northern Ru-thog. This religious residence, which is of the utmost archaeological and historical importance, was partially dismantled by local 'brog-pa, circa 2000. These herders were intent on removing the long slabs of stone from the various all-stone edifices in order to cart them back to their homesteads and inscribe Buddhist mantras on them for protective purposes. The uniquely designed residential complex of Ri'u dgon-pa has architectural traits of both the Bon *gsas-khang* (all-stone construction, semi-subterranean aspect, etc.) and Buddhist *dgon-pa* (internal courtyards, ornamental wall components, full-sized entranceways, etc.). It consists of a main temple (18 m x 13.5 m), four dependencies and outlying shrines. The quality of stonework is exceptional and features tightly fitting random-work slab-walls, embellished doorjambs (*ru-bzhi*), lintels and moldings (lithic equivalents of Tibetan architectural elements known as *bab* and *kha-shing*). According to the local oral tradition, the foundation of Ri'u dgon-pa is connected to the Ge-sar epic figure gCen-po spa-rgyal-tsha sha-dkar. The goddess A-stag klu-mo is supposed to have resided at Ri'u dgon-pa as well. It is also believed that Ri'u dgon-pa was once a branch monastery of Gu-ge mTho-lding, one of mNga'-ris's most important Buddhist centers. Since 2004, there has been a local initiative to protect what is left of Ri'u dgon-pa, but this effort is hampered by a lack of expertise and financial resources. Recently, some of the slabs of stone that made up the roof and floor of the main temple have been returned to the site. As of 2006, no attempt has been made to reinstall these stones.

¹³ There appear to be some Iron Age parallels to Eastern Turkestan as regards this type of mixed economic arrangement. According to Debaine-Francfort (2001: 66), Djoumboulak Koum, a fortified town in the middle of Taklamakan (attributed to the middle of the first millennium BCE), which is located in an oasis that is now completely dried up, was occupied by both herdsman and cultivators, and metallurgy was practiced there.

pastoralist regions of the Byang-thang west of the 89th meridian or in the upper Yar-lung gtsang-po valley. The majority of these highland fastnesses stood guard over important pastures and springs, essential natural resources in places where cultivation was not feasible.

The dense concentration of summit strongholds in far western Tibet mirrors the importance of this part of Upper Tibet in terms of population and political standing. This aggregation of power and people can primarily be explained by the presence of agricultural resources, for most of the rTsa-mda', Ru-thog and sGar summit sites are located near arable land holdings (now both defunct and viable). It is quite obvious, then, that the wealth needed to develop elite hilltop centers was mainly derived from an agricultural economy. The higher levels of population density that could be supported by farming (as opposed to herding alone) must have been a crucial factor in the establishment of these sites. Unquestionably, an adequate population would have been needed to build and maintain the citadels and lofty residences. The same basic ecological, economic and demographic patterns hold true for Dang-ra g.yu-mtsho (located in the middle of the Byang-thang). The proliferation of ancient residential structures occupying summits at Lake Dang-ra can be mainly attributed to its erstwhile ample agrarian base. On the other hand, only three of the eight summit sites documented in Pu-rang (6% of the total) are located in agricultural regions; the other ones are found in the general vicinity of Mount Ti-se and Lake Ma-pham, very important pilgrimage centers since early times.

5.1a All-stone Corbelled Buildings (Type I.1a)

This building type represents one of the most prominent classes of ancient residential structures found in Upper Tibet (figs. 1–3). In the parlance of the region, this style of architecture is often referred to as *rdo-khang* (all-stone habitation). In dKar-ru grub-dbang's *Ti-se'i dkar chag*, we find the term *rdo yi khang-bu* (small houses of stone) in association with prehistoric Zhang-zhung religious occupation (Bellezza 2002a: 56). This highly distinctive building tradition is characteristic of the prehistoric and early historic cultural milieu of the region. It is eminently well suited to the environmental exigencies of a harsh high-altitude land.

The robust construction of the *rdo-khang* allowed them to withstand the full brunt of the Upper Tibetan elements, one of the most extreme climates in the world. The toughness of the all-stone edifices is underscored by the number of examples that are still relatively intact even among those that have been long abandoned. It is perhaps in Upper Tibet that all-stone corbelled buildings reached their fullest stage of development in Inner Asia, East Asia and the Subcontinent. Although there are minor all-stone shelters for shepherds found in various western Transhimalayan regions, it was in Upper Tibet that the use of corbels became a canonical feature of extensive architectural projects. My archival research to date has uncovered no other region in Inner Asia where such large and important edifices were constructed in this manner. Furthermore, all-stone corbelled edifices are extremely practical in a world with few trees even prior to the full extent of Late Holocene environmental degradation. As the building type is exceptionally rugged and structurally stable, individual examples could conceivably have endured as active habitations for centuries.

All-stone edifices relied on the use of corbels, stone members that were placed on the upper edge of walls as load-bearing devices for the roof assembly. Corbels were either simply rested on the top of the walls and counterbalanced by the superimposed structures of the roof, or were inserted into specially-built wall sockets. Corbels generally protrude in a perpendicular fashion from the upper walls of a building and act to support the bridging stones and stone sheathing from which



Fig. 1. A well-developed corbelling technique, gZims-phug (B-31)



Fig. 2. An in situ corbel among those that have collapsed, mTsho-do (B-131)



Fig. 3. Intact corbelling and bridging stones, Phug-chen (B-27)



Fig. 4. Socketed corbels at the floor-ceiling juncture of what was originally a two-story structure, Phyug-tsho grog-po rdzong (B-6)

the roof is made. Sometimes two or more layers of oversailing corbels project outward to lessen the area that needed to be roofed. Bridging stones were laid diagonally or crosswise in one or more courses over the corbels in order to span the distance between opposite walls. In turn, large slabs of stones were placed upon the bridging stones to create a complete roof covering. While corbels and bridging stones (generally 70 cm to 2 m in length) may form successive overlapping layers, nowhere were these so well developed as to constitute true corbel arches.

The elementary corbelling technique employed in Upper Tibet for roofs was suited for use only over small interior spaces (typically 3 m² to 12 m²). In larger rooms there are always one or more masonry partitions or buttresses that partly divide the interior into smaller units. These intervening walls effectively reduce the distances between the outer walls, allowing the corbelling and bridging stone appurtenances to be used to good effect. Interior walls punctuated by breaks produce alcoves and cubby-holes, which give the *rdo-khang* their characteristic sinuous floor plan. Large edifices were created by juxtaposing multiple, structurally self-contained rooms or suites of rooms to form a contiguous ground plan. At Phyug-tsho grog-po rdzong (A-10) and Jo-mo ri-rang (A-54), corbels inserted into sockets were used to support the stone joists and flooring of a second story in the same fashion as roofs were constructed in one-story structures (fig. 4). A similar technique was used at dBang-phyug mgon-po mkhar (A-51) (fig. 5).

The all-stone corbelled edifices have many unique construction and design traits. In general, they are massively built, a consequence of the great weight that the roofs bear on the walls. Walls are between 60 cm and 1.2 m in thickness, and of a slab or block random-rubble texture. Both dry mortar and mud-mortared seams are represented in their construction. Roofs are as a matter of course flat. The stone sheathing of the roofs must have originally been covered in gravel and clay to weather-proof the buildings, but little evidence of this more ephemeral aspect of construction has survived. As each room or group of rooms is an isolated unit structurally, buildings need not have long, regular walls. In fact, the exterior walls of such structures have an irregular or even meandering plan. On account of the customary use of internal buttressing, walls are of variable thickness, creating series of exterior indentations and interior recesses. Both exterior and interior corners tend to have a rounded quality, as this facilitated the arrangement of corbels. The floor to ceiling height of rooms in *rdo-khang* is relatively low (1.6 m to 2.1 m). Most buildings are windowless and even in certain structures where there are interior and exterior window openings, these are small in size. These apertures are supported by stone lintels.

Single buildings contain between two and 12 rooms, which are normally arranged in rows or isolated aggregations. Rooms directly open onto one another or are connected through a small corridor or interclose. Various wings in a single building usually have separate exterior entrances, because large interconnecting halls and galleries are not feasible in *rdo-khang* construction. Another defining feature of the corbelled edifices is the very small size of their doorways; these average only around 1.1 m in height (70 cm to 1.4 m). Like the few windows, the lintels and jambs of the entranceways are made from stone slabs. The heavy uninterrupted walls and low doorways of the all-stone edifices indicate that they were highly weatherproof and easy to heat. Collections of small rooms also indicate that a decentralized or compartmentalized domestic ecology was the norm. Individual cells must have been set aside for the various facets of everyday life such as sleeping, food preparation, storage of provisions, and religious observations. Openings in the ceiling for smoke ventilation are found in some rooms. Rooms were only large enough to accommodate individuals or small family units. We might read into this that the dwellers possessed a culture where individuality and self-reliance were prized social characteristics. Cooking, meetings and ceremonial life held inside the *rdo-khang* could only have revolved around small groupings of people. The absence of large halls or rooms in these facilities, which could have been used for larger collective social contingents, shows that assemblies must have convened elsewhere. Bigger groups of people may have met in relatively sheltered locations such as courtyards, passageways between buildings and caves. It is likely that when the inhabitants gathered en masse they did so in the valleys and plains below the summit complexes, and that this involved the use of tents. As in contemporary Tibetan festivals, large-scale congregations could have been accommodated in this way.

Customarily, *rdo-khang* on a summit were vertically interconnected to create a staggered array of structures. Naturally-occurring rock outcrops and ledges were commonly used to help support the walls of corbelled buildings and to act as one or more sides of a structure (particularly in the rear). The all-stone form of construction was most favorable to incorporation into the adjoining terrain, as walls could be built to accommodate the twists and turns of rock faces and outcrops. This high degree of integration with the parent formation is another distinguishing feature of the *rdo-khang* design. Although individual corbelled edifices have low elevations (there are no high ceilings and parapet walls appear to have been minimal), the stacking of one on top of another has the effect of producing formidable high-elevation complexes. It is not uncommon to find these structures clinging to the sheer walls of a summit for many tens of vertical meters (figs. 6, 7). In sites that appear to have functioned as hermitages rather than military installations (such as Ba-lu



Fig. 5. Corbelling inserted into sockets, dBang-phyug mgon-po mkhar (A-51)



Fig. 6. The second-level complex built at various elevations along a rocky rib, Ge-khod mkhar-lung (A-89)



Fig. 7. The stacking of all-stone structures, Phyug-tsho grog-po rdzong (A-10)



Fig. 8. DK2, Ba-lu mkhar (A-102)

mkhar, A-102), individual residences tend to be separated from one another instead of forming aggregated complexes (fig. 8). The use of prominent revetments, a common building technique, significantly increased the exterior elevation of individual structures. Revetments function to give buildings a stable foundation and to even out the horizontal plane on what otherwise would be an irregular surface of dips and rises. Rather infrequently, all-stone edifices were integrated with other building types at a single location such as in the dBang-phyug mgon-po mkhar site (A-51). At dBang-phyug mgon-po mkhar, there is structural evidence to indicate that the basement or lower story of some buildings was fashioned as a *rdo-khang*, while the superstructure was of an alternative construction (fig. 9).

The all-stone edifices are distributed throughout most areas of Upper Tibet west of the 89th meridian. They are therefore closely linked geographically with the paleocultural entity traditionally known as Zhang-zhung. Their superb adaptive qualities indicate that they were a chief residential type for a long period of time in Upper Tibet. Bronze Age occurrences of corbelled edifices in the British Isles and Mediterranean region may suggest that the technologies for this form of architecture developed in Upper Tibet at a relatively early date.¹⁴ The lack of demonstrable

¹⁴ For an overview of ancient corbelled structures and their primary architectural features, see Juvanec 2000.



Fig. 9. An all-stone corbelled lower story underneath a superstructure that probably supported a wooden roof, dBang-phyug mgon-po mkhar (A-51)



Fig. 10. The all-stone corbelled dependency from which a wood sample for radiometric analysis was obtained, Ge-khod mkhar-lung (A-89)

monumental precedents in the archaeological record of Upper Tibet reinforces the impression that all-stone edifices have a long legacy behind them. Chronometric data on the sites surveyed are now undergoing formulation. The results furnish the best archaeological evidence corroborating the prehistoric identity of Upper Tibet's all-stone edifices. On the basis of similarities in size, geographic orientation and ground plan, as well as the presence of an interior pillar marking an analogous area of habitation in structure S4 of the Dindun site (sDings-zlum/rTing-stong), Aldenderfer (2003: 8) infers that the *rdo-khang* I call 'Founders House' (part of Do dril-bu site, B-13) may date to the same period, circa 550–100 BCE.¹⁵ I hasten to add that while S4 and the Founder's House share parallel morphological and design features, the latter may be of a more recent date as there are indications that the use of archaic forms of construction endured in Upper Tibet until historic times. As for the persistence of *rdo-khang* as active residences into the beginning of the second millennium CE, the songs of Buddhist yogin Mi-la ras-pa (1040–1123) provide some intimation (Bellezza 2002a: 65). A Bon-po in a magical contest with Mi-la-ras-pa to construct a building is recorded as making two stone roof slabs. The attribution of stone roofs to a Bon-po in these songs appears to be an oblique reference to the antecedent cultural patrimony of the region.¹⁶ On the earlier end of the chronological scale, a late Iron Age date for an all-stone edifice at the

¹⁵ Four small single-story residential structures with plans of varying levels of complexity were excavated at the sDings-zlum site, which is located near the famous Dung-dkar monastery in Gu-ge. Only fragmentary foundations were extant. Structure 1 is semi-subterranean. In Structure 4, an edifice containing at least five rooms, a pillar was discovered in a room near the west end of the structure. Cord-marked ceramic vessels, ground stone tools and copper alloy scrap were recovered from Dindun. A radiocarbon assay of one sample of carbonized wood from a disturbed residential structure located at the same site yielded a calibrated date of 348 BCE to 71 CE. This age is comparable with tomb remains that have undergone chronometric analysis in the Dung-dkar Phyi-dbang region (769 to 197 BCE). Both the residential and mortuary sites contain the same type of ceramic vessels (analogous cord-marking, punctuates, striae, and lug handles with X-shaped markings). The correlation of these data indicates that the Dindun residential site dates to circa 500 to 100 BCE. See Aldenderfer and Moyes 2004. It should be noted that there is not sufficient structural detail remaining to ascertain the design of the superstructures of the ancient residences of Dindun.

¹⁶ In fact, the all-stone rDzong-ser (A-1) was in regular use until 1959, and is even now occasionally visited by religious practitioners. As for a modern architectural feature with an ancient precedent, Aldenderfer and Moyes (2004: 52, 53) comment that an earthen platform excavated in an ancient residence (circa 550 to 100 BCE) of the Dung-dkar Phyi-dbang region is similar to those met with in contemporary houses of the region.

Ge-khod mkhar-lung site (A-89) is indicated by radiocarbon analysis (fig. 10).¹⁷ Amid the rubble of an all-stone edifice at this site, I recovered an approximately 8 cm-long fragment of a round of wood. It was found sheltered in a series of outbound semi-subterranean structures that formed a dependency of the main citadel. This wood specimen has yielded a calibrated radiocarbon date of circa 200 BCE to 100 CE.¹⁸ The round of wood was around 4 cm in diameter; consequently it came from a source that had not lived very long. It is likely that smaller pieces of wood like this one were used after being cut fresh or not long afterwards. The use of the analyzed specimen as a material cultural object at Ge-khod mkhar-lung is therefore likely to have occurred in a period generally corresponding to its measured radiocarbon age. Small rounds of wood such as the one under scrutiny could have been used as architectural elements or as parts of implements with a wide range of functions.

5.1b Edifices with Roofs Built from Timbers (Type I.1b)

This heterogeneous monument type includes all residential structures that were built with roofs containing timbers. It is crucial to note that among the examples I have included in my inventory there is at least one site that was established or redeveloped in the late historical period. This site could not be easily differentiated from archaic stronghold types due to the possession of similar morphological traits and cultural attributions (fig. 11).¹⁹ Another site attributed to the Mon known

¹⁷ This important archaic cultural horizon citadel is named after Ge-khod, the mountain god (*yul-lha*) of Ru-thog, which stands at the head of the mKhar-lung valley in direct view of the archaeological site. Geographic access to the *yul-lha* and the ritual structures associated with it must have once been controlled from Ge-khod mkhar-lung. The castle overlooks a fairly extensive agricultural enclave that is still partially active, although much of it seems to have been destroyed by flooding and fluvial depositions. This all-stone corbelled facility is stacked on an almost vertical spine of rock upwards of 110 m in height. Rising above the bank of the mKhar-lung chu, there are a number of outcrops on this spine that supported the buildings of the main complex. From the valley below, this formation presents a formidable sight with its various levels of structures adroitly clustered on rock ledges and perches. In addition to the fortifications on the spine of the formation, there are extensive semi-subterranean residential ruins on the gravel and rock-strewn slopes to the east. The most prominent of these is what appears to have been a temple complex with two subterranean chapels. Structures were built of lightly mud-mortared random-rubble slabs and blocks. Some of these variable-length stones (up to 1 m) were hewn flat on their exterior faces. The well-built walls of the complex are generally 60 cm to 80 cm thick.

¹⁸ Radiometric, sample no. Beta 200752; conventional radiocarbon age: 2040 +/-70; 2 Sigma calibrated result: Cal 2150 to 1860 BP (years before present); intercept of radiocarbon age with calibration curve: Cal 1990 BP; 1 Sigma calibrated result: Cal 2100 to 1900 BP. I have also radiocarbon-dated a short section of a piece of softwood 50 cm in diameter (local poplar, *lcang-ma*?) I came across on the surface, in one of the hilltop structures at Gyang-pa'i gtsug-rdzong (A-9), an all-stone facility: radiometric, sample no. Beta 187500; conventional radiocarbon age: 430 +/-70; 2 Sigma calibrated result: Cal 550 to 310 BP; intercept of radiocarbon age with calibration curve: Cal 500 BP; 1 Sigma calibrated result: Cal 530 to 450 BP. This sample appears to represent a chance find, a piece of wood deposited in Gyang-pa'i gtsug-rdzong a few centuries ago, not an integral part of the structure. The oral tradition places this fortress in the Zhang-zhung period, and I have not discovered any evidence to show that it was still active in or after the 15th century CE. I base this assertion on the archaic construction type and the lack of textual sources mentioning the site. The local oral tradition holds that the zenith of building activity at Dang-ra g.yu-mtsho occurred in or before the early historic period.

¹⁹ A good example of a residential complex attributed in the oral tradition to the Mon, but certainly in use within the last three or four centuries, is Lug-ri sna-kha (A-92). This site is dominated by a cluster of around 15 ruined buildings perched on a summit that rises approximately 50 m above the Ru-thog basin. There are two clues indicating the historic period usage of the site: the presence of several standing adobe block wall segments (this type of wall fabric is almost never encountered in residential structures attributed to the archaic cultural milieu outside of Gtse), and the oral tradition stating that the deity of Lug-ri sna-kha was a protector of sGo-nub, a now ruined Buddhist



Fig. 11. An adobe structure in the midst of stone structures, Lug-ri sna-kha (A-92)



Fig. 12. Upper facility at sKabs-ren gyang-gog (A-33)

as sKabs-ren gyang-gog (A-33) (it may have been built with a wooden roof but the structural evidence is inconclusive), a small stronghold in Ru-thog, was active circa the 11th to 13th century CE (fig. 12). Chronometric datum points to the establishment of the small upper sKabs-ren gyang-gog complex (barring the occurrence of reconstruction activity) in this general timeframe.²⁰ This indicates that sites assigned to the ancient Mon in the oral traditions of Upper Tibet were active if not founded as late as the 13th century CE. This justifies my stance in earlier works, where I conclude that archaic type edifices ascribed to the Mon were potentially constructed as late as the 13th century CE, and not just as part of the prehistoric and early historic heritage of Upper Tibet. The chronometric data obtained from sKabs-ren gyang-gog reinforces the view that Mon-attributed monuments must be understood in a broad historical and cultural framework. It is increasingly clear that the Mon ascription of the oral tradition serves as an all-inclusive folkloric label for any type of monument whose construction was not directly inspired by Buddhist cultural and architectural conceptions. Further archaeological investigation will be required to dispel typological ambiguities as to which edifices built with timbers are prehistoric, early historic or even of a later period.

As with the all-stone-structures, buildings constructed with wooden roofs, which were located on summits, generally had a good defensive posture. Also, like other sites crowning summits, their domiciliary usage appears to have varied greatly. Citadels, fortified settlements, garrisons, temples, and palaces are all probably represented in this class of habitation. These edifices have four major wall types:

monastery at rDzong-ri. The access way to the complex is prominently elevated (up to 5 m) upon a masonry revetment. Underneath this walkway there is a narrow chamber with six hardwood rafters (15 cm to 25 cm in diameter) supporting the roof. A section in the round of one of these members was extracted for radiocarbon dating: radiometric, sample no. Beta 200750; conventional radiocarbon age: 370 +/-50; 2 Sigma calibrated result: Cal 520 to 300 BP; intercept of radiocarbon age with calibration curve: Cal 460 BP; 1 Sigma calibrated results: Cal 500 to 420 BP and 390 to 320 BP. It could not be determined if any portion of the Lug-ri sna-kha complex predates the 16th century CE.

²⁰ For a description of this site see Bellezza 2002a, p. 30. In 2000, I extracted a section 7 cm-long of a small round of tamarisk from a composite stone and wooden lintel over the 50 cm-wide entranceway of the ruined upper facility. Unquestionably, these tamarisk rounds were an integral structural feature of the upper sKyabs-ren edifice. Radiometric, sample no. Beta 200758; conventional radiocarbon age: 910 +/-60; 2 Sigma calibrated result: Cal 940 to 690 BP; intercept of radiocarbon age with calibration curve: Cal 790 BP; 1 Sigma calibrated result: Cal 920 to 750 BP.



Fig. 13. Lower complex, mKhar-ru mkhar-gog (A-85)



Fig. 14. sPo-sa mkhar-gog (A-84)



Fig. 15. Overview of rGyu-mgul mkhar (A-60)



Fig. 16. East complex, dPa'-ngar gzhung khang-gog (A-31)

- i) Random-rubble and coursed-rubble stone walls
- ii) Adobe/unbaked mud-brick walls (*sa-phag*)
- iii) Rammed-earth/shuttered-earth walls (*gyang*)
- iv) Walls of naturally-occurring earthen slabs cut from local formations

- i) Random-rubble and coursed-rubble stone walls:

Residential structures built with timber roofs and stone walls are commonly encountered throughout Upper Tibet. Where walls are left standing this type of construction is readily identifiable: walls are straight and regular and can be of considerable length. As roofs were built with wooden timbers, the walls supporting them were not required to be as massive as structures with much heavier all-stone roofs. The regular buttressing and indentation of *rdo-khang* walls is also conspicuously absent. Moreover, high-elevation profiles and large rooms and halls are structurally feasible and these are found with much frequency, especially in Buddhist era complexes. However, what appear to be archaic structures built with timber roofs share some of the customary features of the *rdo-khang* design. These include edifices with smaller rooms, windowless walls, relatively low entranceways, adeptly constructed random-rubble slab-walls, a high degree of topographical integration into the parent formation, the proliferation of small buildings placed vertically along a summit, and series of small ramparts. Sites exhibiting some of these older morphological and

situational characteristics include mKhar-ru mkhar-gog (A-85), sPo-sa mkhar-gog (A-84) and rGyu-mgul mkhar (A-60) (figs. 13–15).

None of the stone wall buildings surveyed have intact wooden roofs, but the general constructional patterns and the presence at some sites of timber fragments suggests that these were constructed much as they are in the traditional Central Tibetan style of architecture. This entailed the laying of timbers flat across the top of walls and covering them with wooden and/or stone interlinking materials. Once the roof was completed in this fashion, wattle, clay and possibly Tibetan cement (*Ar-ka*) must have been used to build up successive sealing layers. There is much diversity in the plans and construction of structures founded on summits. Among them are large complexes with random-rubble walls staggered in crags (dPa'-ngar gzhung khang-gog, A-31; Brag-phug, A-35), coursed-rubble structures (Gra-rong mon-rdzong, A-21), single buildings with large, deeply recessed entrances (Nag-gtsug mkhar, A-57; Ha-la mkhar West, A-58), sites with dispersed structures (Lung-phug, A-112; Nag-ra rdzong, A-80; rDzong nag, A-2), linear arrays of buildings (rTsa-ma, A-36), and massive edifices with a central corridor built on high-elevation footings (Ma-ñi thang-mkhar, A-121) (figs. 16–27).²¹ These conspicuous differences in the architectural canon of Upper Tibet reflect significant functional and chronological variations in the construction of stone edifices on high ground. We are not dealing with a monolithic building tradition in any

²¹ I have radiocarbon-dated wooden fragments removed from Mar-dkar byu-ru mkhar/bSam-grub khyung-rdzong (A-119) and Brag-dkar mkhar/bTsan lha'i mkhar (A-120), located in Lugs and sNu respectively (in Gu-ge). These two sizable citadels were first described by Tucci on his 1933 scientific mission to far western Tibet. According to local tradition, these sites belonged to the bsKal-mon, and are now haunted by evil spirits. These strongholds are constructed of stone and were built with central axial corridors flanked by small chambers. Compare Tucci and Ghersi 1935, pp. 102–107, 112. Mar-dkar byu-ru mkhar is situated on a ridge overlooking a ravine, which divides Lugs village into south and north sectors. The site consists of one massive installation whose four outer walls measure: 42 m (west), 29 m (south), 52 m (east), and 43 m (north). The castle is comprised of two major elevations (main elevation and lower east/forward elevation). The main elevation walls sit upon revetments 2 m to 3 m high. From the extant structures it is impossible to glean the details of the ground plan. All structures of the stronghold were built with a random-rubble texture. Bluish limestone was used for most construction but brown sandstone and other types of stones are also found at the site. It seems highly unlikely that a population as small as the contemporary settlement (112 residents in 24 households) in Lugs could have built and maintained such an impressive facility. Brag-dkar mkhar consists of a single complex of contiguous structures (55 m x 9 m to 16.5 m) set on a ridgeline prominence. The site is situated on broad slopes 200 m above the village of sNu. There are no ramparts or other forward defensive features at the site, so Brag-dkar mkhar was not particularly well insulated from military threats. The lofty location, however, has the air of prestige and exclusivity about it. We might infer from the size and placement of the facility that the social and political elite of sNu occupied the castle. The population at that time probably was significantly larger than the 75 souls (18 households) who now live in the village. There is no obvious source of water on the ridge-top, calling into question where such a large community obtained this vital resource. The castle was constructed from a yellowish brown stone (resembling sandstone) set into random-work courses with thick joints, heavily cemented with a reddish mud-based mortar. Much of the ground plan consists of a row of small rooms flanking each side of a longitudinal corridor. From the rear west wall of the Mar-dkar byu-ru mkhar, I removed a round of softwood (22 cm long, 2 cm in diameter) for radiocarbon dating, the results of which were outside the range of calibration (less than 100 years old). I also extracted a round of softwood (14 cm long, 3 cm in diameter) from the mud-mortar filled joints of the west wall of Brag-dkar mkhar. This sample yielded a conventional radiocarbon age of 130 +/- 50 BP. Another radiometric sample of softwood from Brag-dkar mkhar came up so recent as to be outside the bounds of chronological calibration. These disappointing results must attest to the corruptibility of my samples. It seems likely that organic matter of recent origin contaminated these low mass wood fragments in situ, distorting the calibration of their age. We must keep in mind that 75 years ago, Tucci reported the Lugs and sNu sites as being ancient. On account of their great size, morphological characteristics, the altitudinous aspect, the lack of demonstrable Buddhist emblems and constructions at the sites, and the oral tradition, a recent foundation date cannot be seriously entertained for Mar-dkar byu-ru mkhar and Brag-dkar mkhar (although their true age remains to be determined). Three ruined castles located not too far away in the vicinity of Shib-pe la (mKhar-gog, Senge mkhar and sKyabs mkhar) are reported by Francke (1914: 25, 26) to be of great age.



Fig. 17. Lower and middle complexes, Brag-phug (A-35)

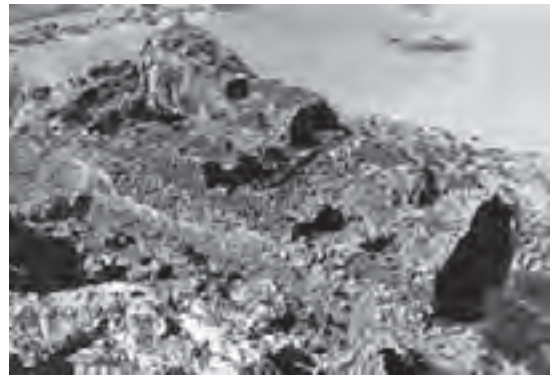


Fig. 18. Coursed-rubble texture wall, west complex, Gra-rong mon-rdzong (A-21)



Fig. 19. Deeply recessed entrance to Nag-gtsug mkhar (A-57)



Fig. 20. The broad inset entrance to Ha-la mkhar West (A-58)



Fig. 21. The sprawling south summit of Lung-phug (A-112)



Fig. 22. Upper complex, Nag-ra rdzong (A-80). In the background is Gung-rgyud mtsho

sense, but with the vestiges of patterns of residency that evolved over time to suit a number of adaptations and purposes.

It is worth drawing attention to signature features of latter times and other regions of Tibet that are not part of the assemblage of residential sites I have documented. In the surveyed structures, window openings where they exist are small, simply-built affairs. No evidence of elaborate wooden window frames (as occurs in historic era monasteries and strongholds in most regions of



Fig. 23. Dispersed structures of rDzong nag (A-2)

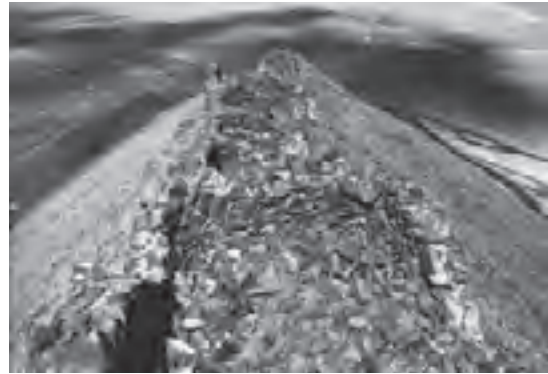


Fig. 24. The single line of buildings at rTsa-ma (A-36)



Fig. 25. An axial corridor is visible to the left of the tape measure, Ma-ṅi thang-mkhar (A-121)



Fig. 26. Mar-dkar bya-ru mkhar (A-119)



Fig. 27. Brag-dkar mkhar (A-120)



Fig. 28. A small portion of what was probably an all-stone dependency, Ba-lu mkhar (rTsa-rang) (A-134)

Tibet) was discovered. Unlike the traditional architectural landscape of Central Tibet and Eastern Tibet, there is no sign of towers or turrets having been erected in Upper Tibet; stone buildings of more than two stories being rare in the region. Also, while the ‘fortress style’ (consisting of walls that taper inward towards the roofline) is common in lower areas of Tibet, it does not turn up in the archaic residential structures of Upper Tibet.

ii) Adobe/unbaked mud-brick walls (*sa-phag*):

Residential structures built with unbaked mud bricks/blocks (adobe) attributable to the archaic cultural milieu are not encountered in the Byang-thang. They are also absent in most of the relatively low-elevation valley systems of mNga'-ris (sGar, sPu-rang and Ru-thog). In the Transhimalayan badlands region of Gu-ge, however, there is a significant group of mud-brick residential complexes that can be provisionally attributed to the archaic cultural horizon.²² These are found on the tops of the highly eroded earthen and conglomerate formations poised above the deep gorges of the Sotlej (Glang-chen gtsang-po) drainage system. According to the oral tradition of Gu-ge, many of these castles were established by the ancient Mon (Mon gyi mkhar). The Mon-pa are also supposed to have founded villages, cave complexes and agricultural centers in the same locales. From an environmental perspective this claim of antiquity for elementary earthen structures is plausible, for stone is in short supply in many corners of Gu-ge where the ancient mud-brick centers arose. Lithic materials appropriate for corbelling and bridging only seldom occur in Gu-ge, probably explaining why this style of construction was not common in the region (figs. 28, 29).²³ Moreover, mud-brick structures are known from many cultures of antiquity. As earth is what the inhabitants of the Gu-ge valleys had to work with, that is precisely what they appear to have used from the prehistoric epoch onward.

Let us examine various cultural and physical forms of evidence in an attempt to distinguish archaic cultural horizon from Buddhist period mud-brick architecture in the badlands of Gu-ge. It must be stressed that the descriptive data I present here is part of a preliminary attempt to assign relative chronological values, until time verification utilizing archeometric methodologies is possible. Complicating the development of a chronological model of architectural development in the region is the continuous settlement of the relatively hospitable Gu-ge area from prehistoric times until the present. This means that individual sites were open to resettlement and structural modification over a long period of time. A historical scenario where older foundations were reused, buildings modified and refurbished, and hybrid forms of construction developed can all be imagined. These factors complicate efforts to separate mud-brick architecture in Gu-ge into discrete chronological categories. In the historic period, Buddhist monasteries, temples, retreat centers, and palaces almost universally appear as mud-brick and rammed-earth constructions with and without stonework. Post-tenth century CE structures built from mud-bricks, however, exhibit a different set of morphological, constructional and weathering traits from those that can be attributed to the earlier period. It would appear that adobe block constructions in the archaic cultural setting were usually reserved for ancillary or supplemental applications (the higher reaches of outer walls, room partitions and minor constructions), and for buildings of an altogether different design and orientation.

²² The antiquity of unbaked mud-brick construction techniques has been recently established for a residential cave complex in Mustang District, on the southwestern fringe of the Tibetan Plateau. A plant temper extracted from a mud brick of a structural feature (possibly used to store grain), near the entrance of a cave in the F-System (Locations 9–13) cave complex of the Muktinath valley, yielded a calibrated date of CE 557 +/- 20. In the same cave system (Locations 14 and 15), a plant temper from a mud-brick that underwent radiocarbon analysis furnished a date of BCE 147 +/- 302. See Simons 1992, p. 3.

²³ Archaic cultural horizon strongholds with all-stone walls (and probably stone roofs) in the badlands of Gu-ge were founded at sites like mKhar dmar-po (A-117), Ba-lu mkhar (rTsa-rang) (A-134) and Phi'a mkhar (A-101). At the Ba-lu mkhar in sPu-gling (A-102), there is a hilltop installation containing detached all-stone corbelled residences like those of the Byang-thang. Another all-stone residential complex, Mon-bu (B-125), is located in a high valley system at the foot of a mountain of the same name.

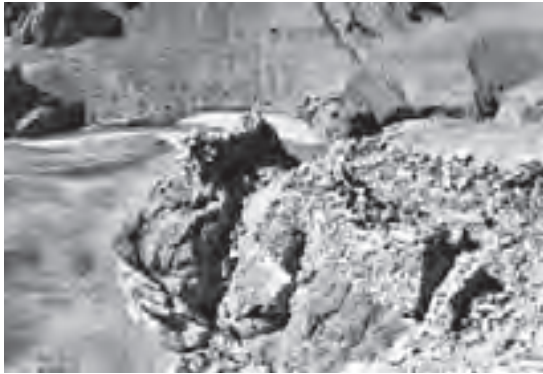


Fig. 29. Northern portion of the all-stone upper complex, Phi'a mkhar (A-101)



Fig. 30. The prolific use of cobbles in the ruins of the north summit, Lung-phug (A-112)



Fig. 31. The remnants of stone foundations at mKhar-sngon (A-56)



Fig. 32. Prominent stone foundations among the remains of structures on the summit of Phug mkhar (A-133)

As a rule, the state of preservation of Buddhist monuments and what appear to be older types varies quite significantly. The Mon-attributed monuments are much more heavily eroded. The mud-brick walls have lost most of their mass, reducing them to 20 cm or 30 cm in thickness. This has the effect of obliterating the wall seams. These structures have been significantly effaced by the elements and their remains tend to be highly fragmentary with most extant wall segments under 2 m in height. The walls of the so-called Mon structures have often weathered to a grayish color. These physical manifestations of the aging process stand in contrast to Buddhist era constructions, with their tall, relatively integral walls. The walls of Buddhist ruins still commonly reach 4 m to 8 m in height, and have retained much of their mass. Individual adobe blocks and wall seams are clearly discernable, and the mud-bricks have generally retained their natural tan or reddish brown color. Buddhist walls are frequently still covered in red ochre or white lime, something not seen at what appear to be more ancient sites. In some cases, mud and stucco statues still stand or are affixed to the walls of buildings that have long since lost their roofs.²⁴

²⁴ At Nyag (sp?) there are the ruins of a sizable *lha-khang* (circa 11th or 12th century CE) with Buddhist statues still affixed by wooden pins to the walls, attesting to the durability of earth as a building material. According to the oral tradition of Khwa-rtse, the temple of Nyag was destroyed well before living memory.



Fig. 33. The great Buddhist citadel at rTsa-rang (A-62)



Fig. 34. Ha-la mkhar East (A-58)



Fig. 35. Ma-nam mkhar West (B-77)



Fig. 36. mKhar chung (A-136)

There is also morphological evidence that tentatively permits the adobe structures of Gu-ge to be chronologically differentiated from one another. Mud-brick walls associated with the more ancient sites tend to have prominent cobble (and sandstone) foundations and lower wall courses, a design feature not met with at Buddhist sites. While sandstone lower-wall courses are not unusual at Buddhist sites, those made from cobbles are. Among the ostensible early sites that have structures exhibiting prominent stone bases are Lung-phug (A-112), mKhar-sngon (A-56) and Phug mkhar (A-133) (figs. 30–32). An associative identifying factor is the fact that Buddhist constructions and emblems (inscribed plaques, *mchod-rten*, etc.) do not occur at these hilltop locations or at many other sites connected to the Mon.

An analysis of the plans of adobe edifices identified with the Mon is also useful in an attempt to establish a relative chronological model of mud-brick building designs. The Mon structures tend to be smaller and of much lower elevation than those that can be positively attributed to the Buddhists. A case in point is the famous Buddhist period citadel at rTsa-rang (A-62) with its commodious halls and residences (fig. 33). No such grand edifices are found at the Mon sites. These sites rather have strings and clusters of lesser buildings sited on summits or clinging to the steep flanks of formations. There is also a subgroup of mud-brick sites with distinctive plans that I assign to the archaic cultural horizon. Although there is little or no oral tradition left explaining the foundation of these sites, Ha-la mkhar East (A-59), Ma-nam mkhar West (B-77) and mKhar

chung (A-135) strongly contrast with known Buddhist architecture of the Gu-ge region (figs. 34–36). Two of them, Ha-la mkhar and mKhar chung, occupy the highest-elevation niches in their respective proximities. These sites consist of a single edifice each with two or three rows of tiny rooms that run parallel to the longitudinal axis of the structure. The edifices were built with high revetments and cobble lower courses. No ruined Buddhist monuments (*mchod-rten*, *lha-khang*, etc.) or current religious emblems (prayer flags, shrines, etc.) are located at these three centers. Moreover, Buddhist religious lore is not attached to them and they are largely ignored by local residents.

It is useful to place Mon-attributed sites in the canyons of Gu-ge that display archaic architectural characteristics in a broader geographic context. Most of the ‘Mon gyi mkhar’ are associated with residential cave complexes of varying size and elaboration. Nearly every valley in the heavily dissected Gu-ge badlands has given rise to this pattern of settlement. With the coming of the *bstan-pa phyi-dar*, many of these cave systems came to host Buddhist temples, hermitages and shrines. The largest of these Buddhist centers appears to have taken root in the formations of Phyi-dbang where there are upwards of 3000 caves. Some former troglodytic communities, however, exhibit few or no signs of Buddhist occupation. These occur at sBe-ra phug (A-77), Cho-lo phug (A-133), Rag-kha shag mon gyi mkhar (A-115), and other places (figs. 37–39).

It would appear that much prehistoric settlement in Gu-ge was characterized by extensive naturally occurring and artificial cave complexes. Each of these was guarded by a fortress and/or religious edifice (often built jointly of cobbles and adobe blocks). These edifices were placed on summits overlooking the troglodytic dispersions, ostensibly for protective and/or ritual purposes.²⁵ The long-term desiccation of the region (many locales are now devoid of permanent settlement), the presence of archaic types of architecture, and the oral tradition ascribing them to the Mon, suggest that cave communities were most widely distributed and developed in the prehistoric epoch and early historic period. Although caves were sought out by protagonists of the second diffusion of Buddhism for their religious and social activities, my surveys suggest that this form of settlement was much reduced compared to earlier periods of occupation. It seems that Buddhists reoccupied only a fairly small proportion of the total number of Gu-ge’s cave complexes. Only a minority of the cave complexes in Gu-ge reveal evidence of Buddhist art and constructions.

With the advent of the *bstan-pa phyi-dar*, the residents of Gu-ge must have conducted religious rites to wrest the landscape back from the specter of earlier settlement. Invariably, complexes of *mchod-rten* and walls with plaques inscribed with prayers sprang up, which were founded, at least in part, to neutralize what were seen as inauspicious ‘pagan’ influences. These architectural traditions constitute collateral evidence, which can be used to gain some idea of where Buddhists chose to live and which places they sought to ritually contain. Buddhist ceremonial monuments were founded at viable religious centers, but even antecedent loci of settlement saw their construction. For example, Buddhist *mchod-rten* and so-called *ma-ñi* walls were strategically positioned at archaic sites such as gDo-sham mon gyi yul (A-111) and rGyu-mgul mkhar (A-60), ostensibly to buffer residents from the dangers thought to emanate from these places (figs. 40, 41).

²⁵ In a cave system located in the lower Muktinath valley there is a passageway leading to the top of the formation on which there are the remains of a stone tower. Radiocarbon analysis of charcoal and fragments of a mat or basket shows that this site was already inhabited in the Iron Age. See Simons *et al.* 1994, p. 54. This discovery of a fortified troglodytic community on the edge of the western Tibetan Plateau in an analogous ecogeographic setting suggests that the settlement configuration of cave complexes surmounted by fortified edifices in Gu-ge was established by the Iron Age.



Fig. 37. The remains of the citadel perched on the summit of sBe-ra phug (A-77). It overlooks a long-abandoned cave settlement hewn from the flanks of the formation



Fig. 38. Ruined cave settlements in the formations of Lung-phug (A-112) and Cho-lo phug (A-113)

iii) Rammed-earth/shuttered-earth walls (*gyang*):

Rammed-earth residential structures that the local oral tradition places in an archaic cultural context are limited in geographic range to lower-elevation western mNga'-ris. Like the mud-brick structures, these are related to the ancient non-Buddhist Mon tribe. Howard (1995), who has surveyed fortresses in Ladakh (La-dwags) and Zanskar (Zangs-dkar), is of the opinion that shuttered mud walls appeared in these regions in the second half of the 16th century CE with the construction of the royal residences of bKra-shis rnam-rgyal and Tshe-dbang rnam-rgyal. In Upper Tibet, the origin of rammed-earth building technology remains unknown. While the technological



Fig. 39. Ancient cave habitations at Rag-kha-shag mon gyi mkhar (A-115)



fig. 40. The remains of a ma-ñi wall cutting across the mDo-gsham mon gyi yul site (A-111)



Fig. 41. A row of ruined mchod-rten and other Buddhist structures at rGyu-mgul mkhar (A-60). They are situated next to the road that skirts the site

development of rammed-earth walls (built by packing wet earth, clay and stone matrix between large wooden plates) in the region is uncertain, it is clear that it reached a crescendo in the historic period, for many Buddhist centers were made in this fashion.

In Gu-ge it appears that most, if not all, rammed earth structures associated with Mon gyi mkhar were built subsequent to other structural remains found at the same sites. This probably explains why such sites are attributed in legend to the archaic cultural horizon. In other regions of western mNga'-ris, it is also possible that rammed-earth structures obscure remains from an earlier construction epoch. A single wall fragment of rammed-earth construction attributed in the oral tradition to the Zhang-zhung kingdom is found on the acme of the sTag-la mkhar site (A-81) in Pu-rang (fig. 42). In sGar, the only so-called Mon castle to exhibit rammed-earth walls is Zhing-mkhar mkhar-gog (A-22) (fig. 43).

In Gu-ge there are several rammed earth summit fastnesses supposedly constructed by the Mon. These include Byang-stang mkhar (A-116) and Shar-lang mkhar (A-118), two castles of significant proportions located in Shang-rtse township (figs. 44, 45). Tucci and Gherzi (1935: 121) visited Byang-stang mkhar in the early 1930s, and record its name as mKhar-po che. They note that in the oral tradition it is attributed to a period in which there was a conflict with Mon. The ruins are located on the main summit (57 m x 12 m to 35 m), rising some 40 m above the village of Byang-stang. The highest point is dominated by a single rammed-earth structure. This is the only edifice at the site whose plan is still discernable. In contrast, the other structural remains of the castle are in a state of advanced decay. This physical evidence may well point to different foundation dates for the rammed-earth and low-elevation structures at Byang-stang. The way in which wall segments are arrayed across the summit does seem to indicate that a large facility was once located here. At the side of the formation overlooking the village, there are around 50 caves that appear to have comprised the original nucleus of settlement in Byang-stang. Most of the outer sections of these caves have been obliterated by the collapse of the formation. Interestingly, the shrine for the local *yul-lha*, Thang-dkar chu-lung dkar-mo, is situated on a hill farther from the village. Ruined Buddhist temples were also established in alternative locations. These locational patterns seem to support the archaic cultural identification of the fortress site. The four walls of the large rammed-earth edifice on the very summit are still partially intact (11.4 m x 11.7 m).



Fig. 42. The rammed-earth wall fragment on the summit of sTag-la mkhar (A-81)



Fig. 43. The rammed-earth structure at Zhing-mkhar mkhar-gog (A-22)



Fig. 44. The large rammed-earth structure at Byang-stang mkhar (A-116). Below the summit are the vestiges of an old cave settlement



Fig. 45. The lone rammed-earth structure, north complex, Shar-lang mkhar (A-118)

These walls stand as much as 6 m above the summit. The 50-cm to 60-cm thick walls are dotted with rows of stone-lined rectangular orifices used to accommodate the pins that held the wooden forms in place during construction. This building was partitioned into at least four rooms. Three of these are situated against the north wall. There are in situ wooden lintels with little or no sign of rot in two windows of this structure, another indication that it is of limited age.²⁶

²⁶ The mighty citadel of Shar-lang mkhar is divided into southwest (48 m x 24 m) and northeast complexes (22 m x 18 m), which overlook the Shar-lang valley. According to the oral tradition, this site is a bsKal-mon castle and the abode of the local *yul-lha* of Shar-lang, Kyum-grang (sp?). His shrine is situated on a small black rock outcrop some distance north of the citadel. Facing east, Shar-lang mkhar is set 50 m above the valley floor on the rim of an unassailable escarpment. The highest portion of both complexes is dominated by a single large rammed-earth structure. It seems likely that they represent high-status edifices founded as part of a subsequent redevelopment of the site. In addition to rammed-earth, adobe block and masonry edifices, there are extensive subterranean facilities at the two complexes of Shar-lang mkhar. The large rammed-earth structure (6 m x 6 m) on the tip of the northeast complex has wall segments that probably reach 8 m in height. These walls have small square orifices lined with stone blocks and slabs, which held pins used to keep the forms in place during construction. In the north wall of this structure there are two triangular loopholes. Loopholes of this shape are met with in post-11th century CE structures at rTsa-rang, as well as other later historic sites in Gu-ge and Ladakh. The presence of this architectural feature is a good indication that the rammed-earth structures of Shar-lang mkhar were established no earlier than the *bstan-pa phyi-dar*, probably in conjunction with the partial reoccupation of the site.

iv) Walls of naturally-occurring earthen slabs cut from local formations:

At just a few fortified sites in Gu-ge another type of wall was composed from naturally-occurring compressed slabs of earth cut from the native formations. These slabs are up to 1 m or more in length and around 20 cm in thickness. The Mon attribution, the absence of monuments indicative of Buddhism, and the semi-subterranean aspect of one of the sites, encourage the view that earthen slab fortifications do indeed belong to archaic cultural horizon residential architecture.

Structures of earthen slabs dominate at Cho-lo phug (A-113) and Ra-kha-shag mon gyi mkhar (A-115), strongholds attributed by local residents to the ancient Mon (figs. 46, 47). At Cho-lo phug, a sequence of chambers was cut out of the long flat summit, and the slabs resulting from the excavation were used to build walls on top of the excavations. The axis of the Cho-lo phug summit runs northeast-southwest for 64 m. The summit (6 m to 12 m in width) has been excavated to a depth of 1.5 m to 2.5 m to create a warren of small, semi-subterranean rooms, particularly along the east side. A significant number of these chambers were destroyed by the collapse of a portion of the summit. The shearing of the east side of the formation and the network of rooms contained within is plainly visible. Some of the rooms cut into the summit were interconnected through common entrances while others were not. The earthen slab-walls now reach a maximum height of 80 cm. There is no indication as to what kind of roof such residential structures had. Parapet walls were also built around the edges of the Cho-lo phug summit using granite cobbles and natural earthen slabs. Presumably, the entire summit was once ringed by a parapet, but only scant structural evidence is left.

The Ra-kha-shag mon gyi mkhar site is a cave complex situated in a precipitous earthen formation, several kilometers down the valley from the village of Ra-kha-shag. If summit facilities were located at this site they are no longer visible from below. Virtually all of the 20 odd caves have lost a substantial part of their fronts due to slope failure and erosion. By following a series of extremely narrow ledges it is possible to reach the midpoint of the cave complex. At this level, on the prow of the formation, there is a highly eroded wall approximately 20 m in length and 1 m in height enclosing a ledge. It is made of natural earthen slabs cut from the formation. At its base are two diagonally laid (herringbone) courses of cobbles, a stonework technique that can be traced to the protohistoric period (see p. 146). Caves and a walled ledge situated at a higher elevation are no longer approachable.

5.1c Solitary Rampart Networks (Type I.1c)

Some strongholds in pastoral Upper Tibet consist only of networks of defensive walls traversing summits and adjoining slopes. At sites such as gNam rdzong (A-48), sTag-gzig nor-rdzong (A-50) and Brag-gu gsal-sgron (A-97), there appear to have been few if any residential buildings (figs. 48–50). There are rather a series of ramparts fortifying a strategic mount or rock formation, in proximity to a high-quality pasture or an important pass. These random-rubble dry mortar breastworks are comprised of long walls winding across vulnerable slopes. The fortifications were constructed so that defenders could protect and hold the high ground above them. The defensive walls are typically 1 m to 2 m high on the downhill slope, and slightly elevated or flush with the uphill side of the slope. They are normally around 1 m to 2 m in width, and between 2 m and over 100 m in length.



Fig. 46. Rooms excavated in the summit of Cho-lo phug (A-113). An individual standing next to an earthen slab-wall fragment is visible in the center of the photograph

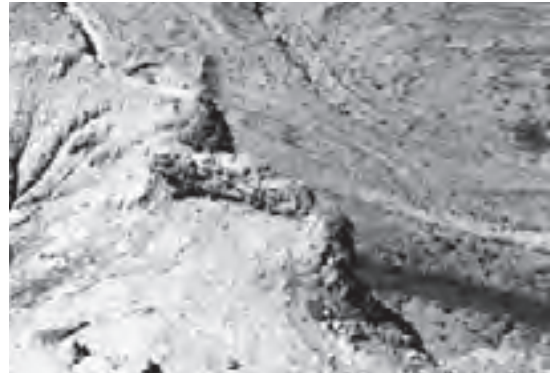


Fig. 47. A highly eroded earthen slab-wall at Ra-kha-shag mon gyi mkhar (A-115)



Fig. 48. A long defensive wall on the east spur of gNam rdzong (A-48)



Fig. 49. A rampart network on the west formation of sTag-gzig nor-rdzong (A-50)

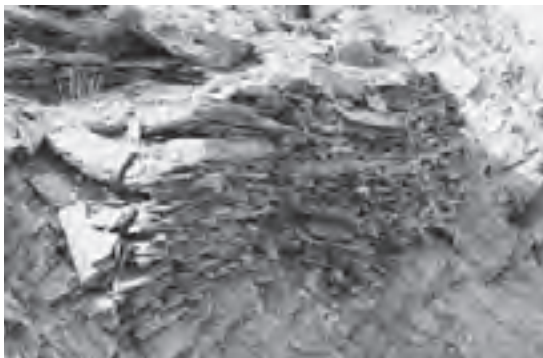


Fig. 50. A finely constructed rampart on the west formation of sTag-gzig nor-rdzong (A-50)



Fig. 51. The remains of stone walls with no apparent utilitarian function located on the summit of a crag, Do dril-bu (B-13)



Fig. 52. The vestiges of an extensive network of defensive walls situated below the summit of the mKhar dkar citadel (A-109)



Fig. 53. A portion of the ramparts arrayed below the summit of Dung-dkar mkhar-gog (A-70)



Fig. 54. One section of the encircling ramparts at the upper complex of Brag-gdong (A-18). As part of this circumvallation a wide, level pathway was constructed behind the walls



Fig. 55. A piece of the circumvallating defensive wall on the rim of Chu-mkhar gyam (A-40). The rich pastureland and perennial stream, rare natural endowments in this northwestern corner of Ru-thog, are clearly visible

Parapet walls were probably built on the projecting outward edge of some of the ramparts but much of the structural evidence for this feature has disappeared down the slopes with time. A chief characteristic of archaic rampart construction is that it appears in multiples, each wall running in a transverse direction at different elevations. An approachable slope may have upwards of eight successive ramparts, one above the other, guarding the higher and more vital reaches of a site. In addition to being aligned in parallel, defensive walls sometimes merge with one another or branch out in different directions across ribs of rock and broad acclivities. Some of the wider, more level and sheltered breastworks appear to have functioned as platforms for camps and the garrisoning of fighters. It can be imagined that in dangerous times defenders retreated to these sites for refuge and launched counterattacks from them.

The intricate arrangement of breastworks as the exclusive architectural component of a fortified site bespeaks a special form of defensive posturing. An entire rock formation functioned as a sort of stronghold. By relying on the cover of the ramparts and exploiting them as thoroughfares, combatants could move quickly and decisively from one place to another on difficult rocky and steep terrain. The mobility thus gained would be particularly useful to archers safeguarding a site



Fig. 56. The curtain wall connecting different loci of defensive buildings, Glog-phug mkhar (A-19)



Fig. 57. The remains of a curtain wall and a vertical series of ramparts, Ser-mdzod rdzong (A-12). The southern portion of Dang-ra g.yu-mtsho spreads out in the distance

against attackers. Chains of walls circumscribing a hill may also have had religious and social applications. Conceivably, they were built as a sign of political strength and endowment, as well as for defensive purposes. A ritual function may possibly be imputed to isolated walls in places like Do dril-bu (B-13), which do not seem to have had a military or economic function (fig. 51).

While there are a few sites in the Byang-thang that were solely comprised of breastworks, most of the ancient fortifications of Upper Tibet relied heavily on them to create a strong defensive position. At many citadels defensive walls form an integral part of the stronghold. These ramparts are of three major configurations: those staggered below residential facilities perched on a summit (mKhar dkar, A-109; Dung-dkar mkhar-gog, A-70), those that circumvallate the main nucleus of habitation (Brag-gdong, A-18; Chu-mkhar gyam, A-40), and those that run along ridgelines interconnecting the various facilities of a fortress (curtain walls) (Glog-phug mkhar, A-19; Ser-mdzod rdzong, A-12) (figs. 52–57).

5.2 Residential Structures in Other Locations (Subdivision I.2)

This residential category is characterized by structures situated in any locality other than those set apart by terrain that descends steeply on all sides. Such habitations are found on broad slopes (those with higher ground in the immediate area), benches, esplanades, and headlands; in valley bottoms, ravines and gorges; and at the foot of or among escarpments and outcrops. Such sites, however, seldom occur in the midst of exposed plains and basins. It appears that the builders were keen to avoid harsh wind-swept open environments and areas that afforded little protection from marauders. Most of the residences exhibiting archaic cultural traits are more or less hidden from view and occupy locales from where the adjoining terrain can be comprehensively monitored.

The same spectrum of constructional and morphological traits exhibited by residential complexes on summits is part of this subdivision. That is to say, specific building designs and wall fabrics are not confined to a specific situational aspect (i.e., the top, side or foot of a mountain). At some

locales there are both hilltop facilities and lower domiciliary complexes (such as Shang klu'i pho-brang, A-14; sKabs-ren, A-33; Sra-brten mkhar, A-71; sPo-sa mkhar-gog, A-84; mKhar-po che, A-86; and Ma-ñi-thang mkhar, A-121) (figs. 58–63). This fortified settlement pattern is indicative of a militarized culture that had to cope with threats to its well-being. In some cases, dual placement residential locales also reflect the highly stratified nature of archaic cultural horizon society. For example, at mKhar-po che (A-86) and sPo-sa mkhar-gog (A-85), a substantial hilltop castle is perched above a large village (now completely ruined), consisting of more rudimentary dwellings (figs. 64, 65). Relative altitudinal placement in historic Tibet (as in many other places) was used to indicate social distinctions, with those of higher rank occupying higher locations. The archaeological and quasi-historical records indicate that this geographic means of marking social status in Tibet can be traced to the prehistoric epoch. The main strategic difference between the summit and non-summit residential sites is that most of the latter possess limited inherent defensive value.

The majority of the residential centers dissociated from summits appear to have been high social status habitations, where the religious and political elite dwelt. When most of the Byang-thang population was housed in black yak hair tents (*sbra-nag*) or other types of non-permanent abodes (such as animal skin huts and rock shelters), the occupation of highly weatherproof permanent habitations would have been a mark of social distinction and economic achievement. The immovable dwellings may, for example, have accommodated tribal and clan leaders and hierophants (and their families). This indeed was the state of affairs in Upper Tibet until the Communist period, where the elite of society (clerics, headmen, wealthy traders) often lived in fixed habitations, while the herders found shelter in tents and rough caves.

In the chief agricultural centers of Pu-rang, rTsa-mda' and Ru-thog, the pre-modern and contemporary populations primarily resided/reside in stone and mud-brick houses. Due to a lack of visible archaeological evidence, it cannot be determined if the contemporary patterns of settlement in these regions extend back to the archaic cultural horizon. The presence of all-stone corbelled basements in 'Om-bu village (B-56) indicates that this Lake Dang-ra locale has been long inhabited.

A geographic analysis of the 136 residential sites not built on summits shows that they are distributed in many different areas of Upper Tibet. The 19 sites (14% of the total number of sites surveyed) located in Ru-thog are mostly scattered around the agricultural (defunct and active) portion of the district. A fairly even geographic dispersal of sites is also observed for agrarian rTsa-mda' (Gu-ge), which has eight (6%) of all surveyed sites. There are also concentrations of residential sites near the shores of various sacred Byang-thang lakes, at Gangs ti-se, and along the southern flanks of the Transhimalayan range. Of the 35 sites surveyed in Nyi-ma county (western Nag-tshang) (25% of the total), 30 are located in the Dang-chung-Dang-ra-rTa-rgo region alone. This is just about one quarter of the total number of residential sites not built on summits surveyed. The valleys around the Gangs ti-se circuit support 11 residential sites (8% of the total number surveyed). Five sites (4% of the total) are found near the shores of bKra-ri gnam-mtsho, in mTsho-chen. Another seven (5% of the total) sites are clustered near the north shore of Da-roq mtsho, in 'Brong-pa. Eight of the remaining nine sites (6.5% of the total) in 'Brong-pa are hidden in valleys and gorges on the south side of the Transhimalaya. In far eastern Upper Tibet, three residential sites occur in the lower 'Dam-gzhung valley system and seven near the north shore of gNam-mtsho. Several other ancient residential cave sites at gNam-mtsho have been classed with funerary and pictographic sites (Lug do, D-7; bKra-shis do-chung, J-1; bKra-shis do-chen, J-2; sTong-shong phug, J-5). Taken together, gNam-mtsho with its 11 domiciliary sites (8% of the total) represents



Fig. 58. The upper stronghold complex of Shang klu'i pho-brang (A-14). This fortress once kept vigil over the spring-fed high-volume perennial stream below



Fig. 59. The lower and upper sites of sKabs-ren (A-33). A small fortress protected the residential complex situated at the foot of the formation



Fig. 60. Three crags with residential ruins at the upper site of Sra-brten mkhar (A-71). On the rocky slopes below these edifices are traces of defensive walls



Fig. 61. The upper and lower installations of sPo-sa mkhar-gog (A-84)



Fig. 62. A view of the lower and upper sites of mKhar-po che (A-86)



Fig. 63. Ma-ñi-thang mkhar (A-121). The terraced hillside in the middle of the photograph constitutes the lower residential site. Directly above it is the old citadel



Fig. 64. A well-preserved building foundation in what was once an extensive village, *mKhar-po che* (A-86)



Fig. 65. The carcass of one of the many domiciles established below the hilltop citadel of *sPo-sa mkhar-gog* (A-85). The river in the valley bottom (*sDe-rog gtsang-po*) once provided a highly valuable source of water for the settlement



Fig. 66. Southwest *rdo-khang*, *sTag-chen* (B-29)



Fig. 67. DK6, *Do dril-bu* (B-130)

a significant center of archaic cultural horizon settlement. Twenty-one other sites (15.5% of the total) are spread out in various corners of Upper Tibet with some minor clustering occurring.

5.2a All-stone Corbelled Buildings (Type I.2a)

These edifices are of the same construction as those perched on summits, the main difference between them being situational in nature (figs. 66, 67). *rDo-khang*, located away from high ground, lack a strong immunizing aspect. As such, functional differences in occupancy are probably implied by these locational contrasts. The well-protected summit sites are more likely to have had a military function, while lower precincts were probably given over to religious practice and domestic use. All-stone edifices removed from summits tend to be individual dwellings separated from one another by meters or tens of meters of distance. This contrasts with the aggregated plan of many summit sites. Individual *rdo-khang* represent economically and ecologically self-contained residences. Given their elite locations and workmanship, these detached structures appear to have functioned as homesteads for autonomous groups of luminaries.

There are also other differences in design that arose in accordance with the varying physical settings. All-stone dwellings in lower, more open areas often have walled courtyards on their forward (usually east or south) side. These spaces immured by random-rubble dry mortar walls must have been used for domestic chores, socializing and other activities appropriate to a sheltered outdoor environment. Another difference in design is that the non-summit *rdo-khang* frequently have a semi-subterranean aspect. Typically, the rear or uphill slope walls were set deeply into the ground, sometimes so much so that the roof was flush with the slope.²⁷ In areas where there was an adjacent cliff or rock face, one or more walls of the structure were set partially or entirely below it. Undoubtedly, this physical integration with the parent formation saved on the amount of building materials needed for construction. The finished products would also have been more weather-proof and easier to heat. The rear walls of all-stone corbelled buildings frequently have niches and recesses built into them, adding to the underground feel of the structures. This close ecological association with the earth appears to reflect a special habitational relationship with chthonic forces such as the *klu* and *sa-bdag* spirits. Living partly underground may have necessitated extensive observances directed at the underworld beings. In later times, the population was no longer comfortable living partially underground and abandoned this form of tenancy. Lamaist temples and monastic residences were built with a relatively high-elevation presentation so that most or all of the inhabited portions rise above the ground. On the level of abstractions, the Buddhists made an effort to sequester residents from the potentially harmful denizens of the underworld.

5.2b Other Free-standing Buildings (Type I.2b)

This type of habitation is comprised of all of those structures built with wooden roofs that are not located on summits. Wall fabrics are primarily random-rubble mortared-masonry and mud-brick. These wall constructions are of the types already detailed. There are few sites in which wooden rafters were used that can be confidently assigned to the archaic period. Evidence obtained on the surveys indicates that freestanding edifices of prehistoric and early historic times were usually all-stone or semi-permanent in nature. Some sites that appear in my survey may even post-date the early historic period. Among these are Dar-chen khang-khrog (B-57), the vestiges of a village with stone and adobe block walls thought to have been active some centuries ago; and Gogrtse khang-dmar (B-75), which is comprised of massive adobe wall fragments of unknown age (figs. 68, 69).

A building that probably had a wooden roof, situated in the middle of open ground, which can be attributed to the archaic cultural milieu is Bu-mo lha-khang (B-87). This is a uniquely designed and meticulously constructed adobe block edifice (figs. 70, 71). Situated in the Se-le phug region of dGe-rgyas, Bu-mo lha-khang (7.2 m x 7.4 m) is set on a sandstone slab foundation and reaches 5.8 m in height. Its lower walls are composed of sandstone random-work courses, topped by specially hardened bluish earthen blocks (each around 45 cm x 25 cm x 8 cm). These skillfully made blocks have a heavy stone matrix and contain a good amount of clay from which at least some of their hardness is derived. The uniform seams are filled with a white clay-based mortar. These walls exhibit a high level of building proficiency, such as is otherwise found only in slab-wall constructions. The interior (5.6 m x 5.6 m) consists of just one chamber elevated around

²⁷ While in Bhutan, I learned about a subterranean stone fort in Kur-stod 'um-gling (sp?) at Lhun-rtse. It is thought to date to circa 1500 BCE. If this foundation date is accurate, it indicates that substantial underground residences developed in the Himalaya by the late Bronze Age. More rudimentary pit dwellings were constructed in Kashmir and Swat in the Neolithic.



Fig. 68. *Dar-chen khang-khrog (B-57)*



Fig. 69. *The massive adobe hulk at Gog-rtse khang-dmar (B-75)*

3 m above the surrounding ground level. There is what appears to be a quadrate funerary structure 22 m north of the edifice (6.9 m x 4 m) and another like structure (5.2 m x 6.5 m) situated 69 m to the east. Traces of two analogous funerary structures also appear to the southeast of Bu-mo lha-khang. This ancillary structural evidence suggests that the main monument is primarily funerary in character. This is reinforced by its position in an open plain and the high degree of care that went into its construction, something also seen at temple-tombs appended to arrays of pillars. Furthermore, there are two roughly parallel rows of masonry *tho* (markers or registers), another morphological feature of certain funerary sites (see pp. 493, 494). I have included Bu-mo lha-khang in the residential category because of a possible residential role for the main structure. Perhaps ritualists and other members of a necropolitan community found shelter here in pursuance of their funerary activities.²⁸

At the Brag-sgam rdzong site (B-40), a residential complex founded on a slope overlooking the sMo-kyu gtsang-po basin (a rich pastureland), there is one ruined building (Structure B1) with rammed earth walls (figs. 72, 73). This is the only site in the Byang-thang included in the survey to exhibit this constructional feature. Structure B1, the largest building at Brag-sgam rdzong (approximately 150 m²), may have been two stories tall, and is situated at the top end of the site. It consists of earthen walls (4 m to 5 m in height) set on top of random-rubble lower courses (1.3 m or less in height). The earthen walls are 50 cm to 60 cm thick and contain a copious stone matrix and embedded stone slabs in a few places. Structure B1 is subdivided into three main areas. In the west corner of the west section, there are two in situ stone corbels rising 60 cm above the current floor level. Adjacent to these there is a collapsed lower-level room, now 3 m across and a

²⁸ Moreover, Bu-mo lha-khang is accorded a residential function in the oral tradition of the region. According to one legend, Na-ro bon-chung (or variously a *bdud* demon) and Gling ge-sar decided to build a temple together. They laid the foundation using black stones (actually gray and brown sandstone), and then decided to hold a horserace to determine how the edifice should be finished. If Ge-sar prevailed he was to complete the temple in white and if Na-ro bon-chung won he would finish it in black. Gling ge-sar proved triumphant so Bu-mo lha-khang was finished in white. Another local legend has it that three woman leaders (*dpon-mo*) in ancient times lived inside a small lake called mTsho ka-ba in the wintertime. It is claimed that one can occasionally see smoke coming from underneath the water and that this lake never freezes in the winter, a legacy of the women's occupation. During the remainder of the year the three mistresses lived in Bu-mo lha-khang. One day, however, the roof caved in and the three women were killed and buried inside. There is said to be a hollow underneath the floor of the structure where their remains are interred. Despite the claims made for a residential function, this latter folktale hints at a funerary identity for Bu-mo lha-khang.



Fig. 70. Bu-mo lha-khang (B-87). This uniquely constructed edifice features a sandstone base, white earthen blocks and bluish seams



Fig. 71. The east side of Bu-mo lha-khang (B-87)



Fig. 72. Structure B1 on the summit of the Brag-sgam rdzong site (B-40)



Fig. 73. Structure B3, Brag-sgam rdzong (B-40). Note corbelling protruding from the left wall

maximum of 1.5 m in height. Brag-sgam rdzong is the only site surveyed where stone corbelling and rammed earth walls appear to occur in the same edifice. The lesser structures of the site (B2, B3, B4, B5) were all constructed using the Upper Tibetan corbelling technique. The indications that Brag-sgam rdzong belongs to the archaic cultural horizon are: 1) its lofty location on a ridge (perched upwards of 70 m above the basin), 2) the all-stone fabric (except B1) and corbelling, 3) the absence of Buddhist constructions and emblems, and 4) the oral tradition connected to the site. This oral tradition holds that when the great Buddhist monuments of the seventh century CE were being founded in Lhasa, Brag-sgam rdzong was considered first, but the site was found to be unsuitable for the Tibetan capital and the current installation was built instead.

Potentially, sites built with semi-permanent roofing materials such as yak hair cloth or yak hide are also represented among residential structures not built on summits. According to Tibetan accounts, these materials were used to build shelters in ancient times. It is said that the hides of wild yaks could be specially treated to harden them and then rolled up to produce pillars and other architectural members.²⁹ The constructional characteristics of sites like Lung-ngag

²⁹ In personal communication with Lopön Tenzin Namdak.



Fig. 74. The west sector of Lung-ngag (B-80)



Fig. 75. A typical structure at sDe-chos bskal-mon yul (B-81)



Fig. 76. A partial view of the dispersion at Khog-ra (B-71)



Fig. 77. The dispersion at Grong-dkar (B-85)

(B-80) and sDe-chos bskal-mon yul (B-81) are difficult to judge (figs. 74, 75). Their wall design (irregular and interrupted) and building dimensions (mostly under 4 m x 5 m) are such that they appear to have shored up semi-permanent roofing materials rather than timber constructions. Among the sites of an indeterminate morphological type are those that seem to be the vestiges of sizable villages, seated on wide benches or gentle slopes. These are often so deteriorated that only extensive zones of rocky depressions and mounds exist, making a surface appraisal of their morphological characteristics impossible. If the oral traditions are to be believed, it would appear that at sites such as Khog-ra (B-71) and Grong-dkar (B-85) there were once substantial groups of domiciles (figs. 76, 77).

5.2c Buildings Integrating Caves and Escarpments in their Construction (Type I.3c)

This residential type is defined according to geographic placement. It includes all habitational structures set in and around caves, overhangs and fissures in escarpments and rock formations. Caves, especially when accompanied by residential outworks, provided one of the most secure and hospitable living environments in the early period of fixed architecture, as they have in more recent times. Modified cave dwellings are found throughout Upper Tibet, but in numbers that



Fig. 78. The Buddhist center in close proximity to Klu-mo pho-brang mon-dur (A-47)



Fig. 79. Sha-ba brag (A-3). The Bon religious center associated with the sage sNang-bzher lod-po (eighth century CE) is located in the crags above the Buddhist monastery



Fig. 80. The Buddhist monastery of gZims-phug situated near rTa-ra dmar-lding (B-124) and Brag-lung lho-ma (B-134)



Fig. 81. A view of gNam-mtsho do (bKra-shis do) (J-1, J-2) from an outlier of the gNyan-chen thang-lha range

would have permitted only a small fraction of the total population to avail themselves of such facilities in any given period (with the notable exception of Gu-ge). In the Byang-thang many of these modified cave systems are situated in limestone formations. At archaic cultural horizon sites like Klu-mo pho-brang mon-dur (A-47), Sha-ba brag (A-3) and rTa-ra dmar-lding (B-124), these cave complexes devolved into Buddhist religious centers (figs. 78–80).

Most cave habitations modified in the Buddhist era were the domain of religious practitioners, but in prehistoric and early historic times it seems likely that a wider range of society was housed in this fashion (Bon texts tell us that many early adepts had wives). Local legends indicate that such sites were occupied in the prehistoric epoch, constituting the original nexus of settlement in numerous locales. This oral tradition is sustained by the unparalleled shelter afforded by caves, and the existence of high-quality springs at many of these sites, which is in stark contrast to the surrounding, often waterless plains. For instance, the Buddhist monks of Sha-ba brag (A-3) and Klu-mo pho-brang mon-dur readily admit that these sites were occupied by the ancient Bon-po and Mon-pa respectively, long before the establishment of their religious facilities. Byang-thang cave hermitages such as gNam-mtsho do (J-1, J-2) and Se-mo do (B-126, B-127) at gNam-mtsho, Sha-ba brag in Shan-rtsa, Ma-mig brag-dkar North (B-109), Sha-ba gdong lha-khang (B-103) at Da-roq mtsho, Shel-'dra (B-113) and A-phug (B-115) at Ti-se, and Lha-lung sgrub-



Fig. 82. The shrine of the Rol-pa skya-bdun, an important protective group of gods at bKra-shis do-chung (J-1), which was once part of the ancient Bon site known as gNam-mtsho do



Fig. 83. The Klu-khang at Se-mo do South (B-126). This is the abode of the central figure of the five klu-headed mkha' 'gro of the Bon Mother Tantra. This goddess is known as gNyan-chen gzigs-sngar mkha'-'gro ma or gNyan-chen zil-ngar



Fig. 84. The ruined abode and stone structures believed to have been the residence of Bra-gu ngom-ngan, Se-mo do West (B-127)



Fig. 85. One of the funerary structures at Ma-mig brag-dkar North (B-109)

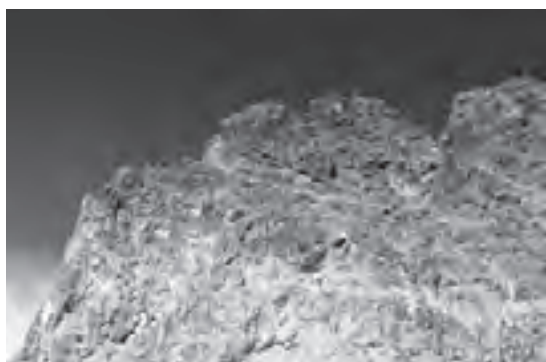


Fig. 86. The ridge-top ruins connected to the Bon master sNang-bzher lod-po, Sha-ba brag (A-3)



Fig. 87. A building with an all-stone corbelled roof, Shel-'dra (B-113). This cave hermitage was in regular use until the end of the pre-modern period



Fig. 88. A-phug (B-115). This cave is associated with Tshe-dbang rig-'dzin, the son of Dran-pa nam-mkha'



Fig. 89. Lha-lung sgrub-phug (B-94). According to the local oral tradition, this was a cave hermitage in which Zhang-zhung masters meditated



Fig. 90. Ancient remains at sGo-bdag (B-93), a large cave complex associated with Zhang-zhung adepts. The conical structure on the left appears to have been a shrine of some kind, while the structure on the right was for habitation

phug (B-94) and sGo-bdag (B-93) at Dang-ra are associated with prehistoric epoch and early historic period adepts in the oral and literary traditions of the Bon religion (figs. 81–90).

In the Byang-thang, the most frequently occurring parent material is blue, red or white limestone. This was used to construct the walls of structures attached to caves and overhangs. The most common architectural feature in this category of construction is the façade wall, a barrier that served as the front of a cave. The most elementary form of this structure consists of a simple



Fig. 91.
The remains
of the three-
story-tall
cave façade
at Sog-po
(B-60)



Fig. 92.
The ruined
façade at
Brag-'khor
sgang
(B-108)



Fig. 93. The remains of anterooms and façades at two of the caves of dGon-ro dmar-lding (B-120)



Fig. 94. The exterior wall of an anteroom, Am-nag (B-92)

masonry wall, built to close in a cave for residency and religious practice. In a more intricate form, these façades have well-built doorways, window openings and varying alignments, and can be over 10 m in length. Façades of two and three stories are known at Sog-po (B-60) and Brag 'khor-sgang (B-108) sites (figs. 91, 92). These masonry fronts are also structurally developed to host one or more forerooms in places like dGon-ro dmar-lding (B-120) and Am-nag (B-92) (figs. 93, 94). Residential structures projecting out from caves can be very extensive, and cover 200 m² to 300 m² at sites such as Se-mo do (B-126, B-127) and rDzong dkar-po (B-107) (figs. 95–97). When this type of modification is present, the caves themselves usually functioned as shrines and meditation chambers, while domestic activities took place in the forerooms. These anterooms possessed both all-stone corbelled roofs (Dzong dkar-po, B-107) and roofs with wooden beams and wattle (bTsag-tig, B-110) (figs. 98, 99). At Shel-'dra (B-113) all-stone corbelled edifices were built under large overhangs to create a double sheltering effect. The overhangs themselves at Shel-'dra provided shelter, enhanced by the construction of free-standing buildings (fig. 100). At sites like Shod-tram phug (B-116), A-phug (B-115) and Lha-lung sgrub-phug (B-94), barrier walls were built to produce outside sitting and work spaces (figs. 101–103). At sites such as



Fig. 95. rGwa-lo phug, Se-mo do South (B-126). The remains of the heavily built anterior structures are much more extensive than the mud-covered walls of the Buddhist cave retreat



Fig. 96. Remains of structures at Bra-gu ngom-ngan's residence, Se-mo do West (B-127)



Fig. 97. An extensive series of anterooms connected to caves, rDzong dkar-po (B-107)



Fig. 98. The all-stone corbelled roof of a Dzong dkar-po (B-107) anteroom

Sog-po (B-60) and mThong-grol brag (B-100), there were freestanding buildings established below formations with structurally modified caves, illustrating the overlapping nature of these two patterns of residency (figs. 104, 105).

Some immured caves have stone and mud bays, recesses, niches, altars, shelves, sleeping platforms, and daises for ritual activities, all of which are signs of intensive habitational usage. Hearths, where they exist, range in complexity from three simple stone supports to mud-covered stone ovens with one to three cooking openings. The better-built hearths sometimes have an earthen berm around the fuel feeding hole to contain the ashes. In a few instances, the walls of caves were covered in a mud veneer or a mud and clay floor was made. Red ochre swastikas (especially those turning counterclockwise) are found painted on the walls of a fair number of modified caves. These are definite signs of occupation in the prehistoric epoch and early historic period. More elaborate red ochre pictographs are also encountered at a few sites. In a cave house at rDzong pi-phi (A-49) a tree, crescent and two elementary forms of the letter A are depicted on a rock panel (fig. 106). The most elaborate ochre pictographs occur at sGar-gsol brag-phug (B-119,



Fig. 99. A stone wall bonded with wood at the bTsag-tig (B-110) residential structure. The roof was also constructed using tamarisk ('om-bu) timbers



Fig. 100. An all-stone residence built under an overhang, Shel-'dra (B-113)



Fig. 101. The exterior walls of Shod-tram phug (B-116), which formed a sheltered space for domestic activities



Fig. 102. The retaining wall at A-phug (B-115). This wall encloses a level area in front of the cave



Fig. 103. The outlying walls of Lha-lung sgrub-phug (B-94)



Fig. 104. A portion of the Sog-po site (B-60). A large complex of caves and freestanding structures constituted this settlement



Fig. 105. The remains of a footing projecting from the base of the formation, mThong-grol brag (B-100)

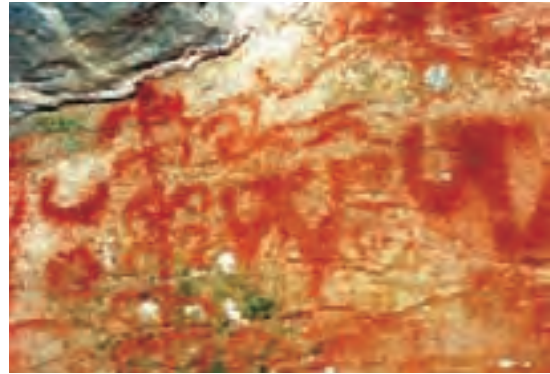


Fig. 106. A panel of pictographs at rDzong pi-phi (A-49). The compositions include two specimens of the Tibetan letter A, a tree, solar disc, crescent moon, and a curvilinear motif



Fig. 107. The remains of the large and well-built façade at the cave sanctuary of sGar-gsol brag-phug (B-119)



Fig. 108. The cave complex at Phyi-dbang, in Gu-ge. With upwards of 3000 caves this is the single largest troglodytic settlement discovered in this badlands region

J-16), a large archaic cave sanctuary with significant manmade modifications (fig. 107). On the rear walls of this cavern, several Bon religious figures (one of them is apparently horned), early style *mchod-rten*, swastikas, and other motifs were painted (see p. 179).

The historically formative nature of cave settlement in Upper Tibet is particularly true of the Transhimalayan Gu-ge region. In Gu-ge, cave complexes consisting of six to upwards of 3000 caves were developed in virtually every valley of this badlands physiographic province (figs. 108, 109). As noted, these caves are usually associated with fortifications built on top of summits. In Gu-ge, there are cave systems without summit strongholds that may also date to the archaic cultural horizon, but these sites are not included in the present survey as they do not lend themselves to typological analysis. The caves of Gu-ge (with and without hilltop fortifications), in the prehistoric and historic epochs alike, must have served a wide range of social and economic activities. Most of the caves of Gu-ge appear to have been hewn from the earthen, gravel and conglomerate formations, while some may also be naturally occurring. The majority of these chambers are between 7 m² and 20 m² in floor area. The largest individual specimens measure around 30 m². Comparative evidence from cave complexes in the geologically similar formations of Mustang



Fig. 109. Cave complex at *Khyung-lung yul-smad*, located on the opposite bank of the *Glang-chen gtsang-po* from the present-day village of *Khyung-lung*. There are over 250 caves at this site



Fig. 110. The exterior of the Buddhist hermitage of *Khwa-rtse*. Note the wooden balconies and walkways extending out from the face of the complex

indicates that troglodytic communities arose in Gu-ge no later than the Iron Age, and continued to exist until the late historic period.³⁰ A fair number of the archaic cultural horizon caves in Gu-ge had small mud-brick and stone buildings, consisting of one or two rooms, erected in front of them. During and after the second diffusion of Buddhism, some of these outer structures grew in size to become multi-roomed habitations and religious venues. Like the caves of Mustang, wooden structures such as stairways and suspended walkways may have been appended to the archaic occupation caves of Gu-ge. In any case, these types of architectural add-ons are found at the well-preserved *btsan-pa phyi-dar* period cave complex of *Khwa-rtse* (fig. 110).

Individual chambers separate from others are commonplace in Gu-ge. Interconnected chambers at one or more levels of a formation are also met with quite frequently. Suites of caves are sometimes set apart from other grottos by subterranean passageways and interlinking ledges. These excavated tunnels can be tens of meters in length. The universal interior architectural features of Gu-ge caves, irrespective of their chronology, are arched recesses and oblong niches, cut into the rear and side walls. These may have been used either for storage or for ritual use. Their precise applications are likely to have varied over time and with the social status of the occupants. Typically, there is a large domed recess or bay in the center of the rear wall, opposite the entrance. Smaller oblong niches often flank this deep concavity in the rear wall. Where there is evidence for hearths, these are set in front of the central recess or off to the side. Many of the caves have arched entranceways. Some of these vaults terminate in keyhole extensions at the top. These pointed upper slots in the entrances are sometimes connected to a groove carved into the ceiling of caves, which functioned to allow smoke to escape efficiently from the interior. In Gu-ge, caves with mud-plastered walls and ceilings occur less frequently than those with unmodified surfaces.

³⁰ Radiocarbon assays of organic samples taken from caves hewn from the earthen formations of Mustang District (Glo) indicate a long period of occupation from circa 800 BCE to 1500 CE. These caves have been determined to be residential, storage, ritual, and burial in function. The elaborate wooden galleries, staircases, porches, and buildings appended to the cave complexes have long since collapsed. See Simons *et al.* 1994; Simons 1997; 1992. For extensive photographic and cartographic coverage and background information on these caves, see Schuh 2005; Schuh *et al.* 2005.

6 A Geographic, Morphological and Cross-cultural Analysis of Archaic Ceremonial Monuments in Upper Tibet (Division II)

This division of monuments includes all types of archaic sites that had a non-habitational ritual or symbolic function. Included within this division are four major types of pillars, a good deal of which are associated with superficial constructions of various kinds (most of these appear to be the superstructures of tombs and funerary ritual structures). Other pillar complexes boast above-ground mausolea or reliquaries. Cemeteries with several different kinds of tomb superstructures are found in great numbers across Upper Tibet. A variety of smaller shrines and tabernacles, usually in conjunction with residential structures, also occur with a fair degree of regularity.

Many archaic ceremonial sites are attributed to the Mon, who are often considered to be of non-Tibetan origin. Traditionally most of these monuments are perceived by local residents as being hazardous to one's health in some measure. Certain sites are assiduously avoided while others are viewed with ambivalence or suspicion. What are believed to be tomb sites are ignored, not least of all because of a disease known as *ro-grib*, a serious condition thought to be caused by coming into contact with human remains. With the decline of Tibetan culture in the Communist period, such traditional proscriptions are breaking down. This has led to the wanton destruction of numerous ceremonial sites for political and economic reasons. Sadly, a good many standing stones were broken during the Chinese Cultural Revolution, seriously degrading the archaeological heritage of Upper Tibet. While political motives behind the razing of archaeological sites are no longer a big problem, economic exploitation is increasing alarmingly.³¹

6.1 Stelae and Accompanying Structures (Subdivision II.1)

One of the most visible and distinctive types of archaic cultural horizon sites in Upper Tibet consists of pillars either in a solitary aspect or in groups that form distinctive spatial arrangements. I variously refer to these pillars as stelae, standing stones, menhirs, and *rdo-ring*. I have generally refrained from employing the term megalith to describe the Upper Tibetan pillars to avoid cultural and chronological connotations that may be implicit in this term. The Tibetan generic term *rdo-ring* is used to denote pillars of all species. Chronometric data and cross-cultural archaeological

³¹ To illustrate this point, I will cite two ceremonial sites recently destroyed by the construction of roads. The first of these is Gyam-nag mon-khang (D-59), located in Sa-dga' county. This important prehistoric and/or early historic period cemetery contains large burial mounds and other types of tombs. Several years ago these tombs were opened in order to extract long stone slabs of stones that had formed commodious, well-built burial chambers. Signs of recent highly organized excavation are found everywhere on the site. Fortunately, some of the sub-surface architecture remains are in situ, confirming the size and significance of the tombs. Once the stones (1.5 m to 2 m in length) were torn from the tombs, they were trucked to the main east-west artery (*rgya-lam*) and used to build culverts. So excessive was the removal of stones that many were simply discarded by the side of the road, where they still lie. The rKed-dkar mon-dur (C-154) site was completely destroyed in 2002. Quite fortuitously, I had the chance to visit this moderately-sized temple-tomb with appended pillars in 2001, when it was still partially intact. Subsequent to my survey, all remaining stone monuments were pulled from the ground and used in the construction of a road, which runs right through the middle of the site. Had the construction gangs been properly guided, the road could have easily gone around rKed-dkar mon-dur, for it is situated in a large plain. See also reference to the destruction of rKyang-rtswa mdo gyang-ro (C-148), which appears to have contained the largest concourse of pillars discovered in Upper Tibet, in Bellezza 2002a, pp. 118, 119; 2003c. The looting of tombs by organized groups of Chinese nationals is also a growing problem, with many of the ill-gotten gains ending up on the international arts and antiquities market.

comparisons indicate that stelae were already being raised in Upper Tibet in the early first millennium BCE. These stelae vary greatly in size and shape and in the types of rock used to make them. They range in height from 20 cm to 2.5 m, and are irregular (uncut) or regular in shape (some are hewn) depending on the site. Many pillars are four-sided, triangular or tabular in form. Volcanic, igneous, metamorphic, and sedimentary rocks were used to make these pillars, thus they vary much in color, texture and the manner in which they have weathered. As a rule, stones were gathered or quarried locally, precluding the demanding work of transport over long distances. There are exceptions, however, where stones had to be carried some distance to the building site. For example, at the rGya-steng 'bur rdo-ring (C-111) site there are no large stones in the vicinity. According to local tradition, they were hauled from the valley of Shar-ma situated some 10 km away. The large pillars of rGya-steng 'bur rdo-ring must have been dragged to their present location using animal or human traction.

Small groups of pillars (from two to around 50) were customarily erected in compact rows. Large groups of pillars (up to 4000 at a single complex) were arrayed in multiple rows to produce large quadrate formations. The sheer diversity in the morphology and spatial configuration of standing stones in Upper Tibet is indicative of a broad range of ritual applications and cultural orientations that developed over a long period of time. Irrespective of their age and function, these pillars were always planted in well-drained, level or gently sloping ground, well away from wet or swampy terrain. The sandy, gravelly or rocky soil in which pillars were set has proven a sound choice, for many of them are still firmly anchored in the ground despite commonly being inclined at various angles.

As with the *rdo-khang* residential structures, pillars without inscriptions reached their highest level of development in Upper Tibet. Unadorned stelae do not appear to be common in any other part of the Tibetan Plateau. Pillars of diverse types are infrequently found in Himalayan regions as well.³² The characteristic pillar typologies of Upper Tibet are unique to the region, defining a distinctive cultural entity.³³ The widespread use of pillars as funerary ritual instruments is also commonly encountered in other regions of Inner Asia such as Mongolia and Transbaikalia. Pillars in Upper Tibet, whatever their function, were planted firmly in the ground by first excavating a hole to accommodate approximately 30% to 50% of the total length of the stone. Over the centuries, through the agencies of gravity and geomorphologic change, it is common for them to have collapsed or have tilted at various angles in a down-slope direction. There is significant variability in the physical condition of pillars. Being ancient monuments, the menhirs are heavily eroded and often exhibit geochemical changes to the surface. It is not unusual to see stones, originally gray or beige in color, that have taken on a reddish hue through oxidation and other geochemical processes. Some stelae host orange climax lichen (these growths should prove highly valuable for lichenometric analysis).

³² Aris (1980: xxiii) opines that isolated pillars found in the central region of Bhutan may have been used in rituals or as border markers. In his work (*ibid.*), a stele set in a large stone cup-shaped socket in Bum-thang (plate 2), a four-sided in situ fragment in the same location (plate 3), a pillar on the Shaitang la between the sTang and U-ra valleys (top, plate 4), and pillars outside the temple of gSum-'phrang (bottom, plate 4) are illustrated. During my extensive wanderings in cis-Himalayan Himachal Pradesh, I have seen individual pillars that were raised as part of the local cults of the *devata*. In Kashmir, there are sites containing stelae believed to date to the Iron Age north Indian megalithic cultures (see p. 92, fn. 52). Plain stelae were also erected in the upper valleys of Kumaon, and in the Kathmandu valley and other regions of Nepal.

³³ It remains to be determined if the sui generis pillar types of Upper Tibet were also raised in adjoining areas of northwestern Nepal ('Om-blo, Sle-mi, Mu-gu, and Dol-po) or in upper Ladakh (Byang), regions traditionally associated with Zhang-zhung.

Pillars in the Upper Tibetan archaic cultural horizon context served a number of different purposes. Their usage potentially encompassed the following functions:

- 1) *Monuments for clans and chieftains*
These were raised to exalt the social and political standing of leaders. Local heroes and the great exploits of clans may have been heralded by the erection of pillars. Individuals could have been honored contemporaneously or posthumously by the raising of pillars as memorials or cenotaphs.
- 2) *Cultic sites for the worship of indigenous deities*
These spirits may have included the *lha klu btsan gsum* of the three planes of existence. Some pillars are still used for this purpose by residents of Upper Tibet. Apotropaic and fortune-bestowing rituals are held to enhance the fortune and health of the community by subduing and exploiting the localized pantheon of spirits.
- 3) *Funerary ritual structures erected in the vicinity of burial grounds*
At elaborately constructed funerary complexes special ritual dispensations were meted out. Tibetan funerary texts suggest that these entailed invoking the deceased's consciousness or soul so that it could be ritually conveyed to the afterlife.³⁴
- 4) *Markers delineating borders or other territorial transitions*
This function can possibly be ascribed to certain pillars erected in isolation.

The oral tradition of Upper Tibet commonly ascribes several major mythic and historical themes to the pillars, some of which match the functions assigned above. These include:

- 1) They appeared spontaneously with the beginning of existence in primordial times (*srid-pa chags-pa'i rdo-ring*), and mark the origin of civilization and human occupation of the land.
- 2) They are where the Tibetan epic hero Gling ge-sar hitched his magical horse rTa-rkyang-bo (*rta-'dogs-sa*), or where mountain gods (*lha-ri*) and water spirits (*klu*) tied their mounts.
- 3) They are territorial markers (*sa-brtags rdo-ring*) demarcating ancient political borders.
- 4) They are the funerary monuments of the ancient Mon tribes. Called Mon-rdo (Mon stones), Mon-dur (Mon graves), Mon rdo-ring (Mon long-stones), and Mon-tho (Mon markers), they are seen as the physical vestiges of the early Mon-pa, a people who have long since disappeared from Upper Tibet as a distinctive social entity.³⁵

³⁴ Tucci (1950) sees pillars such as those raised at the 'Phyong-rgyas burial grounds in southern Tibet and others of the imperial period as subduing chthonic spirits like the *klu* and *sa-bdag*. He holds that the pillars, by virtue of spanning the vertical dimension of the cosmos, opened a pathway to heaven. Likewise, he states that the erection of *rdo-ring* was brought about to control the ownership of a locale. See Tucci 1950, p. 34. My findings indicate that Tucci's general observations on the functions of pillars hold true for Upper Tibet as well. Hummel (1998: 6) sees what he labels the 'megalithic complexes' of Tibet as possibly being where the nexus of death and resurrection was ritually enacted. He believes that the so-called Tibetan megalithic cultural substratum was characterized by genealogical concepts probably tinged with submerged celestial beliefs of Central Asian origin, and space-oriented cosmological beliefs that bear traces of indigenous chthonic ideas (*ibid.*: 75). Hummel also speculates that this megalithic culture originated in the Middle East or Mediterranean and entered western Tibet via Kashmir as early as the third or second Millennium BCE (*ibid.*: 74, 75, 79, 80). While Hummel's ideas on the functions and beliefs associated with Tibetan pillar monuments appear far-sighted, his insistence on reducing the builders of Eurasia's megalithic monuments to a singular entity reflects dated scholarly concepts. Using modern linguistic and archaeological tools of analysis, a single geographic or cultural fountainhead cannot be sustained. These megalithic monuments were in fact constructed by various peoples exhibiting much cultural and linguistic diversity, who acted under different compulsions over a period of more than two millennia.

³⁵ Recent Chinese-language papers by Wangdu (2005: 209, 210) and Huo Wei 2005 review several Mon class funerary monuments. Huo Wei summarizes archaeological research from the Paleolithic onwards. He also briefly discusses Upper Tibetan Mon monuments and the exploration of mKhar-gdong (Khyung-lung dngul-mkhar).

- 5) They were erected as tabernacles for the worship of the local pantheon (*rten-pa'i rdo-ring*), with the purpose of defending and enhancing the interests of the community.
- 6) They were raised as commemorative memorials (*dran-gso'i rdo-ring*) for chieftains and heroes of ancient times.

6.1a Isolated Pillars (Type II.1a)

Pillars that stand alone or in groups (two to 30 in number) not constrained by walls or other structures are commonly distributed in the Byang-thang west of 90° 45' E. longitude; and south of the Transhimalayan ranges, west of 84° 57' E. longitude. They also occur in a few areas of Gu-ge and Pu-rang. Forty-seven sites have been documented to date.³⁶ These pillars appear in all heights, shapes and types of rock, and occur in two forms: as solitary pillars remote from other structures and as multiple pillars that form one to several rows. Without the benefit of other structures and collateral archaeological data to serve as interpretive guides, the specific functions and chronology of pillars that stand alone are very difficult to assess.

Solitary pillars were erected near the foot of hills and escarpments, close to river banks, or in the midst of plains. Stones may be scattered or heaped around the base of a stele. Horns of goats and sheep, small pieces of quartz crystal, and plaques inscribed with Buddhist mantras and prayers are sometimes strewn around lone standing stones. When the pillars have a contemporary religious function they may be smeared with butter and scarves (*kha-btags*) or animal hair cords tied around them as offerings. At sites such as rDo-mi-lang (C-36), the skulls of caprids were tied to the pillar as appeasement offerings to local spirits, so that they would not cause the deaths of more livestock (fig. 111). Solitary stelae, especially those in Gu-ge, appear to have had a cult function pertaining to the worship of local deities. The stele at the Mar-mchod rdo-ring site (C-14) and the one at Mon-bu (B-125) are still used in the placation of indigenous spirits at annual community agricultural rites (such as the *lha-gsol*, held for the success of sowing and harvesting operations) (figs. 112, 113). According to local tradition, Chos-'khor rdo-ring (C-25), in Pu-rang smad, was erected as a territorial marker (fig. 114). No offerings have been left at this lone pillar.

Rows of multiple pillars possess varying alignments, including being oriented in the cardinal directions. Rows are straight or slightly meandering, with each pillar spaced 30 cm to 3 m apart (with closer spacings being the norm). At some sites, multiple pillars arranged in a line were built in conjunction with tombs and other funerary ritual structures. The actual percentage of isolated pillar sites possessing a funerary ritual function has not been determined because superficial structural remains associated with some burial grounds have largely vanished from sight. This has precluded any firm judgment about the identity of certain locations. Lines of pillars that mark cemeteries are found in places like rGyab-lung rdo-ring (C-13) and rDza-tshogs rdo-ring (C-28) (figs. 115, 116).³⁷ At rDza-tshogs rdo-ring there are three groupings of white granite stelae. The

³⁶ A photograph of the three isolated pillars of 'Bur-rtse dog (C-40) near Cog-ru village, Pu-rang, has been published. The authors comment that monoliths are found in many places in mNga'-ris, and that some archaeologists believe that they mark underground tombs, while others consider them sacrificial sites. See Zheng and Jiang 2000, pp. 210, 211.

³⁷ In Han dynasty China (206 BCE to 220 CE), inscribed and carved stone stelae known as *bei* developed as a prominent type of funerary monument. Evolving into a standardized shape and size, they were mostly erected as individual grave markers but also as constituent parts of mortuary architectural complexes. In the subsequent Wei and Jin periods the use of *bei* decreased dramatically, mainly due to economic and political factors. See Wong 2004, pp. 25, 27–30, 33, 34. It remains to be shown if the appearance of Han dynasty *bei* (primarily erected in the first and second centuries CE) was in any way influenced by the existence of funerary pillars in Upper Tibet or other cultures of Inner Asia.



Fig. 111. rDo-mi-lang (C-36) (1.9 m in height)



Fig. 112. Mar-mchod rdo-ring (C-14) (2.5 m in height)



Fig. 113. The pillar at Mon-bu (B-125) (2.2 m in height)



Fig. 114. Chos-'khor rdo-ring (C-25) (1.6 m in height)



Fig. 115. A collapsed row of pillars that once stood at rGyab-lung rdo-ring (C-13). In the vicinity are standing pillars and a variety of quadrate funerary superstructures



Fig. 116. A row of eight pillars and two other specimens, rDza-tshogs rdo-ring (C-28) (height of tallest 1.6 m)

largest group consists of eight pillars up to 1.6 m in height, forming a row 11.5 m in length, set in the middle of fragmentary funerary superstructures. At Lha-lung rdo-ring there are a number of heavily impacted funerary superstructures in the vicinity of two small pillars (C-33). The name of a large *bang-so* in bSe-'khor lho-ma, rDo-ring bar-ma (D-119), suggests that one or more pillars were originally erected at this funerary site. At present, however, there are no standing stones at rDo-ring bar-ma. The mortuary function of individual pillars is also confirmed at sites such as sNa-ra mon-dur (D-72), where a single stele was erected inside two funerary superstructures (MD3 and MD4) (fig. 117). These pillars (around 50 cm in height) are planted near the west end of fairly small, slightly elevated, sub-rectangular enclosures (3.5 m x 5 m and 6.4 m x 4.4 m), which appear to be burial in function. Some sites of what seem to be isolated groups of stelae may actually belong to an alternative pillar typology. It is possible that certain pillars were raised inside the characteristic Upper Tibetan quadrate enclosures that were subsequently destroyed or submerged under the surface.

6.1b Pillars Erected within Quadrate Enclosures (Type II.1b)

Pillars erected inside square or rectangular walled structures represent one of the most distinctive archaic ceremonial monuments in Upper Tibet (figs. 118, 119). To date, 97 sites of this type have been documented.³⁸ Due to their unique morphological traits and territorial specificity, these pillar monuments serve to delineate the paleocultural orbit of much of Upper Tibet. The presence of tombs and other funerary structures in the proximity of many pillars erected inside quadrate enclosures indicates that they were constructed as funerary ritual and/or commemorative monuments. These pillars were built near the edges of wide open plains, in large valleys, and on benches and wide slopes near the foot of mountains. Sites hosting this type of monument are generally endowed with long vistas to the east and often to the north and south as well. Vistas to the west are as a rule abbreviated. Ridges or high mountains are located immediately west of the sites as a kind of geographic or ritual backdrop.

Pillars erected within quadrate enclosures were customarily founded on level or slightly sloping well-drained gravelly or sandy terrain. This type of substrate was amenable to excavation and the planting of pillars and walls, as well as the long-term preservation of the monuments. While most examples of this typology are found in waterless areas, a few of the stelae and enclosures overlook lakes, rivers and marshes. At all locations, however, they occur well above the water table and open sources of water. Pillars erected in quadrate enclosures are known in locales that are both inhabited and uninhabited, but most are situated well away from permanent dwellings, past or present.

One or more pillars are planted on the west side of the stone enclosure, in close proximity to the inner edge of the bordering wall (most pillars were installed 20 cm to 1 m away from the inside edge of the west wall). Enclosures are quite closely aligned in the cardinal directions or towards the intermediate directions. Many enclosures host just one pillar (figs. 120, 121) but some have a row or cluster of them. The largest group of pillars inside a single enclosure is found at Rokhung (C-167), with around 50 specimens (fig. 122). Pillars vary significantly in shape, size and alignment. Some are hewn or of a regular shape naturally (with tabular, square and triangular cross-sections). Others are uncut and irregularly shaped. A single enclosure of multiple pillars often exhibits specimens of different shapes. The two broad sides of tabular pillars are usually

³⁸ A photograph of the mTsher-ma rong site (C-125) has been published in Wangdu 2005.



Fig. 117. Tomb MD3, sNa-ra mon-dur (D-72). Note the small four-sided pillar (45 cm in height) erected inside the sub-rectangular enclosure (5 m x 3.5)



Fig. 118. Pillars erected inside an enclosure; a reconstruction of the basal elements

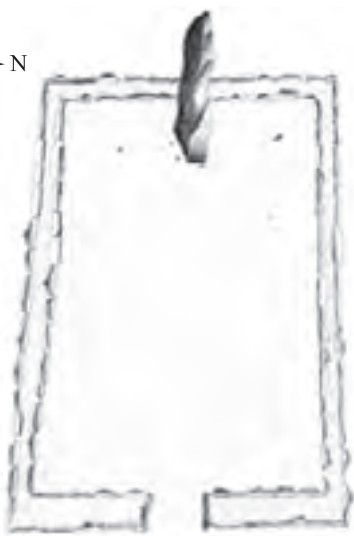


Fig. 119. A pillar erected inside an enclosure; a reconstruction of the basal elements



Fig. 120. gNyer-ma gyam rdo-ring (C-136). The pillar is 1.4 m in height and the enclosure measures 3.1 m x 2.5 m



Fig. 121. Nang-chu rdo-ring (C-90). The enclosure measures 4.7 m x 2.4 m and the pillar is 1.3 m in height



Fig. 122. The many pillars (20 cm to 90 cm in height) erected inside an enclosure (10.5 m x 10.1 m) at Ro-khung (C-167)

oriented north-south and the thin edges set east-west. The stelae range in height from 30 cm to 2.4 m. Stones between 50 cm and 1.8 m in height are most common, while those over 2 m in height occur only infrequently. Extremely tall specimens are found at sites such as rGya-steng 'bur rdo-ring (C-111) and Na-ma lung rdo-ring (C-76) (figs. 123, 124). Pillars have both flattened and pointed tops. It is not unusual to find that the upper sections have broken off.

Stelae and the quadrate enclosures in which they stand were constructed from a wide variety of locally-occurring lithic materials. It is not uncommon for more than one type of stone to have been used in construction, creating structural elements of contrasting colors and textures. When there is a single pillar, it is more or less centered between the north and south walls of the enclosure. Significant spatial deviations also exist where a lone pillar is skewed towards one side or the other of the enclosure. In some places this single pillar is the surviving member of a group. When there are multiple pillars inside an enclosure, they usually form a row oriented north-south, running parallel to the west wall. These rows tend to be fairly uneven (variant spacings between pillars and east-west deviations from the axis of the row being the norm), and may resemble a random cluster of stones more than a deliberate alignment. Large groups of pillars are sometimes aligned in two parallel rows near the west wall of the enclosure, with further extensions of standing stones along the north and south walls and towards the middle of the enclosure. Stelae, however, were seldom planted in the eastern two-thirds of an enclosure. Clearly, a western placement with a wide open space between the pillars and the east wall of the enclosure was the standard arrangement.

The enclosures hemming in the pillars are usually rectangular in shape but there are also a few square specimens among them. The enclosures vary in size between 2.9 m x 4.6 m (rDo-ring nag-kha, C-113) and 22 m x 32 m (dPal-mo rdo-ring, C-67) (figs. 125, 126). The mean size of an enclosure is around 6 m x 9 m. Rectangular enclosures regularly have longer dimensions east-west, typically 25% to 60% longer than the north-south dimensions. In extreme southwestern Tibet, at sites like Chu-phug rdo-ring (C-62) and Khyi'u dur-khrod (C-112), rectangular enclosures have longer north-south dimensions (figs. 127, 128). This constitutes the only regionally-inspired design variation observed in pillars erected inside quadrate enclosures.

The other two significant morphological variations observed do not have a geographic basis. One of these consists of an opening in the middle of the east wall of the enclosure. The openings are created by larger stones that are set perpendicular (east-west) to the long courses of masonry making up the eastern wall. These 'portals' are found at sites such as Tshogs-gsum rdo-ring (C-165) and 'Byams-ri rdo-ring (C-115) (figs. 129, 130). The openings are around 1 m in width and create a direct link between the terrain situated inside and outside the enclosures. The other common morphological variation is the occurrence of parallel slab-walls situated immediately east of an enclosure at sites like Ma-'byang rdo-ring (C-52) (fig. 131). These walls are normally aligned in an east-west direction and are upwards of 4 m in length. They are composed of slabs of stone placed vertically in the ground in a single line, or more frequently, two lines of thin stones that run parallel to one another. These double-course slab-walls are between 20 cm and 40 cm in width. The individual stones are level with the ground surface or project above it to a maximum height of 20 cm. The slabs of stone range between 7 cm and 1 m in length and 3 cm to 15 cm in thickness. An example of multiple east-west slab-walls built inside an enclosure occurs at the rDo-ring lcags-ra site (C-74) (fig. 132).

Most of the enclosures are flush with or slightly raised above the neighboring terrain. In some cases, in order to maintain a level interior, the east wall of the enclosure is elevated 50 cm or more above the downhill side of the structure. As high ground is almost invariably situated west of the



Fig. 123. The east complex, rGya-steng 'bur rdo-ring (C-111). The tallest of these pillars attain a height of more than 2 m



Fig. 124. Na-ma lung rdo-ring (C-76). This tabular pillar is 2.3 m in height



Fig. 125. rDo-ring nag-kha (C-113). The enclosure measures 4.6 m x 2.9 m and the pillar is 1.1 m in height



Fig. 126. South complex, dPal-mo rdo-ring (C-67). This enclosure measures 22.5 m (east to west) x 12 m (north to south). Note the double-course perimeter walls



Fig. 127. Chu-phug rdo-ring (C-62). The pillars (1.1 m to 1.4 m in height) are found near the west wall of the enclosure and are spaced out along the long axis of the structure



Fig. 128. The enclosure (10.5 m x 6 m) at Khyi'u dur-khrod (C-112). Reportedly, two pillars stood inside the enclosure before being destroyed in the Chinese Cultural Revolution. The base of one is still rooted in the ground while its upper section lies nearby



Fig. 129. Tshogs-gsum rdo-ring (C-165). The 'portal' in this enclosure was formed from three upright stones in the now heavily degraded east wall of the enclosure



Fig. 130. 'Byams-ri rdo-ring (C-115). In the east wall of the enclosure (center right of the photograph) are the remains of an opening

Fig. 131. A double-course slab-wall extending east of the Ma-'byang rdo-ring enclosure (C-52)



Fig. 132. One of the double-course slab-walls within the enclosure of rDo-ring lcags-ra (C-74)



monument, the plain or slope generally declines in an eastern direction. The walls forming the perimeter of the enclosure normally contain parallel courses of stones, and range between 40 cm and 80 cm in thickness. These walls are usually double-coursed but multiple courses of stones are met with as well. The walls are constructed of unhewn upright stone slabs or blocks or from stones that were lain flat. These two types of stonework can occur in a single enclosure or even a single wall. Upright slabs and blocks are the more common form of stonework and are composed of a single layer of stones that protrudes 10 cm to 50 cm above the ground surface (elevations above 30 cm are uncommon). Walls composed of blocks and slabs laid on the horizontal plane are mostly one vertical course in height as well, but there are many examples of wall sections consisting of two to five vertical courses. This is especially so where walls are built up to compensate for slope gradients. Stones used to construct the enclosures range in length from less than 10 cm to 80 cm in length. These are placed so that their long sides follow the axis of the walls. There is little evidence of mortar or rubble being placed between the parallel courses of masonry. The current state of preservation of these walls ranges from relatively good to just faint vestiges remaining.



Fig. 133. The east site, Pe-gya rdo-ring (C-60)



Fig. 135. The two pillar enclosures of Ro-khung (C-167)



Fig. 134. The west complex, rGya-steng 'bur rdo-ring (C-111). The author leans against one of the pillars for a spatial perspective

Most commonly there is just one enclosure with pillars per site, but at Pe-gya rdo-ring (C-60) and rGya-steng 'bur rdo-ring (C-111) there are two such monuments separated by over 1 km (figs. 133, 134). On the other hand, the two enclosures of the Ro-khung site (C-167) are spaced only 7 m apart (fig. 135). At many locations there are no signs of the modern or pre-modern cultural usage of the pillars. At a significant minority, however, apotropaic and fortune-bestowing rituals associated with the indigenous pantheon of Upper Tibet developed around the monuments. At these cult sites, sacred objects such as rock crystals and inscribed Buddhist plaques are deposited inside the enclosures. The pillars themselves are ornamented with dabs of butter, woolen cords and

prayer flags. Standing before the pillars, petitioners burn incense and scatter sacred barleycorn, while asking native spirits for the protection and well-being of both people and livestock. Sites that assumed a religious function in the pre-modern period are much less likely to have survived the Chinese Cultural Revolution intact. As with other religious monuments, these were singled out for desecration and even utter destruction. Traditionally, the pillars and enclosures were not disturbed by Tibetans out of a respect for their history and a fear of upsetting the local dæmons. These local beliefs account for the survival of a good many of the sites to the present day. Despite the fact that the pilferage of tombs is becoming an all too common occurrence in Upper Tibet, I have not detected much evidence of the pillars and enclosures having been tampered with in recent decades. Aside from traditional prohibitions, this can probably be explained by the fact that the pillars and enclosures were not raised directly on top of burial chambers.

Pillars erected inside quadrate enclosures are frequently located in close proximity to funerary structures consisting of slab-wall enclosures, burial tumuli and other types of grave superstructures. Funerary structures are discernable at almost half of the nearly 100 sites surveyed to date. I think it likely that most, if not all, of these pillar monuments were erected in or near cemeteries, forming an integral part of many funerary complexes. At sites where burials are not apparent, it may be that entombments were made without superstructures. At other sites, superficial structures may have been completely submerged or obliterated.

Pillars erected inside quadrate enclosures are well distributed throughout the Byang-thang, west of 89° 26' E. long. and south of 33° 30' N. lat.; and south of the Transhimalaya, west of 84° 57' E. long. They are not encountered in the badlands portion of the Gu-ge region. The geographic bounds of this pillar typology constitute the principal or 'core' area of the Upper Tibetan archaic cultural horizon. The absence of these emblematic monumental features in the far eastern Byang-thang and other regions of the Tibetan Plateau indicates that these zones had somewhat different cultural compositions. The pillars erected in quadrate enclosures possess definitive design and construction features, setting them apart from the archaeological monuments of adjoining regions. They are admirably suited to serve as *sui generis* markers, delineating the extent of the principal Upper Tibetan prehistoric (and possibly early historic) paleocultural entity. Based on the areal distribution of pillars erected inside enclosures, it would appear that this unique Upper Tibetan geocultural domain is largely tantamount to the prehistoric Zhang-zhung cultural sphere of the Tibetan textual tradition.³⁹ The lack of this monument typology in most of Gu-ge, an important Zhang-zhung geographic region, may possibly be best accounted for by a Bon textual tradition that indicates that the western portion of Zhang-zhung was partitioned at Kha-yug (a district that encompassed part or all of Gu-ge). While pillars erected within enclosures are not found in the deeply dissected valleys of Gu-ge, all-stone corbelled residential monuments are. This indicates that the two zones of Upper Tibet (highlands and badlands) shared close cultural affinities.⁴⁰ As for Upper Tibetan regions east of 89° 26' E. longitude, I consider that they belonged to the

³⁹ I explore this topic of paleocultural territoriality at some length in a paper delivered to the Tenth International Association of Tibetan Studies conference held in Oxford in 2003 (in press).

⁴⁰ Rock art sites were recently discovered by the archaeologist Li Yongxian (2004) in the Dung-dkar Phyi-dbang region of Gu-ge and near rTsa-pa rang. These sites include Tshe-snying (sp?), dGra-lha ri and Brag-khang. I had the opportunity to attend the delivery of Li Yongxian's paper at the International Conference on Tibetan Archaeology and Art (Beijing, 2002) and saw images of this rock art. In my assessment, the presence of swastikas, mounted hunters and wild yaks in the petroglyphs of Dung-dkar Phyi-dbang, which are stylistically similar to Byang-thang rock art, is clear evidence for close cultural and economic relationships between these two regions in the protohistoric and early historic periods. This graphic evidence from the rock art record corroborates Bon accounts vis-à-vis the Zhang-zhung kingdom that treat these regions as being politically and culturally interconnected.

paleocultural zone traditionally referred to as Sum-pa in Tibetan historical records (Bellezza: in press).

I will now provide an assessment of the possible ritual uses and ideological framework behind the construction of pillars erected inside quadrangle enclosures. I base these hypotheses on my field observations, Tibetan cultural historical lore and cross-cultural archaeological information. Needless to say, these hypotheses are open to amendment as and when more archaeological data become available. These pillar monuments appear to have functioned as funerary ritual venues with exorcistic and/or commemorative elements informing their use. While actual burials are located in outlying tombs, it seems likely that special funerary rites took place at the pillar enclosures (no inhumations have been reported from them). As cenotaphs these may have been dedicated to the leaders or other prominent members of society or, alternatively, to a local group in a corporate arrangement. The exclusivist nature of the monuments is underscored by their relative rarity: only around 100 have come to light in a region where thousands of tombs and other types of funerary enclosures are still extant. At a single location (such as Chu-nag rdo-ring, C-121), one or two enclosures with stelae suffice, even when there are scores of other funerary superstructures.⁴¹ This is unambiguous evidence for specialized ritual functions being associated with this type of monument.

Until scientific excavations are initiated, we can only speculate on what kinds of rituals may have been conducted at the pillars erected inside enclosures. The discovery of the remains of fires, animal bones and other objects would indicate that funerary rites related to those contained in the Bon archaic funerary tradition were carried out at these sites. These Bon rituals entailed the appeasement of the demons of death, conceived of as holding the soul of the deceased in their clutches. In various rites, the soul of the deceased is called to the funeral venue in order that it can be protected and properly conveyed to the heavens. Special effigies and other types of receptacles are used for this purpose and are burnt at the culmination of the ceremony. In the ancient sacrificial funerary rites, animals such as equids and caprids figure as apotropaic instruments and as vehicles of the soul.

It is widely known that pillars in Tibetan culture act as a kind of bridge between the vertical spheres of existence (*srid-pa*). They link the realms of humans, chthonic demons and celestial gods; pressing down the dangers emerging from below, re-establishing balance in the intermediate realm of human beings, and serving as conduits to the paradise above. The actual raising of the pillars may have acted to link a tribal leader or a corporate social entity to their ancestral figures and deities. In the archaic funerary system, these protective gods and divine progenitors serve as allies helping to guide the deceased to the afterlife. A parallel tradition may be the use of *lha-tho*, *gsas-mkhar* and *la-btsas* shrines in the contemporary period to renew links between members of a community and their ancestral gods. A Bon funerary account explains that the erection of *rdo-ring* or soul supports (*bla yi rten*) was a means of luring the souls of the dead to the ritual venue and safely harboring them while elaborate send-off rites were performed (see pp. 415–417). The design and construction of these *rdo-ring*, however, is not specified in the texts.

⁴¹ Li Yongxian (forthcoming) identifies groups of enclosures at Chu-nag as having a residential function but I consider this highly implausible. The double-course cobble walls were clearly not designed to support superstructures (of which there are no traces). Moreover, I have not come across instances of *bang-so* being situated in the midst of ancient fixed settlements. In his paper, Li provides detailed maps of the Chu-nag site, valuable in understanding its spatial characteristics.

A localized emphasis related to a specific clan, tribal or cultic identity is suggested by the regular distribution of the monument throughout its geographic scope. The establishment of these pillars and enclosures must have been seen as essential in the archaic cultural horizon, for they appear in virtually every major permanently inhabitable region in their territorial range. As many major basins and valleys hosted one or more of these sites, a strong sense of regional identity and the consolidation of political power in discrete locales may be inferred from their spatial distribution. The production of pillars inside enclosures as symbols of temporal power seems to have been intimately connected to the levers of social and political control in any given location. Their construction demanded considerable time and manpower and could not have been accomplished without the sanction and aid of important members of society. Likewise, these monuments were probably the focus of ceremonial activities carried out with widespread local participation. Such collective endeavors must have had the effect of solidifying interpersonal bonds, and revitalizing the prevailing social structures and powerbases. In keeping with the oral tradition, it is also worth speculating on commemorative or memorial services that may have been held at the enclosed pillars (perhaps for many years after burials took place in nearby graves). The same types of social functions, of bringing local society together in a coherent political and religious unit, are also indicated for any such periodic ceremonial events.

In any attempt to understand the significance and function of the pillars and enclosures their alignment in the cardinal or intermediate directions must be accounted for. As I have written in earlier works, astronomical/astrological factors are likely to have played a part in this orientation. The reckoned walls of the enclosures and the erecting of tabular pillars with their broad sides facing south and north was a deliberate undertaking, and one with no small amount of symbolic significance. What that significance was, however, is a moot point. It is certainly possible that the enclosures and pillars were used as rudimentary observatories from which the movement of celestial bodies was tracked and marked during funerary activities. These observations could have been carried out to mark the passage of time or herald auspicious celestial configurations. Nevertheless, in the absence of independent sources of verification, this kind of archaeoastronomical theorizing is difficult to substantiate. The assignment of baseline sighting positions according to the spatial ordering of the monuments alone could prove a rather arbitrary exercise.

Most simply, the orientation of the enclosures in the compass points bespeaks beliefs associated with the rising and setting of the sun. This seems especially so as some of the enclosures have eastern portals and slab-wall extensions, and nearly all have profound eastern vistas. The rising of the sun and its regenerative symbolism may have been applied to conceptions related to rebirth in paradise, as played out in the ritualism of the enclosed pillars. The hills and ridges hugging the western flank of sites could have functioned as *rgyab-ri* (mountains that bolster individuals and communities), a pervasive tradition in historical times.⁴² In the case of funerary monuments, proximate elevated landforms may have been seen as lending support to the soul on its flight upward to the heavens. As regards the open aspects of the sites, their unconstrained geographic situation could well have been as a reflection of eschatological beliefs. There is the still-held Tibetan soteriological aspiration that a soul (or the consciousness) be freed from impediments to its salvation. In the Tibetan archaic funerary tradition, these hindrances on the way to the afterlife are often conceived of as geographic barriers in the form of hills, rivers and ravines. On the other hand, the hereafter in physical terms is envisioned as an open plain or the untrammelled heights.

⁴² A *rgyab-ri* is a mountain deity that is intimately involved in a person's destiny. It may be unseen but it is always active, influencing the behavior and circumstances of the person to whom it is attached. Its ubiquitous presence is likened to a person's back, hence the name. See Bellezza 1997a, p. 86.



Fig. 136. A small array of pillars appended to an edifice; a reconstruction of the basal elements



Fig. 137. A large array of pillars appended to an edifice; a reconstruction of the basal elements

To date, I have not been able to assemble chronometric data having a direct bearing on the pillars erected inside enclosures. As these are often associated with extensive burial grounds containing a broad variety of funerary structures, I consider it highly implausible that they were built after the 11th century CE. With the definitive spread of Buddhism during the *btsan-pa phyi-dar* and the attendant changes in the religious aspirations of the population at large, there would have been few opportunities to continue building elaborate funerary monuments. Chronometric data assembled from an Upper Tibetan site consisting of arrays of pillars appended to temple-tombs, may suggest that this monument type could have developed as early as the first third of the first millennium BCE (both Upper Tibetan typologies feature the use of similar slab-walls). Cross-cultural comparative archaeological data from other regions of Inner Asia also suggest a prehistoric origin for pillars erected in enclosures (see pp. 92–106). This monument typology shares morphological traits in common with Iron Age north Inner Asian funerary monuments. Moreover, an analogous enclosure was constructed on the east side of an Upper Tibetan mausoleum that has been dated circa third or fourth century CE (see pp. 145–147). In various north Inner Asian cultural contexts, mortuary pillars continued to be erected until the seventh century CE. Similarly, the construction of the pillars erected within quadrate enclosures may have continued through the protohistoric and early historic periods.

6.1c Quadrangular Arrays of Pillars Appended to Edifices (Type II.1c)

Vertically set stones, erected in rows aligned in the cardinal directions to produce large formations of stelae share the same geographic characteristics as the pillars erected within walled enclosures (figs. 136, 137). They are, therefore, another *sui generis* archaic cultural horizon monument of Upper Tibet.⁴³ The concourses of pillars are invariably appended to sizable walled structures of relatively high elevation. These deployments of pillars were constructed on level or slightly

⁴³ The first documentation of this type of monument was made by George Roerich in the 1920s. For a discussion of the localization and fate of his find, see Bellezza 1995. A photograph of this dPal-mgon county monument is found in Roerich 1996, p. 416. An examination of the photograph indicates that the cromlechs and stone arrow supposedly found at the site are probably the remains of an appended funerary edifice.



Fig. 138. A single-course slab structure (70 cm x 70 cm) adjoining a double course slab-wall, Byi-ri sbug (C-164)



Fig. 139. The tower complex, Yul kham-bu (C-143)

inclined ground with wide vistas to the east. Broad views to the south and north are also common. They occur on the edges of plains or on broad esplanades, often closely bounded in the west by a ridge or high mountain slope. In most instances, they appear to have been established in areas remote from permanent human settlement, as many of the sites are devoid of perennial sources of potable water. In a single complex, there may be between 200 and 4000 pillars planted in the ground in more or less evenly distributed rows. Considerable attention was devoted to ensuring the orientation of the pillars and the directional integrity of the grid pattern. Most rows of stelae generally run east-west but in some instances they were oriented in intermediate directions.

The concourses of stelae vary greatly in size, covering between 30 m² and 4000 m². The stelae range in height from 20 cm to 1.4 m. They rise an average of 30 cm to 50 cm from current ground level. The pillars were made from natural pieces of stone or from chunks roughly cut into shape. The smaller uncut specimens tend to have an irregular shape and are pointed. The larger stelae are usually tabular with a flat top. They were erected so that the broad sides of the stones are aligned in a north-south direction. The pillars are made of a variety of rocks depending on the geological makeup of the locale. Their colors, textures and weathering characteristics vary considerably. The adjoining rows of standing stones are positioned 40 cm to 1.2 m from one another, as are the individual stones that make up each row. At some sites, slabs of stone were firmly embedded in the ground edgewise, in parallel courses around all but the west side of the concourse. Occasionally these slab-walls were used to subdivide the large arrays into smaller quadrature units. There are also many instances of double-coursed slab-walls extending 3 m to 30 m east of the pillar arrays to create an extensive grid of parallel structures. These are aligned in the same manner as the standing stones. The slab-walls are 20 cm to 40 cm wide, and are composed of two lines of slabs running parallel to one another. The slabs of stone are flush with the ground surface or protrude above it to a maximum height of 20 cm. The individual stones are between 7 cm and 1 m in length, and 3 cm to 15 cm in thickness. It is not unusual for these slabs to be the same size and shape as the pillars themselves. One or two square or rectangular pens made of the same type of slabs-walls are sometimes found east of the *rdo-ring* and parallel slab-walls at sites such as sKyid-gser (C-161) and Byi-ri sbug (C-164) (fig. 138). These structures are 1 m to 2 m in length on each of their four sides and are generally aligned in the cardinal directions. Within their perimeters they are free from superficial structural elements.

One to 6 m west of the field of pillars is a significant above-ground walled structure that possesses the same geographic alignment. The rows of pillars seem to have almost reached this unitary structure, but at many sites proximate pillars have been toppled. Like the lines of pillars themselves, these structures are usually aligned in the cardinal directions. These relatively tall buildings vary greatly in size and complexity. In addition to the common rectangular plan some examples have structural extensions creating a modified L-shaped or T-shaped plan. The edifices range in length from 3 m to 64 m. Smaller specimens are often in a very poor state of preservation and may now be nothing more than a rocky tumulus. Conversely, larger examples can be in fairly good condition, and from them much evidence regarding the design and construction of the structures can be gleaned. The tallest surviving example (maximum height of 4.3 m) is located at the Yul kham-bu site (C-143) (fig. 139).⁴⁴ At Sha-sha dpal-khang (C-145) there is another specimen that reaches 3.5 m in height (fig. 140). None of these structures have any of their roof or the highest portions of the walls intact, thus their original height is in question. Given the massive wall construction they may have been substantially taller (perhaps up to 7 m).

⁴⁴ Yul kham-bu (4700 m elevation) is located in the Ri-shi region of 'Brong-pa county. This funerary complex consists of six concourses of standing stones (30 cm to 70 cm in height) aligned in the cardinal directions, with a temple-tomb edifice appended to the west side of each of the concourses. Adjacent to the east side of the fields of standing stones, there are long double-coursed slab-walls running parallel to one another in an east-west direction. To the south of the six complexes is an area of burial pits covering approximately 10,000 m². Yul kham-bu overlooks Ra-tshang mtsho in the east, while a tall meridian mountain range cuts the view in the west. Brush has engulfed the pillars but around 50% of the estimated 10,000 stones that once stood here are still rooted in the ground. The dimensions of the six complexes at Yul kham-bu are as follows:

- 1) Upper South Complex:
 - Pillar concourse – 28.4 m (east-west) by 22 m (north-south)
 - Slab-wall network – 20.3 m (east-west) by 22 m (north-south)
 - Estimated number of pillars originally – 1200
 - Appended temple-tomb – 12.7 m maximum (east-west) by 46.5 m (north-south)
- 2) Tower Complex:
 - Pillar concourse – 25 m (east-west) by 12.5 m (north-south)
 - Slab-wall network – 12.7 m (east-west) by 12.5 m (north-south)
 - Estimated number of pillars originally – 800
 - Appended temple-tomb – 14.6 m (east-west) by 22 m (north-south)
- 3) Lower South Complex:
 - Pillar concourse – 30 m by 30 m
 - No signs of a slab-wall network
 - Estimated number of pillars originally – 1800
 - Appended temple-tomb – 14 m (east-west) by 44 m (north-south)
- 4) Lower North Complex:
 - Pillar concourse – 75 m (east-west) by 28 m (north-south)
 - Slab-wall network – 32 m (east-west) by 28 m (north-south)
 - Estimated number of pillars originally – 4000
 - Appended temple-tomb – 19.4 m maximum (east-west) by 55 m (north-south)
- 5) Central North Complex:
 - Pillar concourse – 17 m (east-west) by 53 m (north-south)
 - Slab-wall network – 11 m (east-west) by 53 m (north-south)
 - Estimated number of pillars originally – 1800
 - Appended temple-tomb – 7.9 m maximum (east-west) by 64 m (north-south)
- 6) Upper North Complex:
 - Pillar concourse – 26 m (east-west) by 16 m (north-south)
 - Slab-wall network – 10.5 m (east-west) by 16 m (north-south)
 - Estimated number of pillars originally – 800
 - Appended temple-tomb – 11.3 m (east-west) by 24 m (north-south)



Fig. 140. The so-called palace of A-stag klu-mo, Sha-sha dpal-khang (C-145)



Fig. 141. An L-shaped temple-tomb, lower north complex, Yul kham-bu (C-143). The short side of the L-shaped structure (right side of the photograph) is 19 m in length while its long side is 55 m

The structures appended to the pillars were almost certainly built with flat roofs of an all-stone composition, using the Upper Tibetan corbelling technique. This is suggested by the prolific use of slabs of stone at the pillar sites, as found at the all-stone residential sites. In the larger edifices the windowless walls are up to 2.5 m in thickness, and are composed of inner and outer mantles. These bulky walls accommodate small interior spaces. There is no structural evidence of entranceways, which indicates that the interiors were completely sealed or accessed from above. Their design plainly shows that the structures were not built for habitation but rather for ceremonial purposes. Where significant remains have survived, it can be discerned that the larger specimens were divided by partition walls into two to five sections. These compartments form a single line (rectangular plan) or a row with one cell offset from the others to create a modified L-shaped or T-shaped plan (figs. 141, 142). The diminutive size of the internal compartments, completely sheathed in massive walls, is indicative of burial or reliquary chambers. There would be no sense in creating large structures with very heavy walls as residences in such open and vulnerable areas. Moreover, habitations require adequate ventilation, access ways and sufficient space.

The taller funerary structures have walls that taper slightly inwards, a technique referred to as the Tibetan ‘fortress’ style of construction. This design feature, a common architectonic feature in Central Tibet, is not well articulated in other Upper Tibet archaic monumental types. Walls were carefully constructed of coursed-rubble fabric, consisting of variously sized stone blocks and slabs (10 cm to 1 m in length) with smoothly hewn exterior faces. Masonry courses were laid flat, as well as in a distinctive ‘herringbone’ pattern whereby two intervening courses were set diagonally into a wall.⁴⁵ To reinforce larger walls, courses of thin bond stones were also employed at strategic levels. The interior walls appear to have been built of finer coursed masonry than the exterior surfaces. No evidence of the exterior skin of the structures has survived. It may be that they were covered in mud or clay plaster and brightly painted with mineral pigments (there are certainly many instances of such treatment in ceremonial structures of the historic epoch). Small quartz crystals and pieces of red sandstone are found scattered around some sites; these were probably employed as decorative or ritual elements.

⁴⁵ This use of intervening diagonal courses of masonry is also found in several residential sites in western Tibet such as rGya-smug mkhar (A-68) and rDza-ra dkar-gyam mon-rdo (B-61). See p. 146.



Fig. 142. A temple-tomb with a modified T-shaped plan, upper south complex, Yul kham-bu (C-143). This structure measures a maximum of 13 m (east-west) x 45 m (north-south). The temple-tomb has been largely leveled. Its rectangular scheme is altered by a structural extension in the middle of the west side of the ruin (center right of the photograph)

The architectural complexity and physical scale of the quadrate arrays of pillars appended to edifices is at once apparent. The great engineering skill and resources that went into building the arrays of pillars appended to temple-tombs reflect their important place in the Upper Tibetan archaic cultural horizon. This is supported by the comparative rarity of the monument type and its fairly regular distribution throughout the principal paleocultural zone of Upper Tibet (they are not found in the far eastern Byang-thang or in the badlands of Gu-ge). Their relative rarity (only around 30 have been discovered to date), and the highly intricate nature of their design and construction, allude to an exclusivist social dimension. It is likely that these necropoli are where the elite of society (the regional priestly and/or ruling classes) carried out ritual functions for those of similar rank, and where at least some of them were ultimately inhumed. Such specialized cultural activities (and the actual building of the monuments) could have been conducted only with the large-scale participation of local communities. However labor was obtained, the allocation of abundant material and human resources was essential for the construction and upkeep of these necropoli and for the cycle of ritual dispensations that took place in them.

Nearly every major region saw fit to build arrays of pillars and temple-tombs, unquestionably tying the principal zone of Upper Tibet into a singular paleocultural sphere with common religious and architectural traditions. The existence of great complexes scattered across Upper Tibet from gNam-ru (89° 26' E. longitude) west to the southeastern extent of Gu-ge (80° 47' E. longitude), may suggest that there were multiple geographic centers of political power during archaic times.⁴⁶ As with the regular distribution of strongholds and pillars erected in enclosures, the fairly uniform geographic occurrence of arrays of pillars and appended edifices is probably reflective of dispersed centers of political dominion. The relatively equitable endowment of natural resources in the Byang-thang, as well as the absence of urban centers and other obvious signs of the concentration of temporal power, makes a decentralized polity the most likely scenario. The distribution of

⁴⁶ In Bellezza: in press, I present Gangs-chen rdo-ring (C-157) as the most easterly example of pillars appended to a temple-tomb site located south of the Transhimalaya. This distinction actually belongs to Byi-ri sbug (C-164), a site surveyed in 2005. This modest-sized complex is located just 65 km northwest of gTsang-lha phu-dar, the mountain that demarcates the border of Zhang-zhung and Bod, according to the *Khro bo dbang chen* text (see p. 271). The easternmost extent of the two sui generis pillar types north of the Transhimalaya is fixed at 89° 26' longitude. Here, at the Do-ring South site (C-162), pillars erected within a quadrate enclosure stand beside a quadrate array of standing stones without an appended temple-tomb.

fortresses across the same geographic area strengthens the hypothesis that interregional tribal and/or clan rivalries may have played a big role in the diffusion of residential and ceremonial centers across Upper Tibet. The individual political centers as identified by the necropoli could well have been in direct competition with one another for the scarce resources of their high-elevation environment. It must be noted that political and social tensions may have been exacerbated in Iron Age and protohistoric Upper Tibet due to environmental decline.

In the local oral tradition, the arrays and what appear to be accompanying mausolean tombs are often accorded a funerary function. As with other archaic monumental remains, local traditions frequently associate these with the ancient non-Buddhist Mon-pa. Reportedly, human skeletal remains have been unearthed from some sites, indicating that they did indeed have a funerary function. Other types of funerary superstructures and pillars are commonly found in close proximity to the pillar arrays and appended structures, also corroborating a funerary function. Adjacent tombs and mortuary ritual structures are located at sites such as rKyang-rtswa mdo gyang-ro (C-148), Pags-mthug (C-158) and Gangs-chen rdo-ring (C-156) (figs. 143–145). Interestingly, at the rDo-ring site (C-162), an array of pillars was built right next to a pillar erected inside a quadrangle enclosure, highlighting the functional and chronological correspondences that exist between these two types of monuments (fig. 146). These two archaeological types are also in close proximity at the 'Brong-pa-dpon gyang-shig (C-140) and sKyid-gser (C-161) sites (figs. 147, 148). Large formations of pillars are known at funerary sites in other regions of Inner Asia as well. Taken as a whole, this evidence confidently establishes that these monuments functioned as necropoli.

In addition to acting as catchments for human remains, the edifices appended to the pillars probably served as temples or shrines where mortuary rites were conducted at the time of death. The sheer size and intricacy of the monuments suggests that these rites were highly developed, as were concomitant conceptions relating to death and the afterlife. Commemorative rituals may have also been conducted at the sites, perhaps for many years after burial took place. The archaic funerary tradition of Tibetan literature is dedicated to both the dead and those they leave behind. There is some speculation among the residents of Upper Tibet that each pillar represented a single individual, as in the constituent members of an ancient army. It is said that the *rdo-ring* were raised in honor of fallen soldiers.⁴⁷ Some *'brog-pa* also believe that under each pillar are the remains of an individual. However, I think this is unlikely unless cremation or fractional burial was the norm. The oral tradition emphasizes the corporate nature of the necropoli as important centers of collective ritual activity and social interaction. Drawing from this oral tradition, we might speculate that the leader of a local army or community was inhumed in the mortuary temple cum tomb, while the pillars may have been erected as ancillary social and monumental components to produce an integral ritual complex. The deceased ruler could have been ritually joined to the subsidiary human contingent, so as to reproduce or accent the social structures of the community. In the ritual events that took place at these sites, it can be imagined that the cult of ancestral deities and the sacral aura surrounding hereditary chieftains played a prominent role. The Tibetan archaic funerary tradition holds that it is the divine ancestors (*mtshun*) that welcome the dead into the afterlife (see pp. 393, 400, 401, 406, 409, 424, 427, 428, 455, 458, 460, 463).

Like the pillars erected in quadrangle enclosures, the arrays of stelae may have ritually functioned to capture the souls of the deceased and convey them to the afterlife. This old Tibetan funerary cultural motif is encountered in the Mu-cho'i khrom-'dur and *Klu-'bum* texts (see Part III). The

⁴⁷ Interestingly, the Tamil grammar *Tolkappiyam* refers to menhirs of south Indian megalithic sites as having been erected to commemorate deceased warriors (Agrawal 1998: 61).



Fig. 143. Funerary superstructures located immediately west of the rKyang-rtswa mdo gyang-ro temple-tomb and monoliths (C-148)



Fig. 144. Funerary structure MD8, Pags-mthug (C-158)



Fig. 145. The remains of an array of pillars appended to an edifice, Gangs-chen rdo-ring (C-156). Less than 10% of the original number of pillars is still standing. Note the large funerary structure (20 m x 11.5 m) immediately to the right



Fig. 146. rDo-ring (C-162). In the foreground are the vestiges of rows of small standing stones. They were directly appended to an enclosure with pillars



Fig. 147. The remains of an array of sandstone pillars appended to an edifice at sKyid-gser (C-161). Note the small slab-wall enclosure in the foreground



Fig. 148. Pillars erected inside an enclosure at sKyid-gser (C-161)



Fig. 149. The central complex, Khang-dmar rdza-shag site (C-160)



Fig. 150. Tomb MD2, Khang-dmar rdza-shag site (C-160). Note the human remains embedded in the ground (middle of photograph). These included foot bones that were subject to chronometric testing

use of standing stones to neutralize threats to the deceased would seem particularly relevant if the quadrate arrays of pillars with appended edifices were founded to honor those fallen in battle. According to the Bon funerary texts, those who died from violent causes (*gri*) require elaborate apotropaic and fortune-bestowing rituals to be carried out in order that their souls are commended to the ancestral paradise. Markers (*tho*), possibly represented by stone cairns or pillars, are recorded in the funerary texts as being essential in pressing down (*gnon-pa*) potentially harmful chthonic spirits such as the *klu* and *sri* (see pp. 406, 443, 445, 484, 489). These kinds of rites were carried out by priests known as *'dur-gshen* and *dri-bon-po*. The small quadrate slab-wall pens situated to the east of the arrays of pillars may also have had an apotropaic function. There is some textual evidence to suggest that these structures could have functioned as *sri-khung*, sacrificial pits used to ritually slay the agents of violent death (see pp. 394, 395, 406, 471, 472, 484). This function would in all probability be confirmed if the slab-wall enclosures are found to contain ornamented animal skulls, a main component of the *sri-khung* rites (see pp. 393, 394, 406, 472).

The great effort made to align the edifices and networks of pillars in the cardinal or intermediate directions is highly significant in understanding the cosmological and soteriological conceptions that gave rise to them. As noted in the discourse on the pillars erected within enclosures, I am inclined to see these geographic orientations as reflecting important religious preoccupations pertaining to the celestial sphere. Solar, lunar and/or sidereal alignments and calendrical parameters may have been incumbent in the spatial bearing of these structures. While the origins and history of the Zhang-zhung pantheon are anything but certain, it is in such a study that a better understanding of Upper Tibetan funerary structures may lie (see Part II, Section 6). According to Bon ritual literature, many of the deities of Zhang-zhung were associated with uranic and meteorological phenomena, and these kinds of religious traditions may be implied in the careful alignment of the pillars and edifices. The sun and moon, storms, meteor showers, and other heavenly happenings strongly colored the identity and iconography of powerful Zhang-zhung Bon deities such as Gekhod, Pra-phud and Mu-thur. These gods represent embodiments of celestial bodies and forces, underscoring the crucial nature of sky-bound phenomena in early times (see pp. 307–325). Likewise, in the archaic funerary tradition of Tibetan literature, the afterlife was conceived of as being situated high above the earth. These two formative aspects of ancient culture, soteriological and cosmological, continue to be underpinned by the cult of sacred mountains (although in a much attenuated fashion).

Long lines of pillars and slab-walls to the east of the mortuary temple and tombs and the deep vistas in that direction hint at the motif of the rising sun being central to Upper Tibetan funerary spatial concepts. As the sun rose, perhaps the souls of the dead did as well, played out in rituals that unfolded at sites in which directional factors were fundamental. The high-elevation topographical features to the west of the monuments, which were illuminated by the rising sun, may have possibly symbolized the definitive postmortem ascent to a celestial or montane afterlife.

The massively built mortuary temple-tombs of Upper Tibet and the accompanying rows of pillars represent a remarkable cultural achievement, reflecting a good deal of indigenous technological and cultural sophistication. I have assembled chronometric evidence suggesting that this type of monument may have been known in the first third of the first millennium BCE. Foot bones extracted from a grave cleaved in two by a seasonal torrent at the Khang-dmar rdza-shag site (C-160) (figs. 149, 150)⁴⁸ have yielded a conventional radiocarbon age of 740 BCE +/- 40 years.⁴⁹ While it is possible that the arrays of standing stones at Khang-dmar rdza-shag may have been erected at a different time, the relative location of the dated tomb remains indicates that the stelae were an integral part of the same funerary tradition. The tomb in question is interjacent to the east and central complexes, giving the impression that it was a constituent part of the necropolis. On the other hand, rows of pillars are also known to have been erected in southern Tibet during the imperial period.⁵⁰ The scant chronometric and comparative archaeological evidence, therefore, may suggest a periodization of the monolithic arrays and appended edifices between the early first millennium BCE and the collapse of the Tibetan imperium, a period of around 1500 years. Without further archaeometric data it is difficult to furnish a more exact assessment of their age. I do think it unlikely, however, that the largest and most elaborate examples of the monument could have been founded after the demise of Zhang-zhung as an independent political entity in the seventh century CE. The arrays of pillars appended to edifices were clearly symbols of political strength and cultural identity that required considerable resources to build and maintain. After the Central Tibetan (sPu-rgyal bod) annexation of Zhang-zhung, such displays of indigenous power

⁴⁸ Khang-dmar rdza-shag is one of the most extensive and best preserved temple-tombs with appended quadrate arrays of pillars in Upper Tibet. The site is located on a narrow bench on the left side of the Rong-mgo valley (a feeder of sTong mtsho), in sGer-rtse, close to the Nag-chu prefecture border. It consists of three similarly sized and designed complexes: west, central and east. The three complexes are at a considerable distance from one another, an unusual spatial feature in this type of monument. This must be in part because the bench on which they were constructed is too narrow to accommodate the complexes side by side and still maintain the customary orientation of the monument in the cardinal directions. The sandy, partially turf-covered bench gently slopes down in a southerly direction towards the valley floor, which is approximately 20 m lower in elevation. The site is hemmed in to the north by a ridge, but in the other directions there are wide vistas. To the south, Shel-gangs-lcam, the principal sacred mountain in the region, is plainly visible. All structures are made from local brown sandstone. The exterior faces of the slabs and blocks used to build the temple-tombs were hewn flat. It would appear that the south (down-slope) side of the three funerary edifices was set on a plinth or underpinned by an apron wall. This wall is roughly 50 cm in height and extends a maximum of 1 m laterally from the south side of the superstructures. Structural evidence for this feature, however, is now fairly obscure. The pillars are all naturally occurring pieces of sandstone that protrude a maximum of 80 cm above the surface. The pillars exhibit heavy weathering and support a considerable amount of orange climax lichen growth. Four tombs with different types of superstructures are found dispersed between the east and central complexes (MD1 to MD4).

⁴⁹ Tomb MD2: AMS analysis, sample no. Beta-187501; conventional radiocarbon age: 2740 +/- 40 BP; 2 Sigma calibrated result (95% probability): Cal 2920 to 2760 BP; intercept of radiocarbon age with calibration curve Cal 2840 BP; 1 Sigma calibrated result (68% probability): 2870 to 2780 BP.

⁵⁰ At Leb-ri (believed to date to the seventh to ninth century CE), in southern Tibet, 15 parallel rows of standing stones are found amid graves for horses and other animals. See Caffarelli, Mortari Vergara, 1997, pp. 235 (fig. 271), 238. These pillars occupy a much less prominent position than those in Upper Tibet, and are architecturally supplementary to the large burial mounds (*bang-so*).

and prestige may not have been tolerated or may have fallen out of fashion in favor of southern customs. Even with their attribution solely to the prehistoric context, there is still a huge expanse of time to account for. I am inclined to see this as reflecting the operation of relatively durable cultural and economic systems in Upper Tibet, which encouraged the long-term construction and usage of monument types. Largely isolated from adjoining regions by high mountain ranges, Upper Tibet seems to have enjoyed a great deal of cultural constancy fostering the continuance of its Iron Age civilization. This could have worked to preserve the construction and maintenance of the concourses of pillars appended to mausolea for many centuries.

The pillar monuments of Upper Tibet share general technological and morphological traits with those found in other regions of Inner Asia.⁵¹ These commonalities are most recognizable in the pillar monuments of Mongolia and southern Siberia. North Inner Asian cognates or precedents for pillars erected inside enclosures and rows of stelae are likewise part of a funerary setting. The morphological, functional and geographic qualities of Iron Age Inner Asian pillar monuments indicate that they have significant affinities to the Upper Tibetan pillars erected inside quadrangle enclosures and arrays of pillars appended to edifices. These cultural linkages as analogous monumental, environmental and perhaps ideational innovations allude to the timeframe in which the Upper Tibetan pillar monuments originated and developed. It is within the diverse Inner Asian ethnohistorical context that the Upper Tibetan pillar monuments should be understood, for in different forms they also flourished among the Iron Age nomads of the steppes, boreal forests and alpine pastures. These shared functional and situational aspects suggest that certain eschatological conceptions and ritual practices pertaining to death may have widely reverberated between Upper Tibet, southern Siberia and Mongolia to form a pan-cultural heritage. An even wider geographic purview must be contended with when questions of Iron Age cultural interactivity are raised. The erecting of funerary pillars in the Iron Age extended to Kashmir, documenting how geographically pervasive this technological development was.⁵² What diffusive factors related to migration, trade

⁵¹ Scholars such as Roerich (1967: 22, 23, 24) and Tucci (1973: 57, 58) first noted that Tibetan stelae and tombs reveal the influence exerted by Eurasian steppe cultures on Plateau civilization. In a similar vein, Hoffman (1990: 45) connected the megalithic monuments of northern Tibet to the Eurasian animal style. Lattimore (1951: 212) believed that Tibetan pastoralism was partly derived from steppe nomadism as it penetrated southwards from Mongolia and Gansu. The dairy culture and lactase tolerance of the Tibetans puts them at the eastern limits of Eurasian influences, as indicated by their adoption of Indo-European and/or Altaic dairying practices and diet (Fleming 1998: 681).

⁵² The menhirs of Upper Tibet and Kashmir are different morphologically and in the manner they were erected, demonstrating that they belonged to different cultural orders. Both classes of standing stones, however, are non-sepulchral monuments marking the presence of burial grounds. The nature of intercourse between these proximate cultures remains to be assessed. The Iron Age saw the appearance of funerary pillars as part of the so-called north Indian megalithic cultures. According to Allchin (1995: 137), around the end of the second millennium BCE or the beginning of the first millennium BCE, the cultural transition to complex burial practices called 'megalithic' occurred throughout much of India. In Iron Age peninsular India, these cultures were characterized by burnished blackware and redware, predominantly manufactured on a turntable, and megalithic burials with and without large stones (*ibid.*: 137). Megalithic cultures of the Indian peninsular, iron-using peoples with burials in hilly zones, generally persisted into the Common Era (Tripathi 2001: 232). For an important work on the Indian Iron Age see Banerjee 1965. The Kashmir megalithic culture was defined by the raising of menhirs at sites such as Burzahom and Gufkral (Sharma 1998: 20). Neolithic people inhabited these sites from the beginning of the third millennium BCE for around 1500 years, but circa 1400 BCE another wave of people using iron and cultivating rice entered Kashmir and erected huge menhirs as memorial columns (*ibid.*: 23). This theory of a foreign cultural intrusion is supported by Agrawal (1998: 69), who believes that the newcomers adapted themselves to the Neolithic pattern of cultural life already in place in Kashmir. Saar (1992: 9) and Agrawal (1998: 51) place the erection of menhirs at Burzahom from 700 to 200 BCE, while Shali (1993: 92) is persuaded to believe that the specimens of Gufkral date from 1000 to 700 BCE. As Agrawal (Joint Director General of the Archaeological Survey of India) aptly points out (in personal communication), the dating of the Kashmir megaliths is anything but certain and requires further assessment. According to Agrawal, there are no less than 36 sites in Kashmir

and religious beliefs may have been responsible for these monumental innovations remain largely conjectural. What is uncontested is that revolutionary cultural and technological changes were afoot in the Iron Age, one sign of which was the appearance of funerary pillar monuments over an extremely large area of Inner Asia.

The widespread development of nomadic pastoralism and the riding horse in the first millennium BCE are probably the vehicles by which certain elements of funerary culture in Upper Tibet and other regions of Inner Asia became fused.⁵³ Although it remains to be conclusively proven, it is probably in this period that the riding horse appeared in Tibet along with the prolific production of copper alloy weapons, implements and ornaments.⁵⁴ I have found no compelling reasons to believe that the Iron Age technological revolution raging across the Eurasian steppes, China and the Indian Subcontinent somehow missed Tibet. In particular, close cultural affinities and trade connections between Mongolia and northern Tibet can be posited (predicated on geographic proximity and the intensity of human activity and mobility in the Iron Age). These two regions experienced similar patterns of Late Holocene environmental degradation, which may have acted as an impetus in interregional contacts and conflicts.⁵⁵ With the appearance of more difficult conditions for agriculture and stock-rearing, the movements of people between Mongolia and Tibet may have emerged as a critical adaptive strategy. It is well known that Mongolian cultural links in the Scythic period extended through Sogdiana to India, and across Kazakhstan as far as the Black Sea and Eastern Europe (Ishjmat 1994: 152).⁵⁶ The Hsiung-nu (Huns) and Hsien-pi, the two major elements of the Mongolian ethnos in first millennium BCE, were part of this primary

with standing stones. The two most celebrated sites are Burzahom (11 menhirs) and Gufkral (16 menhirs, 2.9 m to 6.55 m in length), in which the standing stones appear to have been laid out in a semi-circle. For general information and illustrations of these two sites see Kak 1933; Agrawal 1998; Shali 1993; Joshi *et al.* 1998. At Burzahom, three human burials and nine animal burials (including dog, goat, sheep, and ibex) have been attributed to the Megalithic period. In the burial of an adult, a 1.75 m pit was dug and lined with lime, and a dog skull was placed at 65 cm below the surface. Some iron and copper objects were recovered from the Burzahom Megalithic strata. See Agrawal 1998, pp. 61, 63, 66. In Kashmir, menhirs came to be worshipped as *svayambu* (self-born) objects of extraordinary power (Shali 1993: 93).

⁵³ In the early Iron Age, the Eurasian steppe belt saw the final establishment of nomadic pastoralism along with its seminal technical achievements. The extensive use of the saddle and horse fostered contacts between various tribes and peoples over vast areas, which led to the cultural integration of pastoral tribes and the formation of the enormous historico-cultural community called Scytho-Siberian. This cultural complex is characterized by the so-called Scythian triad: weapons, horse equipage (bridles, saddles and saddle cloths), and art in the animal style. Closely related forms of these types of material assets spread among nomadic cultures throughout Eurasian steppes from the Danube to the upper reaches of the Amur. The integration of Eurasian pastoral cultures was effected through: 1) similarities in habitats (steppe and semi-deserts), 2) similar systems of nomadic cattle-raising, and 3) roughly similar levels of societal development characterized by an emerging aristocracy. East Central Asia appears to have been the center of the traditional pastoral and nomadic way of life, and the wellspring of a cultural system that spread throughout Eurasia. See Askarov *et al.* 1992, pp. 463, 465.

⁵⁴ A copper alloy foliar arrowhead excavated at the Chos-gong site (tentatively dated circa 1750 to 1100 BCE) is thought to be of local origin, indicating that metal-working technologies were known in Bronze Age Central Tibet. See Aldenderfer 2004, pp. 31, 32 (after Huo Wei 2000; Institute of Archaeology *et al.* 1991a; 1991b; 1999b). This second millennium BCE origin (contingent upon archaeological corroboration from other sites) for a copper alloy object provides ample chronological leeway for the early Iron Age production of metallic implements and weapons of significant complexity in Tibet.

⁵⁵ Palynological evidence from a western Mongolian lake indicates that rapid desiccation was initiated at the beginning of the Late Holocene. This environmental degradation accompanied by hunting pressures may have led to the extinction of the aurochs in Inner Asia by the early Iron Age. See Jacobson 2001, p. 10.

⁵⁶ Comprehensive chronometric studies of Inner Asian Scythian antiquities are found in Zaitseva *et al.* 2004; Alekseev *et al.* 2001.

stage in the development of nomadic civilization (*ibid.*: 164, 168).⁵⁷ Although various tribes, languages and cultures existed in Mongolia, they possessed many similar articles, especially weapons, horse harnesses and ornaments (*ibid.*: 152). The predominant weapon in Mongolia became the socketed trihedral arrowhead (cf. *ibid.*: 152). It is difficult to see how formative Iron Age Mongolian cultural influences that spread 5000 km eastward could not have penetrated 500 km south to the Tibetan Plateau. This is not merely a matter of conjecture, for the main weapon in Tibet was also the socketed trihedral arrowhead (a typological study of these projectile points indicates that some of them date to the archaic cultural horizon). As we shall see in due course, horse harnesses and ornaments similar in design and form to those of the Inner Asian Scythians are found in Tibet as well.⁵⁸

These common monumental and artifactual elements of the Tibetan and Scythian material suites buttress the view that Iron Age Tibet and Mongolia had various types of cultural intercourse. If indeed the pillar typologies of Upper Tibet originated in an early Iron Age temporal context (or even earlier), we must consider the possibility that they served as a cultural and/or technological precedent for the raising of large numbers of pillars in the steppes in subsequent periods. In such an ethnohistorical scenario, Upper Tibet surfaces as a wellspring of funerary tradition that watered the eschatological traditions of north Inner Asia. This may be especially true of the genesis of Turk funerary pillars of the middle first millennium CE. Direct links, however, appear to be only part of the ethnohistorical picture explaining the occurrence of related funerary structures throughout much of Inner Asia in the Iron Age. Cross-cultural archaeological evidence supports the hypothesis that much earlier contacts between Upper Tibet and her steppic neighbors set the course for the development of their distinctive but morphologically related monumental funerary traditions (and rock art). I shall assert that the advent of the Upper Tibetan pillar types could be related to the raising of various kinds of standing stones at funerary sites in north Inner Asia in the second millennium BCE.

It cannot be overstated that the *rdo-ring* sites of Upper Tibet represent unique conceptions about design, spatial arrangements and ritual practice, indicative of a paleocultural (Bodic) entity separate and distinct from its northern neighbors. Nowhere else in Inner Asia were such large numbers of orderly stelae erected at a single site. Moreover, the configuration of funerary components is typical to the Upper Tibetan paleocultural environment. Unlike the steppe monuments of antiquity, set amid great clashes of peoples and the attendant disintegration and reconstitution of cultures, the *sui generis* pillar types of Upper Tibet may have been actively used throughout the prehistoric epoch and perhaps even until the close of the imperial period (mid-ninth century CE). The geographic isolation of Upper Tibet from the epochal human movements of north Inner Asia, and its seemingly long-lived economic and cultural systems, argue in favor of the long-term

⁵⁷ Smith (1996: 11, 14), from various literary sources, traces links between the Hsien-pi and the Tu-hu-hun state, and the A-zha who appear to have moved to the northeastern part of the Tibetan Plateau by the fourth century CE. The presence of similar funerary pillar monuments indicates that this interrelated Tibetan and Mongolian ethnohistorical heritage probably has earlier precedents.

⁵⁸ Mallory (1994: 145–147) reports that Iron Age language families occupied areas of between 500,000 and 750,000 sq. km. Generally speaking, the development of these large linguistic provinces was conducive to the expansion of cultural and military activities. Any human advance from Mongolia southward can be assumed to have had an impact on the adjacent Tibetan Plateau. It is also worth noting that the traditional country of Zhang-zhung, as defined by the principal paleocultural zone of Upper Tibet, covered around 500,000 sq. km, putting it in congruence with the general size of Eurasian Iron Age linguistic provinces. Zhang-zhung as a sizable territory is corroborated in the T'ang Annals, which state that Greater Yang-t'ung covered 1000 *li* from east to west and had some 80,000 to 90,000 warriors (Bushell 1880: 527 (n. 9)).

persistence of the pillar monuments as an Iron Age relic. Furthermore, my extensive field surveys demonstrate that epigraphic evidence of foreign cultural intrusions during the protohistoric and early historic periods is lacking in Upper Tibet.

Possibly the first prehistoric instance of raising pillars at funerary sites in Inner Asia occurred in the Bronze Age Chemurcheck culture of the Mongolian Altai.⁵⁹ The extensive use of pillars in developed Bronze Age Inner Asia is also attested in south Siberian burial sites of the Okunev culture (middle of second millennium BCE).⁶⁰ Horned mascoids are one of the most frequently encountered Okunev petroglyphic motifs at both funerary and non-funerary sites. Interestingly, horned deities are also represented in archaic funerary rituals that have been preserved in Bon literature (see Part III, subsection 6.9). Separated by 2000 km and at least 2000 years, the occurrence of horned funerary figures in the Okunev culture of southern Siberia and among the Tibetan Bon-po could be purely coincidental. The general morphological parallels that exist between the slab-wall funerary enclosures of the Okunev culture and Upper Tibet, however, may possibly point to diffuse cultural bonds. Funerary legacies (of a physical and/or abstract character) may have been passed on from the Okunev culture to Upper Tibet through Inner Asian Scythian cultural intermediaries. As we shall see in Section 9 of Part III, there are a number of ostensible connections between Bon funerary literature and Scythic burial rites that must be accounted for.

It is now generally accepted that Eneolithic and Bronze Age cultural influences from southern Siberia washed over Eastern Turkestan, a region adjacent to Upper Tibet.⁶¹ The geographic

⁵⁹The so-called Chemurcheck culture, which has not been well studied, has been dated to the end of the third millennium BCE and the early second millennium BCE. It appears to have been composed of Europoid cattle breeders, and to have cultural affinities with the late Bronze Age cultures of the Mongolian steppes and Kazakhstan. Chemurcheck tomb superstructures are quadrate in shape and often have a pillar (1 m to 2 m in height) on the east side. At some tombs there are two to five such standing stones. Bones of sheep and cattle, stone and ceramic vessels, and small bronze earrings and pendants have been recovered from these tombs. A late Bronze Age culture in central and western Mongolia, as yet unnamed, is characterized by round burial mounds with four stelae erected around the circumference. In the vicinity there are funerary ritual structures consisting of four stone slabs in a quadrilateral arrangement. This information was obtained from the Russian archaeologist Alexei Kovalev (in personal communication), who has recently carried out fieldwork in Mongolia and Chinese Kazakhstan.

⁶⁰These pillars often bear the visage of what is thought to be the divine ancestress of the tribe (Gryaznov 1969: 63, 64). See Aspelins 1931 for line drawings of Okunev burial sites. Of particular interest are fig. 128, showing an Okunev field of stelae in Khaskasia (southern Siberia); figs. 222, 223, illustrating a so-called Okunev fence (tabular pillars lining the perimeter of quadrate tombs); and fig. 294, a rendering of an Okunev fence that includes a large pillar with a carving of an anthropomorphous face among other pillars interspersed along the single-course slab and block perimeter walls of a quadrate tomb. For comprehensive visual treatment of Okunev carved stelae, see Leont'ev and Kapel'ko.

⁶¹Novgorodova (1989: 348) compares Europoid burials of Eastern Turkestan of the late third and second millennium BCE with those of the Afanasievo and Andronovo cultures of south Siberia and other regions of Central Asia, suggesting that these populations had paleoanthropological links and were possibly ethnically related as well. This is supported by Debaine-Francfort (2001: 57, 58) who, in her summation of the relevant archaeological research, states that Eastern Turkestan formed an integral part of the Andronovo cultural sphere in the Bronze Age. Kuzmina (1998: 79, 80) traces the spread of bronze technology, chariots and horse riding to Eastern Turkestan to the movement of Andronovo tribes south and eastward, beginning in the 15th to 13th century BCE. The continuing flow of technology from west to east is probably due to significant environmental (colder conditions) and historical (adoption of nomadism) changes that occurred in the Late Bronze Age (*ibid.*). It is also worth noting that the Andronovo culture appeared in Kirghizia and Tajikistan by 1400 BCE, a region less than 500 km west of the Tocharian-speaking Tarim basin (Mallory 1994: 61). The Tocharians of the Tarim basin, who were geographically intermediate between Tibet and the Andronovo and Afanasievo cultures, may have ethnogenetic links with these latter groups (*ibid.*: 56–63). In the Yanbulaq cemetery of the Qumul region of Eastern Turkestan, around 76 graves were excavated and 29 complete skulls obtained. These underwent craniometric analysis. Twenty-one of the skulls (dated circa 1300–500 BCE) are Mongoloid in character

proximity of important Bronze Age peoples to the Plateau alone is of course no guarantee that their influences were felt in Upper Tibet. Nevertheless, a scenario in which ethnical vectors originating from the northwest in a remote period had a bearing on the paleocultural substrate of Upper Tibet must be accorded serious consideration.⁶² This may prove a crucial point, because Iron Age cultural and migratory processes alone cannot fully account for the tradition of raising funerary pillars in Upper Tibet and other regions of Inner Asia. These respective monumental traditions are highly distinctive, reflecting a good deal of indigenous innovation and development, which must have occurred over a timeframe of many centuries. The origins of certain morphological, material and religious parallels between the funerary pillar monuments of the Upper Tibetan and Inner Asian Scythian worlds could, therefore, be indicative of divergent ethnohistorical factors associated with Bronze Age Eurasian steppe peoples. These came to manifest themselves in the funerary monuments of both regions. While developed Bronze Age interconnections between Upper Tibet and the steppes are as yet unproven, such interactive processes appear to explain why the far-flung Scytho-Siberian Tagar culture of the early Iron Age and the Upper Tibetans raised pillars at their respective funerary sites.

The Tagar culture of Minusinsk and Krasnoyarsk (800 to 400 BCE) erected standing stones along the perimeters of their quadrangle tombs, sometimes reusing the Okunev stelae.⁶³ It is speculated that the pillars of the Tagar burial complexes were erected as a form of ancestor worship, but their precise ritual functions are still enigmatic. These are the tallest stelae of Inner Asia and belong to the Tagar culture. At Saronova in Khaskasia pillars reach 5 m in height, and at the so-called royal *kurgan* (barrow) at Salbyk (Pazyryk period) carved and uncarved pillars attain 7 m in height. Thousands of Tagar *kurgans* have been excavated and many artifacts collected, demonstrating that this culture was quite homogeneous (Tchlenova 1992). Ten to 20 *kurgans* are commonly located at a single burial site (*ibid.*: 1992). The Tagar *kurgans* usually support just one human interment each. These cemeteries are mostly located at the base of hills (*ibid.*: 1992).⁶⁴

with elongated morphological qualities and fairly wide orbits. These skulls are close in structure to those of eastern Tibetan populations. See Han Kangxin 1998, pp. 561, 568. As such, Tocharian contacts with the Tibetan world seem indicated. It remains to be determined if evidence for late Bronze Age Mongoloid populations found in cemeteries of eastern Xinjiang represents a long-established presence in the region or a contemporaneous incursion (Mallory and Mair 2000: 242).

⁶² In the Neolithic and Bronze Age, the general movement of peoples in the steppes was from the northwest to the southeast (cf. Sher and Garyaeva 1996: 105). The cultural achievements of the Bronze Age Afanasievo of the steppes were decisive indeed: they pioneered the use of horse-drawn chariots, bronze metallurgy, and an economy combining animal husbandry and land cultivation (Masson 1992: 347).

⁶³ For an excellent photographic illustration of the characteristic tabular pillars raised on the corners and sides of a Tagar barrow in the Minusinsk basin, see Kilunovskaya and Semenov 1995, photo 25. For plans of Tagar tombs with standing stones from the Krasnoyarsk district (between Tuva and Khaskasia), see Aspelins 1931, figs. 3–12. In 1993, the burial tumulus of a high-ranking member of Tagar society was excavated by N. Y. Kuzmin in the Ust'-Abakan district of Khaskasia. The high status of the burial is reflected in the large size of the funerary structures and the quality of artifacts recovered from the site. This rocky barrow of more than 1 m in elevation is surrounded by an upright slab enclosure (18 m x 17 m), which stands around 1 m in height. Stelae up to 2.8 m are positioned on the corners and middle of each side of the enclosure. Fragmentary petroglyphs are found on these pillars. It appears that these standing stones were removed from Okunev burials and reused at this Tagar site some centuries later. Entire skeletons and individual bones of sacrificial horses, sheep and cattle were placed in the tombs beside the feet of corpses. See Kuzmin 1994.

⁶⁴ The round or ellipsoidal burial mounds are 8 m to 35 m in length and 40 cm to 1.5 m in elevation. One or more tumuli are surrounded by a rectangular or square stone enclosure, which contains one or two pillars along each wall. The Tagar culture is the only culture in Minusinsk to have erected pillars at their tombs. The skulls of the Tagar people are Europoid, and appear to be closely related to the antecedent Afanasievo and Andronovo cultures. It seems likely that the Tagar population was genetically diverse through the infusion of various ethnic strains. See Tchlenova 1992.

The early Iron Age Tagar funerary pillars, tumuli and enclosures were erected in a period that may coincide with the founding of analogous monuments in Upper Tibet. As discussed, anterior paleocultural factors may be responsible for this correspondence. Early Iron Age migrations, trade and military conflicts may also have played a role in the Inner Asian funerary cultural florescence, which blossomed in widely separated regions. The first half of the first millennium BCE saw the proliferation of funerary sites in southern Siberia and probably as far south as Upper Tibet, in which standing stones and slab-walls played a dominant role. These are part of an early Iron Age technological stage of development, which manifested itself in the lithic monuments of diverse ethno-linguistic groups across the heart of Asia.

Large numbers of funerary pillars that do not directly mark burials are also associated with late Bronze Age (circa 1200 to 800 BCE) pre-Scythian and Iron Age (800 to 300 BCE) Scythian funerary sites of Mongolia, southern Siberia and the Altai. These tabular or cigar-shaped stelae are generally between 50 cm and 2.5 m in height.⁶⁵ Around 70% of them are uncarved,⁶⁶ and in form and size are not unlike the standing stones of Upper Tibet. Among the carved specimens, the deer is a common motif, which has given rise to them being popularly called deer stones or stag stones.⁶⁷ Deer stones are found from the Altai to eastern Transbaikalia and across Mongolia to the Gobi desert, with the largest concentrations in northwestern Mongolia and Tuva (Volkov 1967: 69, 70). These pillars are often located near barrows and funerary ritual monuments known as *kherekurs* (*ibid.*: 69, 70).⁶⁸ Stone-lined pits and horse-head burials have been unearthed in close

⁶⁵ What may be the largest deer stone in Mongolia, a beautifully carved specimen at the Erkhel Lake site (Ulaan Tolgoi), towers 3.8 m above the ground (Fitzhugh 2002: 43; 2004a: 14). According to Derevyanko (1987), the erection of stelae in small enclosures most likely began well before Scythian times in the middle of the Bronze Age, in western Mongolia and the Altai. Such stones may have been erected by the late Bronze Age Karasuk culture as well. The petroglyphs carved on deer stones are of the Karasuk and Scytho-Siberian type. Subsequently, petroglyphs of Turk weapons and armaments from the Middle Ages appeared on the pillars. See Derevyanko 1987, pp. 156, 157 (of particular interest are diagrams of single stelae erected in small slab-type enclosures on p. 157). Baiarsaikhan (2004: 35) dates the Mongolian deerstones between the end of the second millennium BCE and the seventh to third century BCE. Charcoal recovered near a culturally placed slab in the proximity of Ulaan Tolgoi deer stone DS5 yielded a date of circa 2150 to 1960 BP. Chronometric testing of horse skulls and teeth discovered in structural features associated with Ulaan Tolgoi DS4 consistently furnished dates of circa 3250 to 2500 BP. See Fitzhugh 2005, pp. 17, 19–23. Multiple ongoing attempts to date organic materials associated with deer stones in Mongolia have repeatedly yielded dates in the range of 1200 to 800 BCE (William W. Fitzhugh, in personal communication).

⁶⁶ This estimate has come from several Russian archaeologists I have interviewed. The plain deer stones represent a common type of Eurasian pillar (Volkov 2002: 19).

⁶⁷ For comprehensive visual treatment of deer stones in Mongolia see Volkov 2002. The works of Fitzhugh (2002; 2004; 2005) contain many images of deer stones from the Mongolian Erkhel and Ushkin Uver sites.

⁶⁸ Like the two sui generis pillar typologies of Upper Tibet, the northern and central Mongolian late Bronze Age mortuary structures known as *kherekurs* (*khirigsuurs*) were oriented along an east-west to southeast-northwest axis. For data on the orientation of *kherekurs*, see Allard and Erdenebaatar 2005 (chronometric data indicate they were established circa 1200 to 800 BCE). Likewise, a linkage between burial rites and the rising sun has been postulated for these *kherekurs*. Satellite mounds that form part of the ensemble of structural remains at *kherekurs*, in the Khanuy Valley, have been systematically excavated to reveal horse skulls, regularly positioned to the east and southeast and points in between. This interment pattern alludes to a great deal of ritual coherence over a period of several centuries and across much of northern and central Mongolia (as other studies of horse remains discovered at *kherekurs* also indicate). It is theorized that this orientation of horse skulls shows that the animals were slaughtered in the autumn months and positioned to point to the sunrise on the day of their immolation. See Allard *et al.*: in press. Similarly, the burial chambers and funerary superstructures of the Scythic Uyük culture (eighth to fourth century BCE) of northwestern Mongolia and Tuva were oriented in the cardinal points (Jacobson 1987: 7, 8).

proximity to deer stones at the Erkhel Lake site in Mongolia (Fitzhugh 2004: 17).⁶⁹ The vertical orientation of the carved motifs on these pillars is thought by some specialists to generally reflect the Scythian belief in a tripartite cosmos. The carvings frequently depict stags with bird-like bills and attenuated legs, which seems to indicate that these creatures were attributed the power of flight. It is also speculated that the anthropomorphous motifs ornamenting the stelae may represent the proto-ancestors who mediated between the living and dead of the Inner Asian Scythian tribes.⁷⁰

It has been established that the deer stones are sacrificial sites and are not erected directly above burials.⁷¹ They were rather raised at the following types of funerary ritual complexes:

- 1) Small, flat, low-elevation stone structures with small passages surrounded by circles. In these structures the remnants of camels, oxen and horses are found.⁷²
- 2) Stone enclosures resembling slab graves but larger in size (typically up to 10 m x 10 m). The outer walls of these enclosures are flanked by deer stones lying flat. The skulls of domestic animals have been unearthed from these enclosures.
- 3) Stone enclosures resembling slab graves but with deer stones erected at the corners. Sometimes deer stones were also used to construct the side walls. While animal bones have been found, no human bones have ever been excavated from these structures.
- 4) Deer stones erected both inside and outside enclosures surrounding enormous stone *kurgans*. This type of deer stone site is characteristic of northwestern Mongolia. The enclosures themselves are flanked by stone circles that sometimes have paths between them, leading between the *kurgan* and the edge of the enclosure.

With the appearance of the pre-Scythian/Scythian deer stone monuments, a number of strong morphological parallels to the funerary pillars monuments of Upper Tibet appear. These are centered in the fact that similarly shaped pillars were erected in conjunction with slab-wall enclosures, which are non-burial in function. However, the pre-Scythian/Scythian pillars (some of which are carved) are found on the perimeter or outside single-course slab-wall enclosures, while the Upper Tibetan variants were erected inside double-course slab-wall enclosures. The deer stones and *rdo-ring* are also associated with a strikingly different repertoire of superficial funerary structures. In a word: these pillar monuments are both similar and different. Quite obviously, the morphological and constructional commonalities in the monuments of the two regions illustrate that they possessed commensurate building skills. As we shall see, these parallels extend beyond superficialities in design to embrace conceptions relating to death and the afterlife and the ritual

⁶⁹ East-facing horse skulls, vertebrae and sets of hoofs in caches were discovered in five of the seven structural features surrounding Ulaan Tolgoi DS4. The pecking stones found in the same strata as the horse skulls have percussion marks matching the width of cuts in the carvings on deer stones. This fact as well as other stratigraphical evidence has been posited to conclude that horse sacrifices took place with the erection and carving of the deer stone. See Fitzhugh 2005, pp. 22–24; 2004, pp. 15–17.

⁷⁰ A summary of the possible religious and mythological beliefs connected to deer stones is given in an essay by Kilunovskaya in Kilunovskaya and Semenov 1995. See also Baiarsaikhan 2004; Jacobson 1987. Baiarsaikhan (2004: 37) hypothesizes that the makers of the deer stones believed deer delivered the dead to the spirit world (related to their flying aspect in deer stone iconography). He also observes that the horse appears to have fulfilled the same function for the Mongolian steppe tribes (*ibid.*). As we shall see in Part III, the archaic funerary traditions of Tibet contain rituals in which the horse, yak and sheep are the deliverers of the deceased to the celestial afterworld.

⁷¹ This information on the non-sepulchral character of deer stones and the typology of deer stones that follows is taken from the work of Volkov 2002, p. 16.

⁷² In the first millennium BCE, nomads of Mongolia and Central Asia in particular reared the Przewalsky horse, a small, stocky, high-endurance animal (Ishjmat 1994: 151).

performances associated with these. Correspondences between metallic objects, rock art and funerary rites indicate that technical and ideological transmissions were indeed taking place between the Tibetans and the Inner Asian Scythians.

While many bronze artifacts have been recovered in archaeological excavations in Mongolia, the Altai and southern Siberia, very few objects have been obtained in a similar fashion in Upper Tibet. We are limited, then, to comparing sequenced steppic artifacts with ones that are ostensibly Tibetan but which lack a provenance. The methodological limitations of such an approach are immediately apparent. First of all, there is no question of attributing objects obtained in this fashion to a specific area of the Tibetan Plateau. The precise age and source of the Tibetan artifacts being unknown reduces a comparative study to a tentative exercise that highlights future avenues of research. Nevertheless, I hold that similarities in the assemblages of Inner Asian Scythian and Upper Tibetan artifacts should not be neglected. They constitute an important signpost on the road ahead of archaeological inquiry concerning Upper Tibet's place in the ethnohistorical puzzle of ancient Inner Asia.⁷³ In particular, there are four classes of Scythian bronze artifacts that are directly comparable to *thog-lcags*, a heterogeneous class of Tibetan copper-alloy objects used as talismans (there may well be other examples that have yet to be chronicled). *Thog-lcags* occur as desultory finds and as heirlooms throughout Tibet.⁷⁴ The related classes of Scythian artifacts include:

- 1) Small unfigured circular mirrors with an attachment loop
- 2) Trihedral arrowheads
- 3) Pendant-like objects with a gibbous axis
- 4) Small bell-shaped objects with an attachment loop

As with the pillar monuments, these artifacts of Upper Tibet and north Inner Asia exhibit similar morphological traits but are indubitably discrete classes of material objects. Their design and fabrication features are distinctive enough to demonstrate that they were not produced in the same places or by the same peoples, but rather as part of disparate paleocultural formations that enjoyed a certain level of technological exchange.

The Inner Asian Scythian mirrors are uniformly flat with molded ringlets on top (fig. 151).⁷⁵ They must have had a sacral rather than utilitarian function because the faces of the mirror were not polished. They are mostly found in the graves of females but also in the tombs of males and juveniles. The ringlets of these mirrors are rectangular, subrectangular, round, oval, and teardrop in shape (Kubarev 1992: 88–90). They range in size between 2.5 cm and 10 cm in diameter. Unadorned Scythian mirrors are found in the Altai, Kazakhstan, Mongolia, and Tuva (Volkov 1967: 55). These mirrors were carried in small felt, cloth and leather bags at the waist, or leather

⁷³ As regards the production of metallic artifacts that exhibit similar manufacturing and stylistic traits, Eastern Turkestan was likely an important geographic and cultural bridge between Tibet and Scytho-Siberia. Eastern Turkestan was part of the Eurasian metallurgical province with both Saka (Scythian) and Andronovo influences in evidence (Debaine-Francfort 2001: 67). This region may have been important in the transmission of bronze and iron metallurgy to the east (*ibid.*: 67).

⁷⁴ For further information on *thog-lcags* see John 2006; Bellezza 2005a, pp. 177, 178; 1998; Tucci 1973.

⁷⁵ For photographs and illustrations of Scytho-Siberian mirrors see Kubarev 1992, p. 89 (fig. 27); Semenov 2003, p. 187, tab. 99 (figs. 13, 15, 16), p. 196 (tab. 108); Kubarev 1991, p. 99 (pl. 257), p. 98 (31 bronze mirrors, 4.5 cm to 10 cm in diameter, recovered from the Yustyda burial site in the Altai), pp. 99, 100 (mirrors found in Mongolia, Transbaikalia, Tuva, the Ordos, Kazakhstan, and the Altai); Kubarev 1987, p. 91 (fig. 34) (bronze mirrors of the relevant type from the Ulandryka burial site in Altai); Volkov 1967, p. 129; Rudenko 1960, tab. 23.

thongs were used to attach them to the body (Kubarev 1987: 90–92; Hudyakov 2001: 97, 98). Those found at the Ulandryka site have been assigned to the fifth to second century BCE (Kubarev 1987: 90–92). It is thought that bronze mirrors found in Pazyryk culture burials (sixth to fourth century BCE), the most abundant type of funerary object, were used as amulets to protect against evil forces (Hudyakov 2001: 97, 98). Hudyakov (*ibid.*) speculates that they had a magical function and possessed solar symbolism connected to the property of reflecting sunlight.

If parallels can be drawn with Tibetan archaic funerary culture, we might expect that the mirrors of the steppes were intended to show the deceased the path to heaven and as a gift for the afterlife (see pp. 434, 450). Some Scythian mirrors have more rounded attachment loops like those of Tibetan mirrors and they are of the same general size, but their overall form is decidedly non-Tibetan. Tibetan mirrors (*me-long*) usually have a raised rim and a circular protuberance in the center, qualities not represented in the steppic specimens. The mirrors of the steppes are made of bronze (?), while the Tibetan variants seem to be fashioned from a variety of copper alloys. The widespread occurrence of Scythian mirrors in tombs may indicate an analogous burial function for the archaic cultural horizon mirrors of Tibet. Perhaps the Tibetan mirrors derive from those of the Eurasian steppes,⁷⁶ but it has not been established that such Tibetan ritual implements were first produced during the Inner Asian Iron Age. They appear to have been manufactured at later dates as well, perhaps until the close of the first millennium CE.

Trihedral arrowheads with both sockets and tangs were the most common weapon in Scythic Inner Asia and Tibet.⁷⁷ They are widely distributed in these territories as well as other regions of Eurasia, and appear to be a prime distinguishing feature of diverse Iron Age technological interconnections. Pendant-like ornaments with a series of protuberances on the axis and fairly large attachment loops are a special feature of the artifact assemblages of both Inner Asian Scythia and Tibet (fig. 152).⁷⁸ It is difficult to see how such peculiarly designed ornaments could have arisen fully independent of each other in the steppes and Tibet. Transmission from one region to the other could possibly account for their distribution. This can only be confirmed, however, when *in situ* Tibetan specimens amenable to collateral chronometric analysis and metallurgical sourcing are discovered. Finally, there are bell-shaped ornaments that occur in both Inner Asian Scythic stratigraphic contexts and as *dissecta membra* in Tibet, which are close in appearance (fig. 153).⁷⁹

⁷⁶ Bronze and iron technologies were known in Xinjiang before reaching the central plains of China. It appears that these technologies diffused from the northwest towards China. A Bronze Age mirror with the same general form of later Scythic variants was discovered in Charwighul, Xinjiang. See An Zhimin 1998, pp. 51, 53, 59, 60. The existence of such objects with early precedents in Xinjiang may possibly point in the direction from which technologies for Tibetan mirror manufacture were introduced.

⁷⁷ These types of projectiles are widely illustrated in Russian archaeological works. For example, see the color photo of arrowheads with a tang and socket in Kilunovsakaya and Semenov 1995, photo 63; and line drawings of trihedral arrowheads with tangs and sockets from the Karamurun I burial grounds of the Tasmolinsk culture, first phase (dated seventh to sixth century BCE) in Grach 1980 (on a detached sheet, nos. 7–14). For Tibetan types see John 2006, pp. 174, 175.

⁷⁸ A photo of one of these Scytho-Siberian objects is found in Kilunovsakaya and Semenov 1995, photo 63. Others are illustrated in Kubarev 1992, p. 85 (figs. 6, 7); Semenov 2003, p. 197 (tab. 109, fig. 10), p. 188 (tab. 100, fig. 5), p. 111 (fig. 16); Grach 1980, on a detached sheet in the rear of book, no. 45 (Biysk I, *kurgan* 4), nos. 46, 47 (Berezovka I, *kurgan* 15), no. 44 (no place given). All of these objects in Grach 1980 are from the Tasmolinsk culture, second phase (dated fifth to third century BCE). Many scholars believe them to be belt ornaments. They are often found in pairs (but sometimes singly or three in number) in *kurgans*. They have been discovered in the Altai and other Inner Asian Scythian regions. See Kubarev 1992, p. 86.

⁷⁹ Three of these probable Scythian pendants or belt hangings are illustrated in Polosmak 2001, p. 67, (fig. 45, from the Pazyryk culture, *kurgan* I of the Ak-Alaha III burial grounds). Also, see Semenov 2003, p. 111 (tab., 23, fig. 6),



Fig. 151. Ancient copper alloy mirrors. The top two rows are Tibetan thog-lcags specimens (private collections). All the lower specimens are from Altaian Scythian burial grounds (after Kubarev 1992, Fig. 27; Rudenko 1960, tab. 23)



Fig. 152. Ancient metallic hangings. Top row: Tibetan thog-lcags specimens (private collections); bottom row: Scythic Tasmolinsk culture (after Grach 1980 ff.)



Fig. 153. Small bell-shaped copper alloy objects. Top row: Tibetan thog-lcags objects (private collection); bottom row: Scythic artifacts (three specimens on the left are without provenance, extreme right: Semenov 2003, p 197)



Fig. 154. Tibetan thog-lcags specimens (private collection). Left: prehistoric epoch, right: early historic period or vestigial period (?). Solar and lunar discs adorning the body of horses and the flying horse motif also occur in objects belonging to the Scythic cultures of Inner Asia



Fig. 155. Small adorned copper alloy rings. Top: a Tibetan thog-lcags artifact with two squatting lions (private collection), bottom: Inner Asian Scythic artifacts (after Grach 1980 ff.)



Fig. 156. Small copper alloy wild ungulate figurines. Left: Tibetan thog-lcags specimen (private collection), other three: Inner Asian Scythic objects (after Grach 1980 ff.)

They have ovoid cross-sections, heavy attachment loops, and flat or arched basal rims. Again, it is not likely to be that such a close association of objects is purely the work of coincidence (figs. 154–158).⁸⁰ Another case in point is a small copper alloy object procured in Ladakh that consists of a raptor with its head turned and tucked into its body, which has been compared with similarly designed metal objects discovered in other regions of Central Asia (Koenig 1982).⁸¹

To account for the wide and significant Iron Age cultural affinities indicated by the cognate funerary structures and small metallic objects, I shall postulate three main interactive processes probably involved in the equation: 1) antecedent ethnohistorical links, 2) the diffusion of ideas and technologies between the steppes and Upper Tibet during the Iron Age, and 3) broader Iron Age

p. 175 (tab. 87, figs. 6, 7), p. 197 (tab. 109, fig. 6), etc. Tibetan examples are illustrated in John 2006, p. 161 (figs. 468–476).

⁸⁰ The four main classes of small metallic objects that resonate between the Scytho-Siberian steppes and Tibet are joined by other more idiosyncratic items. In *kurgan* 18 of the Barburgazy II cemetery, a pair of horses depicted with solar and lunar discs on their bodies were discovered (Kubarev 1981: 92). Stylistically, this motif is comparable to a plaque that is ostensibly of Tibetan origin. See Bellezza 1998, fig. 31. In *kurgan* 59 of the Tagiskan cemetery, rings with a stylized animal on two sides were discovered (illustrated in Grach 1980, on detached sheet). The general features of this object bear some resemblance to a Tibetan *thog-lcags* specimen. There are also Scytho-Siberian copper alloy artifacts consisting of five joined rings in a cruciform arrangement and a Tibetan variant with four rings flanking a solid central disc. For Scytho-Siberian examples of this object see Semenov 2003; for Tibetan variants see John 2006, p. 94, figs. 076–080. Small copper alloy ungulate figurines are also known in both Scythia and Tibet. For Scythian specimens from the Tasmolinsk culture, first phase (seventh to sixth century BCE), see Grach 1980 ff. Intriguing aesthetic generalities exist between the anthropomorphous visage of an Ushkin Uver deer stone (northern Mongolia) (for images see Fitzhugh 2002; Volkov 2002) and two small copper alloy objects of the *thog-lcags* class (fig. 157). One of these metal objects consists of a single face with a prominent accessory loop, which was clearly designed to be worn (it was reportedly discovered by a *'brog-pa* near Zang-zang lha-brag). The other specimen has two opposing faces on either end of a molded rectangular plate. On the rear are two pins indicating that this item was once attached to something rigid. The deer stone and talismanic faces exhibit somewhat similar rounded foreheads, narrow chins, long nose bridges, eyes, and mouths. In the Slab Grave culture of Mongolia (contemporaneous with the pre-Scythians and Scythians of Inner Asia) button-like objects close in form to Tibetan *thog-lcags* have been discovered in a number of tombs (see p. 126).

⁸¹ This gracefully designed bird is referred to as a *thog-lcags* and is thought to have probably been an ornament attached to a horse bridle. Its size, aesthetics and fabrication qualities are comparable with an artifact discovered in *kurgan* 39 of the Ujgarak site, Kazakhstan. Both of these objects are dated to the eighth to seventh century BCE. Corresponding copper alloy and gold artifacts from Mongolia, Minusinsk, and Kelermes are thought to have been possibly derived from the *thog-lcags* and Ujgarak specimen. Although the *thog-lcags* was purchased in Leh, it is believed to have probably come from western Tibet and perhaps even further afield. Given the widespread distribution of similarly designed bird objects, it is theorized that western Tibet was once part of the cultural world of the steppes and its 'Eurasian animal style'. See Koenig 1982 (illustrations of all objects discussed on p. 319). If indeed the *thog-lcags* under consideration was fabricated and used in Tibet, this is an excellent shred of evidence supporting the existence of a shared sphere of activity encompassing the cultures of the steppes and Plateau. The unique presentation of the *thog-lcags* bird does encourage its attribution to a different cultural order than that of the Central Asian objects to which it has been compared. Nevertheless, as tempting as it is to consider that this object originated with the Iron Age Tibetans, such an identification remains provisional until more evidence is forthcoming. For one thing, a single object is inherently more difficult to place geographically and culturally than an entire class of objects. Moreover, the *thog-lcags* obtained in Leh appears to have a finely developed patina and could have been worn and traded around for generations. Rather than being manufactured locally, copper alloy objects of the Ordos and other regions of north Inner Asia may have reached Tibet in antiquity (or in later periods) as trade or discarded items. Certainly in the last three decades, the antiquities markets of Leh and Lhasa have been host to many objects of Central Asian provenance that are casually referred to as *thog-lcags* (see Bellezza 1998). Simple ring fibulae found in Tibet are said to have affinities to fibulae characteristic of the European Iron Age, and could have reached Tibet from west Asia (Ackmann and Koenig 1982). These ring fibulae of Tibet are illustrated in *ibid.*, p. 322; John 2006, figs. 104, 106.



Fig. 157. Anthropomorphic visages on Tibetan thog-lcags artifacts (private collection)



Fig. 159. Tashtyk kurgans and pillars at the Uibat-Tschaatas funerary site (after Aspelins 1931, fig. 159)

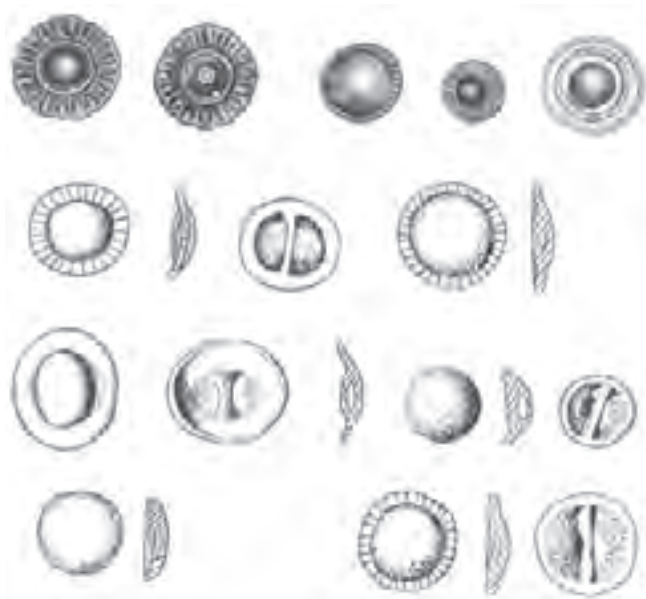


Fig. 158. Copper alloy button-like objects. Top row: Tibetan thog-lcags (private collections); bottom three rows: Slab Grave culture artifacts (after Vadetskaya 1998, pp. 232, 234). The Tibetan specimens have a similar style attachment bar on the reverse side

cultural processes.⁸² These three vectors constitute the endogenous, acculturative and holistic forces, respectively, which seem to have shaped the cross-cultural elements under examination. The various historical scenarios that arise from an elaboration of these causative factors largely revolve around the question of independent cultural production versus the direct transfer of ideas and technologies between the steppes and Upper Tibet in the Iron Age. In other words: did Iron Age funerary conceptions and technology move southward or northward, or were they already largely in place, spurring on exchanges already undergird by common cultural experiences?⁸³

The prospect that shared human experience between Upper Tibet and other regions of Iron Age Inner Asia, as characterized by common cultural components, is in part due to pre-existing ethnohistorical bonds must be accorded serious consideration. Any such ties are likely to have involved developed Bronze Age cultural infusions across the breadth of Inner Asia. Bronze Age ethnical dispersions may have given rise to a pan-cultural eschatological tapestry, leading

⁸² On the basis of broad religious and linguistic parallels, it has been hypothesized that contacts between the Indo-Europeans and Tibetans may have taken place as early as the so-called first Indo-European Völkerwanderung (circa 2000 BCE), or perhaps as late as the period of the Scythian confederacy (Walter and Beckwith 1995: 1038).

⁸³ Writing in reference to the appearance of iron implements in China, signaling intercultural exchange, Wagner (1993: 32) affirms that cultural transmissions to China may have occurred but cannot be proven. He rightly observes that in order to demonstrate an association in the domain of archaeology, cultures must share non-essential, non-functional attributes, or linguistic relationships between two groups living some distance apart. Wagner adds that although intensive traffic between culture A and culture B renders independent innovation unlikely, this is intrinsically difficult to prove. Wagner's comments weigh in on the diffusionist versus anti-diffusionist debate (*ibid.*: 32, 33).

the peoples of Upper Tibet and the steppes to express their symbolic worlds in the fabrication of similar pillars, slab-walls and metallic objects.⁸⁴ Secondly, the empirical similarities in the monuments and artifacts of Iron Age Upper Tibet and the steppes could well have been triggered by acculturation and possibly ethnic amalgamation. If so, direct transfers of ideas, technology and genes require demonstrable vectors of spatial and temporal transmission. If these were predicated on movement from a high cultural potential to more passive human recipients, what Iron Age region was the fountainhead (in intellectual, political and/or economic terms) from which cultural streams poured forth to fill the other? Whatever the ultimate source, the evidence for Iron Age cultural interchange appears to lie in the particular designs and technologies of funerary pillar monuments and small metallic artifacts, as well as in the specialized liturgical and conceptual integrants of funerary rites.

It may not even be advisable to assign absolute historico-cultural origins to these cosmopolitan phenomena. Causal mechanisms can also be sought in the overarching social and environmental forces that molded the intellectual and religious life of late Bronze Age and Iron Age Inner Asia. As such, we might see much broader processes at work to explain the artifactual and monumental commonalities. These are not necessarily dependent on directional or transactional phenomena (in a geographic or chronological sense). Rather, a bevy of ailinear processes in which technologies and intellectual activities adapt and transmute over time and space may be implicated. The tidal forces of the ocean of Iron Age Inner Asian cultures seem to have brought about not so much a series of singular transmissions from particular temporal and geographic sources, as a shared human heritage dispersed throughout the fabric of cultures in the region.

The raising of pillars at funerary sites in southern Siberia continued after the decline of the Inner Asian Scythians. The ethnically diverse Tashtyk culture (first century BCE to sixth century CE) erected one or more rows or clustered groupings of stelae at their funerary sites (fig. 159).⁸⁵ These mostly uncarved tabular standing stones were raised at the edge of burial grounds.⁸⁶ As a rule, the rows of stelae are found at the base of hills, and the bones of rams have been unearthed near them (Vadetskaya 1999: 16). At the Krasnaya Griva site in Khaskasia, there are two rows

⁸⁴ The ethnogenetic links between Tibet and north Inner Asia that possibly gave rise to funerary cultural analogues may ultimately have to be tracked to even more remote epochs; Bronze Age acculturative processes being a relatively late manifestation or culmination of these. Still scanty mitochondrial DNA evidence appears to confirm that Tibetans are at least in part of north Asian origin (Aldenderfer 2004, after Torroni *et al.* 1994; Qian *et al.* 2000). The time period in which this genetic transfer took place, however, is uncertain. Using a linguistic diffusion model (*ibid.*, after Su *et al.* 2000), it is hypothesized that the prehistoric Bodic cultural and linguistic world received a significant admixture of genes from unspecified north Inner Asian populations by 6000 BCE, before going on to occupy the entire Tibetan Plateau. See Aldenderfer 2004, pp. 20, 35, 36.

⁸⁵ For line drawings in profile of a Tashtyk funerary site with *kurgans* and pillars at Uibat-Tschaatas, see Aspelins 1931, figs. 159, 160.

⁸⁶ The Tashtyk tombs are quadrate in shape and covered in bark, logs and earth to produce small mounds. One to three or four corpses were inhumed in each tomb. Interments are of the Europoid type with some Mongoloid features. Cremation was also a popular means of disposal. Ceramics are the most common type of grave goods. Wooden figures of deer, rams and chariots are found, too. Burials also contain the bones of horses, sheep and cattle (including scapulae and astragali). Han dynasty mirrors, vessels, textiles and other objects have been discovered in some tombs. The people of the Tashtyk culture must have been ethnically related to the Tagars, who were localized in southern Siberia as well. These two cultures share common burial objects such as ceramic vessels, wooden plates, buttons with spirals, and bone pins, awls and buckles. The coiffures of males were also similar, as were certain practices pertaining to the preparation of corpses for burial (including the use of imitation body parts). Fractional burials were common in the Tagar and Tashtyk cultures. Furthermore, they share similar crematory practices and burial chamber architecture. See Vadetskaya 1999, pp. 17, 21, 24, 104, 135–147, 154–160.

of pillars, spaced 45 m apart, which contain 25 still-standing specimens, the tallest of which are 1.5 m to 2.5 m in height (some stelae are missing or broken).⁸⁷ One row has 17 stelae and is 50 m in length, while the other row is 8 m in length and has eight pillars. These rows of pillars are located east of the burial grounds, and the narrow sides of each stone are oriented east-west. Two sacrificial pits (30 cm to 40 cm in diameter and around 30 cm in depth) lined and covered with slabs, containing sheep astragali and other bits of bone, were discovered in the vicinity of the rows of stelae. At Mysok, there is a row of 14 pillars and a row of 20 pillars, 30 cm to 1.8 m in height. In the vicinity, a stone chest containing a vessel with sheep bones and pits containing sheep bones were discovered. These finds are probably related to sacrifices that took place when the stelae were erected. At the Tashtyk site of Chaptly Kor, around 30 stelae stand in two or three fairly even rows, and at Cherny Yus there are ten to 15 pillars in a single row.⁸⁸

Emerging into the first half of the first millennium of our Common Era, even greater morphological correspondences between the funerary pillar monuments of the Inner Asian steppes and Upper Tibet are discernable. Like the Upper Tibetans, the Tashtyk culture put up rows of pillars at cemeteries, orienting their broad faces to the north and south. These pillars generally occur near the base of hills, as do their Upper Tibetan counterparts. Moreover, the pillars are situated east of the burial grounds, just like the rows of stelae appended to temple-tombs in Upper Tibet. The Tashtyk culture appears to have been strongly related to the Tagar culture, and the raising of standing stones at their funerary sites must have drawn inspiration from the Tagar and other Inner Asian Scythian cultural groups. While direct evidence of contacts between the Tashtyk culture and the Upper Tibetans is still lacking, far-reaching trade links may be indicated (in the Tashtyk tombs of higher status individuals, Han artifacts have been discovered). Some small metallic items bear a strong resemblance to objects found in Tibet. In addition to trihedral arrowheads, these include:

- 1) Small metallic mirrors with an attachment loop
- 2) Buttons
- 3) Spoked discs
- 4) Miniature stirrups

The metal mirrors of the Tashtyk culture are closer in form and design to those of Tibet than are the earlier Scythic variants we have already examined.⁸⁹ This reflects the intimate morphological and spatial orientation links that exist between the funerary pillars of the Tashtyk and Upper Tibetan cultures. This similarity may be indicative of a convergence of technologies in the early first millennium CE, which could have been spurred on by more intensive trade contacts or large-scale migrations. Other objects with strong aesthetic affinities are plain buttons and buttons embossed

⁸⁷ This description of the Krasnaya Griva and Mysok sites comes from Vadetskaya 1999, pp. 208–211, 216.

⁸⁸ This information was obtained from N. Bokovenko in personal communication. In contrast, the Huns of the early first millennium CE did not erect funerary stelae. For information and illustrations of Hun burials, see Torbat *et al.* 2003.

⁸⁹ In Vadetskaya 1999, p. 141, there is a table illustrating three such mirrors. Unfortunately, the size, material and provenance are not provided. In Matveyeva 1994, p. 58, a bronze mirror with a thick rim, boss in the middle and tang is somewhat comparable to an ostensible Tibetan specimen in Bellezza 2005a, fig. 42. Another mirror in Matveyeva 1994, p. 61 (fig. 33) has even a closer resemblance to the mirror in Bellezza 2005a (the Siberian specimen has a more elevated middle section and a pointed tang). Both of these metal mirrors were recovered from the Abatskiy 3 burial grounds of the Sargat culture of western Siberia (broadly dated first to third century CE), which consist of eight mounds, 1.5 m to 4 m in height and 20 m to 30 m in diameter (*ibid.*: 58).

with circular petal-like designs known from Tashtyk burials, a popular *thog-lcags* design as well.⁹⁰ Likewise, copper alloy discs with spokes radiating from a central hub are known from both Tashtyk interments and Tibetan *thog-lcags*.⁹¹ Curiously, a miniature stirrup was discovered in a Tashtyk burial,⁹² a fairly common object in Tibet that in recent times was worn for good luck. These tiny copper alloy stirrups originally may have been used as trophies in horseracing contests and/or as funerary offerings. The incidence of mirrors, buttons, spoked discs, and miniature stirrups – quite particular classes of material goods – would seem to signal that cultural reverberations were sounding between Tibet and southern Siberia, in the first half of the first millennium CE and over a distance of some 2000 km. This raises the question of whether in fact certain items were actually produced by one culture and transported to the other. If such commerce transpired contemporaneously, it would demonstrate that the Tashtyk and Tibetan cultures had direct trade ties, presupposing human associations of various kinds.

More than a century before the rise of imperial Tibet under King Srong-btsan sgam-po, the Turks emerged as a powerful ethnic and political force in north Inner Asia. Archaeological evidence indicates that the ethnogenesis of the Turks, influenced by the cultures of the Iranians and Tokhars, occurred in the Sayano-Altai, Eastern Turkestan and the Semirechye region (Kilunovskaya 2001: 123). With the rise of the Turk Kaghanate in the sixth century CE, Turk burial monuments in the form of stone enclosures with stone sculptures appeared. Prolific use of standing stones is encountered at early Turkic (sixth to eighth century CE) burial sites in Mongolia, Tuva, the Altai, Kirghizia, eastern and central Kazakhstan, and northwestern Xinjiang.⁹³ These lines of mostly unhewn standing stones are associated with square and, less commonly, rectangular funerary ritual structures. These slab-wall enclosures were used in sacrificial rites, the details of which are still sketchy. The standing stones known as *bulbuls* were usually erected immediately east of a single-course slab-wall enclosure that contains a carved pillar.⁹⁴ Alternatively, there are enclosures with one or two plain stelae (Kubarev 1984: 47; Pletneva 1981: 35).

The Turk enclosures generally range in size between 80 cm x 80 cm and 5 m x 5 m, with an average length of 2 m to 3 m on each of the four sides. The largest example discovered measures 9.4 m x 8.5 m. The enclosing walls are normally aligned in the cardinal directions. On occasion the corners of the structures are aligned instead in the cardinal directions. Although they usually appear individually or in small groups, there can be upwards of ten such enclosures with appended

⁹⁰ Tashtyk buttons shown with a raised center encircled by six or seven small circular protuberances are illustrated in Vadetaskaya 1999, p. 136. They appear to be made of a copper alloy but this is not confirmed in the text. Tibetan variants are illustrated in John 2006, p. 176 (figs. 605–613).

⁹¹ Several small copper alloy circular objects with three spokes radiating from central hub (attributed to fifth and sixth centuries CE) are illustrated in Vadetaskaya 1999, p. 125. The diagrams, however, are small and lacking in detail. In *ibid.* (p. 180) there is a disc with eight spokes radiating from central hub to the outer rim (embossed with 16 circlets), discovered in Yakutia. This object is also reminiscent of a *thog-lcags* design. *Thog-lcags* of this general style are illustrated in John 2006, p. 105 (figs. 128–136).

⁹² A miniature stirrup found in *kurgan* I of the Kok-Pashsky site, which belongs to the Tashtyk culture (attributed to third century CE), is depicted in Vasyutin 1994, p. 59. A miniature Tibetan stirrup is illustrated in Bellezza 1998, p. 53 (fig. 10).

⁹³ It is estimated that by the ninth century CE, Turkic languages had spread over an area of 2,500,000 km² (Mallory 1994: 147).

⁹⁴ It is hypothesized that the development of Turk stone funerary sculpture was probably inspired by the Inner Asian Scythian tradition of carved stelae. Anthropomorphic in form, these pillars (around 1 m in height) date to the sixth to ninth century CE. For a general description, see Kilunovskaya 2001, p. 123. A drawing of a Turk slab-wall ritual enclosure with a carved anthropomorphic stele planted in the middle of the east wall is found in Aspelins 1931, fig 123.

bulbuls at a single burial site. When multiple enclosures occur they are oriented north-south or northeast-southwest in rows. The enclosures are usually in close proximity to Turk burial grounds. Certain enclosures have no pillar or sculpture and many have no *bulbuls*. In Tuva, a single row of *bulbuls* can number up to 157 specimens. In rare cases, *bulbuls* are sited north or west of an enclosure. *Bulbuls* were also erected at the Turk mortuary temples of the nobility between the ninth and 12th century CE. The *bulbuls* are 10 cm to 70 cm in height and spaced 50 cm to 5 m apart (Pletneva 1981: 35). A row of *bulbuls* can extend for tens to hundreds of meters and is usually quite straight.⁹⁵

It is thought that the slab-wall enclosures were used for ritual purposes (and perhaps also in cremation practices) at early Turk burial grounds.⁹⁶ Archaeologists hypothesize that funerary rites featuring horses were conducted at the *bulbuls* (horse skulls are often found in the vicinity). It may be that horses were tied to the pillars and their neighing used to call the soul of the deceased in special ancestral rites.⁹⁷ According to Kyzlasov (1979: 121), each *bulbul* represented one slain enemy of the deceased, and the mortuary sculpture is the likeness of the warrior whose death is being marked.

For comparative purposes, let us examine a *sui generis* Turk funerary monument ensemble that was discovered at the Tuvan site of Shurmak-Tei.⁹⁸ The square enclosure at this site is made of a single course of slabs placed edgewise in the ground, and measures 4.8 m x 4.8 m. The slabs project 5 cm to 25 cm from the surface.⁹⁹ The walls of the enclosure deviate approximately 20° from the cardinal directions and the structure is somewhat elevated above the surrounding terrain. On the east side of the enclosure there is a pillar 33 cm in height, which appears to represent the deceased. The interior of the enclosure was filled with earth and rubble, and was subject to excavation. In three places charcoal marked the positions of sacrificial fires. A horse tooth, two arrowheads and an armor lamina were also discovered in a pit below the surface of the enclosure.¹⁰⁰ At other subsurface locations in the enclosure two more horse teeth were recovered.

⁹⁵ For example, near Ak-Tal in Tuva there is a row of 66 *bulbuls* stretching for 400 m in length. The pillars are 30 cm to 50 cm in height and spaced 2 m to 4 m apart. See Kyzlasov 1979, p. 131.

⁹⁶ According to Kubarev (1984: 69), these enclosures are associated with the ritual feeding of the deceased and his passage to the afterlife.

⁹⁷ This is the view of the archaeologist Marina Kilunovskaya of the Institute of History of Material Culture, Saint Petersburg (in personal communication). Kubarev theorizes that horses were hitched to the *bulbuls*, simulating a Turk winter encampment. He holds that the *bulbuls* were commemorative in function and erected in honor of the dead. Kubarev opines that perhaps each participant in the funeral left his or her own *bulbul*. See Kubarev 1984, pp. 68, 69.

⁹⁸ This description is taken from Kyzlasov 1979, p. 121. For many photographs of enclosures and *bulbuls*, see Grach 1961. Kubarev (1979) also provides photos and diagrams that include a row of *bulbuls* running perpendicular to a Scythian period *kurgan* at Barbugazy (tab. xx.1), and several rows of *bulbuls* running perpendicular to an ancient Turkic memorial enclosure at Buguzune (tab. xx.2).

⁹⁹ The typical slab in Turk enclosures is 10 cm to 30 cm in length, with a maximum projection of 50 cm above the surface (Pletneva 1981: 34). A Turk ritual enclosure (5 m x 5 m) at the Barun-Turun II site in Mongolia (its slab-wall enclosure is elevated around 10 cm above the ground surface, and there is a 45 cm-high pillar on the east side) is described in detail in Plotnikov 1990, pp. 121–122.

¹⁰⁰ Pletneva (1981: 35) observes that charcoal and ash, horse and sheep bones, and iron knives, arrowheads and horse bits are fairly common additions to the enclosures. Kubarev maintains Turk funerary ritual enclosures can be classified on socio-economic grounds (he reports seeing more than 2000 of them in the Altai). He divides them into five types: 1) multiple adjacent enclosures, 2) enclosures with anthropomorphic stelae, 3) single enclosures made of four slabs, 4) stela or slab in middle of a wall of the enclosure, and 5) the 'royal' type. In the enclosures of the nobility the bones of horses and sheep are frequently found, as well as iron knives, horse harnesses, miniature bridles, bits of armor, ceramics, iron and silver vessels, and tools for removing grain chaff. The bones of horses also occur buried outside the enclosures. In the north part of the enclosure, pits or stone boxes contain iron knives (used in funerary feasts?), charred bones, charcoal and ash, and arrowheads. It is theorized that the funerary enclosures are imitations of the Turk winter

East-northeast of this enclosure, and in line with its walls, there is a row of 32 *bulbuls* that extends for 303 m. It appears that some of the pillars are missing because there are gaps between them of up to 9 m. The *bulbuls* of Shurmak-Tei are 20 cm to 40 cm in height.

The pillars and slab-wall structures established by the Turks in the middle of the first millennium CE share many morphological features that are also characteristic of the Upper Tibetan pillar monuments. The pillars erected inside quadrangle enclosures and the arrays of pillars appended to temple-tombs display similarly constructed slab-walls (while most of the Tibetan slab-walls are double-coursed, the Turks preferred the single-course variety). The Turk and Upper Tibetan enclosures are aligned in the cardinal directions or, less frequently, in the intermediate directions. As with the Turk slab-wall enclosures, many of the analogous structures of Upper Tibet can also be assigned a ritual function. This is corroborated by regular reports in Upper Tibet of the bones of animals (but not human bones) and other objects being unearthed from them. In both cultures, not all slab-wall structures have standing stones associated with them. Some enclosures stand in isolation from other types of structures. When there are rows of *bulbuls*, these are usually situated east of slab-wall enclosures, as are the rows of pillars erected before the mortuary temple-tombs of Upper Tibet. Moreover, the rows of both Turk and Upper Tibetan stelae generally run in an east-west direction.

These remarkable morphological analogues are probably indicative of close contacts between the Tibetans and Turks. These are well attested in Tibetan historical literature, which describes imperial period campaigns against the Turks (Hor-pa), one of their rivals in the domination of eastern Central Asia.¹⁰¹ While the erecting of stone sculptures at Turk funerary sites can possibly be attributed to the Scythian tradition of rock carving, their slab-wall structures and the alignments of stelae could have been inspired by the Upper Tibetan tradition. By the period of the Turk Kaghanate, the Upper Tibetans were probably the only other culture in Inner Asia still raising funerary pillars in any significant way. The Turks, who were militarily engaged with the imperial Tibetan armies, must have been aware of their funerary traditions. As discussed, the arrays of pillars in Upper Tibet may have been erected as early as the first third of the first millennium BCE (more than a thousand years before the rise of the Turks), providing a clear historical precedent. We must keep in mind that the worlds of the ancient Turks and Upper Tibetans were separated only by a single mountain range, the Kunlun. Routes through the Byang-thang and Kunlun appear to have been intensively used by invading imperial Tibetan armies. The construction and design cognates we have been exploring, therefore, may well be predicated on a common ceremonial patrimony. Furthermore, given the mention of Turco-Mongolian peoples in Tibetan funerary literature and the multifarious ethnographic affinities surrounding the cults of death in Inner Asia, it appears that these historico-cultural links between the ancient Turks and Tibetans were quite significant.

6.1d Domestic Pillars (Type II.1d)

The first pillar erected inside a chamber of a still-standing all-stone habitation was first documented at Do dril-bu (B-13), an erstwhile island, in 1998. This 65 cm-high tabular pillar is found in the small westernmost chamber of a *rdo-khang* (which still has much of its roof intact), in a large

dwelling (square houses 4 m to 5 m in length on each side with a semi-subterranean aspect, stone foundations, and a timber superstructure). See Kubarev 1984, pp. 47, 50, 51, 55–57, 63, 64.

¹⁰¹ For a study of diplomatic and military relations between the imperial period Tibetans and Turks, see Beckwith 1987.



Fig. 160. Do dril-bu (B-13). Note the rdo-ring standing in the rear chamber

residential complex of all-stone structures (Bellezza 2001: 239) (fig. 160). With the discovery of a second pillar in the poorly preserved remains of residential structure S4 at Dindun (D-64) by Aldenderfer in 2001, another type of Upper Tibetan pillar was positively documented.¹⁰² The common ground plans and relative orientation of the S4 and Do dril-bu structures indicate that the domestic pillars belong to the same Upper Tibetan cultural phase. Aldenderfer's dating of collateral organic remains at Dindun to circa 550 to 100 BCE points to the erection of pillars inside habitations as having originated in the developed Iron Age (see p. 36, fn. 15). The habitations in which they were discovered are the largest in their respective residential sites, seemingly reflecting the high social status of the occupants.

Aldenderfer hypothesizes that these domestic pillars were localized manifestations of the power of indigenous deities, as mediated by the highest-status members of the community. He further

¹⁰² The information on the sDings-zlum (Dindun) pillar in this paragraph comes from Aldenderfer 2003. This 1.7 m-high *rdo-ring* is roughly triangular in cross-section, and was originally erected in a small rectangular seat. The tip of the stone appears to have been modified in order to accent its reddish color (?). No other material objects were discovered in the chamber with the pillar (located near the northwest side of the structure). Two other *rdo-ring* were also discovered at the sDings-zlum site. The structure (S4) in which the domestic pillar was discovered consists of several rooms, and was laid out on an east-west longitudinal axis. It measures approximately 12 m x 7 m. Ceramics of various types, ground stone tools, agricultural tools, and bronze scrap were discovered in other parts of S4. See Aldenderfer 2003; Aldenderfer and Moyes 2004, pp. 60–63. The similarities in the size and design of S4 and the largest individual residence at Do dril-bu cannot be overestimated (see Bellezza 2001, pp. 237–243, for a description of the Do dril-bu site). These indicate the existence of a geographically wide-ranging tradition of domestic architecture in Upper Tibet, and corroborate other data (pertaining to all-stone residences, rock art, Bon historical lore, paleolinguistic data, etc.) showing that the Byang-thang and Gu-ge were culturally interrelated in the prehistoric epoch.

perceives them as having been part of ancestor and lineage worship, and that the pillars were direct symbolic representations of mountain gods. Having researched the historical character and makeup of the indigenous pantheon of Upper Tibet in some depth, I find his observations plausible and well conceived. I would only add that the localized cultic basis implied by domestic pillars within the village context should also be seen as a constituent manifestation of larger, more ramified networks of ritual organization, in which regional political and territorial factors played a part. The documentation of more domestic stelae in the years to come will be needed to more clearly comprehend their residential and ecological functions within the Iron Age cultural ambit.

6.2 Superficial Structures (Subdivision II.2)

Superficial structures, mostly consisting of stone enclosures that appear to be superstructures of tombs or funerary ritual venues, are distributed all over Upper Tibet. They usually occur on level or gently sloping, well-drained sandy or gravelly terrain. Mostly, they were built in open locales with a ridge or mountain enclosing at least one side of the site. Some are also found in the midst of large plains. Many (but by no means all) of these structures are oriented in the cardinal directions. Without the benefit of excavation and the analysis of subsurface architecture and artifacts, the typological system proposed in this work must be seen as a tentative attempt to classify the visible remains. This system of classification makes no provision for chronology or variable cultural affiliations. It is solely based on a visual appraisal of the morphology, orientation and constructional qualities of the various superficial structures found in Upper Tibet. The typology presented here will probably have to undergo revision once scientific results from the systematic excavation of these structures are compiled.

In the last 20 years, the exploration and preliminary excavation of tombs has taken place in various areas of Upper Tibet and gTsang (western portion of Central Tibet). To date, only the most basic archaeological work has been carried out at these sites. Unfortunately, very little archaeometric data have been forthcoming. Further investigation of these sites is urgently called for if we are to salvage delicate *in situ* evidence and optimize what can be gleaned from that which has already been collected.¹⁰³ Let us first review the available findings:

¹⁰³ The rudimentary character of much of the Chinese archaeological work in Tibet to date is typified by an excavation of a tomb that took place in April 2000, in Meiduo village (near the southeastern tip of Yar-'brog g.yu-mtsho), by the Shannan Prefectural Bureau of Cultural Relics. Thus far, only a single three-page report that describes the extremely important artifacts and context of this site in sNa-dkar-rtse county has come to my attention. The tomb is reported to have been flood-damaged and artifacts were evidently carried off by local residents (with the loss, no doubt, of large quantities of scientific information). Seventeen gold artifacts, including five plaques of horses (around 4.5 cm x 2.3 cm, and 1 mm thick), eight finger rings with a spiral design, two buckles with the pins intact, and a pair of earrings were recovered. The other two gold objects were a circular ornament with cruciform design (10.5 cm in diameter) for use on armor (?), and a gold tube with a beaded design (7.3 cm in length) that was used as a hair ornament (?). Also, two cowry shells, 16 cylindrical beads of agate, amber or turquoise, two three-pointed copper objects, two copper accessories for use on a belt, and a fragment of a ceramic vessel were found. The Meiduo site is pronounced to be around 2000 years old but no reasons are given for this attribution. See Shannan Prefectural Bureau of Cultural Relics, TAR 2001. My inspection of photographs of some of these gold artifacts suggests that the circular object with the cruciform design is a stylized bow and arrow. At least one of the animal objects represents a caprid, as demonstrated by the helical horn depicted on its head. This plaque was cast with two accessory loops so that it could be worn as a piece of jewelry or amulet. The body of the depicted animal is covered in beaded work. These Yar-'brog g.yu-mtsho gold objects are expertly cast, demonstrating metallurgical knowledge of a very high order. Although they have an affinity with Eurasian animal style objects, they are of Tibetan origin and quite unlike metallic objects discovered in China, Central Asia, the Ordos, etc. At the International Conference on Tibetan Archaeology and Art (Beijing, 2002), a paper

In 1987, tens of graves were discovered in the Byang-thang at Mangsen,¹⁰⁴ 4 km west of sKra-za township, A-mdo county, at an elevation of 4800 m.¹⁰⁵ The two sectors of the cemetery reportedly cover an area of 65,800 m². The superstructures consist of enclosures that have the shape of a square (one specimen), parallelogram (one specimen), inwardly tapering sides (61 specimens), and triangle (four specimens). The superstructures are all less than 1 m in height, and are small (2.5 m² to 13 m²), medium (around 25 m²) or large (60 m² to 115 m²) in area. In tomb M16, human and sheep bones were found. In tomb M10, two iron arrowheads and copper ornaments were discovered. This tomb with inwardly tapering walls is 3 m across, and in the center there is a single-course enclosure (approximately 1 m x 1.5 m), marking the position of the burial chamber. It is speculated that the Mangsen tombs date from the sixth to ninth century CE. A 5 m-high mound of earth and stones (226 m²) was also discovered at Ciga, 3 km south of Dung-cha'o township, in A-mdo county. A tomb in 'Bri-ru county, Baiga township, was found to contain part of an iron blade and an iron arrowhead.

In 1990, more than 1000 tombs were discovered in Lha-rtse and Ding-ri, in gTsang.¹⁰⁶ Believed to date to the imperial period, terracotta cups, agate beads and sheep bones (thought to be part of sacrificial rites) were discovered in the graves. Also in 1990, eight large cemeteries were found on hillsides flanking the Hsiapu basin, Sa-skya county.¹⁰⁷ More than 1200 graves were discovered and pilot excavations carried out. Superstructures of various shapes built of stones, mud bricks and rammed earth dot the site. These tombs are thought to have been made to prior to the 13th century CE. A few ceramic vessels and shards were recovered from the graves. Three cemeteries consisting of burial mounds were also reconnoitered in bZang-bzang township, as well as a cemetery in Yag-mo township, and cemeteries in Chag-ka (sp?) township, all of which are located in Ngam-ring county.¹⁰⁸

In 1999, 50 mounds of pebbles and stones covering an area of approximately 100,000 m² (possibly tomb superstructures) were discovered at Gebusailu, in Gu-ge. Pottery shards with cord-marked

detailing a dig in the same region of Yar-'brog g.yu-mtsho (in Dungga village) was delivered by Zhao Huimin, entitled "On Bangga Site, Qugong Culture and Prehistoric Civilization in Tibet". His paper, however, does not appear in the published proceedings of the conference. At his lecture, Zhao Huimin spoke about some 600 artifacts recovered from a flood-damaged tomb in April 2002. Among the finds was a golden disc with a tree-like design, a gold plaque of a deer (2 cm to 3 cm in length), fragments of a copper alloy bowl and cup, stone beads, and patterned textiles, as well as silver, copper and wood artifacts. Unfortunately, the information provided about the find was cursory, and subsequent questioning by attendees turned up little more information. Indications are that these excavations at Yar-'brog g.yu-mtsho were conducted in a methodologically unsound manner. It appears that they were organized merely to recover the maximum number of artifacts with little attention paid to broader archaeological processes. For example, the so-called test pits that were dug were not oriented to a set of spatial coordinates, maps detailing the excavations were not prepared, stratigraphical analysis of the digs was not made, identification of the textiles and other organic remains was not attempted, and chronometric testing of samples was not carried out. Perhaps some of these breaches in scientific method will in the future be remedied.

¹⁰⁴ As a matter of course, wherever possible, I use the transliterated form of Tibetan place names and monuments. In this case, as in some others, it is difficult, if not impossible, to determine what the indigenous form of the name is from the Sinicized variants commonly used in Chinese archaeological reports. This is not merely a matter of style but of practical concern as well, for most Sinicized names are not readily recognizable by Tibetans, making identification of sites problematic.

¹⁰⁵ The description of sites in this paragraph comes from the Investigation Team of the Cultural Relics Management Committee of TAR 1990.

¹⁰⁶ See Investigation Team of the Cultural Relics Management Committee of TAR 1991a (with an English abstract).

¹⁰⁷ See Investigation Team of the Cultural Relics Management Committee of TAR 1991b (with an English abstract).

¹⁰⁸ See Team of the Tibetan Regional Cultural Relics Management Committee 1994 (with an English abstract).

geometric designs were discerned on the surface. In total, fragments of 24 vessels, mostly amphorae (maximum length around 20 cm) of a reddish brown color, were collected. Due to their morphological similarities with ceramics unearthed at the dated Sa-gsum thang site, it is thought that Gebusailu is contemporaneous (2500 to 2000 BP). Stone choppers of the Stone Age (?) were also recovered from the surface in proximity to the tumuli.¹⁰⁹

In 1999, the excavation of three cemeteries in the Dung-dkar Phyi-dbang locale of Gu-ge was carried out by Huo Wei and his team of researchers. At sDings-zlum, ten of the 27 tombs charted were excavated. At rGya-gling all ten tombs were excavated. At Sa-gsum thang six of the 70 tombs were excavated. These tombs have different types of superstructures including quadrangle, subrectangular, ellipsoid, and irregularly-shaped enclosures, and an enclosure consisting of ever smaller rectangular perimeters set inside one another (Sa-gsum thang, tomb M4). A piece of wood from rGya-gling M6 provided a calibrated radiometric date of 2725 to 2170 BP. A radiometric assay of a sample (not specified in text) from sDings-zlum M6 furnished a date of 2370 +/- 80 BP.¹¹⁰

At a site called rNa-cha, located 2 km northeast of mKhar-gdong (A-45) in Pu-rang county,¹¹¹ approximately 80 small tombs, some with superstructures, were discovered (including the quadrangle double-course type). The largest enclosure measures approximately 12 m x 11 m. The grave pits are shallow and stone lined. Many appear to have been looted long ago. Shards of redware were found in these tombs. At Khra-gur, located 2 km north of mKhar-gdong, around 120 tombs were discovered. Some human remains were detected but no artifacts. Also in the vicinity of mKhar-gdong, around a dozen stone cores were collected.

Superficial structures overlying tombs are found in large numbers throughout Upper Tibet, demonstrating that burial was once a dominant form of corpse disposal in the region. The archaeological evidence indicates that from no later than the Iron Age, the practice of entombment

¹⁰⁹ Information in this paragraph is derived from the Chinese Institute of Tibetology, Sichuan University 2001b, pp. 39–43.

¹¹⁰ Information in this paragraph comes from the Chinese Institute of Tibetology, Sichuan University 2001a, pp. 15, 16; also, see p. 114, fn. 117.

¹¹¹ The information in this paragraph was obtained with Shargan Wangdu (in personal communication), a Tibetan archaeologist who participated in this survey. In 2003, a poorly preserved anthropomorphic copper alloy statue approximately 12 cm in height was recovered from a small residence (Structure 66) excavated in the lower sector of mKhar-gdong (probably Khyung-lung dngul-mkhar of the literary and oral traditions). It appears to be a squatting figure with its right arm wrapped around its leg. Over 80 structures have been identified at mKhar-gdong by Shargan Wangdu and his colleagues. Fifty to 60 groups of metate (*snur-rdo*) and pestles (*snur-byed*) and around 10 stone basins (*rdo-gzhong*) were collected at mKhar-gdong. These clearly indicate domestic functions and suggest the intensive habitation of the site. Over 100 shards of unglazed redware, one iron lamina from a set of armor, a copper-alloy arrowhead, a copper alloy spearhead, and a stone adze with a circular perforation were also discovered at mKhar-gdong. Around 50 to 60 bones and horns of sheep and wild ungulates, including three or four skulls, were likewise recovered. Many of these were found in Structure 32 and Structure 66. According to Aldenderfer (in personal communication), Structure 66 is a stepped platform structure of ceremonial function. The statue discovered inside had no obvious cult context and was deposited in a location without a clear stratigraphy. In general, preliminary indications from radiocarbon assays carried out at the mKhar-gdong site suggest that it dates from the 400 to 700 CE timeframe. In addition to residential structures of various kinds, stone circles 1 m to 2 m in diameter and a 2 m-long pillar were discovered at the site. See Aldenderfer (forthcoming). From an analysis of 11 samples that have undergone radiocarbon testing, it is also being put forward that there were two earlier periods of occupation at the mKhar-gdong site (1500 to 500 BCE and 100 BCE to 500 CE). mKhar-gdong can be divided into three different zones: residential, public buildings and religious structures. See Li Yongxian (forthcoming, with maps of the site and photographs of recovered artifacts).

spread widely, manifesting in a number of distinctive forms in the region.¹¹² Significant chronological, social, economic, and cultural variability is probably reflected in the diverse types of tombs and funerary superstructures of Upper Tibet. Interment was, however, probably not the only form of burial practiced. Although several thousand tombs and other funerary structures in around 150 sites have been documented to date, these are likely to represent only a small fraction of all the burial grounds established in Upper Tibet; other means of disposal may also be indicated. If interment were the sole method of disposal, many tens of thousands of burials over no less than two millennia would have to be accounted for. It may be that large numbers of people over a long period of time were inhumed in simple graves with no extant physical traces. The inhumation of commoners may not have required masonry burial chambers or superstructures. Moreover, the depositing of a corpse in an open area, so that it could decompose or be devoured by animals, is also an elementary form of disposal. This method, therefore, may be of great antiquity and account for the fairly limited quantity of tombs documented thus far in Upper Tibet. The so-called practice of sky-burial (*bya-gtor*, literally: ‘scattered [for] birds’) has been popular in Tibet throughout the Buddhist era but its origins are shrouded in mystery.¹¹³ Due to economic and religious factors (resource impoverishment, long winters, corpse taboos, etc.), sky and even water burials (known from historic times) were probably funerary customs in ancient Upper Tibet as well. Cremation was another form of corpse disposal practiced in historic Tibet. Although wood is inherently scarce in Upper Tibet, cremation appears to have been used in the prehistoric epoch for special funerals.¹¹⁴ This too might help to explain the relatively restricted number of tombs so far found throughout the region. In a Central Asian archaeological context, cremation has very long antecedents.

At this preliminary stage in Upper Tibetan archaeological research, it cannot be determined with any degree of certainty which superficial structures overlie tombs and which were used

¹¹² In addition to the types of tomb superstructures detailed in this work, interment in caves appears to have taken place (as it did in Mustang (Glo) on the southwestern fringes of the Tibetan Plateau). I have reconnoitered a cave burial in rGod-tshang smad, in which human bones lie scattered in a chamber located 20 m to 40 m in from the entrance. The T’ang Annals note that in Zhang-zhung (Yang-t’ung), on a day determined by divination to be propitious, a corpse was deposited in a secret cave or inaccessible place (Bushell 1880: 527 (n. 9)). In the early 1990s, in the Mustang district of Nepal, funerary caves at Chokhopani were surveyed by a German-Nepalese team. In this cave system, the dead were buried with their ornaments (musk deer tooth necklaces; shell pendants; beads of bone, faience and carnelian; and copper earrings). Numerous ceramic vessels (with incised and cord roulette decorations), probably used to contain food offerings for the dead, were also deposited in the grave chambers. The osteological remains of 21 individuals were discovered in the three main caves. A birch-bark vessel found at the site was subject to radiocarbon analysis and yielded a date of circa 2575 BP. The discovery of an iron nail from the upper burial cave suggests an Iron Age orientation. As for cultural affinities, a preliminary assessment implicates Tibet, Central Asia and the Indian Subcontinent. See Simons *et al.* 1994. Findings suggest that collective deposition of human remains in caves was once a common form of burial in Mustang (Simons 1997: 505).

¹¹³ Wylie (1964–1965: 231, 232) holds that with the resurgence of Buddhism in the 11th century CE, cremation and the devouring of corpses by vultures emerged as the chief methods of disposal. From around 1000 BCE, Iranians left corpses to decompose out in the open. This appears to have been devised to avoid the contamination of the earth with impure corpses. In some cases, ossuaries were built to contain the bones (ossuaries continued to be used in the Hindu Kush until at least the 1940s). See Templeman in press a. Although Martin (1996: 358–360) admits that the comparative data he uses to adduce an interrelationship between the Tibetan and Zoroastrian sky burials is inconclusive, he tends to believe that the Tibetan practice originated through contact with Iranian culture. He also comments, however, that extant Tibetan literary works composed before 1500 CE are mute on the subject of sky burial (*ibid.*: 357).

¹¹⁴ At Sa-gsum thang (in Gu-ge), traces of bone dust and burnt earth were detected in tombs M3 and M6 (indications are that they date to the second half of the first millennium BCE). This evidence probably shows that crematory remains were interred in these tombs. See Chinese Institute of Tibetology, Sichuan University. 2001a, pp. 17–20.

exclusively for funerary rituals.¹¹⁵ In the north Inner Asian context, however, there is much archaeological evidence for the performance of rituals involving animal sacrifice, the deposition of various objects as offerings and other ritual functions at certain monuments. As we have seen, the slab-wall enclosures of the Scythians and Turks were used for such purposes. It is plausible, therefore, that a good deal of the analogous slab and block wall enclosures of Upper Tibet were also constructed not as tombs, but for the carrying out of special funerary rites.¹¹⁶ The study of Tibetan literature concerning archaic funerary traditions suggests that these rites probably entailed the sacrifice of livestock and other animals, burnt offerings, the construction of effigies of the dead, and the deposition of various presents for the afterlife.

Archaeological evidence derived from the recent excavations of tombs at the rGya-gling, Sa-gsum thang and sDings-zlum cemeteries, in the Dung-dkar Phyi-dbang locale, circumstantially supports the existence of funerary activities similar to those cited in Tibetan texts. These funerary rites were carried out at Dung-dkar Phyi-dbang in both burial and non-burial structures. The discovery of a broad variety of artifacts at these sites, probably dating to the second half of the first millennium BCE, reflects the existence of highly evolved eschatological beliefs and funerary ritual activities in this period.¹¹⁷ Using the Tibetan archaic funerary literature for perspective (written

¹¹⁵ It is possible that certain superficial structures I have surveyed have a non-funerary function. These structures could have been used for magic rituals and other religious performances dedicated to the living. We must also consider that certain stone enclosures were possibly used for as yet undiscovered social and economic purposes. It must be said, however, that while old tent sites (*nang-ra*) are distributed throughout Upper Tibet they are not represented in the sites I have surveyed. The *nang-ra* are of a different form of construction and design (they are inset into the ground, have entranceways, often have storage bays and ritual compartments in the walls, etc).

¹¹⁶ Evidence for the existence of funerary sacrificial structures in Upper Tibet is mounting. At rGya-gling, what have been tentatively identified as horse bones were discovered in a pit (1.8 m x 1.1 m x 2 m) layered in red ochre. Also at rGya-gling, there is a maze-like alignment of stones (6.7 m x 4.3 m) believed to have been a religious offering structure. See Chinese Institute of Tibetology, Sichuan University 2001a, pp. 22, 23. The rGya-gling maze-like structure is illustrated in China Travel & Tourism Press 2002, p. 19. In Lha-rtse, there is a stone-capped pit containing the remains of sacrificial horses (Investigation Team of the Cultural Relics Management Committee of TAR 1991a).

¹¹⁷ Let us review some of this archaeological evidence. In rGya-gling M5, a layer of red ochre lined the bottom of the 50 cm-deep burial pit in which human bones and fragments of copper and iron artifacts were deposited. There are also large burial chambers connected to the surface by short passageways (M5 and M6). In the chamber of M6 (2.4 m x 2.3 m x 1.5 m), pottery, birch-bark, stone arrowheads, and sheep head fragments were discovered in two niches cut into the chamber walls. Red ochre was sprinkled on the floor of this chamber, and human bones and a bronze knife placed on it. Also discovered in rGya-gling M6, were a bronze dagger 30 cm in length, with a three-sided blade and traces of gilding near the tip of the handle; a small wooden tool; a piece of birch-bark with a handsome geometric design consisting of lines and triangles; five long stone arrowheads; and two copper rings (2.3 cm in diameter). Recovered in rGya-gling M5, were a bone awl, a copper fragment, a piece of a wooden tool, a birch-bark fragment with triangular designs, eight copper objects consisting of two interconnected shallow circular depressions, three bone discs with a perforation in the middle, and three lengths of bamboo with bamboo fiber wrappings that were once part of a larger object. In rGya-gling M1 a piece of an iron sword blade was found, while Sa-gsum thang M4 contained a fragment of a bronze sword blade. Parts of 15 ceramic amphorae were also collected in the rGya-gling, Sa-gsum thang and sDings-zlum cemeteries. They are characterized by rounded bottoms, the slight flaring of the mouth, a constricted neck, and small lug handles. These cord-marked vessels are yellow, red and gray in color. The maximum height of an unbroken amphora would have been around 33 cm. See Chinese Institute of Tibetology, Sichuan University 2001a, pp. 20–29. For a comparative study of these ceramics see Yao Jun 2004. I suspect that the layering of the bottom of tombs with red ochre may have had prophylactic functions, which protected the dead from attack by chthonic demons or prevented the soul of the deceased from re-entering the corpse. Large quantities of horse, sheep, yak, and deer bones were discovered in the remains of a chamber built on top of the imperial period Tibetan burial mound Dulan-Reshui M1 (in Qinghai), as well as the skeletons of 87 horses in five trenches at the site. It is estimated that perhaps 200 animals were sacrificed here. See Heller 2003, pp. 1–3 (after Xu Xinguo 1996). In a rectangular vertical pit grave excavated at Guolimu, in the Dulan area of Qinghai, evidence of animal sacrifice was also found. On the cypress board sealing the secondary

no less than one thousand years later), we might consider that bronze daggers, a bronze sword and an iron sword recovered from the Sa-gsum thang and rGya-gling tombs functioned either as apotropaic instruments in special rites to protect the dead or as presents for the afterlife. Wooden tools, arrowheads and small metallic objects may also have been used to commend the souls of the deceased to the afterlife and as presents for their journey to the hereafter. The amphorae discovered at the Iron Age cemeteries of Dung-dkar Phyi-dbang must have been used to hold organic substances. In the archaic funerary traditions, foods, libations and medicinal substances are used in rites of propitiation, for the recall of the soul, and as gifts for the deceased in the next life.¹¹⁸ The recovery of sheep bones and skulls from various tombs of Dung-dkar Phyi-dbang is also noteworthy. In the Dunhuang and Bon texts, sheep serve as sacrificial offerings and also as special guides (*skyibs-lug*) to lead the deceased through the perilous limbo between death and the hereafter. In the archaic funerary rituals, bamboo was used as a support for the deceased's consciousness during rites of evocation. While we cannot state that this was the function of a bamboo ritual object deposited in a rGya-gling earthen burial chamber, such hypothetical assignments of function have the benefit of being derived from the circle of Tibetan cultural history.

The discovery of a bamboo ritual object in rGya-gling M6 is highly significant in that it probably establishes that trade routes over the Himalaya were already in existence over 2000 years ago. Bamboo grows in moist cis-Himalayan valleys up to an elevation of around 3000 m, and its importation into Gu-ge would have required well developed trade networks and clear lines of communications between both sides of the Himalaya. This Transhimalayan exchange is supported by Bon hagiographic accounts of prehistoric Zhang-zhung saints such as Ha-ra ci-par, who are supposed to have practiced in Himalayan (Mon) bamboo forests (see pp. 210, 214). Stone, copper, copper alloy, and iron artifacts have been unearthed from the three cemeteries excavated in the Dung-dkar Phyi-dbang locale. While the presence of an iron sword fragment indicates Iron Age cultural contacts, if not a fully developed Iron Age culture, the presence of stone arrowheads is also telling. These confirm the persistence of Neolithic technology in far western Tibet through much of the first millennium BCE. The occurrence of stone arrowheads in the funerary setting establishes a ritual function for them, but economic usage (hunting, war, etc.) for lithic tools in this period may possibly be indicated as well.¹¹⁹

burial of a probable warrior (laid to rest with a lacquer sword scabbard) sheep bones were scattered about. This burial is thought to date to the T'ang dynasty (618–907 CE) or somewhat earlier. See China Heritage Newsletter, 2005. From the archaeological evidence assembled to date, we can see that the funerary ritual exploitation (sacrifices, etc.) of animals began no later than the Iron Age and continued at least until the ninth century CE in far-flung corners of the Tibetan Plateau. This comes as no surprise when we look at the universal distribution of similar funerary customs in north Inner Asia from the Neolithic onwards.

¹¹⁸ According to *mNga' ris rgyal rabs*, the practice of depositing valuables in tombs in western Tibet was halted with the establishment of Buddhist funerary practices. This is recorded as having taken place during the reign of the third king of Gu-ge, Ye-shes 'od (circa 1000 CE). The passage reads: "As the existing custom of concealing valuables in tombs on behalf of the dead was prohibited, the tradition of virtuous practices was instituted." (*gshin-po'i don du nor dur la sbed-pa'i lugs yod pa bkag nas dge-ba byed-pa'i srol btsugs /*). For the Tibetan text see Vitali 1996, p. 55; for a translation and discussion of this passage see *ibid.*, pp. 110, 141.

¹¹⁹ The intensive economic use of stone tools in Central Tibet continued at least until circa 1000 BCE. At ICags-ri thang in Yangs-ba-can many excavations were carried out, which yielded a wealth of microliths, flaked stone implements and ceramics. Radiometric sampling of these excavations indicates that the ICags-ri thang site dates between 3200 to 2900 BP. See Cultural Relics Bureau of Tibet *et al.* 2005, pp. 15–109. Microliths are known from other sites in Tibet that contain ceramics and copper alloy objects (Aldenderfer 2004: 23). Aldenderfer (*ibid.*: 22–26) discusses the significant (and still not well reconciled) chronological and typological variability associated with the lithic class of artifacts known as microliths.

The radical reduction of the ancient past into conventionalized Buddhist and epic storylines has effaced much of the collective memory of the archaic burial culture of the eastern Byang-thang. Few sites are heralded by Buddhist emblems or other markers, and many are shunned by local residents who may fear inauspicious forces emanating from them. In the folklore of Upper Tibet east of the 89th meridian, most superficial structures are connected to characters in the Gling gesar epic. They are supposed to have been built and occupied by figures such as A-stag lha-mo and bDud klu-btsan. Superficial structures are also commonly misrepresented as the remains of monasteries and other habitations when in fact they are ceremonial and not residential in nature. In some places (dKar-khug, D-74; dGon-ro, D-75; rDeu-rug, D-99, etc.), elaborate stories have cropped up attributing tombs and other sites to the august remains of great religious centers, said to have been destroyed by invading Mongol armies (such as the 18th century Dzungars). The tombs of Upper Tibet, however, are very different in appearance to any kind of monastic ruin.

In the folklore of Upper Tibet west of the 89th meridian, superficial structures are frequently attributed to that mysterious people, the Mon/Mon-pa. The ethnic status of these Mon is far from clear. It has not been determined when they enriched the Tibetan ethnos, but it seems likely that they are one of its fundamental constituents.¹²⁰ The geographic demarcation associated with superficial archaeological structures of the Mon and those of the mythologies prevalent further east largely coincides with the divide between the far eastern Upper Tibetan (Sum-pa) and principal Upper Tibetan (Zhang-zhung) paleocultural zones. Native inhabitants commonly subscribe to the view that the Mon-pa once occupied virtually all areas of Upper Tibet west of the 89th meridian. The relatively low-elevation structures they supposedly left behind are labeled Mon-dur (Mon tombs), Mon-pa'i dur-khung (tombs of the Mon), Mon-rdo (Mon stones), Mon-ra (Mon enclosures), and Mon-khang (Mon houses).¹²¹ In Tibetan literature, Mon is a term often applied to diverse peoples hailing from all parts of the Great Himalaya arc. It is thought by the present-day residents of Upper Tibet that the Mon, a non-Buddhist foreign tribe, long predated their settlement of Upper Tibet. The Mon are not revered by the 'brog-pa and the word black (*nag*), which has negative connotations, is frequently used to describe them. The Mon are sometimes said to be black (evil) Bon practitioners who haunted the landscape before the time of the Vajrayāna hero Gu-ru rin-po-che. In Ru-thog, it is held that the Mon-pa were wiped out by a great epidemic. The rNgo-ro skor-mched tribe that came from mDo-khams and settled in sGer-rtse some 250 years ago customarily believe that the Mon-pa had long disappeared before their arrival. In the Bon enclave of Dang-ra g.yu-mtsho, the Mon-pa as a foreign group are distinguished from the ancient Zhang-zhung-pa. Some local residents say that Mon-pa settlement in the Dang-ra region preceded Zhang-zhung. In far western Tibet, this nebulous people are often called the bsKal-mon, the appended *bskal* (epoch) stressing the ancient or primal quality of the Mon.

¹²⁰ The antiquity of the Mon ethnonym in Central Tibet is upheld in the Buddhist historical text *rGya bod kyi chos 'byung rgyas pa* (p. 237). This account is set in the time of King gNya'-khri btsan-po's arrival in the realm of humans, and concerns the progenitors of the Lho, sNyags/gNyags and Myang dynastic clans: At Bud kyi bram-sna, in Bram-la sgo-drug, gNya'-khri met three small boys whose bodies were ornamented with bird feathers. These young boys, as they were inauspicious, were cast out of Mon (a Himalayan or Upper Tibetan location). gNya'-khri apprehended the boys and took them with him. He did not understand the Mon language. Using his own language, he bestowed the names Lho-na ga-ber and sNyags-lcang ka-ber on two of them. The third boy hid himself at Myang-gong and escaped in the Lho-ro valley. He landed (arrived) at Hor gyi 'gram-mkhar. He was given the name Myang-gong ngan-le btsog, and he became the ancestor (*mes-po*) of the Myang. The other two brothers became the ancestors of the Lho and sNyags.

¹²¹ The term Mon-khrog (Mon detritus) is applied to the remains of ancient gold mines (Gu-ge tshe-ring rgyal-po 2005: 295).

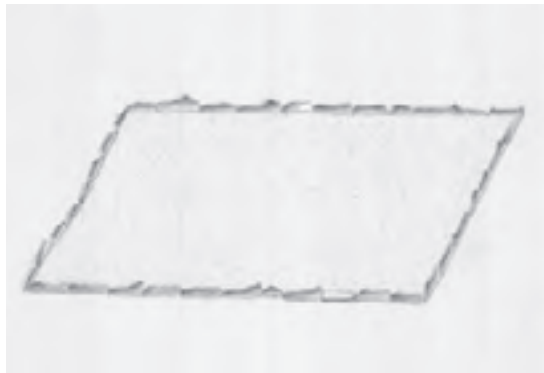


Fig. 161. A single-course enclosure of upright stones; a reconstruction of the basal elements



Fig. 162. Funerary structure MD3, Zangs-gdong mon-do (C-170). Measuring 3.9 m x 3.9 m, the perimeter walls project a maximum of 40 cm above the surface



Fig. 163. Funerary structure MD1 (3.4 m x 3.6 m), Shag-sde mon-dur (D-111). The walls of this quadrate structure are aligned in the cardinal directions

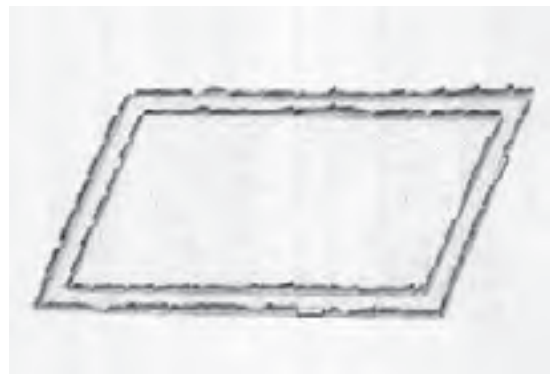


Fig. 164. A double-course enclosure of upright stones; a reconstruction of the basal elements



Fig. 165. A double-course enclosure of blocky stones laid flat; a reconstruction of the basal elements



Fig. 166. Funerary structure MD2 (14.2 m x 9.1 m), Dzi-brtan mon-dur (D-43). The double-coursed walls are between 60 cm and 1 m in thickness. Aligned in the cardinal directions, this structure is divided into two cells of unequal size

6.2a Single-course Quadrangle, Ellipsoid and Irregularly-shaped Structures (Slab-wall and Flush-block Constructions) (Type II.2a)

In all regions of the Byang-thang west of the 89th meridian (except the badlands of Gu-ge), stone enclosures consisting of a single line of stones embedded in the ground occur fairly frequently (figs. 161–163). This monument typology applies to diverse constructions of varying sizes. The enclosures have oval, sub-rectangular, rectangular, square, or irregular forms. They are diverse in size as well, with individual structures measuring between 2 m x 2 m and 35 m x 20 m. The major differences in scale and in the resources that went into the construction of the single-course enclosures suggest a variety of functions. These are likely to include burial and rituals of a funerary and perhaps non-funerary nature. The significant variability in the size and sophistication of the enclosures may also reflect differences in socioeconomic standards. The most eye-catching of the enclosures are made from neatly stationed slabs of stone that project prominently above the surface. Some enclosures incorporate in situ boulders into their perimeter walls, while others rely on rock faces to form one or more walls.

Walls forming well-delineated perimeters were built from a wide variety of naturally occurring chunks of rocks, dressed blocks and cobbles, as well as from stone slabs inserted into the ground on end. The single line of fencing stones forming the walls of the enclosures is flush with the surrounding terrain or protrudes above it to a height of 10 cm to 60 cm. A large range of locally available lithic materials in a wide range of sizes (10 cm to 1.2 m in length) were used in construction, and it is not unusual for an enclosure to have been built with more than one type of rock (such as limestone and sandstone). The ground within the enclosures is most often level with the area outside, but there are many examples of the inner spaces being elevated up to 1 m above the adjoining terrain. Differentiation between this subtype of structures and burial mounds (*bang-so*); therefore, is somewhat ambiguous in the absence of other indicators. Most enclosures contain no internal elements, but a minority of them are bisected by a wall of similar construction or further subdivided into smaller units. Occasionally, lines of slab-walls are so prolific as to cover much of the surface of an enclosure.

6.2b Double-course Quadrangle, Ellipsoid and Irregularly-shaped Structures (Slab-wall and Flush-block Constructions) (Type II.2b)

Superstructures consisting of enclosures made with slabs and blocks set side by side constitute the most common type of archaic monument in Upper Tibet (figs. 164–168). They occur with many constructional variations and in many different sizes and forms, reflecting a good deal of chronological and functional variability. This monument type shares the same design, constructional, dimensional, and locational traits as the single-course walled enclosures. It is also distributed throughout Upper Tibet west of the 89th meridian, including high ground in the deeply dissected valleys of Gu-ge. The major distinction between Type II.2a and Type II.2b is that the perimeter walls are made with two or more stones set in the ground parallel to one another. The walls thus created are between 30 cm and 1.2 m in width. As the double-course walls are inherently more substantial and better developed than single lines of stones, there are many more morphological variations among them. The enclosures generally vary in size from 1.8 m x 1.8 m to over 30 m x 40 m. The largest specimen discovered to date belongs to the rTsi-rtsid mon-ra'i thang-kha site (D-125) and measures 103 m (east-west) x 37 m (north-south) (fig. 169). The stonework of the perimeter walls ranges from crude to fairly high levels of building skill and design sophistication. When many of these structures occur at a site they are arranged either in



Fig. 167. The remains of a double-course enclosure at Lu-ma brag mon-dur (D-53)



Fig. 168. Funerary structure MD7 (21.6 m x 14.3 m), Grib-ra mon-dur (D-62). A double-course cobble wall that is part of several interconnected cells is clearly visible

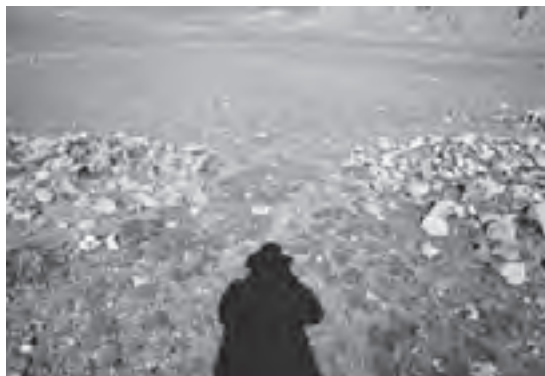


Fig. 169. The giant enclosure at rTsi-rtsid mon-ra'i thang-kha site (D-125). The double-course perimeter walls are around 70 cm in thickness. The large opening in the east wall is visible in the foreground



Fig. 170. The funerary enclosure at Rag-sder (D-114). Measuring 19.2 m x 14.7 m, its well-developed perimeter walls consist of sandstone slabs two to five vertical courses in height

somewhat orderly rows or in what appears to be a random fashion. It is not uncommon for several different types of enclosures to occupy a single site.

In some locations, blocks or slabs were placed edgewise into the earth in a single layer. In others (especially taller structures), blocks or slabs were laid flat in successive vertical courses (up to five or six in number) to produce walls with significant profiles. At sites such as Rag-sder (D-114) and rDo-rje rdzong (D-93), these well-developed walls resemble the footings of residential structures (figs. 170, 171). This is especially true of the down-slope side of the structure, which was often built up to maintain a level interior space. Some taller structures are mound-like and attain heights



Fig. 171. Funerary structure MD3 (11 m x 8 m), rDo-rje rdzong (D-93). The well-developed perimeter walls reach 50 cm in height



Fig. 172. The multiple-course slab perimeter walls of a structure at Nag-ra mon-dur (D-45)



Fig. 173. The multi-course slab-wall remnants of funerary structure MD1, 'Bum gtor-mchog mon-dur (D-107)

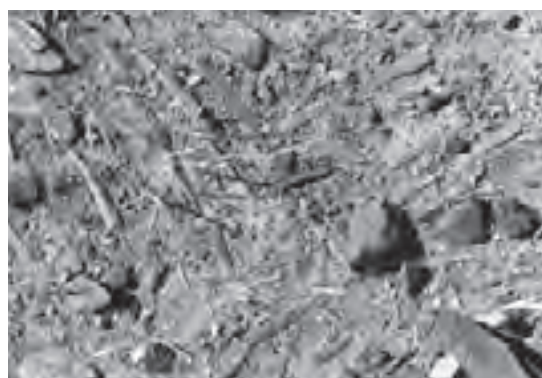


Fig. 174. Multiple slabs embedded in the ground at funerary structure MD5, rDo-rje rdzong (D-93)

of 50 cm or more above the surrounding terrain. The typological delineation between the double-course enclosures and *bang-so*, therefore, is not very sharp. Both typologies represent a sort of elevational continuum. The perimeters of elevated structures are comprised of walls that are 30 cm to 50 cm or more in height. In other superstructures, three or more rows of upright slabs were laterally embedded in the ground to produce yet another kind of perimeter wall at sites like Nag-ra mon-dur (D-45) (fig. 172).

At still other sites, 'Bum gtor-mchog mon-dur (D-107) and rDo-rje rdzong (D-93) among them, row after row of small stones were stuck into the ground edgewise to blanket much of the interior of an enclosure (figs. 173, 174). Another type of interior structural element, usually less than 2 m across, consists of a ring of stones, a quadrangle enclosure or a mound of stones. These structures appear to mark the actual location of subterranean burial chambers. In some instances they may also be where sacrificial rites took place. These architectural markers or hubs are not necessarily well centered between the walls of the perimeter. In larger enclosures like the ones found at Nag-ra brag-seng mon-dur (D-57) and bTsog gi mon-dur (D-91), there may be two or more internal structures (figs. 175, 176). At rTsi-rtsid mon-ra'i thang-kha (D-125), three



Fig. 175. A part of the sub-rectangular enclosure (38 m x 45 m) at Nag-ra brag-seng mon-dur (D-57). In the foreground is a double-coursed structure (5 m across) situated within the bounds of the large enclosure



Fig. 176. Funerary structure MD3 (21 m x 12 m) at bTsog gi mon-dur (D-91). The walls of this large enclosure are aligned in the cardinal directions. There are two internal structures visible. These appear to mark the locations of burials



Fig. 177. rTsi-rtsid mon-ra'i thang-kha (D-125). The three rectangular structures arrayed in a T-shaped pattern inside the enclosure are mostly visible



Fig. 178. Some of the large cobblestone enclosures in the north sector of Chu-nag rdo-ring (C-121)

rectangular structures are symmetrically arrayed within a large enclosure (28.5 m x 25 m), which is aligned in the cardinal directions (fig. 177). The largest complexes of enclosures are composed of neatly built double-course walls of various-sized cobbles that sometimes stick prominently out of the ground. At a few places in far western Tibet, there are dozens of enclosures that stretch over a transection of 1 km or more. These sites are probably associated with royal or high status burials. The largest examples of burial cum funerary ritual sites are Chu-nag rdo-ring (C-121) and Brag gtsang-po (D-41) (figs. 178, 179). These sites consist of complexes of interconnected quadrate superstructures, forming various kinds of arrays. Interconnected enclosures are also known from a number of other tomb sites such as dPal-mo rdo-ring (C-67), Nag-ra mon-dur (D-45) and Zangs-gdong mon-rdo (C-170) (figs. 180, 181). At bTsog gi mon-dur (D-91) at least two three-sided slab-wall lithic assemblies were established near the south side of a large enclosure (approximately 25 m x 11 m) (fig. 182). There is a similar example inside funerary structure MD1 at Brag-gtsug mon-dur (D-115). At Rag-sder (D-114) there is a four-sided lithic assembly located 13.8 m northwest of the main funerary structures (fig. 183). These minor structures are comprised of slabs between 60 cm and 1 m in length, placed in the sandy ground edgewise to produce rectilinear structures.



Fig. 179. Structure MR10, Brag gtsang-po (D-41). This is one of the many large double-course cobble enclosures at the site



Fig. 180. Interconnected funerary enclosures in the upper sector of dPal-mo rdo-ring (C-67)



Fig. 181. Funerary structure MD4, Zangs-gdong mon-rdo (C-170). This structure is aligned in the cardinal directions and measures 29.4 m (north-south) x around 2 m (east-west). It consists of an interconnected line of 12 quadrature structures



Fig. 182. A three-sided lithic assembly (maximum length: 60 cm) near MD11, bTsog gi mon-dur (D-91)



Fig. 183. The four-sided lithic assembly (70 cm x 60 cm) at Rag-sder (D-114)



Fig. 184. Various types of funerary superstructures of the Slab Grave culture

Ever since George Roerich reported finding slab graves in Nag-chu and gNam-ru in the 1920s, Soviet and Russian archaeologists have speculated on their affinity with the slab graves of Mongolia and Transbaikalia, where such graves represent one of the most widely distributed types of archaeological monument (fig. 184).¹²² The distribution of slab graves suggests that central and eastern Mongolia and Transbaikalia formed a single paleocultural domain in the first millennium BCE (Askarov *et al.* 1992: 465, 466).¹²³ It is reported that as of 1998, 570 slab graves in 211 cemeteries had been excavated in the steppes.¹²⁴ So-called slab graves (variously burial and ritual in function) are regularly located on plains and steppes below south-facing slopes.¹²⁵ Cemeteries usually consist of just a few square or, more commonly, rectangular slab enclosures. Large cemeteries boast several dozen tombs but they are uncommon. The tombs are either set in parallel lines with one to seven specimens in each row or in no discernable spatial arrangement. Not all slab structures are tomb superstructures: the larger enclosures (typically 8 m x 8 m to 10 m x 10 m) functioned as venues for sacrificial rites. Occasionally deer stones were incorporated in their construction and sometimes ochre pictographs are found nearby.¹²⁶ In the Inner Asian steppes morphological variations are commonplace, but the slab grave structures possess fundamental common elements: a stone covering for the burial chamber and prominent single-course slab perimeter walls. There are also instances of double-course and triple-course slab-wall enclosures (Tchlenova 1992: 250). Burial pits tend to be shallow and are overlain with slabs.¹²⁷ The exterior of the high-elevation slab-walls are quite often reinforced by stones heaped against them.¹²⁸ To the east of the grave there is sometimes a 'guardian stone' (small pillar) erected on a small funerary structure, which may be constructed from only four stones.¹²⁹ Most of the enclosures used for burial range in size between 1 m to 3 m x 2 m to 4 m, and are aligned in the cardinal directions or oriented in a slightly anomalous fashion. Grave pits are rectangular to ellipsoid in shape, only large enough to accommodate the corpse, and very shallow (less than 50 cm).¹³⁰ To date, just three stone sarcophagi have been found in over 500 tombs excavated in Mongolia and Transbaikalia (one of these measures 2.15 m x 52 cm x 45 cm). Fifty-three percent

¹²² See Bellezza 2002a, pp. 82, 83. Novgorodova (1989: 238) gives the frontier of northern Tibet as the southern extent of the Slab Grave culture.

¹²³ The use of slab-wall funerary structures has long precedents in Inner Asia. The Bronze Age Afanasievo and Andronovo cultures occasionally constructed the perimeters of their mortuary superstructures with upright slabs of stone (Gryaznov 1969: 47, 89).

¹²⁴ For the most comprehensive information (with maps and diagrams) to date on the slab graves of the steppes, see Tsybiktarov 1998. Unless otherwise referenced, I have derived the data presented in this and the following paragraph from his excellent overview study. Four plates (unnumbered) of slab graves from eastern and southeastern Mongolia are found in Derevyanko 1987. For plans of slab graves from Suhebator Aymak and Middle Gobi Aymak, in Mongolia, see Novgorodova 1989, pp. 239, 241; for slab grave plans of Transbaikalia see *ibid.*, p. 243. Novgorodova's work also features four unnumbered plates of slab graves, including those with stelae.

¹²⁵ Tchlenova (1992: 250) states that slab graves are typically situated near river banks and lakes.

¹²⁶ Deer stones commonly appear near the slab graves of Mongolia. In eastern Mongolia and eastern Transbaikalia, deer stones were sometimes erected as cornerstones for the enclosures. See Volkov 1967, pp. 69, 70, 85.

¹²⁷ For diagrams of the subsurface slabs see Tsybiktarov 1998, p. 210 (fig. 23) and p. 213 (fig. 26). There is also a subsurface slab grave plan in Novgorodova 1989, p. 244.

¹²⁸ The slabs rise 50 cm to 2 m above the ground surface (Novgorodova 1989: 245). Slab grave typologies in Mongolia include: 1) rectangular enclosures with high corner stones, 2) those with low-elevation rectangular slab fences surrounding a stony mound, and 3) very high slab-wall enclosures (up to 1.5 m or more in height) that are found particularly in southern Mongolia. See Volkov 1967, pp. 85. A similar typology of slab graves is furnished in Novgorodova 1989, p. 241.

¹²⁹ Tchlenova (1992: 250) reports that there can be several guardian stones near one enclosure.

¹³⁰ Tchlenova (1992: 250) gives the grave pit depth as 50 cm to 1.5 m. Novgorodova (1989: 241) states that the grave depth seldom exceeds 1 m.

of the slab structures excavated contain human remains but many of them have been disturbed by robbers and construction development. Nearly all of the tombs contain only one burial. The dead were generally laid on their backs with extended limbs. Most skeletons are oriented to the east or southeast. Sometimes the head of the corpse was propped up by stones.¹³¹

The organic remains of 13 different slab tombs from Mongolia (1), Buryatia (5) and Transbaikalia (7) have undergone radiocarbon analysis. Ten tombs have yielded dates from the 13th to sixth century BCE, one is dated to the 16th century BCE, and two from the fifth to fourth century BCE.¹³² The Slab Grave culture appears to be rooted in anterior Eneolithic and developed Bronze Age cultures of the same region. Tsybiktarov cites cognate artifacts to support his ethnogenetic assertions.¹³³ The author cautions, however, that little is still known about the cultures that predate the Slab Grave people.¹³⁴ Over this lengthy period of time, no major changes are discerned in the material culture and funerary rites of the Slab Grave culture. It thus appears to have enjoyed a historical legacy straddling both the Bronze Age and Iron Age. Tsybiktarov observes that the pastoralism, horse breeding and perhaps agrarian economy of the Slab Grave culture must have been transformed into a nomadic stock-raising system circa the fifth century BCE. He supposes that the querns and pestles amid the slab grave cultural finds indicate that the culture had a sedentary component as well. This was probably represented by craftsmen such as those casting bronze. The Scythian culture defined by the funerary structures known as *kherekurs* and the Slab Grave culture were apparently distinct but possessed certain shared traits.¹³⁵ Tsybiktarov hypothesizes that at the end of the second millennium BCE, the *kherekurs* builders moved east from western

¹³¹ Ochre was sometimes applied to the corpse (Novgorodova 1989: 241). Anthropometric studies of the 28 skulls recovered from slab graves indicate that they belong to the north Siberian branch of the primary Mongoloid race. Bones of animals have been discovered in 107 slab graves but they were probably more prevalent before the tombs were disturbed. A tally of the animal bones found shows that the incidence of species in tombs is as follows: horses (54%), caprids (36%) and cattle (17%). Artifacts have been unearthed from nearly half of the slab graves excavated. The incidence of objects is as follows: ceramics (24%), ornaments and clothing (21%), tools (7.2%), weapons (4.6%), stone objects (5%), horse bridle components (less than 1%), burned products (11%), ochre (2.4%), and 'prestige' objects (3.8%). It is important to remember that as the bulk of the burials have been vandalized these tallies do not reflect the original proportion of grave goods. In total, 78 bronze buttons (1.4 cm to 3.6 cm in diameter) were recovered from 26 tombs (see Tsybiktarov 1998: figs. 45–47). The reverse side of these buttons has an attachment bar in order that they could be worn. Three bronze mirrors came from three different slab tombs. Cowries (in three tombs), small flaked stone tools, and 76 arrowheads (14 of which are made of stone) in 24 tombs have also been discovered (see Tsybiktarov 1998: figs. 63–67). Clothing, ornaments, tools, and weapons must have been deposited in graves to provide for the needs of the deceased in the next world. Perhaps there was a degree of socio-economic differentiation, with more prestige objects placed in the tombs of the wealthy. The slab enclosures that had a ritual function often contain the bones of horses. See Tsybiktarov 1998. The presence of cowries, a shell from the Indian Ocean, indicates that trade routes with the south had been established by the Slab Grave culture. Cowries are still widely used in Tibet.

¹³² Tsybiktarov (1998: 114–125) dismisses both the earliest and latest dates, contending that the Slab Grave culture can be dated to the 13th century to the sixth century BCE. He disregards the very early and late radiocarbon dates on the basis of a stylistic analysis that is not verifiable through any of the other data furnished in his study. Given the somewhat ambiguous identity of the Slab Grave culture (various ethno-linguistic groups may be involved), I consider it unwarranted to cast aside the 'deviant' dates (technical flaws notwithstanding) that do not fit the author's chronological conception.

¹³³ Such as the ritual use of ochre, small stone objects, bone harpoons, small disc-shaped beads, disc-shaped scrapers, and relief patterns on the surface of ceramics involving the cristate and plicate techniques of ornamentation.

¹³⁴ According to Novgorodova (1989: 240, after Kisilev), slab tombs resemble Karasuk tombs and others from Central Asia and there may be ethnohistorical interconnections. Novgorodova (*ibid.* 245, after Navaan) subscribes to the view that the Slab Grave culture may have begun in east Mongolia in the Bronze Age or even in Neolithic times.

¹³⁵ The combining of deer stones in the burial complexes of both the Scythian and Slab Grave cultures is indicative of non-hostile interaction and the sharing of certain fundamental beliefs (Jacobson 1993: 156).

Mongolia and Tuva to occupy Slab Grave culture territory. He believes that a racial amalgamation between the slab grave autochthons and *khereksur* culture took place. This is reflected in the artifact assemblage of the Slab Grave culture, which is of two main types: Scythian and one characterized by the use of batlets to create patterned surfaces on ceramics.¹³⁶

As we can now fully appreciate, the use of pillars and slab-walls to produce funerary monuments had wide currency in Iron Age cultures throughout much of Inner Asia. These archetypal lithic forms constituted the building elements for the construction of a great variety of funerary structures. Although the distribution of slab graves in the steppes extends south to Inner Mongolia, those found in Upper Tibet belong to a distinctive paleocultural entity and are not steppic in origin. Rather than a singular class of monuments belonging to a monolithic cultural formation, there is highly significant morphological variability that mirrors the handiwork of different peoples. This is demonstrated by a careful comparison of slab grave superstructures in the Inner Asian steppes and Upper Tibet, illustrating that many design and construction features are particular to each group. The respective slab-wall structures of the steppes and Upper Tibet constitute unique monumental canons, which exhibit their own repertoires of architectural elements. To be sure, the respective slab grave cultures borrowed upon similar technological knowledge applied to the same purpose, in grassland environments largely suited to the herding of livestock and hunting. Moreover, the founding of the slab graves in Upper Tibet and the Inner Asian steppes may have occurred within the same general timeframe. Cultural exchanges between the northern steppes and the Tibetan Plateau, informing the common technology of the funerary monuments, are probably indicated as well. This is supported by instances of similar metallic artifacts and sacrificial offerings occurring in both geographic contexts (for example, trihedral arrowheads and horse bones). This cultural intercourse is likely to have manifested itself in similar conceptions regarding funerary rituals and eschatological beliefs. Any such commonalities between the respective slab grave cultural groups may well have been the result of pervasive Bronze Age ethnogenic forces, as well as Iron Age acculturative processes that came about with the spread of new technologies across Inner Asia.

The slab graves of the steppes generally contain stones that project high above the ground, reinforced by other stones heaped around them. Some graves have prominent corner pillars and so-called guardian stones in close proximity to the east side of the structure. Such morphological features are not characteristic of Upper Tibetan slab-wall structures. Enclosures up to 10 m x 10 m are known in the steppes, while in Upper Tibet much larger structures with lower walls are fairly commonplace. The unsupported lower elevation walls of the Upper Tibetan slab structures may in part have developed as a technological adaptation to the severe alpine climate and the poorly developed soils of the region. Double- and multiple-coursed slab perimeters predominate in Upper Tibet, while they are an uncommon feature in north Inner Asia. On the other hand, the slab graves of the two regions have much architectural tradition in common. The slab graves of the steppes are usually aligned in the cardinal directions or offset somewhat towards the intermediate points, just as they are in Upper Tibet. They were multifunctional with both burial and ritual uses, and the

¹³⁶ The construction of some slab graves is commonly ascribed to Inner Asian Scythic cultures (seventh to third century BCE) (Novgorodova 1989: 152). Slab graves containing Scythian type bronze pots, axes, daggers, arrowheads, and bronze and iron horse bits, demonstrate that this culture fully mastered the techniques of bronze casting. These Mongolian articles are similar to those found in the Ordos and beyond Lake Baikal. See Ishjmat 1994, 152. Trihedral arrowheads also occur in slab graves. For diagrams of trihedral arrowheads, knives, and mirrors in Mongolian slab graves, and artifacts from slab graves of Transbaikalia, including trihedral arrowheads and a metal disc with a triskelion design, see Novgorodova 1989, p. 242. Copper alloy buttons of a much later date with a modified triskelion (*dga'*-*khyil*) design also occur in Tibet.

same twin functions are indicated for the Tibetan graves. In slab enclosures with ritual uses in the Inner Asian steppes, the bones of caprids, cattle and horses are found. In the analogous enclosures of Upper Tibet that have been excavated (often for their stones) by 'brog-pa, the bones of these species of animals are also reportedly found. Slab grave cemeteries in the steppes tend to be small, with large examples consisting of several dozen graves. This same observation on cemetery size holds valid for most of those in Upper Tibet, as does their location near the edge of slopes. As noted, anthropometric studies of skulls recovered from slab graves in the steppes indicate that they belong to the so-called northern Siberian branch of the primary Mongoloid race. I think it likely that similar racial (genetic) strains will be present in the interments of the Upper Tibetan slab graves. In due course, it will be molecular archaeological research that will definitively chart the genetic affinities in the ethnical makeup of the steppe and Plateau builders of slab graves.

Indications (from illegal and informal excavations) are that, like their steppic counterparts, the slab graves of Upper Tibet usually contain relatively shallow grave pits, some of which are covered by capstones. Large stone burial chambers constructed with slabs of stone up to 2 m in length, clearly the final resting place of individuals of considerable importance, are known from Upper Tibet burial sites such as Gyam-nag mon-khang (D-59) (figs. 185, 186). Stone arrowheads and copper alloy artifacts of the Scythian type have been discovered in the slab graves of the steppes. Some of these are comparable with Tibetan copper alloy items of the *thog-lcags* class (a heterogeneous group of amulets without provenance), such as copper alloy buttons, small mirrors and trihedral arrowheads (see pp. 99–102). To date, the 13 slab graves in Mongolia, Transbaikalia and Buryatia that have undergone radiometric analysis have yielded dates between the 16th and fourth century BCE. This huge time span suggests that certain cultural foundations were very long-lived in the steppes. I hold that this will also be proven to be the case for the archaic cultural horizon of Upper Tibet; its monumental underpinning is likely to have endured for many centuries. The extreme geographic isolation of the region combined with its unique high-elevation environment and brand of pastoral, agricultural and hunting economy would have acted to reinforce the preservation of fundamental cultural traits. The great morphological variability exhibited by the slab structures of Upper Tibet also seems to reflect a lengthy period of construction and usage.

6.2c Heaped-wall Enclosures (Type II.2c)

Enclosures formed of nondescript or incoherent heaps of stones (figs. 187, 188) generally have the same geographic distribution as the walled enclosures. They are not found in the far eastern Byang-thang or in the badlands of Gu-ge. Chronometric data obtained from this type of monument establishes that heaped enclosures were used as tombs in the imperial period. Subsidence and other forms of disintegration have taken their toll on these structures, degrading their original forms. It appears that they were originally comprised of stones piled high to form roughly rectangular, ellipsoid, kidney-shaped, and irregularly shaped enclosures. In some structures, stones are still heaped to a height of 1 m or more but most enclosures are considerably more leveled than this. The demarcation between coursed and heaped enclosures is somewhat ambiguous. These forms of funerary construction have many permutations so that intermediary types are difficult to categorize in one subtype or the other. The heaped stone enclosures range in size from 3 m to 52 m across. The walls also vary in massiveness and can be as much as 2.5 m in thickness and 1.5 m in height. These walls were built from a wide variety of rocks. Most heaped-wall enclosures have open interiors, but in some specimens the interior is bisected or otherwise partitioned by a heaped wall. Like most other sites of ancient superficial structures in Upper Tibet, the heaped-wall enclosures are found in fairly open, well-drained areas usually bound on one or more sides



Fig. 185. Funerary structure MK6, Gyam-nag mon-khang (D-59). Some of the large stones that formed the burial chamber are still in situ



Fig. 186. The ransacked funerary structure MK3, Gyam-nag mon-khang (D-59)



Fig. 187. A heaped-stone enclosure; a reconstruction of the basal elements



Fig. 188. A heaped stone enclosure at 'Dzong-gdong (D-32)

by a ridge or mountain peak. Some locations are extremely rocky, providing ample building materials for the walls. Even when the terrain is gently sloping, the interiors of the enclosures are generally level. This is achieved by elevating the down-slope wall and setting the uphill wall below the slope gradient. Upslope walls can be depressed as much as 1.2 m below the surrounding terrain, while downhill walls typically stand 50 cm to 1.2 m above the surface.

At the largest heaped enclosure of the Mon-ra yar-rked site (D-24) known as rDzong-chen (Great Fortress), excavations carried out to retrieve stones for house and corral construction have revealed large stone chambers (Bellezza 2002a: 88, 89) (fig. 189). These chambers were constructed from slabs of stone (up to 2 m in length) and appear to be quadrate in form with a depth of 1 m or more. During my 2000 survey of Mon-ra yar-rked, I collected human bone fragments from different sections of the stone chambers or cists of the rDzong-chen enclosure, which were then undergoing excavation.¹³⁷ Radiocarbon analysis of two of these samples has yielded calibrated dates of circa

¹³⁷ I revisited Mon-ra yar-rked in the course of my 2004 High Tibet Welfare Expedition to find that the rDzong-chen tombs were still being pilfered for stones. Two 'brog-pa houses as well as a storage shed and corral now encroach upon the site. They were built directly on or next to the burial grounds. In 2000, I tried to impress upon local residents that they were creating a settlement on top of burials. Traditionally, contact with ancient human remains and burial structures is considered taboo in Upper Tibet. Such contact is thought to have the potential to lead to grievous forms of

680 to 880 CE (leg bone fragment), and circa 640 to 720 CE (tibial plateau).¹³⁸ These measured radiocarbon ages closely correspond with Tibet's imperial period (629–846 CE). This demonstrates that the largest burial monument at Mon-ra yar-rked was used to inter human remains in the period of Tibet's greatest territorial and political expansion. The monumental nature of the rDzong-chen burials (this heaped-wall enclosure measures 30 m x 52 m and contains many internal structural features) suggests the remains were those of individuals of high social status, such as regional chieftains or imperial Tibetan military/administrative authorities of eminent rank.

The subjugation and annexation of the Zhang-zhung kingdom had already taken place by the time the rDzong-chen interments were made. Judging solely by its sheer size, rDzong-chen may have been raised as a symbol of Central Tibetan imperial political supremacy (it is the largest tomb complex in the vicinity of Lake Dang-ra). rDzong-chen was a palpable sign that the imperial order enjoyed more temporal power and prestige than did the former rulers of Zhang-zhung, who seem to have been interred in smaller tombs (figs. 190–192).¹³⁹ Without chronometric studies being conducted at other burial enclosures of the widely dispersed Mon-ra yar-rked site, it may not be prudent to extrapolate the same periodization to the cemetery as a whole. It is certainly possible that heaped enclosures predate the imperial period, having persisted through formative changes in the political status of Upper Tibet. If so, they could well reveal how protohistoric funerary traditions were preserved and adapted to the imperial milieu.

Also discovered in the ransacked stone burial chambers of rDzong-chen was a pot made of worked copper plate with a long integral spout.¹⁴⁰ This vessel is reported to have been found in the same tombs as the human bones that underwent radiocarbon analysis. This stratigraphic association suggests that the pot also dates to Tibet's imperial period. Despite presumably being buried for more than a millennium, the pot is fully intact and exhibits only a minimum of verdigris and other forms of deterioration. Its excellent condition underscores the optimal environment in Upper Tibet for the conservation of ancient artifacts. The preservative qualities of extreme aridity, severe cold and high levels of ultraviolet radiation are hard to match. By virtue of its place of discovery,

contamination and disease. My stronger protestations in 2004 seem to have had more of an effect, and the good clan members who live at the site promised me that they would no longer steal stones from rDzong-chen. Additional artifacts appear to have been discovered in the four years between my visits, but I could not determine of which type, as a senior member of the concerned clan was off on pilgrimage. Burial chambers opened in 2000 are now partially covered over with earth and rubble.

¹³⁸ AMS, sample no. Beta-200754; conventional radiocarbon age: 1250 +/-40 BP; 2 Sigma calibrated result (95% probability): Cal 1270 to 1070 BP; intercept of radiocarbon age with calibration curve: Cal 1180 BP; 1 Sigma calibrated result (68% probability): Cal 1250 to 1160 BP. AMS, sample no. Beta-200759; conventional radiocarbon age: 1350 +/-40 BP; 2 Sigma calibrated results: Cal 1310 to 1230 BP and Cal 1210 to 1190 BP; intercept of radiocarbon age with calibration curve: Cal 1280 BP; 1 Sigma calibrated result: Cal 1300 to 1260 BP.

¹³⁹ There are, however, three other extensive burial grounds in the vicinity of Lake Dang-ra: rTa-ra mon-ra site (D-105), rTsid-ra mon-dur (D-13) and gNyan-dmar (D-54). Perhaps these are the prehistoric funerary sites of the region. If, as the oral tradition maintains, Lake Dang-ra was an important locus of settlement in the prehistoric epoch (this is supported by the sheer number of archaic sites near its shores), there must be cemeteries from the archaic cultural horizon as well. The single most impressive burial tumulus (18 m x 18 m x 1.7 m) is located at the gNyan-dmar site. It is locally called gTso rde'u mgo (Chieftain's Head Hill) and is said to have belonged to an ancient Mon ruler of the region.

¹⁴⁰ This pot has an almost flat base and rounded sides. It is 9 cm in height and has a maximum diameter of 8 cm. The 5.5-cm-long spout was clearly designed to pour a liquid substance. The sides of the spout curl prominently upwards to provide a deep pouring channel, and the rim of the vessel is slightly folded to form a rounded lip. This smooth-walled container is without any kind of ornamentation.



Fig. 189. Destroyed burial chambers at rDzong-chen, Mon-ra yar-rked (D-24). Some large stones are still in situ. The house in the upper right corner was recently built in the midst of the tombs



Fig. 190. A funerary superstructure at rTa-ra mon-ra (D-105)



Fig. 191. A heaped-wall funerary superstructure, north complex 1, rTsid-ra mon-dur (D-13)



Fig. 192. The bang-so at gNyan-dmar (D-54)

this pot may well have been used in mortuary rites in which liquids were featured. Different series of liquid offerings are noted in the Dunhuang and Bon funerary texts. The place of manufacture of the vessel and its cultural and chronological affinities with other material objects discovered in Upper Tibet are yet to be determined.

6.2d Quadrate Mounds (*bang-so*) (Type II.2d)

In this work, I use the term *bang-so* to refer exclusively to burial mounds, although it can rightfully be applied to burial structures of alternative types as well. Rectangular and square burial mounds are Tibet's best-known type of ancient funerary monument. They appear to be found in all quarters of the Plateau. The most famous cemetery of *bang-so* in Tibet is the royal sPu-rgyal burial ground of 'Phyong-rgyas, in Central Tibet.¹⁴¹ Nowhere in Upper Tibet have I

¹⁴¹ Huo Wei discusses T'ang and Central Asian architectural influences in the royal tombs of 'Phyong-rgyas. He observes that pillars erected at these tombs were part of a 'western' funerary tradition. He also notes that between 705 and 822 CE, there were repeated diplomatic exchanges between Tibet and T'ang China, which may explain the similarities observed in the spatial arrangements of T'ang and 'Phyong-rgyas tombs. See Huo Wei 1994, pp. 143, 144, 148.

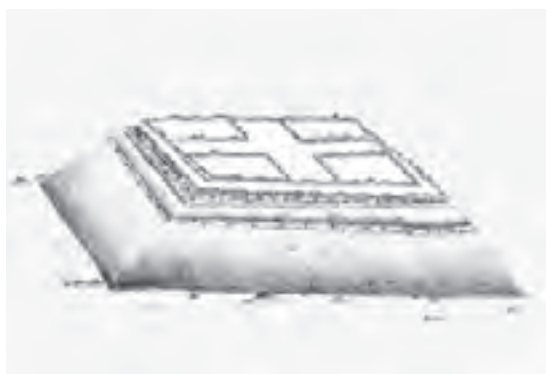


Fig. 193. A large *bang-so* with cruciform walls on top; a reconstruction of the basal elements

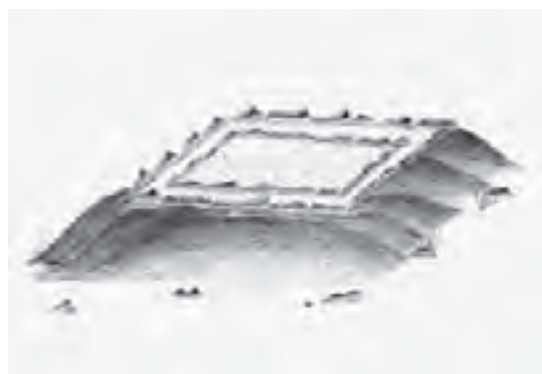


Fig. 194. A small burial mound with double-course walls; a reconstruction of the basal elements



Fig. 195. Large burial mounds, *rDe'u-rug* (D-99)



Fig. 196. One of several sizable *bang-so* at Nya (D-100)

surveyed burial tumuli as large and extensive as those of this celebrated site. In Upper Tibet, burial mounds occur with much less regularity than the lower stone enclosures. Upper Tibetan *bang-so* have rectilinear proportions and are often aligned in the cardinal directions (figs. 192, 193). They are elevated on all sides with walls that slightly taper inwards towards the top. The *bang-so* were constructed with flat tops, but these now undulate or are concave through the agency of centuries of erosion. The most extensive *bang-so* cemeteries, containing the largest specimens, are located in 'Dam-gzhung, a region immediately adjacent to Central Tibet. These include the *rDe'u-rug* (D-99) and Nya (D-100) sites (figs. 194, 195).¹⁴² The large rectangular burial mounds (maximum size: 34 m x 32 m x 7 m) of 'Dam-gzhung have been heavily plundered and are still being despoiled for valuables.¹⁴³ Large quadrate mounds are also found in the eastern Byang-thang at sites such as *sGog-ri* (D-82) and *Rong-lung* (D-76), and in the western Byang-thang

¹⁴² The Tibetologist Hugh Richardson heard that at *La-rkan-mdo*, in 'Dam, there are many mounds. These can be no other than the *rDe'u-rug* or Nya sites. According to the historical lore collected by Richardson, an invading Mongol army, which perished in a blizzard, was buried in these mounds. This is supposed to have occurred long before the *Dzungar* invasion of the 18th century CE. According to Richardson, it is thought that the armor used in the annual *Khrab-gzhi chib-shag* parade of Lhasa was taken from this Mongol army. See Richardson 1963, p. 91.

¹⁴³ Local residents report that in early 2004 a bulldozer was brought in to level a *bang-so* at the *Chu-mig mdo* site (D-103) in 'Dam-gzhung. The perpetrators were intent on looting valuable artifacts. This is one of the most egregious examples of grave robbing I have come across in the region.



Fig. 197. A burial mound at sGog-ri (D-82)



Fig. 198. The single bang-so (15 m x 12.4 m x 2 m) at Rong-lung (D-119) 2 m at Rong-lung (D-76)



Fig. 199. The large bang-so (18 m x 13 m x 1.5 m) at 'Or-mo sgang (D-40)



Fig. 200. The big bang-so (14 m x 15.5 m x 2 m) at rDo-ring bar-ma (D-119)

at places like 'Or-mo sgang (D-40), rDo-ring bar-ma (D-119) and Mi-lhas 'khor-mdo (D-19) (figs. 196–200). *Bang-so* occur at the southeastern margin of Gu-ge at the Chu-nag rdo-ring site (C-121) as well (fig. 201). A sizable proportion of these large earthen and stone mounds are aligned in the cardinal directions, as are so many of Upper Tibet's funerary structures. *Bang-so* at sites such as Chu-nag, 'Or-mo sgang and dPal-mo rdo-ring (C-67) are dominant funerary structures in the midst of lesser tombs, suggestive once more of a stratified society in the Upper Tibet of the archaic cultural horizon.

The extant structural evidence indicates that the *bang-so* exterior had masonry details and perhaps even masonry shells in a few cases. The most common type of stonework consists of coherent double-course walls (40 cm to 80 cm in width) that line the rim of the mound. In some specimens, this type of wall also runs horizontally along the sides of *bang-so* at one or more elevations. At the Chad-phu mon-ra site (D-126), the remains of these walls are so prolific as to suggest that the largest mound was entirely encased in masonry (fig. 202). The tops of the tumuli may also be criss-crossed with walls, partitioning them into smaller quadrature units. A peculiar wall alignment forms a cruciform pattern on the top of burial mounds at dPal-mo rdo-ring (C-67) and Mer-btum phyug-mo (C-65) (figs. 203, 204). While Upper Tibetan *bang-so* of different areas superficially resemble one another, subsurface investigations could reveal significant cultural, temporal and burial chamber structural differences. At this preliminary stage in the study, it is difficult to know what lies inside the burial mounds. I suspect that they contain various types of stone and earthen

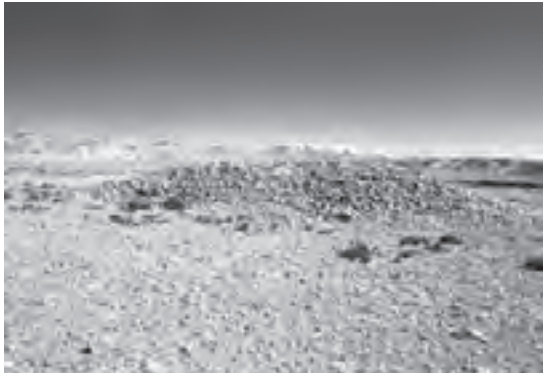


Fig. 201. The largest burial mound at Chu-nag rdo-ring (17.8 m x 15 m x 3 m) (C-121)



Fig. 203. A truncated funerary tumulus (13 m x 18.5 m x 1 m) with cruciform walls, mChod-rten brgya-ba (D-6). A cairn was erected in the middle of the structure

chambers used for interment and mortuary rites, as Tibetan literary accounts indicate (see pp. 293, 294). Inner stone chambers could be encased in earthen and rubble mantles, which could be contained within the stabilizing external stone walls. It is also conceivable that the *bang-so* were crowned with non-structural elements (fixtures, decorations, etc.).



Fig. 202. The most prominent funerary structure (14 m x 15 m x 3 m) at Chad-phu mon-ra (D-126). The faint traces of walls interspersed all along the flanks of this structure are visible. On the top of the bang-so is a shrine with inscribed plaques, built by local residents probably to subdue negative influences thought to emanate from the site



Fig. 204. The largest burial mound at Mer-btum pis-ma (C-65). The top of this structure has cross-shaped walls



Fig. 205. Terraced funerary structure DK17 (6.3 m x 5.3 m) at rGyal-mtshan mthon-po (D-77)

As in Central Tibet, *bang-so* are likely to have been constructed in the northwestern uplands until the collapse of the Tibetan empire in the mid-ninth century CE. The association of tumuli with the Tibetan kings from the time of sPu-lde gung-rgyal suggests that they were an important type of burial monument throughout most of the protohistoric period. A Tibetan quasi-historical record holds that funerary rites connected to the burial of the sPu-rgyal kings were transferred from Zhang-zhung to Central Tibet (see pp. 370, 371). If there is any historical justification to this claim, it might show that burial monuments such as *bang-so* originated in the Upper Tibetan paleocultural milieu and spread south and east to Central Tibet.

6.2e Terraced Constructions (Type II.2e)

The most common funerary monument in the far eastern Byang-thang (east of the 89th meridian) consists of quadrate tombs built into the sides of slopes. Most of these structures appear to be tomb superstructures. Alternatively, some may also have had funerary ritual functions. They are found in large numbers in Nag-chu, A-mdo and dPal-mgon counties.¹⁴⁴ They were most often built on fairly steep slopes or on benches between steeper slopes. Typically, the downhill or forward side of these structures is elevated 50 cm to 6 m above the slope, while the uphill or rear side of the structure is flush or slightly elevated above the slope. Uphill walls can also be slightly depressed

¹⁴⁴ My survey of tombs has not extended to the extreme eastern Byang-thang, east of the main north-south highway between A-mdo county and the Zhang-zhung la. As a rule, far fewer tomb sites appear to have been built in this region. To date, reports of standing stones in eastern Nag-chu have not surfaced either. This is not to say that there are no funerary sites on the eastern fringes of the Byang-thang. Stone enclosures have been discovered at Tshwa-chu thang (Nag-chu county) near the new railroad line (see p. 394, fn. 123). In Sog rdzong (perhaps in areas just east of the Byang-thang), with the advent of Chinese Communist rule and new construction projects, underground tombs with stone boxes were discovered. The bones of humans and horses, fragments of weapons, gold foil, copper containers, and other things have been found in these tombs. See *Thog ma'i gnas tshul dbang sgyur skor*, p. 98. Unfortunately, these funerary sites in Sog county have not been scientifically studied, and the recovered artifacts have drifted away to many hands. It is said that during the 1970s, under desperate living conditions, two brothers named dKon-mchog btsan-'dzin and Karma rdo-rje of the rNgo-ro skor-mched region of sGer-rtse partially excavated a so-called Mon-dur and discovered turquoise, coral, a string of *gzi* (specially patterned agates), ceramics, and charcoal inside (Gu-ge tshe-ring rgyal-po 2005: 295). These accounts underline the huge problem in Upper Tibet of the accidental or deliberate opening of graves without proper scientific oversight. With construction projects increasing in the region, this problem is only worsening.



Fig. 206. Terraced funerary structure DK123 (12.9 m x 7 m), dKar-khug (D-74)



Fig. 207. The cemetery of dKar-khug (D-74). In the foreground is funerary superstructure DK149 (7.7 m x 5.4 m). Many other tombs are also visible in the photograph



Fig. 208. Some of the many funerary superstructures at dGon-ro (D-75). In the foreground is structure DK206 (5.6 m x 4 m)



Fig. 209. Terraced funerary structure MD5, sKal-dra mon-dur (D-66)



Fig. 210. A terrace 7 m long at Gyam-chung mon-dur (E-16)

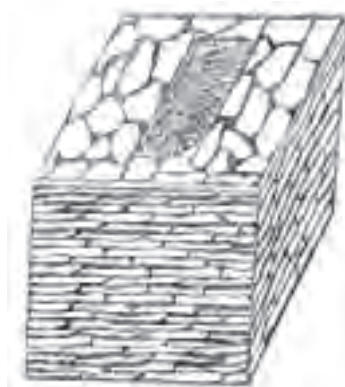


Fig. 211. A mountaintop cubic tomb; a reconstruction of the basal elements



Fig. 212. The mostly leveled cubic tomb MD3, *rTa-rgan gyam-sna-ri* (E-25)



Fig. 213. Cubic tombs perched on a rocky ridge top, *'A-lhas mon-dur* (E-30)

and many structures lack upslope walls altogether. The tops of the structures are relatively level even when built upon slopes with severe gradients. Higher down-slope walls and side walls are made from both earth and masonry. This type of burial monument varies greatly in size and elaboration. The simplest terraced structures are less than 1 m high on the forward side and just two or three meters across. Their external masonry features are limited to a few desultory stones or simple enclosing walls along the rim of the tomb. Conversely, the largest specimens measure 12 m x 14 m, and are *bang-so*-like in appearance. Large terraced tombs frequently boast much more elaborate masonry than smaller examples. Their walls are constructed in the same manner as those lining the *bang-so*. Large terraced constructions are found at sites such as *rGyal-mtshan mthon-po* (D-77) and *dKar-khug* (D-74) (figs. 205, 206). Terraced funerary structures often form long rows as well as being vertically arrayed or stacked, giving them the appearance of terraces. The typological delineation between terraced constructions and *bang-so* is fairly ambiguous. Some cemeteries have both kinds of structures, indicating that the mound and terraced forms of burial are closely interrelated. The largest terraced cemeteries, such as the *dKar-khug* (D-74) and *dGon-ro* (D-75) sites, have around 200 tombs each (figs. 207, 208).

There is also a class of terraced structures in *Ru-thog* that exhibits different morphological features than its eastern counterpart. This monument type consists of small terraced structures tightly arranged vertically up a steep slope to produce a stepped effect. They generally exhibit more elaborate stonework than the eastern variants. Good examples are found at *sKal-dra mon-dur* (D-66) and *Gyam-chung mon-dur* (E-16) (figs. 209, 210). These western terraced structures range in size from 2 m x 2 m to 5 m x 5 m. From the remaining structural evidence, it would appear that these constructions had random-rubble masonry on the forward and side walls. It is also possible that the tops of the structures were completely covered in stonework. Many lack uphill walls as they appear to have been deeply embedded into the slope. These stepped structures are almost certainly funerary in nature; this is corroborated by local reports calling them *Mon* graves. The precise cultural and chronological relationships that may exist between the terraced funerary structures of the eastern and northwestern *Byang-thang* are still undetermined.

6.3 Cubic Mountaintop Tombs (Subdivision II.3)

Another characteristic class of archaic ceremonial monuments in Upper Tibet is the cubic (or sometimes rectangular) all-stone tomb, erected on the tops of high ridges and mountains (at elevations of 4800 m to 5600 m) (figs. 211–213). These are almost always sited on summits



Fig. 214. Funerary structure MD2, bKra-shis dar-lung (E-10)



Fig. 215. The large funerary structure sitting on the summit of rGya-rug mon-dur (E-20)



Fig. 216. The heavily degraded quadrate ceremonial structure on the summit of Phye-ri thal-rdzong (E-22)

thickly blanketed in scree and talus, and are completely above-ground structures. The tombs are frequently set on the edge of rocky prominences overlooking steep slopes or cliffs (figs. 214–216).¹⁴⁵ The sites often enjoy panoramic views of the adjoining countryside. These montane

¹⁴⁵ In addition to this characteristic burial monument type, variant tombs set on ridge tops are found at the bKra-shis dar-lung (E-10), rGya-rug mon-dur (E-20) and Phye-ri thal-rdzong (E-22) sites. The rGya-rug tomb is of the *bang-so* type and occurs farther east than the geographic distribution of the mountaintop cubic tombs of the Byang-thang. The bKra-shis dar-lung tombs of the upper Yar-lung gtsang-po drainage basin are structurally reminiscent of the cubic tombs, but they possess some minor morphological differences. They are also located farther east than any of the cubic tombs that are situated south of the Transhimalaya. The lone tomb (or shrine of alternative function) at Phye-ri thal-rdzong is a large cubic masonry construction of a different design.



Fig. 217. The walkway on the east side of the summit, An 'bri-rtse mon-dur (E-11)



Fig. 220. A very large central depository in a mountaintop tomb, lDan byang-ri smug-po gdong (E-18)



Fig. 218. An enclosure and cubic tombs, 'A-lhas mon-dur (E-30)



Fig. 219. A small central depository in cubic tomb MD7, rTa-rgan gyam-sna-ri (E-25)

locations are usually the highest ground for some distance around. The carefully built burial structures are in some instances in relatively good condition, making an assessment of their main design and constructional features possible. They were built of locally occurring dark-colored sandstone and volcanic slabs and other elongated chunks of rock (30 cm to 1.2 m in length). These slabs were laid flat in random-texture, dry mortar courses to produce strong and stable structures. The exterior dimensions of the cubic stone tombs range between 1.5 m x 1.5 m x 1.2 m and 2.5 m x 3.5 m x 1.8 m. The walls are usually aligned in the cardinal directions, an important feature

of many Upper Tibetan pillar arrays and funerary superstructures. The tops of the tombs are flat; virtually all have been opened and their contents stolen or discarded. We might also consider that the cubic tombs were swathed in clay or plaster to weatherproof them, and that this veneer was in turn painted and decorated with mineral pigments such as ochre and lime. Definitive signs of these embellishments, however, are no longer detectable to the human eye. Nonetheless, given the tradition of Tibetan historical reliquary structures (*gdung-rten*),¹⁴⁶ which can be elaborate affairs, it seems unlikely that the tombs were originally fabricated as unadorned raw stone chests. At a few sites such as An 'bri-rtse mon-dur (E-11) and A-lhas mon-dur (E-30), heaped walls, enclosures, walkways, and landings occur in conjunction with the tombs (figs. 217, 218).

Set in the center of each masonry shell is a rectangular chamber elevated around 50 cm above the ground level. These chambers measure in the range of 80 cm x 50 cm x 70 cm to 2 m x 1.1 m x 1.1 m, with larger examples being uncommon (figs. 219, 220). More finely finished stone slabs were routinely used to fashion and line these central chambers. Like the outer walls, these chambers are normally aligned in the compass points. They have flat bottoms with several courses of slab-wall masonry below them. The chambers were covered with stone slabs and smaller pieces of stone sheathing in order to seal them, but most of the remains of the covers have been destroyed. These chambers appear to have functioned as reliquaries or ossuaries; depositories for human remains. Their Mon funerary label (Mon-dur) in local folklore and the occasional adventitious usage of the chambers to accommodate human burial bear this out (Bellezza 2001: 155). It appears likely that skeletal elements, as part of a fractional or secondary burial, were deposited in the central chambers.¹⁴⁷ Given the size of the chambers, extended skeletal burials would not have been feasible (unless used for juvenile inhumations) except in the case of the largest central chambers, a small minority of the total. It is possible that certain parts of human corpses underwent ritual excarnation and were deposited in the central chambers during special religious observances.

Curiously, the geographic distribution of the cubic tombs is restricted to western Tibet, excluding the badlands of Gu-ge. They occur both north and south of the Transhimalaya (Gangs-dkar ti-se) range, between 84° 33' E. and 79° 03' E. long. The paleocultural factors explaining why the cubic mountaintop tombs are confined to this specific region are still obscure. Other characteristic monuments of Upper Tibet, such as the all-stone edifices and pillars erected within quadrangle enclosures, enjoy much wider territorial dispersal. Perhaps this kind of burial represents a custom that took hold only in a limited area due to localized sociocultural factors. There is no reason to believe that this monument type should not be slotted into the characteristic assemblage of archaic Upper Tibetan monuments. These tombs, then, as part of the same broad cultural and temporal context, may represent a sub-regional proclivity that possibly expressed particular clan, tribal or occupational identities.¹⁴⁸

¹⁴⁶ Martin (1996: 353) comments that Buddhist saints and scholars were occasionally embalmed from the tenth century CE onwards. The mortal remains of the founder of the Sa-skya sect, dKon-mchog rgyal-po (died 1102), were interred in a mausoleum known as a *dmar-gdung*, as were other great Buddhist figures (Wylie 1964–1965: 236, 237).

¹⁴⁷ The antiquity of this form of inhumation in Upper Tibet is suggested by recent research carried out by Huo Wei, who excavated tombs in the Dung-dkar Phyi-dbang region in Gu-ge. Evidence for what appear to be secondary or fractional burials was obtained from Sa-gsum thang M1 and rGya-gling M7, where only a limited allocation of human bones were discovered (indications are that these tombs date to the second half of the first millennium BCE) (Chinese Institute of Tibetology, Sichuan University 2001a: 17, 21, 22).

¹⁴⁸ The use of alpine funerary structures has survived to modern times among the Moso of the Sino-Tibetan borderlands. After the cremation of the corpse, the Moso of Yung-ning escort the spirit of the dead to simple stone shelters built high up the southern slopes of Mount Phyang-na rdo-rje (Rock 1955: 15).

A Bon scriptural account seems to describe a form of burial for ancient priests known as *gshen*, which corresponds to the form and lofty aspect of the cubic mountaintop tombs (Bellezza 2002a: 98). If indeed this textual source is related to the tomb type, it indicates that they were used to dispose of the mortal remains of the sacerdotal class (*gshen*) in prehistoric times. Clearly, the siting of tombs in high, inaccessible locales intimates an exclusive social sphere of usage. This aura of special reserve is supported by the relatively small number of such cemeteries documented to date. Moreover, the enshrining of human remains in such a high and sequestered environment indicates that these interments were made with long-lasting preservation in mind. The rarefied atmosphere, intense ultraviolet exposure and extreme aridity of Upper Tibet converge to create one of the most sterile environments on Earth, ideal for long-term preservation of organic substances. In this region, even bones inhumed in the ground can continue to exhibit noteworthy levels of organic integrity for very long periods of time. The conservation of human remains stored in secured stone boxes above ground must have been even more pronounced. This safekeeping appears to be important in trying to understand the significance of the mountaintop burials. The enshrining of human bones for what may have been seen as an all-abiding amount of time is likely to have had apotropaic and fortune-bestowing overtones. Over the last millennium, the erection of reliquary *mchod-rten* in Tibet with the remains of highly revered Bon and Buddhist religious figures was perceived as a meritorious addition to the landscape and of benefit to society. The reliquary *mchod-rten* likewise contained sealed above-ground chambers, which enshrined the bodily remains of high lamas in what seemed a relatively permanent arrangement.

The conspicuous location and non-Buddhist identity of the mountaintop tombs suspended above pastoral communities must have in large measure contributed to their desecration. With the coming of Buddhist domination, it is not likely that these potent symbols of the religious (heretical) past could have remained intact and unmolested. Most were probably ransacked before 1000 CE, just like the royal tombs of 'Phyong-rgyas, in Central Tibet.¹⁴⁹ In the strife-torn aftermath of the collapse of the imperium, the wholesale ransacking of tombs throughout Tibet may have been the norm. Be that as it may, I have not discovered a single cubic mountaintop tomb with definitive evidence of the original interment.

It is also worth commenting on the Aeolian aspect of the mountaintop burials. Not only are they perched on the edge of highly exposed summits, they are built on rock and talus foundations, not on bare earth. I have presented various ethnographic data to suggest that this situational aspect was a corollary of the belief in a celestial afterlife (Bellezza 2001; 2002a). This is supported by Tibetan funerary texts that describe a celestial afterlife known as *dGa'-yul* (Joyous Country), a paradise paralleling in ideal terms the mortal way of life. While the literary *dGa'-yul* may not be specifically applicable to the cultural and temporal framework of the mountaintop tombs of western Tibet, a montane or sky-bound next life is a mythic theme drawn from a fountainhead of early traditions, as the archaeological and ethnographic records of Inner Asia and the Himalaya demonstrate. It would seem that tombs placed on mountaintops served as launch pads for the deceased on the journey to the uranic hereafter. The propitiation of the holy dead and the opening of ritualized pathways of communication are liable to have occurred at these cemeteries, in conjunction with the conveyance of the soul to the hereafter. The An 'bri-rtse site (E-11) with its talus terraces, pads, pathways, and barriers indicates that there was indeed a complex ceremonial component attached to the burials. It must be pointed out that active communications with the dead

¹⁴⁹ On the circa 900 CE clan-related profanation of these tombs taken from *mKhas pa'i dga' ston*, see Vitali 2004, p. 113 (n. 11). According to Richardson (1998: 222), the burial mounds of 'Phyong-rgyas were also looted in the 18th century CE by the Dzungars.



Fig. 221. Twin cubic shrines, Do dril-bu (B-13)



Fig. 222. Main shrine complex, Do rta-sga East (B-128)



Fig. 223. Largest shrine structure at Se-mo do South (B-126)



Fig. 224. The remains of a cubic shrine, Se-mo do West (B-127)



Fig. 225. A tho known as Srid-pa'i mthon-po (Heights of Existence) was built on the base of a cubic tomb, Ri-rgyal (E-6). It is said to have once marked the territory of a local headman



Fig. 226. This rock outcrop appears to be called sKyung-ka nag-gtsug (Black Top Chough). On its summit is a highly eroded lha-btsas that was erected in the shadow of rTa-rgo dge-rgan, the large snow mountain on the opposite side of the rTa-rgo gtsang-po

and commemorative ritual exercises are foundational elements of Dunhuang and Bon funerary literature.

In the course of my surveys of cubic mountaintop tombs, I have paid special attention to identifying and collecting osteological samples from the ruins of the central depositories. Only a small fraction of the total number of tombs contains any remains of bones and these are all tiny, hard-to-distinguish fragments. The samples collected were partially or fully exposed to the elements and subject to infiltration by foreign organic substances. Furthermore, species identification of the samples collected could not always be visually ascertained by medical or dental examinations carried out by qualified experts. More advanced osteological studies would have been required. The provenance of these samples is therefore questionable. It comes as no surprise, then, that these bone fragments have yielded erratic results when subjected to scientific testing. Samples taken from tombs of the An 'bri-rtse (fragment of cranium, human?) and lDan byang-ri smug-po gdong (E-18) (human cuspid and jaw fragment, and other bone matter) cemeteries have yielded dates so recent as to fall outside the range of radiocarbon calibration.¹⁵⁰ One sample of bone (species undetermined) collected from the central depository of a cubic tomb from Khyi-'dung la, located adjacent to the lDan byang-ri smug-po gdong cemetery, has yielded a calibrated radiocarbon date of circa 1000 to 1260 CE.¹⁵¹ This demonstrates that bone fragments upwards of 1000 years old were deposited in the tombs. It is not at all clear, however, if the dated sample represents part of the original interment or a chance or adventitious addition to the tomb. More stringent archaeometric testing will be required to ascertain the chronology of the mountaintop graves.

6.4 Shrines and Miscellaneous Constructions (Subdivision II.4)

At a number of residential sites in Upper Tibet there are the ruins of what appear to be diverse types of shrines that are assignable to the archaic assemblage of monuments. It is probable that a wide range of ritual functions and chronologies is indicated in this heterogeneous class of ceremonial monuments. Shrines are found both outdoors and in caves and overhangs used for habitation. They are commonly associated with residential centers of an elite socio-religious nature. Most of these structures appear to belong to the *rten-mkhar*, *gsas-mkhar*, *lha-rten*, or *lha-gtsug* classes of monuments, cubic or stepped tabernacles used to enshrine and worship indigenous deities. Relatively well-preserved examples of archaic shrine complexes are found on the islands and erstwhile islands of Do dril-bu (B-13), Do rta-sga (B-128, B-129) and Se-mo do (B-126, B-127) (figs. 221–224). Versions of these monuments are still constructed today, but according to Bon tradition, their origins can be traced to prehistoric times. They are supposed to have been erected by 'primordial' and Zhang-zhung *gshen* priests for the propitiation of the Bon pantheon (see pp. 252–258). In some cases, the cubic shrines can be distinguished from the ruined bases of *mchod-rten* by the absence of overhanging masonry tiers, coursed stonework, and other features typical of this more elaborate religious monument. There appears to have been a design continuum between the *rten-mkhar/gsas-mkhar* and early *mchod-rten*, whereby elementary examples of the latter are not

¹⁵⁰ lDan byang-ri smug-po gdong, tomb 32° 29.146' N. / 83° 06.300' E.: AMS, sample no. Beta-187502; conventional radiocarbon age: 220 +/-40 BP. An 'bri-rtse, tomb 31° 58.851' / 80° 50.883': AMS, sample no. Beta-200756; conventional radiocarbon age: 180 +/-40 BP.

¹⁵¹ AMS, sample no. Beta-200757; Conventional radiocarbon age: 940 +/-50 BP; 2 Sigma calibrated result: Cal 950 to 740 BP; intercept of radiocarbon age with calibration curve: Cal 910 BP; 1 Sigma calibrated result: Cal 930 to 780 BP.



Fig. 227. A ceremonial structure painted in ochre and lime (?) situated inside a cave, Lha-khang dmar-chag (B-101)



Fig. 228. The ochre-tinted ceremonial structure in Lower East VII cave, gNas kun-bzang (B-91)



Fig. 229. A shrine in the southeast sector of mKhar dkar (A-109)



Fig. 230. The ceremonial structure in a first-level residence, Ge-khod mkhar-lung (A-89). This highly unusual, mostly hollow structure is largely intact

easily distinguishable from the former. In addition to shrines, there are cairns of the *la-btsas* or *tho* class scattered in different locations of Upper Tibet that also appear to be of substantial age (figs. 225, 226).

Those shrines located outdoors have usually lost their shells but specimens in sheltered locations are often covered with a mud veneer and painted with red and yellow ochre and/or white lime pigments. Designs (conjoined sun and moon, spirals, jewels, etc.) are occasionally painted on these structures as well. Fairly well-preserved examples occur at locations such as Lha-khang dmar-chag (B-101) and gNas kun-bzang (B-91) (figs. 227, 228). These cubic shrines are most often constructed of random-work masonry of various kinds. They were erected with and without the use of plinths. The stone slab or block walls occur with dry mortar and mortared seams. Some specimens probably had superstructures (square or bulbous constructions) but few traces of these remain. Most of the shrines appear to have had uninterrupted exteriors without variable stonework, niches or openings. The interiors are both hollow and solid. In some cases, those with hollow interiors could have concealed a vase or some other receptacle filled with sanctified objects or valuables. Perhaps clay plaques and figurines with sacred relief designs were enshrined in some of the tabernacles as well. Historic period plaques called *tsha-tsha* were commonplace from the late tenth century CE onwards. Well-built cubic shrines with open interiors are found



Fig. 231. A ceremonial structure with a small opening in the side, Do rta-sga East (B-128). Some of the ancient settlement can be seen in the background



Fig. 232. Three deep recesses built into the rear wall of residential structure DK2, Do rta-sga East (B-128)



Fig. 233. The twin entrances to underground chambers, Ge-khod mkhar-lung (A-89)



Fig. 234. Shrine with domed upper section built partly in the ground, sPu-gling yul-stong (B-83)

at places like mKhar dkar (A-109), Jo-mo ri-rang (B-23) and Do rta-sga East (B-128) sites (figs. 229–231).

Some archaic shrines were built partly underground with one or more sides of the structure submerged under the surface. These types of structures are likely to have been employed in the worship of chthonic deities (figs. 232, 233).¹⁵² A good example of a semi-subterranean minor

¹⁵² In DK2 of the Do rta-sga East site (B-128), three deep recesses were built in a line in the subterranean rear wall of the *rdo-khang*. Their appearance in the largest residence of this island settlement may possibly indicate that these recesses constituted a central sanctum. In a temple ruin found at Ge-khod mkhar-lung (A-89) (inside an alcove there is still some mud plaster tinted with red ochre, an ostensible sign that this was a religious center), the second tier in the upper portion of the edifice consists of two subterranean chambers. They are accessed from the east side of the third tier. Each subterranean chamber has a north-facing entranceway with stone lintels and jambs (1.4 m x 70 cm) connected to antechambers of approximately 2 m in length. The east chamber has largely collapsed, filling it and the antechamber with rubble. The west chamber is 4.5 m deep and 2.5 m high. The underground chambers in the rear of these all-stone corbelled structures appear to constitute some kind of archaic cultural horizon sanctum or tabernacle. Their location suggests that they were used in the worship of the telluric deities; such worship appears to have formed a prominent part of ancient religious traditions. The burying of vases for the water spirits (*klu-bum*) and the concealment of treasure chests (*gter-sgam*) in tents and houses are more modest forms of chthonic worship that have continued to the present day.



Fig. 235. The upper edifice of the ancient religious complex of Khang-pa dmar-gog (B-39). In the vicinity of this elite residential structure is a small semi-subterranean shrine



Fig. 236. The remains of what appears to have been a circular ceremonial structure, Gyang-pa'i gtsug-rdzong (A-9)



Fig. 237. Structure II (4 m x 7.8 m x 2.2 m), dPa'ngar gzhung khang-gog (F-1). This coursed-rubble structure has a very small interior cavity



Fig. 238. Gu-ru 'bum-pa (F-2)

construction is located at the residential complex of sPu-gling yul-stong (B-83), attributed by local sources to the ancient Mon (fig. 234). It is situated between the south and central sectors of the ruined village, and rests on a square stone plinth aligned in the cardinal directions (4.8 m x 4.8 m). The north and east sides of the plinth are elevated to 80 cm above the ground level, while the south and west sides are flush with the surface. This appears to be an original design feature because there are no obvious signs of geomorphologic change to the site. The base is surmounted by a square superstructure, which may have been topped by a smaller rounded structure. The highest point of the superstructure is 2 m. In the top are the remains of a square cavity (75 cm x 75 cm) that is now only a few centimeters deep. The shrine is connected to a fragmentary wall 10 m long that runs in an east-west direction along the summit. This wall is now level with or slightly elevated above the surface. The remains of another cubic shrine (1.3 m x 1.3 m), partially built underground, are found at the Khang-pa dmar-gog site (B-39) (fig. 235). Alternatively shaped minor ceremonial constructions are also known in Upper Tibet. On the west side of Gyang-pa'i gtsug-rdzong (A-9), which is attributed to the prehistoric Zhang-zhung kingdom in the oral tradition of Dang-ra g.yu-mtsho, there are the poorly preserved remnants of what appears to have been a circular structure approximately 3 m in diameter

(fig. 236). It was built from granite boulders and is closely integrated into a naturally occurring field of like boulders.

Only two sites surveyed are composed entirely of what may have been shrines. One of these, dPa'-ngar gzhung khang-gog (F-1), consists of six large uniquely designed rectangular structures situated on the rocky well-drained margins of an extensive pastureland (Bellezza 2002a: 123, 124) (fig. 237). Located in dGe-rgyas, these structures measure between 3 m x 4 m and 19 m x 4.5 m, and reach 2.6 m in height. They have very small interior spaces, hence they were not suitable for habitation. In addition to six broad taller examples, there are two long wall-like structures at the site. Morphologically, these are not unlike walls intended to support inscribed religious plaques. Like other minor rectilinear constructions, these structures may belong to the *rten-mkhar* or *gsas-mkhar* class of ceremonial monuments. It is also possible, however, that the limestone structures of dPa'-ngar gzhung khang-gog represent an unknown type of burial, as their construction is locally attributed to the ancient Mon. Reliquary *mchod-rten* constituted a common tradition of shrine building in the historic period for Bon-po and Buddhists alike. Perhaps dPa'-ngar gzhung khang-gog presents evidence for an older tradition of enshrining sacred human remains in special depositories.

The celebrated monument known as Gu-ru 'bum-pa (F-2), located in the Pu-rang village of sDod-yod, is an entirely different type of cultic monument (fig. 238). Maintained to this very day (it was partly destroyed in the Chinese Cultural Revolution), it consists of two large dry mortar stepped structures chiefly built from cobbles that have been tinted red with ochre. The north specimen is comprised of seven graduated tiers; the lowest level measures 19 m on each of its four sides and is around 80 cm in height. The other six tiers are between 1 m and 1.2 m in height. The highest platform covers an area of approximately 2 m x 2 m. The south specimen is of the same design but slightly smaller in size. *Ma-ñi* stones and the horns of domestic livestock litter the graduated tiers of the shrines. According to the local myth, the eighth century CE Vajrayāna hero, Gu-ru rin-po-che, magically built these twin shrines in the amount of time it took for his disciple to prepare a pot of rice. The oral tradition ascribing Gu-ru 'bum-pa to the first diffusion of Buddhism (*bstan-pa snga-dar*), and its particular design, strongly suggest an early historic origin for the monument.

Two stepped structures of the same general form are found on top of walls of a residential structure located at the dGon-ro dmar-lding site (B-120) (fig. 239). Four such structures once crowned the corners of a *rten-mkhar* shrine erected for rTa-mgo me-'bar (Blazing Horse-Headed One), the *yul-lha* of Dung-dkar village in Khul-pa/Gud-pa, Ru-thog (fig. 240). This anachronistic architectural form managed to withstand the Chinese Cultural Revolution partially intact. Its base measures 4 m x 4 m x 2.2 m. The surviving three stepped structures (around 1 m in height) were each built with three or seven graduated tiers and painted with red ochre. The shrine is devoid of Buddhist emblems. Representational forms of stepped shrines constitute a significant motif in Upper Tibetan petroglyphs and pictographs, all of which appear to predate the 13th century CE (Bellezza 2001, 2002a). This rock art does not occur in more recent historical contexts. Stepped shrines were not infrequently painted or carved in close proximity to counterclockwise swastikas and Bon inscriptions. Some of these tiered constructions are depicted with bulbous superstructures and masts sticking out of the top. In Upper Tibetan rock art (as with the shrines themselves), there is a continuum in physical form between the stepped structures and early styles of *mchod-rten*, illustrating that these constituted interrelated religious constructions in an architectural, functional and historical sense.

Another monument I have included in the shrines and miscellaneous category of monuments is Khyi-nag 'bubs (F-3) (figs. 241, 242). This site constitutes a uniquely conceived necropolis

dominated by what is ostensibly a mortuary temple-tomb (6.3 m x 3.1 m x 3 m to 4 m). The main structure is located on a broad bench in an isolated corner of gZhung-pa ma-mtshan, in dGe-rgyas. Two samples taken from different load-bearing tamarisk beams embedded in the southwest wall of the temple-tomb have been dated circa the third to fifth century CE.¹⁵³ The Khyi-nag 'bubs edifice is composed chiefly of uncut hunks of blue limestone laid in a coursed-rubble fabric. Overall, the presentation of this structure resembles the mortuary temple-tombs with arrays of pillars. The presence of diagonal (herringbone) stonework courses in the forward wall of the structure is also reminiscent of the larger temple-tombs appended to arrays of pillars. This type of masonry technique is also represented in Ra-la mkhar-dmar (32° 28.9' N. lat. / 79° 51.5' E. long. / 4300 m), which was founded by the first Buddhist king of sTod Nyi-ma mgon,¹⁵⁴ in sGar county. This large citadel is located near the right bank of the Sengge gtsang-po (Indus river), below the confluence with the sGar gtsang-po (fig. 243). A few walls of the castle exhibit diagonal courses of masonry interspersed between horizontal courses, just as is found at Khyi-nag 'bubs. The presence of herringbone stonework, a distinctive masonry technique, at two dated sites separated by around 600 years, supports my basic premise that certain building traditions in Upper Tibet persisted for a great length of time. In this particular case, we see a specific stoneworking technique carried over from the protohistoric period all the way to the dawn of the *bstan-pa phyi-dar*.¹⁵⁵ The presence of herringbone coursing at a variety of other sites such as Gyam-smug mkhar (A-68), mGar-gtsang mkhar (A-98) and rDza-ra dkar-gyam mon-rdo (B-61) is further evidence that this is not a chance or isolated historical occurrence but rather a characteristic constructional pattern of long duration (figs. 244, 245).

The northwest half of the temple-tomb has been largely destroyed. The southeast half, however, is partially intact. It contains an L-shaped chamber no more than 80 cm in width. Such a small and impracticable internal space could not have been used for long-term habitation. It is likely to have fulfilled a burial function where funerary rituals over the lifetime of the necropolis may have been conducted. A function involving living individuals over time is suggested by the existence of a small window opening in the upper section of the southeast (forward) wall of the L-shaped chamber. Bounding this edifice on the southeast are three low-lying walls creating a square enclosure (10.5 m x 10.4 m). These walls contain several courses of stone blocks laid flat, which are around 90 cm in thickness and up to 30 cm in height. There appears to be an opening in the southeast wall reminiscent of the 'portals' found in some enclosures in which stelae were erected. The enclosures of these two respective monument types are morphologically similar, suggesting that the enclosed

¹⁵³ The structure having been damaged, a cavity (80 cm x 50 cm x 70 cm) has formed in the southwest wall. This exposed three tamarisk timbers (10 cm to 15 cm in diameter) that act as supports for the interior of the structure. I removed full cross-section segments from two of these timbers, revealing remarkably intact heartwood. Tamarisk still grows nearby in the lower Shang/Shangs valley. As the locale is devoid of other manmade structures, I think it likely that the tamarisk rounds were cut and used specially for this building project. An assay of the Khyi-nag 'bubs samples yielded the following results: Radiometric, sample no. Beta-212490; conventional radiocarbon age: 1690 +/-50 BP; 2 Sigma calibrated result: Cal 1710 to 1510 BP; intercept of radiocarbon age with calibration curve: Cal 1570 BP; 1 Sigma calibrated result: Cal 1690 to 1660 BP and 1630 to 1540 BP. Radiometric, sample no. Beta-212491; conventional radiocarbon age: 1660 +/-60 BP; 2 Sigma calibrated result: Cal 1710 to 1410 BP; intercept of radiocarbon age with calibration curve: Cal 1550 BP; 1 Sigma calibrated result: Cal 1610 to 1520 BP.

¹⁵⁴ According to the *La dwags rgyal rabs*, Nyi-ma mgon built Ra-la mkhar-dmar in the Horse Year (*rta'i lo la ra la mkhar dmar rtsigs*), which probably can be assigned to 910 CE. This same source states that this was the first political site occupied in mNga'-ris skor-gsum. *Nyang ral chos 'byung* mentions that Ra-la mkhar-dmar was located north of Ma-pham g.yu-mtsho. See Francke 1926, p. 93; Vitali 1996, pp. 548, 553.

¹⁵⁵ The bases of certain ruined *mchod-rten* at mTho-lding, which evidently date to the *bstan-pa phyi-dar*, also exhibit masonry facing consisting of diagonally-set cobble coursing.



Fig. 239. dGon-ro dmar-lding (B-120). A stepped structure crowns one of the walls that once enclosed an overhang in the cliff



Fig. 241. Khyi-nag 'bubs (F-3). Wood for chronometric testing was extracted from the large cavity visible in the edifice



Fig. 240. The shrine of rTa-mgo me-'bar (Blazing Horse-Headed One), the yul-lha of Dung-dkar, in Khulpa, Ru-thog

pillars were built in the protohistoric period as well. To the northwest of the edifice there are two main rows of quadrate structures of the *tho* class (minor stone ceremonial constructions), which must have fulfilled a funerary ritual function such as marking the passage of the deceased to the next world (see Part III, subsection 7.2).



Fig. 242. The walled enclosure at Khyi-nag 'bubs (F-3)



Fig. 243. Ra-la mkhar-dmar, an early capital of the Gu-ge Buddhist kingdom. Note the herringbone masonry courses



Fig. 244. Herringbone stonework at Gyam-smug mkhar (A-68)



Fig. 245. Courses of stones placed horizontally and diagonally at the ruined citadel of mGar-gtsang mkhar (A-98)

7 A Typological and Geographic Analysis of Archaic Agricultural Structures in Upper Tibet (Division III)

The places surveyed that appear under the agricultural structures classification include those with stone irrigation channels alone. These sites are restricted to the east side of Dang-ra g.yu-mtsho. The many agricultural sites that also reveal archaic cultural horizon residential and ceremonial structures are classified under these alternative divisions. Old water channels at Lake Dang-ra ran for hundreds of meters or more. They hug the sides of steep terrain and cliffs where extensive retaining walls were built in order to maintain the correct slope gradients. Where topographical conditions demanded, the remnants of these structures can reach 3 m in height (fig. 246). As would be expected in a region where rainfall alone is insufficient for crop growth, great care went into the construction and upkeep of these vital arteries.¹⁵⁶ The Lu-sngon site (G-3) is especially noteworthy because the water it carried from deep in the Lu-sngon valley flowed to Dang-ra khyung rdzong. This was the fabled capital of Zhang-zhung during the late protohistoric period, according to Bon historical records (fig. 247). Either the large bench below the ruins of this residential center was once farmed (if so, the manmade terracing has largely faded away) or the water was used for non-agricultural purposes only. In light of the many forsaken arable pockets that dot the east side of Lake Dang-ra, it is plausible that farming was indeed carried out around this ancient political hub.

Although the chronology of the establishment, spread and demise of agriculture in Upper Tibet is highly obscure, there can be no question that a significantly more developed cereal economy and extensive sedentary culture once flourished in Upper Tibet. In the vicinity of many ancient residential sites (and ceremonial monuments to a lesser extent) one finds the vestiges of terracing and irrigation channels once used for agricultural purposes. These structures were an integral part of the archaic building traditions of Upper Tibet. Villages and strongholds supported by an agrarian infrastructure sprang up in numerous places at Dang-ra g.yu-mtsho and in far western Tibet. The widely held indigenous view that farming took place when the climate was warmer and wetter is corroborated by paleoclimatological studies, which I have reviewed in some detail.¹⁵⁷ I am inclined to see agriculture in the region as having a Neolithic origin (prior to 1500 or 1000 BCE), a period when environmental conditions were more conducive to the growing of crops. In all surrounding regions where data have been compiled (Eastern Turkestan, Kashmir, Central Tibet, and the Subcontinent) agriculture appears to have been practiced in the Neolithic, and I have found no convincing reasons to view Upper Tibet as an exception to this widespread adaptive innovation. The extremely marginal environmental conditions in which agriculture was practiced in Upper Tibet placed this economic mainstay at risk during the Late Holocene due to the steady deterioration of the climate. For around two millennia (from around 1000 BCE to 1000 CE), there was a pronounced shift towards colder and drier conditions on the Plateau, wetter pulses notwithstanding. This long-term degradation had a devastating effect on the agricultural way of life in Upper Tibet. Archaeological evidence in the form of derelict arable holdings indicates that the delicate ecological balance was irreparably damaged in nearly the entire region. At many former agrarian sites most or all perennial sources of water have disappeared. This universal pattern of desiccation allows us to infer that catastrophic environmental changes were either partly or chiefly responsible for the loss of agriculture in many locales of Upper Tibet.

¹⁵⁶ For an account of the ritual and practical measures in place for the management of water resources in the agrarian villages of Lake Dang-ra, see Bellezza 2001, pp. 185, 186.

¹⁵⁷ I review Late Holocene Tibetan paleoclimatic findings derived from the disciplines of geomorphology, glaciology, and palynology in Bellezza 1997a; 2001; 2002a.



Fig. 246. A trail now follows the contour of the ancient irrigation channel at Ba'am dgon-ltag (B-1)



Fig. 247. A segment of the irrigation channel at Lu-sngon (G-3)

The variety of environmental settings in the region and their differing hydrological resources suggest that the abandonment or diminution of agriculture in Upper Tibet was probably not a unitary process. It probably did not unfold in a monolithic fashion, but rather developed in sundry ways, propelled forward by relentless climatic change. It is crucial that theories explaining the loss of agriculture take into account microenvironmental impacts on specific locales as well as the macroenvironmental picture. We might expect that valleys and basins with differing physical and biotic endowments experienced variable rates of environmental degradation.

Anthropogenic factors may have also played a significant role in the abandonment of a way of life based on the tilling of the soil. In certain places and times, it is possible that social trauma (depopulation, war, etc.) militated against the continuation of farming. There may have been cultural shifts as well against a backdrop of ever more difficult conditions (crop failures, conflicts related to water use, etc.). The environmental and human causative factors inarguably had the effect of turning once productive valleys into seasonal grazing grounds. In the Byang-thang the declining population had no choice but to adopt a fully pastoral way of life dependent on the rearing of sheep, goats and yaks.¹⁵⁸ Stock rearing dominates the traditional Upper Tibetan economy in all but a few areas to the present day.¹⁵⁹

¹⁵⁸ It must also be pointed out that in a few valleys of Gu-ge (rTsa-pa-rang, Khyung-lung, etc.) the total amount of land being tilled has actually grown with the arrival of modern engineering and irrigation projects. The expansion of agriculture in Khyung-lung, however, has not been an across-the-board phenomenon, and could not be sustained in the upper farming sector of Mur-ti* due to a lack of water. The same holds true for rTsa-pa-rang, with most old agricultural lands on the north bank of the Glang-chen gtsang-po (once the site of several agricultural communities and Buddhist monasteries including dKar-ru, Gi-ri, gSer-sgam, and Mang-brag) still without an adequate source of irrigation. During the Chinese Cultural Revolution agricultural projects were initiated in quite a few western Tibet locations. These were very expensive undertakings in human terms and in the Byang-thang they all proved unsuccessful. It is widely reported that a general lack of water and the early onset of winter caused the repeated failure of the barley crop.

* According to dPal-ldan ye-shes of Lugs (a student of the late Khyung-sprul rin-po-che, in personal communication), *mur-ti* is the Zhang-zhung equivalent of *chu-mig* (spring). This is supported by *mur* being the Zhang-zhung term for *klu* (water spirits), while *ti* is the word for water (Martin 2001b). Furthermore, *mur-zang/mur-zangs* refers to both *klu* and lakes (Dagkar 2003: 304). There are a number of place names in Gu-ge known as Mur-ti.

¹⁵⁹ As a general principle, the roots of animal husbandry can be sought where there were large stocks of wild ungulates. Two main processes were at work: the taming of animals and their domestication, which is characterized by breeding and selection for economic purposes. The domestication of horses, camels, reindeer and perhaps goats and sheep may have taken place in Mongolia from local stock, independent from other regions. See Tseveendorj 2001, pp. 57, 59.

There are manifold cultural and historical implications for an Upper Tibet where agriculture once thrived. The larger incidence of agricultural communities in ancient western Upper Tibet reflects the existence of a much more developed sedentary cultural component. The founding of permanent settlements must have had a positive influence on the development of artisan skills related to the production of ceramics, metalware and other things requiring fixed manufacturing bases. The rise of stratified societies and complex religious and political structures is also frequently associated with the advent of cultivation. The management of arable lands, particularly the allotment of water, requires intricate social and ritual arrangements that nomadic communities need not rely upon. Intellectual and religious life in Upper Tibet is liable to have blossomed in conjunction with these developments. Population densities are likely to have been substantially higher in ancient agrarian communities as well, and this may have led to the formation of more powerful political orders. Any surplus grain reserves would have contributed to the accumulation of wealth and the establishment of a social elite, that section of society residing in the fortresses and other large residential centers built in many corners of western Tibet and Lake Dang-ra. The existence of an agricultural base may also have acted as a magnet for interregional migration and trade, as well as a lure to covetous neighbors hungry for the wealth generated by Upper Tibet. It can readily be envisioned that the relative economic importance of the region due to agriculture made it a constitutive member of trade networks extending into Central Asia and the Subcontinent. The crudescence of political rivalries and vibrant intellectual intercourse with neighbors to the north and west may also have been corollaries of a confident and prosperous Upper Tibet.

An important implication of larger Upper Tibetan grain supplies is that they could have been used to sustain larger populations. Questions relating to past population, however, are extremely difficult to address. Those valleys that were vacated with the collapse of agriculture did unmistakably once support more people. A unit of land given over to agriculture produces much more food for humans than it does when applied exclusively to grazing. The climatic changes, playing themselves out in valley after valley over much of the region, do suggest that aggregate population levels in western Tibet and Lake Dang-ra may have fallen dramatically with the demise of agriculture. Nevertheless there may have been mitigating factors that helped to bolster the total population. On the vast Byang-thang displaced agriculturalists could have taken up stock rearing. In geographically constrained regions such as Gu-ge, however, it is difficult to see how the population could not have fallen with the steady loss of water resources and agricultural lands. In other far western Tibetan agricultural areas like sGar and Ru-thog, which have a fair amount of grazing territory, this population decline may have been less pronounced.

Highland barley would appear to have been the dominant crop of ancient times just as it is in contemporary Upper Tibet. The barley grown near the shores of Dang-ra g.yu-mtsho is said to be a special strain that can be traced to prehistoric Zhang-zhung.¹⁶⁰ According to local lore, in the Khyung-lung village of ancient times, barley was sown not using a plow but rather a planting stick called a *phur-'debs*. Rapeseed for oil and a variety of turnips specially adapted to very high elevation conditions known as *khro-lo* (still thriving at Lake Dang-ra) may have been cultivated in ancient times as well. Other economic crops (leafy green vegetables, fibrous plants, etc.) could also have been exploited. In the Byang-thang, agriculture was practiced to an elevation of 4700 m, and in the valleys of far western Tibet to an altitude of 4500 m. These upward limits of agriculture

These general observations can be applied to the Upper Tibet milieu as well, especially as regards the domestication of yaks.

¹⁶⁰ According to the eminent Bon scholar Lopön Tenzin Namdak (in personal communication) and local Bon luminaries.



Fig. 248. The sDe-chos valley, Ru-thog. Three distinctive geographic zones are visible in this valley: lower – an alluvial flood plain, central – the wide defunct agricultural belt, and upper – the contemporary agricultural holdings



Fig. 249. Part of a deserted agricultural sector at mTsher-lung, Ru-thog. The upper complex of Brag-phug (A-35) looms above the valley

in Upper Tibet compare favorably with the ceiling for farming in Central Tibet. The planting of food crops is not carried out anywhere else in the world at these high elevations.

Walls bounding long-abandoned arable parcels (*zhing-sa*) are common in western Tibet on the Byang-thang, and in the lower-elevation valleys of sGar, Gu-ge and Ru-thog. These old-time agricultural enclaves are most commonly attributed to the ancient Mon, a people who are supposed to have cultivated extensive areas of what is now only pasturage. The elusive Mon are normally thought to have vanished long before the arrival of the present-day Bodic groups. In the face of appreciable geographical evidence, the legends circulating in Upper Tibet (west of the 87th meridian) of widely practiced agriculture in ancient times are undoubtedly based on an authentic collective memory. In particular, the relatively low-elevation valleys of Ru-thog, Gu-ge and sGar were much more intensively farmed in the past. Former arable lands are frequently encountered in proximity to ruined villages and citadels, many of which now lie utterly deserted.¹⁶¹

The oral tradition of Ru-thog claims that in ancient times the area supported upwards of 100,000 people, roughly ten times the current population (Bellezza 2002a: 31). While such a large population figure is hyperbolic, it is undeniable that many tributary valleys of sDe-rog, Khul-pa,

¹⁶¹ In Ru-thog, ancient agricultural structures are particularly common and appear at sites such as She-rang (A-87), Ge-khod mkhar-lung (A-89), sBal-pa mkhar (A-106), gDong-dmar (A-108), Sa-rā (B-50), mKhar-ru mkhar-gog (A-85), mTsher-lung mkhar-nag (A-34), Dung-dkar mkhar-gog (A-70), Yul-lung (B-79), Lung-ngag (B-80), and sDe-chos bskal-mon yul (B-81). In sGar, they occur at mChong-gog mon-mkhar (A-42), A-gog mkhar (A-44), Ko-logs mkhar (A-125), gSer-gzhung mkhar-gog (A-126), mKhar-gog rdo-rje g.yu-sgron-ma (A-124), Zhing-ka gong (B-72), and Zhing-mkhar mkhar-gog (A-22). In rTsa-mda', they can be found at rGyu-mgul mkhar (A-60), rTsa-pa-rang (A-62) and Phi'a mkhar (A-101), as well as other places. Additionally, there are numerous abandoned sites in Gu-ge that do not have visible stone structural remains. This is primarily because in many of these locales there is a chronic shortage of stones, which precluded the construction of elaborate terracing. In the western Byang-thang, agricultural structural remains can be seen at Zhing-chen mon-mkhar (A-13), Mon-mkhar ser-nag (A-30) and Zhing-lung rdo-ring (C-80). Defunct agricultural holdings are also evident on the shores of Dang-ra g.yu-mtsho, in the central Byang-thang. In local oral tradition, these sites are often attributed to prehistoric Zhang-zhung, and occur at g.Yung-drung brag-rtse (B-4), Rwa-skye brag (B-7), Phyug-tsho grog-po dgon-pa and mkhar (A-10, B-6), Ba'am khang-khrog (B-55), Dar-chen khang-khrog (B-57), Dar-chung (D-15), dMar-gyam (B-58), 'Om-mo (B-59), Mon-ra yar-rked (C-48), Gangs-lung lha-rtse (B-68), and downstream of rDzong-dkar-po (B-95).



Fig. 250. A view of a few of the long-abandoned fields in the lower She-rang valley, Ru-thog



Fig. 251. The defunct agricultural settlement of Sa-rā (B-50)



Fig. 252. Defunct agricultural parcels at the ruined 'Mon' settlement of Zhing-ka gong (B-72) in the sGar valley



Fig. 253. The mostly abandoned agricultural lands of bKra-shis sgang, sGar

Ra-bang, and Re-co in southern Ru-thog were once brought under cultivation (figs. 248–251). I would estimate that upwards of 90% of southern Ru-thog agriculture has vanished, leaving only anthropogenic modifications to the landscape and cultural vestiges behind. Ru-thog, located in extreme northwestern Tibet, lies in a multiple rain shadow created by the Himalaya, Karakorum Pamir, and Kunlun ranges. Extreme aridity is the norm, with an average current annual rainfall of less than 200 mm. Desertification had a catastrophic impact on agriculture in Ru-thog, with an attendant reordering of its economic systems of production towards semi-nomadic pastoralism.

The archaic cultural horizon fortresses, villages and defunct agricultural lands ringing the main sGar valley (between gNam-ru and the confluence of the sGar gtsang-po with the Indus) also suggest the existence of a much more extensive sedentary society. While some land is still being tilled in the broad valley bottom, most of the agricultural enclaves and settlements on higher ground around the basin are now derelict (fig. 252). Downstream, in the Sengge gtsang-po valley between bKra-shis gang and bDe-mchog, there is also a fair amount of evidence for a more extensive agrarian way of life in the past. Pockets of once-arable land have been largely discarded along with many of the loci of settlement that accompanied them. The most notable examples are



Fig. 254. mKhar-gog rdo-rje g.yu-sgron-ma (A-124). The great majority of the agricultural parcels at this site have been abandoned due to desertification and their close proximity to the international line of control



Fig. 255. Ko-logs mkhar (A-125). At one time farming was practiced below the citadel



Fig. 256. The utterly abandoned farmlands of gDong-po 'og-ma, Gu-ge



Fig. 257. The forgotten agricultural settlement of dNgos-g.yu (sp?), Gu-ge

those of mKhar-gog rdo-rje g.yu-sgron-ma (A-124), Ko-logs mkhar (A-125) and gSer-gzhung mkhar-gog (A-126) (figs. 253–255).

The most intensively farmed far western Tibetan regions were and are Pu-rang and Gu-ge. Thanks to its proximity to a major breach in the Great Himalaya range and the arterial rMa-bya gtsang-po (Karnali), the majority of agricultural holdings in Pu-rang are still being worked. Gu-ge, however, presents a very different environmental picture. It would appear that in large measure due to the rain shadow effect, the agricultural resources of Gu-ge have mostly fallen by the wayside. At one time, nearly every tributary valley on both sides of the Glang-chen gtsang-po (Sutlej) had sectors that were farmed (figs. 256–258).¹⁶² Agriculture in many of these valleys has either been completely halted or considerably scaled back.¹⁶³ The fact that farming was once a much larger

¹⁶² In Mustang multistoried conglomerate cave systems are often found in proximity to abandoned fields (Simons 1997: 499), just as is the case in Gu-ge.

¹⁶³ A remote survey of the sBrel gdong-po valley of Gu-ge was recently carried out. It was determined that only 38% of the 216.7 mu (1 mu = .067 of a hectare) of the arable land in the vicinity of sBrel gdong-po village is still under

economic enterprise in Gu-ge is readily acknowledged by the residents of the region. I would estimate that more than half of all land once under cultivation now lies fallow. Many permanent streams that ran through the rugged badland valleys of Gu-ge have either dried up or are greatly diminished. Unquestionably, the shortage of water was a pivotal factor, because the elevation and soil properties remain quite favorable to agriculture. By no means did the abandonment of agriculture transpire solely in the prehistoric epoch and early historic period. Many Buddhist sites of the *bstan-pa phyi-dar* are associated with cultivated land, suggesting that the process of agricultural loss was a long and gradual one. The zenith of the farming economy in Gu-ge, nevertheless, may well have been reached in the prehistoric epoch, as suggested by the oral tradition attributing many derelict farming communities to the ancient Mon and the generally more favorable climatic conditions of that time.

Agriculture extended west into the high-elevation Byang-thang, especially to Tshwa-kha, gZhung-pa and Dang-ra g.yu-mtsho (figs. 259–261). Only in Dang-ra is agriculture still intensively practiced, albeit in a geographically more restricted fashion than in the past. The bulk of the agricultural lands (both defunct and viable) is located on the east shore of the lake. A chain of agrarian settlements were founded between 'Om-bu in the north and gNyan-dmar in the south.¹⁶⁴ Farming is now carried out at less than half of the original 20 agricultural communities and, with the exception of 'Om-bu, agriculture is much reduced at the still active centers. For instance, at the modern villages of Gangs-lung and Lha-lung, only a fraction of the total arable land holdings are still brought under cultivation. At these two settlements, some old fields are used on a rotational basis but most now lie forsaken, not least because there is not sufficient water. On the west side of Lake Dang-ra, a decline in the compass of agriculture is evident in the villages of Glang-ma, A-chen and Hang-dal. On the south side of Dang-ra g.yu-mtsho, there was once a large agricultural enclave at Gangs-lung lha-rtse (B-68) that is now devoid of permanent settlement.

cultivation. Additionally there are 909.3 *mu* of abandoned fields down the valley, perhaps one third of which were cultivated at any given time. Extrapolating from the current population of 52 people (per capita arable land = 1.57 *mu*), it is possible that 275 people once inhabited the valley (it is difficult to know, not least of all because hybrid seeds and chemical fertilizers are now used). It is yet to be ascertained if the abandonment of arable land in sBrel gdong-po was mainly the result of climate change and diminishing irrigation water, or whether anthropogenic factors played a major role. See Ryavec 2005. My field survey of the sBrel gdong-po valley system, in September 2005, located extensive defunct agricultural holdings in tributary valleys. Provided there were ample water resources (there are certainly not now), I think it plausible that more than half of all arable land was tilled in a given year, as this seems to be the pattern in most Tibetan regions which, like sBrel gdong-po, have good bottomland soil. There are four sizable ruined Buddhist monastic complexes in the sBrel gdong-po valley system (sBrel gdong-po North, sBrel gdong-po South, Drin-sa (sp?), and gDong-po 'og-ma), and while these appear to have different dates of establishment and occupation, the importance of antecedent settlement in the valley cannot be underestimated. Archaic monumental development in the valley is represented by the remains of a stronghold called mKhar-chung (A-136), situated above the monastic complex of sBrel gdong-po North (overlooks the present village). As for the cultivatable land below sBrel gdong-po village, local residents say that a small portion of it was cultivated during the Chinese Cultural Revolution but subsequently abandoned because the gDong-po chu is no longer a reliable source of water.

¹⁶⁴ According to the oral tradition, scrub juniper (*sba-ma*) also grew on the east site of Lake Dang-ra. The last natural refuge of this tree is said to have been g.Yu-bun, the site of an important Bon monastery. Three architectural members reported to have come from the last junipers of g.Yu-bun have been preserved as sacred relics in the region. I have subjected a small section of one of these pieces of wood to radiometric analysis (sample no. Beta-212492). The measured radiocarbon age of this sample was so recent (1650 to 1950 CE) as to render calibration difficult. I collected the oral tradition pertaining to the g.Yu-bun junipers from elders born in the first two decades of the 20th century CE. These informants claimed that the last trees died out some generations earlier. This extinction did not occur in the time of their grandparents, with whom they had direct contact. Hence, we can conclude that the last junipers of Dang-ra g.yu-mtsho probably disappeared between 1650 and 1850 CE. It has been suggested by certain elders of Lake Dang-ra that the remaining trees may have been destroyed by the Dzungars during their 18th century CE incursion into the region.



Fig. 258. A derelict agricultural enclave near Phug mkhar (A-133), Gu-ge



Fig. 261. A part of the abandoned agricultural settlement of rTsa-lung, near Rwa-skye brag (B-7), Dang-ra g.yu-mtsho



Fig. 259. The site of what are supposed to have been Mon agricultural lands located near Mon-mkhar ser-nag (A-30). The remains of a long wall running more or less parallel to the road are faintly visible in the photograph



Fig. 260. The old arable land holdings of Zhing-lung (Farm Valley) (C-80), gZhung-pa ma-mtshan. This site was once surrounded by substantial stone walls

8 Earthworks in Upper Tibet (Division IV)

This type of archaeological remains is geographically confined to the south side of the gNyan-chen thang-lha massif, in the sNying-drung and 'Dam-gzhung localities.¹⁶⁵ There are four sites included in this classification: 'Brug-mo'i sbra-yas (H-1), rKyang-rag kha-gog (H-2), Yar-lang (H-3), and 'Bri-lam (H-4) (figs. 262–265). These consist of quadrate earthen structures measuring between 70 m x 70 m and 80 m x 250 m. These upflung structures are surrounded by massive stockade-like earthen walls, 2 m to 3 m in height, which enclose a zone of pits and mounds. The ground within the walls is highly eroded and disturbed by human activity. It appears that excavation has taken place at these sites over a considerable length of time. These earthworks do not appear to have had a defensive function because they are bereft of barricades such as palisades and moats. They are also located in open, unprotected ground. From my cursory examination of these sites, I could not determine if they were residential or ceremonial in make-up or a combination thereof. Nor does the mythology attributing their construction to the Ge-sar epic elucidate their form and function. It is locally reported that human bones, pottery shards and metallic artifacts have been unearthed from these earthen structures. This may well be evidence, that, at least in part, they possessed a funerary function. Near some of the large earthworks are smaller earthen platforms that are more like tombs in appearance.



Fig. 262. The rubble-strewn interior of 'Brug-mo'i sbra-yas (H-1). One of the long walls of this rectangular earthen structure (250 m x 80 m) runs across the middle of the photograph

¹⁶⁵ I have published a popular account of my exploration of these earthworks in Bellezza 1999a.



Fig. 263. The earthworks of rKyang-rag kha-gog (80 m x 80 m) (H-2). Within the well-formed earthen walls (approximately 1.5 m in height and 2 m in thickness) are various structural features



Fig. 264. One of the earthen walls at Yar-lang, elevated 2 to 3 m above the plain (H-3). The four walls create a quadrate structure measuring 70 m x 70 m



Fig. 265. The highly eroded walls of 'Bri-lam (H-4). This earthen structure measures 70 m x 70 m

9 Rock Art in Upper Tibet (Division V)

Rock art is the most illustrative archaeological asset concerning the culture and way of life in ancient Upper Tibet. There are no less than 70 rock art sites in Upper Tibet, some of which have compositions widely dispersed across different caves and rock faces. To date, I have been able to survey 50 of these sites.¹⁶⁶ Rock art is found in many but not all regions of Upper Tibet. Among the most important sites are those located in the Byang-thang at gNam-mtsho, g.Yag-pa, Nag-tshang, and sGer-rtse. By far the largest concentration of rock art sites occurs in Ru-thog, in northwestern Tibet (no less than 25 sites). To date, major rock art theatres have not been reported in the Transhimalaya, the upper reaches of the Yar-lung (Mar-tshang) gtsang-po valley, sGar, Pu-rang, the eastern fringes of the Byang-thang, or in the northern Byang-thang (above the 34th parallel). It is not fully evident why rock art was not much practiced in the agricultural valleys (except Ru-thog), the bleak hunting grounds of the far north, areas north and east of gNam-mtsho, and within and south of the so-called gNyan-chen thang-lha and Gangs-dkar ranges. In some cases, the lack of rock art in these regions may have to do with the unavailability of suitable rock surfaces. A large proportion of rock art represents hunting activities, hence it is often located in what were important hunting grounds and hunting encampments.

Rock art is of two major types: petroglyphs (pecks, engravings or abrasions on stone surfaces) and pictographs (mineral pigment applications on stone surfaces). Petroglyphs appear to have been made with both stone and metal implements (such as hard stone choppers, and metal knives and chisels). These tools were used to chip, scratch, grind, score, or cut away at rock surfaces in order to produce the outlines or full silhouettes of figures. The selected carving techniques determined the depth of the relief, the clarity of the images, and the executional details of the rock art. Pictographs were produced using a variety of application devices (presumably the fingers, tufts of wool, and possibly pieces of wood and animal horns). Mineral pigments were applied as fine lines, smudges, dabs, and as thin and thick coats. These sundry methods of using pigments had a large effect on the rendition and compositional qualities of the pictographs. Some later-period pictographs at Lake gNam-mtsho were made using chunks of red ochre (*btsag*) as a kind of crayon. Red ochre, which was used in Tibetan burial rites and as medicine and body paint, is likely to have had sacred connotations for the creators of pictographs.¹⁶⁷ At the bKra-shis do sites (J-1, J-2), the highest-quality red ochre came from a mine that local lore equates with the blood (*rakta*) of the powerful tantric goddess rDo-rje phag-mo (Bellezza 1997a: 210, 211). Black (charcoal, manganese oxides?), yellow (iron oxides) and white (calcium oxides?) were also used for pictographic art. Polychromic compositions are rare and have only been discovered at a few sites including Ra-ma do (J-4) and Brag-khung mdzes-po (J-9) (figs. 266, 267). This polychromic art in red, yellow and white mineral pigments depicts early shrines that are probably of the *mchod-rten* class.

Upper Tibetan rock art was created inside caves and fissures, underneath rock overhangs, and on the exterior faces of cliffs, boulders and large slabs of stone. Both vertical and horizontal arrangements of motifs on rock surfaces are common. Red ochre pictographs and inscriptions were also drawn on the walls of abandoned Bon hermitages at sGo-bdag (B-93) and Lha-khang

¹⁶⁶ For a compilation of Upper Tibetan rock art sites, also see Suolang Wangdui 1994; Li Yong Xian 2001.

¹⁶⁷ Red ochre ground with stone tools for use as a pigment is attested at the Chalcolithic Chos-gong site (circa 1750 to 1100 BCE) in the Lhasa valley (Aldenderfer 2004: 31). While ground red ochre could have been used for any number of purposes at Chos-gong, its occurrence here demonstrates that this pigment has deep historico-cultural roots in Tibet.



Fig. 266. A polychrome ceremonial structure and other pictographs, Ra-ma do (J-4). Early historic period (?)



Fig. 267. The polychrome mchod-rten of Brag-khung mdzes-po (J-9). Early historic period



Fig. 268. The adobe partition wall of the caves on the south side of sGo-bdag (B-93). Note counterclockwise swastika, a vase (bum-pa) and other compositions painted in red ochre. This particular sanctuary was in use at least until the vestigial period



Fig. 269. An extremely rare image of the Zhang-zhung snyan-rgyud master Ta-pi hri-tsa and the ma tri and A A dkar mantras on pargetting, Lha-khang dmar-chag (B-101). Vestigial period (?)



Fig. 270. Ochre and lime (?) pictographs scrawled on the walls of a Bon cave hermitage, Lha-khang dmar-chag (B-101). Vestigial period (?)



Fig. 271. A yak carved on one of the stones of a funerary enclosure, Rwa-'brog 'phrang-sgo (D-17). Prehistoric epoch (?)

dmar-chag (B-101) (figs. 268–270). I have discovered petroglyphs of wild ungulates on stones used to build funerary superstructures at Rwa-'brog 'phrang-sgo (D-17) (fig. 271).¹⁶⁸ Unlike the pre-Scythian/Scythian funerary sites associated with carved deer stones, the petroglyphs of Rwa-'brog 'phrang-sgo may have been an afterthought and not an integral aspect of tomb construction.¹⁶⁹ Rock art was often located in close proximity to natural rock shelters and ample fresh water. These resources afforded the basic necessities needed by the makers so that they could tarry long enough to produce the rock art. Other types of archaeological sites such as archaic cemeteries and citadels are found in the vicinity of quite a few rock art theatres (rock art in close proximity to cemeteries is also found in Tuva and Kazakhstan). The petroglyphs of Rwa-'brog 'phrang (I-1) and She-rang mkhar-lung (I-18) are situated near the strongholds of Glog-phug mkhar (A-19) and She-rang mkhar-lung (A-87) respectively. Rock art at Ri-rgyal (I-2) was created in the vicinity of tomb sites (D-33, E-6), as it was at sGog-ra (I-5, D-36) and Kham-pa rwa-co (I-7, D-37) (and other sites in Ru-thog). In certain instances, a chronological and cultural correspondence between these different kinds of archaeological assets is indicated. The artistic and monumental aspects of archaic cultural horizon settlement appear to be interrelated manifestations of human occupation that converged to reflect the prehistoric Upper Tibetan way of life. Temporally interwoven artistic and architectural strands were constituent facets of the ritual, social and economic realities of ancient times. A proportion of rock art and structural remains, however, may have differing chronologies despite occupying the same locality. Some rock art sites are situated in highly remote areas with few if any monumental remains and little water; this is particularly true of sites located above the 33rd parallel. In ancient times, these more northerly areas of the Byang-thang served as plentiful sources of big game, which may have been exploited on a seasonal basis by large teams of hunters. These itinerant hunters had ample scope to compose rock art but they did not build substantial permanent settlements in the far north, an environment already heavily degraded by the Iron Age.

¹⁶⁸ It has been noted that rock art in Tibet sometimes appears on funerary superstructures (Chen Zhao Fu 1996: 130).

¹⁶⁹ There is a slab grave (5 m x 4 m) at the Olzon Ulus site in Buryatia with petroglyphs of mostly ungulates carved on the north side of the enclosure. See Okladnikov and Zaporozhskaya 1970, p. 57, illustrated on pp. 245–248. These petroglyphs are not similar in style to Tibetan rock art but they have the same relative placement on the tomb superstructure as the Rwa-'brog 'phrang-sgo specimens.

9.1 The Chronology of Rock Art

Presently, the chronology of Upper Tibetan rock art is provisional and open to reassessment as chronometric data become available. Given the technological complexities and high costs, the direct and calibrated dating of rock art in the region is liable to be a long and circuitous process. At this juncture in the study of rock art, I base my chronological observations on inferences drawn from collateral sources, and not on verifiable dates derived from archaeometric techniques. The employment of non-direct dating methodologies is only appropriate in sketching broad estimations of when a particular piece of rock art may have been made.

I have devised a relative chronology based on associative physical and cultural phenomena, which can be applied to individual compositions, panels and complete sites. The evidence considered can be outlined as follows:

- I. Physical evidence related to pigments
 - 1) Inherent qualities of pigments: texture, hue and accretionary properties
 - 2) Assumed qualities of pigments: level of frictional wear and exfoliation, degree of browning, formation of mineral accretions, percolation damage, and visible signs of geochemical modification
 - 3) Techniques of application: brushed, marked, dabbed; and the quality of application: finely, copiously, or roughly applied
- II. Physical evidence related to petroglyphs
 - 1) Erosional qualities: slight, moderate, heavy, and extreme
 - 2) Degree of repatination: light, moderate, advanced, highly advanced
 - 3) Techniques of manufacture: pecked, abraded, roughly cut, and sharply incised
- III. Relative positional evidence
 - 1) Relative positions in palimpsests: the superimposition and marginal overlapping of rock art
 - 2) Relative wear and weathering qualities: different levels of preservation exhibited by specific areas of a single site
 - 3) Relative proficiency and manner of execution: the comparative study of stylistic clues from rock art in the same area of a site
- IV. Cultural evidence
 - 1) Stylistic content: design, presentation and form of compositions
 - 2) Thematic content: material, technological, cultural, social, religious, and environmental representations
 - 3) Tibetan cultural and historical indicators: the application of data derived from oral and literary sources as indicators of age. This approach is also useful in determining the identity and functions of rock art
 - 4) Cultural and historical indicators in adjoining territories: the application of cross-cultural ethnographic and historical data from adjoining regions
- V. Archaeological evidence
 - 1) Comparative study of rock art in adjoining territories of Tibet, north Inner Asia and the northern Subcontinent: comparison with dated rock art from proximate regions
 - 2) Comparative study of rock art and material culture: the use of collateral archaeological evidence from Tibet and proximate regions



Fig. 272. A polychrome rdo-rje, O-rtsal phug (J-17). Vestigial period (?)



Fig. 273. Clockwise and counterclockwise swastikas in white pigment, rTa-ra dmar-lding (B-124). Probably assignable to the vestigial period. This composition may possibly express the fundamental social unity of Tibetan religion in both its major forms: Bon and Buddhist

Sifting through these grains of evidence, I have developed chronological attributions to which individual compositions and sites *in toto* can provisionally be assigned. The relative dating of some compositions is not feasible due to a lack of compelling cultural and physical evidence. In any case, the chronological attributions thus obtained are nothing more than a benchmark for intimating a relational chronology of rock art. The all-embracing chronological framework employed is structured as follows:

- I. Early prehistoric epoch: Central Asian developed Bronze Age (circa second millennium BCE)
- II. Late prehistoric epoch: a) Central Asian Iron Age (circa first millennium BCE); and b) the Tibetan anachronistic extension of the Iron Age or protohistoric period (circa first century BCE to the seventh century CE)
- III. Early historic period: the imperial period and its aftermath (seventh to late tenth century CE)
- IV. Vestigial period: the second diffusion of Buddhism and the period of Sa-skya ascendancy (11th to 13th century CE)
- V. Late historic period: the rise of the dGe-lugs-pa (14th to the 20th century CE)
- VI. Recent: late pre-modern and modern times (20th and 21st centuries CE)

9.2 An Ethnoarchaeological Analysis of Rock Art Compositions

The thematic content of Upper Tibetan rock art was dependent on the culture and society of the makers, general environmental conditions, locality, and individual compulsions. The nature of this art seems to have had little to do with whether it was pictographic or petroglyphic in nature, as they were concurrent technological expressions. The proclivities and needs of individual artists must have been important determining factors in the selection of specific compositions. The affective disposition of the creators intermeshed with their cultural universe, provided the ideological modalities for expression. Subjects considered vital, sacred or evocative helped to mold much of the thematic content. The Upper Tibetan environment with its alpine steppes and deserts, lake basins and mountain ranges provided the physical and ecological backdrop. This influenced the species of animals depicted and the settings in which they were shown. The social and economic realities of specific locations probably played a part in the artistic repositories of the rock art makers as well. These sets of factors are reflected in the qualitative and quantitative aspects of rock art on a site-by-site basis.

Chronology occupies a significant but not an all-determining role in the content of rock art. Undeniably, Buddhist-inspired motifs (*mchod-rten*, *rdo-rje*, inscriptions, etc.) were awarded a prominent place in the artistic repertoire that developed since early historic times. Prehistoric and protohistoric motifs (hunting scenes, warring figures, therioanthropomorphs, etc.) are just as distinctive in their own right. Yet, certain motifs transcend time and location to find expression in the Upper Tibetan rock art of both the prehistoric and historic epochs. Notable compositions of an enduring and ubiquitous nature include the swastika, solitary depictions of ungulates and vivid hunting scenes. The technical and stylistic features of these universal themes, however, vary considerably over time. The evolution of rock art in Upper Tibet is especially discernable in the depiction of religious monuments. Pictographic and petroglyphic rock art carefully chronicles the development of shrines from simple stepped structures to elaborate Bon and Buddhist *mchod-rten*, providing the best historical index of ceremonial architecture available from the region.

The subject matter of Upper Tibetan rock art is diverse and typifies the culture, way of life and environment of the region. It can be placed in the following categories: anthropomorphic, zoomorphic, architectural, material, symbolic, and undefined. Each of these main categories contains many types of individual compositions with specific stylistic and chronological traits. Compositions can also be divided into two broad cultural groupings: Lamaist (Buddhist and clerical Bon) and archaic cultural horizon. Many but not all archaic cultural horizon portrayals date before circa 1300 CE. Some old style rock art (such as hunting scenes, solitary depictions of wild ungulates, etc.) continued to be created even after Buddhism came to dominate the religious-landscape of Upper Tibet. There are instances of non-Buddhist (secular) rock art, being made until quite recently at sites like bKra-shis do (J-1, J-2).¹⁷⁰

Let us review the thematic diversity of Upper Tibetan rock art. Implements of hunting and war are well represented and include pikes, spears, knives, swords, snares, lassos, shields, clubs, and bows and arrows. These weapons occur in all chronological phases of rock art. Banners, woodwind instruments, Buddhist articles (*rdo-rje* and bells), as well as a number of unidentified objects constitute other material cultural products portrayed in Upper Tibetan rock art (fig. 272).¹⁷¹

¹⁷⁰ See, for instance, Bellezza 2002a, fig. XI-9c; 2002b, figs. 20, 26, 36.

¹⁷¹ The color calibration scale used in this photograph, as well as in many other rock art illustrations, is 10 cm in length. It was designed by the International Federation of Rock Art Organisations.



Fig. 274. Red ochre pictographs, Lha-ris brag-phug (J-12). In addition to the swastika, there is a standing archer amidst wild ungulates (including a yak), a raptor with outstretched wings, the sun, a crescent moon, trees, and other objects. This panel seems to depict a ritualized overview of the primary props of the ancient highland way of life. Protohistoric period or early historic period

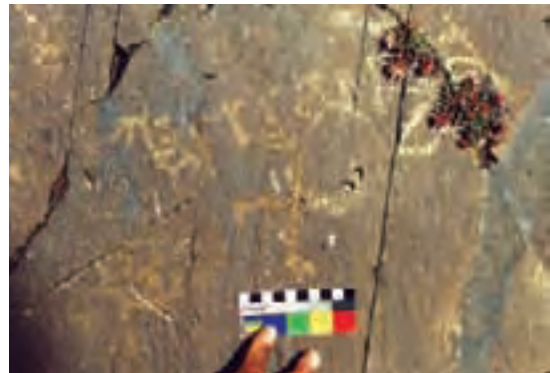


Fig. 275. A counterclockwise swastika and the prayer karma pa mkhyen no, bShag-bsangs (I-16). These carvings were not made before the 12th century CE. The inscription may have been created to ritually secure the site for the Karma bka'-bryud subsect



Fig. 276. A sunburst of nine rays, rGyab-lung (I-27). Prehistoric epoch



Fig. 277. A conjoined sun and crescent moon pictograph, bShags-bsangs (I-16). Probably attributable to the prehistoric epoch



Fig. 278. The sNgon-gdong site, rGya-gling (I-15). On this boulder trees, swastikas, sunbursts, crescents and other motifs were carved. Most of the compositions date to the prehistoric epoch



Fig. 279. Pyramidal niche, *bKra-shis do-chen* (J-2). There are two trees, one or both of which contain birds, in addition to a mounted archer, horseman, dancing couple (?), and nondescript red ochre pigment applications. Historic epoch



Fig. 282. A red ochre yak in the middle of older hunting scenes, *lCe-do* (J-7). Prehistoric epoch. Note the mounted archer on the upper right side of the photograph. The protuberances on the head of the figure may represent feathers. The sun, swastika and crescent moon motifs likely symbolize a cosmogonic or cosmological theme



Fig. 280. A flaming jewels symbol and conjoined sun and moon, *bKra-shis do-chung* (J-1). This red ochre pictograph dates from the early historic period or vestigial period



Fig. 281. A red ochre pictograph of the flaming jewels with nine tongues of fire and the Bon mantra, *A ma Om, bKra-shis do-chung* (J-1). Early historic period or vestigial period

In addition to representational motifs, symbols such as swastikas, sunbursts, conjoined sun and moons, circles, and trees form the iconic groupings of Upper Tibetan rock art. They span the full chronological spectrum of rock art creation, bridging the prehistoric and historic epochs.

Swastikas oriented in both directions are emblematic of the Tibetan symbolic repertoire and are found in many rock art theatres (figs. 273–275). They are also carved and drawn in caves and monumental sites where no other art exists. The swastika is a symbol suffused with cosmogonic and ritual significance, explaining its widespread distribution in Upper Tibet.¹⁷² The sunburst (fig. 276), a universal symbol of light and life, is quite common in prehistoric rock art and is sometimes depicted in conjunction with wild ungulates. The conjoined sun and moon (*nyi-zla*) is a seminal

¹⁷² For an overview of the symbolism of the swastika (*g.yung-drung*) in Tibetan culture, see Bellezza 1997a, pp. 228–230.



Fig. 283. Two wild yaks, Ri-rgyal (I-2).
Prehistoric epoch



Fig. 284. A lone wild yak, bShag-bsangs (I-16).
Prehistoric epoch



Fig. 285. A wild yak, rTa-ri brag-phug (I-22). This
petroglyph and others at the site were executed
in a highly unusual manner by carving into the
earthen walls of the cave. Prehistoric epoch (?)

Fig. 286. A stag, counterclockwise swastika and
teardrop motif (the sun or nor bu?), bShag-bsangs
(I-16). Early historic period or vestigial period

form in Bon and Buddhist tantra, symbolizing the union of the male and female archetypes. The conjoined sun and moon also appears to have been used in older, non-tantric cultural contexts (fig. 277). Trees are a common motif in rock art of diverse ages (fig. 278, 279). Another religious motif is the flaming jewels (*nor-bu me-bar*), which is part of both Bon and Buddhist compositions from the early historic period onwards (figs. 280, 281). One or more of the eight auspicious symbols (*bkra-shis rtags-brgyad*) are rendered in Bon and Buddhist rock art at several sites. Those from the early historic and vestigial periods deviate from the standard design of the eight auspicious symbols as seen in religious paintings, sculptures and religious and everyday articles of more

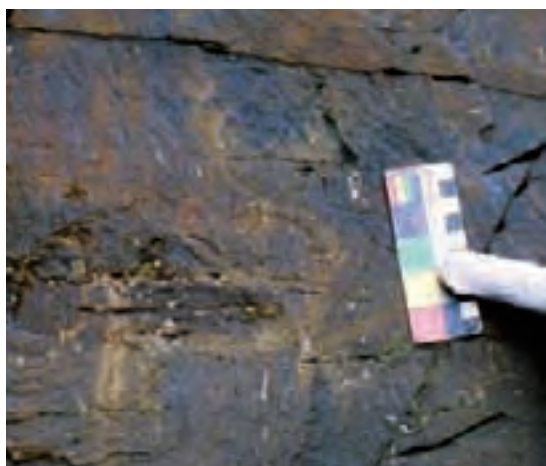


Fig. 287. A stag with its head swung backwards, mTha' kham-pa ri (I-28). Prehistoric epoch



Fig. 288. A caprid with spiraling horns, sKabs-ren spungs-ri (I-3). Prehistoric epoch

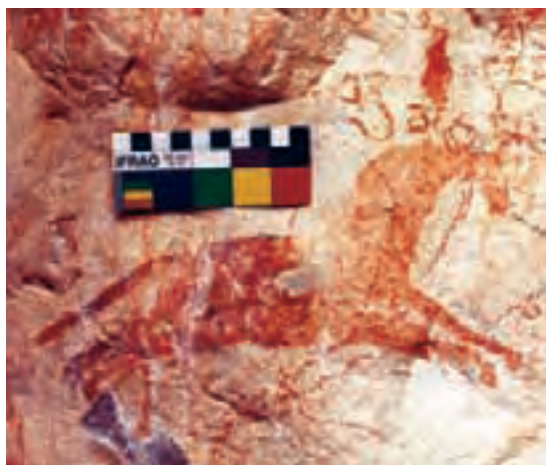


Fig. 290. A galloping horse, 'Jam-dbyangs phug, bKra-shis do-chung (J-1). Protohistoric period or early historic period

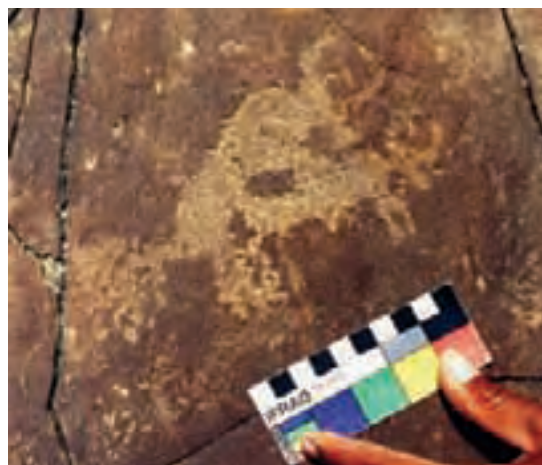


Fig. 291. Mating wild yaks, Brag-gdong (I-6). Prehistoric epoch



Fig. 289. A lone onager (?), Ri-rgyal (I-2). Prehistoric epoch

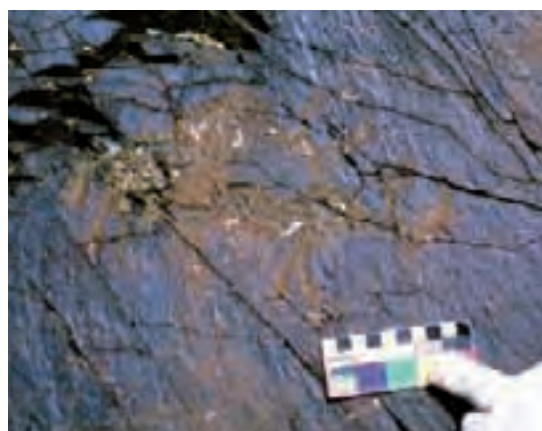


Fig. 292. Coupling wild yaks, mTha' kham-pa ri (I-28). Prehistoric epoch



Fig. 293. An antelope (?) petroglyph with double volute ornamentation, standing on erect legs, Rwa-'brog 'phrang (I-1). Prehistoric epoch



Fig. 294. An antelope (?), wild caprid (?) and stag (petroglyph), Rwa-'brog 'phrang (I-1). Prehistoric epoch



Fig. 295. An antelope petroglyph executed using a curvilinear schema, Rwa-'brog 'phrang (I-1). Prehistoric epoch



Fig. 296. A striped carnivore (tiger?) chasing a wild ungulate, Rwa-'brog 'phrang (I-1). Prehistoric epoch



Fig. 297. Two long-tailed carnivores (?), sKabs-ren spungs-ri (I-3). Prehistoric epoch



Fig. 298. Two dancing carnivores, a stag and other figures in a pyramidal niche, bKra-shis do-chen (J-2). Historic epoch



Fig. 299. A bowman, Bactrian camel and another quadruped, mChod-rten-sbug sna-kha (I-20). Prehistoric epoch



Fig. 300. A figure leading two camels and an ungulate, Brag phying-gur phug, bKra-shis do chen (J-2). Protohistoric period or early historic period



Fig. 301. Two raptors with outstretched wings, a wild ungulate and another quadruped with the sun above, gNam-g.yang phug (J-11). Protohistoric period (?)



Fig. 302. A raptor, bShag-bsangs (I-16). Prehistoric epoch

recent centuries.¹⁷³ Particularly enigmatic are prehistoric symbols and motifs that have not been identified, such as those found at Ri-rgyal (I-2).¹⁷⁴

The solitary portrayal of animals, mostly wild ungulates, is one of the most persistent themes in Upper Tibetan rock art. Wild yaks (*'brong*) and deer followed by wild sheep, standing alone or in small groups, are the most commonly depicted terrestrial animals (figs. 282–288). These species were among the most important economic animals of Upper Tibet, and were avidly hunted for food, horns and hides. Lone horses are also encountered, but onagers (*rkyang*) are less well represented (figs. 289, 290). The horse, as the main transport animal of Tibet, was and is highly praised, particularly by the Upper Tibetans. Pairs of wild yaks and other ungulates mating are a special form of composition at Brag-gdong (I-6) and mTha' kham-pa ri (I-28) (figs. 291, 292). Antelope and gazelles, two wild herbivores still quite wide-ranging in Upper Tibet, are found in rock art with a fair degree of frequency (figs. 293–295). Carnivores such as the wolf, tiger and bear are not so common (figs. 296–298). Scenes of ungulates being attacked by wild carnivores exist, but not as frequently as in other regions of Inner Asia. Such scenes occur at sites like Rwa-'brog 'phrang (I-1) and bShag-bsangs (I-16).¹⁷⁵ Bactrian camels with and without keepers are known from only a few sites, including mChod-rten-sbug sna-kha (I-20) and in the Brag phying-gur phug of bKra-shis do chen (J-2) (figs. 299, 300). The solitary depiction of raptors, usually with outstretched wings, is emblematic of Upper Tibet (and other regions of Inner Asia) and graces many sites (figs. 301–304). These proud birds are shown soaring across the sky or hovering overhead. There are also aquatic birds such as ducks and geese, and other avian species, albeit in much smaller numbers (figs. 305, 306). In addition to animal species that can be reasonably well identified, there are numerous animal compositions that are ambiguous. Many animals can be attributed only to larger taxonomic categories such as equids (horses and onagers), caprids (sheep and goats) and ungulates (hoofed herbivores). In some cases, even this broader classification is not feasible and we are left characterizing animals simply as quadrupeds.

It is not fully known why terrestrial and flying creatures were so often carved and painted in isolation. Such information was not explicitly recorded in historical documents and inscriptions, and cognitive archaeological approaches by their very nature are inconclusive. The best approach to the interpretation of meaning and function is to comprehensively examine the place of animals in the oral and literary traditions of Upper Tibet, based on both historical and ethnographic perspectives. This method of grappling with the question of why the rock art was made and what it represents does not provide specific answers that fit specific compositions; rather it is best suited to sketching the general cultural and historical picture of which rock art was part. A range of cultural themes and historical scenarios thus emerge to which rock art can be compared and interpreted. This methodological mode yields unspecific results when applied to a particular piece of rock art, but is highly illuminating when brought to bear on the overall cultural and historical environment of artistic activity.

Derived from my study of Upper Tibetan cultural history, I propose that the lone depictions of animals in rock art were variously made in accordance with the following motivational forces:

¹⁷³ For an intriguing example of old-fashioned *bkra-shis rtags-brgyad* type motifs, see Bellezza 2004a, fig. 19b; 2001, fig. 10.38.

¹⁷⁴ These are depicted in Bellezza 2002a, XI: 12f–17f, 24c–27c.

¹⁷⁵ See Bellezza 2000c; Suolang Wangdui 1994, p. 111 (fig. 110).



Fig. 303. A raptor and carnivore, rGyab-lung (I-27). Protohistoric period or early historic period

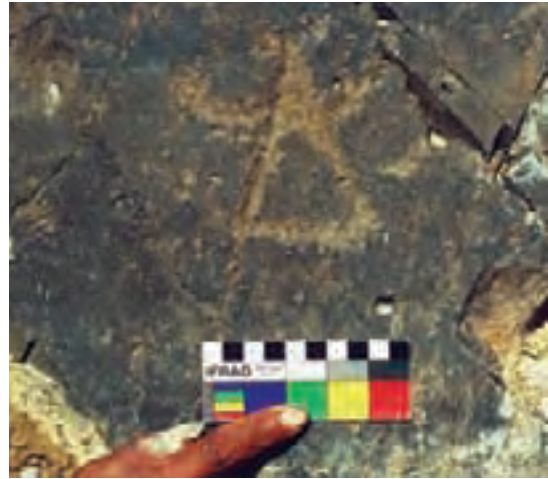


Fig. 304. A raptor with a broad pyramidal tail, bShag-bsangs (I-16). Prehistoric epoch



Fig. 305. An aquatic bird (?), Rwa-'brog 'phrang (I-1)



Fig. 306. A view of red ochre pictographs at lCe do (J-7). On the upper left-hand side is a waterfowl (duck or goose) and above it are the letters: ka, ga, kha, and nga rendered in the same medium-red pigment. The realistically depicted waterfowl dates to the historical epoch, while the yak and raptor with outstretched wings in deep red ochre belong to 'Phase II' compositions (Bellezza 1997a). These earlier pictographs date to the protohistoric period or early historic period

1) Aesthetic or recreational exercises:

At their most mundane, the solitary depiction of animals, like any other type of rock art composition, may have been simply an amusement or adornment. In its least complex form, we can see rock art creation as a casual pastime. In certain production contexts, dressing up of the walls of favorite caves and shelters may have been an activity bereft of explicit symbolic significance.

2) Magical charms designed to increase the fertility of game and domestic livestock:

The fecundity of game and livestock was and is an extremely important preoccupation in Upper Tibet, as the way of life in this region hinges upon it. The unpredictable weather can kill much of a herder's flock in a single day.¹⁷⁶ Hunting, especially in early times, was a vital activity directly dependent on the availability of prey. These essential but sensitive pastoral and venatic activities may have compelled the Upper Tibetans to paint and carve rock in collective or solo ritual performances, designed to protect wild and domestic ungulates. In the historical context, rituals of the *gsol-kha*, *bskang-ba* and *g.yang-'gugs* types are carried out for the welfare of animals (as well as for humans and the environment in general). These rituals are often focused on the indigenous pantheon of spirits called upon to aid the officiants. Such religious performances call for the figurines or drawings of wild animals. The rendering of animals in rock art may, by and large, be a precedent or corollary to this kind of religious activity.

3) Thaumaturgic instruments for the successful outcome of hunts:

In early times, especially before the domestication of livestock, hunting was an all-important endeavor. The success of highland communities was dependent on the procurement of wild ungulates for food and other needs. The paramount importance of hunting in the livelihood of the Upper Tibetans must have spurred them on to develop an ensemble of magic rituals with the purpose of securing game. To this day in the northern Byang-thang, before setting off to kill animals (and afterwards), hunters undergo ritual purificatory procedures and propitiate special patron deities of the hunt. The discovery of two small prehistoric copper alloy mirrors engraved with deer, which may have been used as magical lures for game, seems to support the antiquity of such ritual activities (fig. 307).¹⁷⁷ Similarly, in ancient times hunting may have entailed the depiction of the quarry in rock art as a means of magical attraction. Wild ungulates could also have been created to represent analogous zoomorphic guardian deities that had to be propitiated in order to insure a successful hunting expedition.¹⁷⁸ This type of religious theme may be represented in a prehistoric petroglyph of a hunter with a bow and arrow facing in the same direction as the large wild ungulate (antelope?) stationed behind him at the sNgo-sog site (I-29) (fig. 308). The hunter is obviously not in pursuit of the animal, which is depicted more in the attitude of a special mascot or divine guardian.

4) Tributary in offerings or expressions of thanksgiving:

Given the importance of wild animals to the Upper Tibetan way of life, it can be well imagined

¹⁷⁶ In the oral tradition of Upper Tibet, it is said that once in 60 years more than half of all livestock are wiped out by heavy snowfall (Tawa and Tashi Topgyal 1998: 40).

¹⁷⁷ For photographs of these artifacts, see Bellezza 2004a, fig. 4c.

¹⁷⁸ The carving of ibex continues to the present day for the 'Brog-pa (Minaro) of Lower Ladakh. These are made in gratitude for a successful hunt and in exchange for the animal's life at the foot of the mountain abode of rGyal-rtse lha-mo (sp?), the patroness of the hunt. See Peissel 1984, pp. 85–87. Among the Shina-speaking Dards, fairies take the form of ibex and markhor and are thought to be able to assist hunters (Vohra 1989: 39). Ibex are still carved for cultic hunting purposes by the Bru-sha of Hunza.



Fig. 307. A copper alloy ritual implement with an engraved deer and two other ungulates (private collection). Prehistoric epoch



Fig. 308. A ritualized hunting scene: bowman and wild ungulate (petroglyph), sNgo-sog (I-29). Prehistoric epoch

that some rock art was made in appreciation of them. Depicted standing grandly on their own, wild ungulates with large horns and antlers (and sometimes with male genitalia) are shown in all their glory. The people of Upper Tibet had much to be grateful for their sustenance was directly derived from these animals. Right up to the present day, wild herbivores, carnivores and birds are held in high esteem as symbols of economic prosperity and divinity. Wild herbivores endowed with this symbolism are still depicted on sashes worn by the 'brog-mo of Nag-chu and on woven bags from 'Brong-pa and mNga'-ris. Birds, ungulates and carnivores are also commonly portrayed on metal knife sheathes, bowls, fire strikers (*me-lcags*), ornaments, and other articles as objects of appreciation, power and auspiciousness.

- 5) Religious and social symbolism pertaining to ancestral, clan, territorial, and other types of protective deities:

Some animals in the rock art of Upper Tibet may be iconographic depictions of localized divinities. Tibetan ritual literature is replete with indigenous divinities in zoomorphous form, and this tradition has every indication of being of significant antiquity. Clan protective spirits often take the form of birds, ungulates and carnivores. As a direct cultural antecedent, in the prehistoric epoch ancestral totems (deities responsible for the origination of blood lines) are likely to have assumed zoomorphous forms as well. Spirits of the land, water and sky (*yul-lha*, *gzhi-bdag*, *sa-bdag*, *btsan*, *gnyan*, *klu*, *lha*, etc.) are often examples of theriomorphism, with many species being represented. Warrior gods called *sgra-bla/dgra-lha*, as well as Bon and Buddhist doctrine protectors (Bon-skyong, Chos-skyong), have zoomorphic aspects as well. It is unlikely that this Tibetan religious habit of rendering the divine in animal form could have escaped the rock art arena.

- 6) Divine emissaries of the afterlife:

As we shall see in Part III, animals (particularly sheep, yaks, horses, and raptors) play an important role in Tibetan archaic funerary rituals. These species of livestock are part of sacrificial rites held to appease the demons of death, and function as the mounts of the deceased's soul on the journey to the next world. A pictograph at the sGrol-ma phug of bKra-shis do-chung (J-1) comprises one of the most convincing examples of what appears to be a divine emissary of the dead (fig. 309).¹⁷⁹ This prehistoric (?) red ochre pictograph portrays a

¹⁷⁹ For other illustrations of this important composition see Suolang Wangdui 1994, (fig. 180); Bellezza 1997a, p. 184 (fig. 6); 2005b, fig. 64.



Fig. 309. A raptor leading an anthropomorphic figure, *sGrol-ma phug*, *bKra-shis do-chung* (J-1). Prehistoric epoch or early historic period



Fig. 310. A rock panel at Ra-'brog 'phrang (I-1). In addition to the *khyung* and birdman imagery, there are carvings of a sunburst, crescent moon, counterclockwise swastika, tree, and a pair of shrines with horn-like protuberances. Protohistoric period or early historic period

raptor and an anthropomorphic figure in close contact. A supine human figure, legs dangling, is being led by a raptor (deity) that gestures upwards with its left wing. The decisiveness of the activity portrayed and the symbiotic posture of the human and bird figures in this composition seems in keeping with ancient concepts pertaining to the ritual transference of the dead by winged deities.

7) Transformative forms of adepts and priests:

Bon literature (and Buddhist works to a lesser degree) is dense with accounts of ancient religious masters (*gshen*, *dpon-gsas*, *bon-po*) transforming themselves into raptors and carnivores in order to carry out spiritual missions and as demonstrations of personal power. By assuming the guise of animals these Bon sages were able to fly in the sky, swim in the ocean, and defeat vicious demons. The spirit-mediums (*lha-pa/dpa'-bo*) of Tibet also embody remedial spirits in the form of animals in order to treat diseases and other maladies. A rock art composition that seems to portray such a transformative theme is located at Ra-'brog 'phrang (I-1) (protohistoric or early historic period) (fig. 310).¹⁸⁰ At this site, on a vertical rock slab we find among other imagery, in descending order of sequence, a horned eagle (*khyung*) with spread wings, a composite ornitho-anthropomorphic figure with wing-like arms and an avian head, and a fully anthropomorphic figure with what might be feathers on its head. I hold that this composition may represent the theogonic descent of the *Khyung* clan from a primordial *khyung* to a divine intermediary and finally down to a fully human lineage.¹⁸¹

¹⁸⁰ For other photographs and an analysis of this remarkable composition, see Bellezza 2004a, fig. 15a; 2001, p. 358 (figs. 10.78, 10.79); 1999c, fig. 9.

¹⁸¹ For the origins of the *Khyung* clan see pp. 288, 289 A pair of what look like ornitho-anthropomorphic figures



Fig. 311. An archer on foot pursuing a wild yak (petroglyph), Ri-rgyal (I-2). Prehistoric epoch



Fig. 312. A mounted archer confronting a wild yak (petroglyph), Ri-rgyal (I-2). Prehistoric epoch



Fig. 313. Archers on foot and on horseback hunting wild yaks, rGyab-lung (I-27). Prehistoric epoch

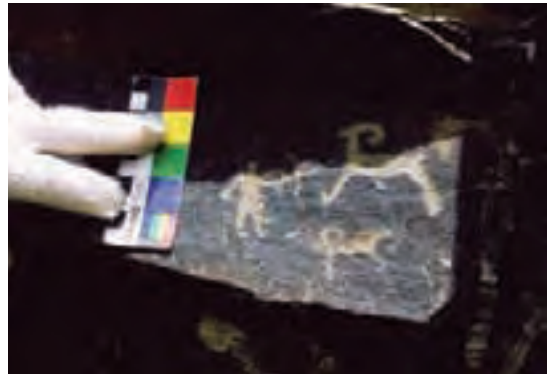


Fig. 314. A standing bowman coming in for the kill of a wild caprid, sNgo-sog (I-29). Note what appears to be a hound at the bottom of the panel. Prehistoric epoch

Besides the solitary depiction of animals, the other most common genre of zoomorphic rock art in Upper Tibet is the ubiquitous hunting scene. The pursuit and attack of wild ungulates, particularly wild yaks ('brong), is found in rock art theatres throughout the region, in all periods of time (figs. 311–316). This subject was particularly common in the prehistoric epoch. Compositions typically have one to five hunters descending upon their prey as they come in for the final kill. When there is more than one hunter they are depicted as taking up tactical positions around the animal. Wild yaks are often portrayed as excessively large, emphasizing the awesome power of this animal and the dangers inherent in the hunt. In some compositions, projectiles protrude from the haunches of the doomed animal, and blood pours out from the body and orifices, trenchantly depicting its demise. The high level of action conveyed by these compositions underscores the exhilaration and triumph of the hunt. The depictions leave no question that the pursuers are about to taste victory. The hunting weapon of choice is the bow and arrow, but pikes, spears and lassos are also used to bring down game. Many of the hunters are mounted on horseback, but substantial numbers of compositions feature bowmen on foot (some in a stalking attitude). Hounds accompanying

also appears at the mTha' kham-pa ri site (Suolang Wangdui 1994: 83 (fig. 62)). Other bird-like anthropomorphic compositions are found at bKra-shis do chen (J-2) and Khyi-rgan gag-pa do (J-3) (Bellezza 2000b: 50 (figs. 26, 27)). This tradition of composite human and bird figures extends to the Bon literary tradition. In an untitled *gsol-kha* text attributed to the eighth century CE, a deity in a theogonic sequence that gave rise to the *yul-sa* (deities of the locale) of Upper Tibet is described as having the body of a man and the wings of a *khyung* bird (Bellezza 2005a: 330).



Fig. 315. A bowman stalking a stag (pictograph), Brag-dkar, bKra-shis do-chen (J-2). Prehistoric epoch



Fig. 318. Two anthropomorphic figures, mTha' kham-pa ri (I-28). Prehistoric epoch



Fig. 316. A pair of mounted archers attacking two wild ungulates, Klu-khang (ancillary chamber 3), bKra-shis do-chen (J-2). The large anthropomorphic figure on the left may be a divine persona of some type. Protohistoric period or early historic period



Fig. 317. An anthropomorphic pair, sGog-ra (I-5)

hunters are also a fairly regular occurrence and are shown harrying the prey. There are many stylistic variations to the basic hunting scene, exhibiting humans and animals in highly stylized or realistic ways. In prehistoric depictions, hunters occasionally have sharp protuberances on the head that probably represent feathers or horns. These types of headdresses are common at the ICE do site (J-7). Where discernable, hunters are attired in both long robes and waist-length jackets. They may be shown holding the reins of their horses and carrying swords at their sides.

Rock art featuring hunting themes bespeaks a martial and exuberant people who did not shy away from the gory details of the venatic way of life. This reveling in the open slaughter of animals is very much at variance with Buddhist ethical ideals. In no uncertain terms, this declares how alien the Upper Tibetan paleocultural ethos was from Buddhism and its central doctrine of non-violence. As with other evidence we will explore in Part II, the celebration of hunting was the provenance of a proud and vibrant people. The great proliferation of hunting scenes affirms that the killing of animals was a prime pursuit in Upper Tibet. Hunting compositions may have been executed to chronicle the bravery and success of those who took part in the hunt. Perhaps great



Fig. 320. A closeup of the upper female figure, mTha' kham-pa ri (I-28)

Fig. 319. An anthropomorphous dyad, mTha' kham-pa ri (I-28)

hunters felt impelled to record their exploits in the rock art theatre in order to demonstrate their social standing. Other motivations implicit in these creations could have revolved around sacred hunting rites.

Anthropomorphous figures (of humans and possibly divinities) in non-hunting scenes are also well represented in the Upper Tibetan rock art of all periods. Great variations in style and execution are discernable. Pairs of figures, probably male and female, grace sites such as sGog-ra (I-5) and lCe do (J-7) (figs. 317, 318). The bonds of family and love are probably implicit in this genre of composition. Some couples appear to be involved in symbolic or ritual activities. At the mTha' kham-pa site (I-28), a male figure, arms raised, stands directly below a squatting female in what appears to be an intimate prehistoric tribute to the maternal qualities of fertility and procreation (figs. 319, 320).¹⁸² The female figure is squatting in the classic position for giving birth. Her head, torso and breasts are boldly rendered as different-sized triangular forms. The male figure has a more elongated torso and stands with his feet quite widely spread as if he is supporting the weight of the female above him. I am inclined to see this composition as an encomium of the life-giving power of the male-female dyad. I further speculate that the relative position of the female figure is a sign of the special prominence of women in early Upper Tibetan society as the exalted life-givers. This would have been well before the triumph of Buddhism, and its arguable bias

¹⁸² A pecked petroglyph from the now-submerged Mugur-Sargola site in Tuva depicts an anthropomorphous figure emerging in a standing position from the womb of another. The upper figure has a small round head and a long, narrow torso, with one arm raised and one arm at its side. Its widely spread legs simulate the classic birthing position. The lower figure has outstretched arms and legs held firmly apart. There is no real sign of the head of the lower figure as it appears to be emerging from the womb. See Devlet 1980, pp. 45, 171. This composition is thought to date from the Bronze Age (in personal communication with the author). I cite this somewhat analogous Tuvan composition as another example of the exaltation of fertility and giving birth in ancient Inner Asia.

towards male symbols of religious power and prestige. At Rwa-'brog 'phrang (I-1), another early petroglyph depicting two squatting figures seems to chronicle the cosmogonic aspects of giving birth and/or coition (fig. 321).¹⁸³ The two anthropomorphous figures, arrayed feet to feet, appear to have large objects emerging from between their legs. Their thin arms are partially held out beside fairly long, straight torsos. Few other anatomical details are discernable.

Certain anthropomorphs in Upper Tibetan rock art appear to be portraits of religious adepts or possibly deities depicted in ritual attitudes. These date to both the prehistoric and historic epochs. At the bShags-bsangs site (I-16), an anthropomorph with five protuberances on its head stands over round objects (offerings?), while a figure combining the qualities of a bird and swastika looms overhead.¹⁸⁴ Probably dating to the early historic period, this composition is congruent with the performance of a non-Buddhist religious ceremony. At certain sites the selection of horned animals as mounts (a common indigenous religious theme) may indicate that the riders are deities and not humans. For example, at the dKyil-sgrum site (I-32), two anthropomorphous figures ride animals reminiscent of caprids or cervids.¹⁸⁵

One of the most extraordinary portraits of a Bon religious figure is a red pictograph situated deep inside the cave sanctuary of sGar-gsol brag-phug (J-16) (fig. 322).¹⁸⁶ This unusually large (1.1 m in height) composition portrays a standing male figure in a tight-fitting shirt and what appears to be a tiger-skin loincloth (*stag-sham*). The upper garment opens in the middle of the chest and has a low collar and tight fitting sleeves, more in the style of the Subcontinent than of Tibet. On his head a large turban is wound around a very prominent topknot (*thor-gtsug*). He wears large hoop earrings on his drooping ears, and has a semi-circular mouth and eyes. With his right hand, the figure wields a hook (*lcakyu*) overhead. In his left hand he appears to be holding a coiled lasso (*zhags-pa*). He is attired in low-slung footwear or what could be anklets. A counterclockwise swastika and what may represent a Bon scepter known as a *phyag-shing* are found in close proximity to the figure. Taken as a whole, the details of the clothing and coiffure indicate that this Bon adept is in the guise of a brahman (*bram-ze*). According to various literary sources, the famous eighth-century CE Bon master of gNam-mtsho, sTong-rgyung mthu-chen, also had the appearance of a brahman.¹⁸⁷ I attribute this pictograph to the early historic period or vestigial period around the demise of sGar-gsol brag-phug as a Bon sanctuary. The jumble of Bon images (anthropomorphs, *mchod-rten*, etc.) located on the rear walls of sGar-gsol brag-phug does not have the appearance of being an integral part of routine ritual activities conducted in the walled cave sanctuary but rather of being an afterthought. The pictographs of sGar-gsol brag-phug may have been painted around the time of the abandonment of this archaic refuge (circa 800 to 1100 CE). The great degree of iconographic detail found in the priestly portrait is best understood as being executed when pre-Buddhist religious traditions were still dominant in the local culture.

Pairs of what are ostensibly male figures are sometimes shown engaged in martial sports or locked in combat (figs. 323, 324). These types of compositions usually date to prehistoric and early historic times, but a few appear to have been made in later periods as well. At sites such as bKra-shis do-chung (J-1) and Chu-lung (I-10), adversaries confront each other armed with swords, bows and

¹⁸³ Also depicted in Bellezza 2001, pp. 220, 359 (fig. 10.81), 360 (fig. 10.82).

¹⁸⁴ A photograph of this striking composition is found in Suolang Wangdui 1994, p. 114 (fig. 117).

¹⁸⁵ Illustrated in Suolang Wangdui 1994, p. 106 (fig. 101).

¹⁸⁶ For another image of this pictograph see Bellezza 2003c, p. 22 (fig. 10). This pictograph was first documented by dPal-ri-ba blo-bzang bkra-shis of Tibet University and two Chinese colleagues in July 2001.

¹⁸⁷ For a biographical account of this master see Bellezza 2001, pp. 59–61.

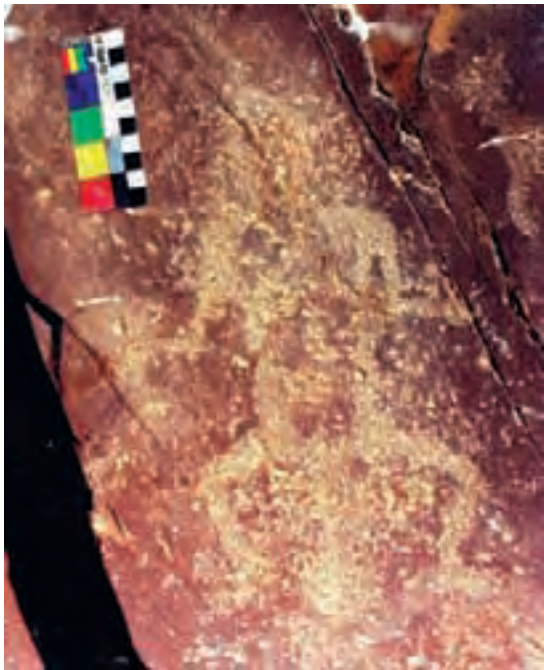


Fig. 322. The bram-ze of sGar-gsol brag-phug (J-16). Early historic period (?)

Fig. 321. A squatting anthropomorphous figure with something between its legs, Rwa-'brog 'phrang (I-1)



Fig. 323. Contesting figures on horseback, Zhwamar phug, bKra-shis do-chung (J-1). Perhaps the protuberances on top of the heads of the two figures represent feathers. Protohistoric period or early historic period

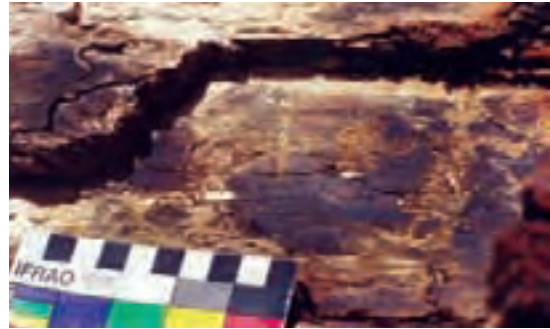


Fig. 324. Dueling figures, Chu-lung (I-10). Protohistoric period or early historic period

arrows and square shields, or they joust with pikes and banners on horseback.¹⁸⁸ It is difficult to ascertain if these depict actual battle scenes or sports contests. In either case, these compositions illustrate a way of life in ancient Upper Tibet characterized by martial struggle. At the sNgo-sog site (I-26), there is a composition that may depict some type of martial empowerment or ritual (fig. 325). It consists of four anthropomorphs with hourglass-shaped bodies and triangular heads who stand in a row. One figure holds a bow and arrow, another one a rectangular shield, and all four may have swords or batons. Through these four linear objects there is physical contact between all the figures, which does not appear to be offensive in nature.

¹⁸⁸ See Bellezza 2001, pp. 200, 320 (figs. 10.2, 10.3); 2002a, pp. 147, 259 (figs. 41, 51), 260 (figs. 61, 71).



Fig. 325. A ritual scene with participants holding arms, sNgo-sog (I-26). Prehistoric epoch



Fig. 326. A panel of animals and anthropomorphs, Brag-gtsug site (I-25). The two rows of figures at the top of the panel may represent a migration in process. Prehistoric epoch



Fig. 327. The head of a wrathful figure, sGar-gsol brag-phug (J-16). The long upper fangs and the shape of the topknot are highly unusual iconographic features. Early historic period (?)

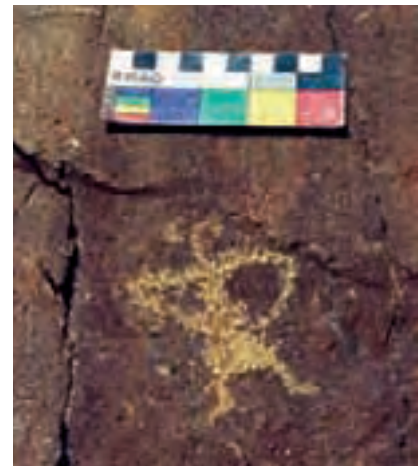


Fig. 329. An anthropomorph with arms held akimbo, Ra-'brog 'phrang (I-1)

In some compositions, groups of riders are herding livestock. In others they appear to be moving camp or involved in transit between hunting or pastoral camps. At the Brag-gtsug site (I-25) there is a rock panel (3.5 m x 75 cm) illustrating long lines of anthropomorphs, each of which is carrying something on its back (fig. 326).¹⁸⁹ Yaks, other ungulates, sunbursts, and additional anthropomorphic figures are interspersed among them. Perhaps such compositions depict the movement of a large hunting camp. The depiction of lone figures on foot or mounted on horseback, with and without weapons, is also fairly common (figs. 327–332). These figures are rarely portrayed in conjunction with other frames of reference, rendering their identity ambiguous. They could represent either human or divine personae.

Architectural renderings also figure in the rock art of Upper Tibet, with corrals, tent camps and even permanent domiciles represented. While there are very few examples of foreign rock art in Upper Tibet, a well-drawn house in red ochre probably made by the hand of a speaker of a

¹⁸⁹ These are also illustrated in Suolang Wangdui 1994, pp. 86 (fig. 67), 91 (figs. 73, 74).



Fig. 328. An anthropomorph and stag (petroglyph), Gri'u-thang (I-9). Prehistoric epoch



Fig. 330. A lone anthropomorph carved in an angular style, sNgo-sog (I-29). Protohistoric period (?)



Fig. 331. A figure with a sling (?), sNgon-gdong, rGya-gling (I-15). Prehistoric epoch



Fig. 335. A unique ceremonial structure (petroglyph), gNa'-bo lung (I-26). Probably protohistoric period

Tungusic language (dating to the vestigial period?) can be seen in Brag phying-gur phug, bKra-shis do-chen (J-2) (fig. 333).¹⁹⁰

Ceremonial monuments in the form of shrines are well accounted for in rock art sites right across Upper Tibet. As noted, the most elementary and probably oldest shrines are comprised of graduated platforms often topped by a spherical structure and/or a simple mast (figs. 334–337). These were created in the early historic period, and possibly even earlier. The architectonic complexity of these *rten-mkhar* or *gsas-mkhar* class shrines increases until they come to resemble *mchod-rten*. In addition to graduated bases and rounded midsections (*bum-pa*), Bon and Buddhist *mchod-rten* from the early historic period exhibit truncated and pyramidal spires (*'khor-lo*) with sinuous banners (*dar-thag*) and finials (*tog*) (figs. 338–345). These finials consist of horn-like protuberances, the conjoined sun and moon, and other designs.¹⁹¹ Stepped structures known as

¹⁹⁰ See also Bellezza 1997a, p. 208 (fig. 28).

¹⁹¹ These types of *mchod-rten* are also found in Ladakh and the Northern Areas of Pakistan. For a review of these see Bellezza 2002a, pp. 127, 128, 144, 145. In Jettmar *et al.* (1989, pl. 44), there are two comparable Indus Kohistan specimens with Sogdian and Kharoṣṭhī inscriptions carved on a single boulder (dated to the fifth to eighth century CE). Similar specimens from the Punyal region of northern Pakistan accompanied by short inscriptions in *dbu-can* are probably assignable to the imperial period Tibetan invasion of the region. The Bon cultural influence in these carvings



Fig. 333. From the door or window of a house an anthropomorphic figure emerges, Brag phyng-gur phug, bKra-shis do-chen (J-2). The style of the house and human being are very much at variance with native Byang-thang rock art. Early historic or vestigial period

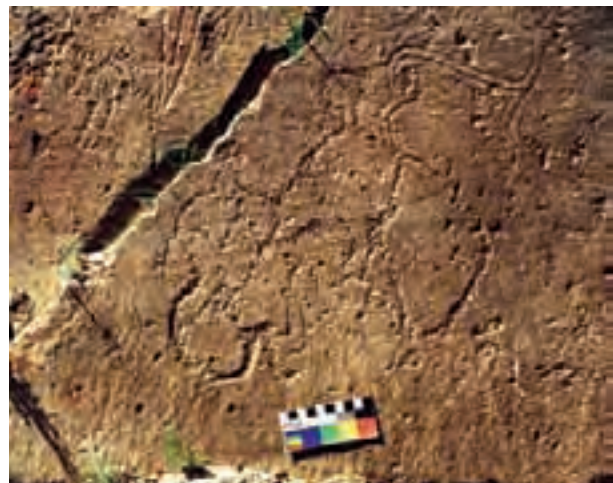


Fig. 332. Two anthropomorphic figures (?), Ra-'brog 'phrang (I-1). With their big round bodies, these figures must have had special ritual or cosmogonic significance. Note the stag above them carved using a curvilinear schema. Prehistoric epoch



Fig. 336. An archaic ceremonial structure, bShag-bsangs (I-16). This type of tiered shrine occurs at various rock art sites across Upper Tibet. Protohistoric period or early historic period



Fig. 337. An archaic ceremonial structure, Rwa-'brog 'phrang (I-1). Protohistoric period or early historic period

is reflected in the presence of Bon (archaic) *dhārāni-s* (of particular interest are the *mchod-rten* illustrated in *ibid.*, figs. 5, 6, 9, 10). See Jettmar and Sagaster 1993. In 2005, John Mock of the University of California discovered similar petrolyphic *mchod-rten* in Wakhan. These are accompanied by two inscriptions, the images of which Prof. Mock sent for my inspection. They read as follows: 1) *Mu ge ligs cung* (a proper name), 2) *Ru shin pya ligs ngu gi yon* (dedicated to the speech of Ru-shin pya-ligs). *Ligs ngu* is an idiosyncratic conjunction of *ligs gsung*. The two individuals named appear to have dedicated the accompanying *mchod-rten*. They have onomastic qualities indicative of the Zhang-zhung



Fig. 334. An archaic ceremonial structure (pictograph), Slob-dpon phug (J-14). Protohistoric period or early historic period



Fig. 338. A red ochre mchod-rten, Brag phying-gur phug, bKra-shis do-chen (J-2). Early historic period or vestigial period



Fig. 339. A mchod-rten (petroglyph), Brag-gyam (I-24). Early historic period



Fig. 340. One of the many carved mchod-rten at Brag-gyam (I-24). Early historic period or vestigial period



Fig. 341. A red ochre mchod-rten and swastika, bKra-shis do-chung (J-1). Early historic period or vestigial period



Fig. 342. Three mchod-rten or rten-mkhar, two reverse swastikas and other motifs, sGar-gsol brag-phug (J-16). Early historic period

lha-rten are described in a Ge-khod cycle text (see pp. 252–258). According to Bon tradition, these tabernacles function as models of the universe and are erected in order that the deities have a place to reside during religious ceremonies. The *lha-rten* for the worship of the Ge-khod deities are similar in form to the ancient tiered shrines known throughout Upper Tibet. This is unlikely to be merely a coincidence, and we might conclude that the Ge-khod cycle has indeed preserved information about the tradition of archaic shrine construction on the upper reaches of the Plateau.

language, but the second inscription is grammatically Tibetan. Presuming these inscriptions date to the seventh or eighth century CE, they may represent a hybridized arrangement that developed as a transitional vernacular stage in the ultimate disappearance of the spoken Zhang-zhung language. The location of these inscriptions in the Pamirs is extremely significant, as they mark a visitation by Tibetan-writing traders, pilgrims, administrators, or military men. On the basis of linguistic evidence, Beckwith (1987: 133, n. 148) identifies Wakhan with Gog of the old Tibetan sources. From the mid-seventh century CE, Wakhan came under periods of Tibetan political domination, which was finally ended by the advancing Arab armies of the early ninth century CE (*ibid.*: 30, 91, 123, 132–133, 137, 144, 145, 161, 162).



Fig. 343. A well-carved mchod-rtten, Brag-gdong (I-6). Early historic period



Fig. 344. An elaborate Bon mchod-rtten in red ochre, bKra-shis rtags-brgyad phug, bKra-shis do-chung (J-1). Early historic period



Fig. 345. A mchod-rtten with the bya-ru bya-gri finial, mChod-rtten sbug sna-kha (I-20). Early historic period or vestigial period



Fig. 346. A mchod-rtten with the all-seeing eyes of the Buddha, Rwa-'brog 'phrang (I-1). Vestigial period or later



Fig. 347. A highly intricate Buddhist mchod-rtten carving, rGyal la lding (I-32). Vestigial period or later



Fig. 348. An inscription reading: co gru zhang btsun thar byang gis (ln. 2) bzhengs. Brag-gyam (I-24). Early historic period



Fig. 349. An inscription reading: khyung pho li la brtsan. sNgo-sog (I-26). Some of the representational compositions on the rock face may have been made by the same hand. Early historic period

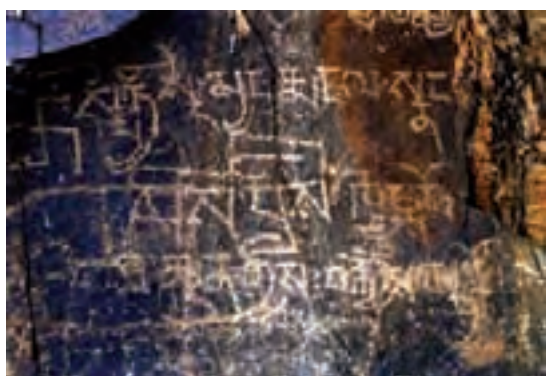


Fig. 350. An early historic period inscription, sNgo-sog (I-26)



Fig. 351. Two specimens of the Tibetan letter A that are of significant age. bKra-shis do-chung (J-1)

Differentiation of *mchod-rten* into Bon and Buddhist types is not feasible for the early historic period, as there seems to be much overlap in their designs. It may be that even the celebrated ‘horns of the bird, sword of the bird’ (*bya-ru bya-gri*) finial of Bon was used by early Buddhists in Upper Tibet. This ambiguity in the monumental forms of the two religions can be attributed to close sociocultural links that seem to have existed between them. Buddhist *mchod-rten* of the second diffusion and later historic periods (of the *byang-chub*, *rigs-gsum mgon-po* and *skudung* classes) are also quite regularly seen in Upper Tibetan rock art. These range from simple renderings to highly elaborate engravings (figs. 346, 347).¹⁹²

Another large category of carvings and pigment applications involves Tibetan language inscriptions. This epigraphic evidence dating from the early historic period to recent times provides valuable evidence of settlement and religious activities in many regions of Upper Tibet. At gNam-tsho and in Ru-thog, I have documented inscriptions that can be quite confidently attributed to

¹⁹² Upper Tibetan stepped shrines and *mchod-rten* rock art of all types are illustrated in Bellezza 1997a; 2000b; 2000c; 2001; 2002a; 2004a.

the early historic period on account of their paleographic, orthographic and lexical features (figs. 348–350).¹⁹³ Ciphers and unusual forms of chirography are also known from a few sites.¹⁹⁴ To date, inscriptions in a system of writing peculiar to Zhang-zhung have not been positively located. The Zhang-zhung script, called *smar-yig* (*smar-chen*, *smar-chung*, etc.) in Bon works, is represented by post-14th century CE ornamental scripts, which bear little structural resemblance to the pre-seventh century CE Indic paleographic tradition (part of a flourishing literary tradition that could have had an impact on the development of writing in protohistoric Upper Tibet). The general lack of epigraphic evidence in Upper Tibet rock art theatres for the pre-seventh century CE period, while Tibetan language inscriptions are quite common thereafter, calls into question the existence of an archaic paleographic tradition in the region. The relatively late date of literary sources supporting a protohistoric writing tradition further complicates verification. This is not to say out of hand that pre-seventh century CE Upper Tibetan culture was preliterate but that material proof of a unique writing system has not been forthcoming. At a number of sites, there is a primitive style calligraphy consisting of the Tibetan letter ‘A’ written in red ochre. This type of letter A is found at bKra-shis do (J-1, J-2), rDzong pi-phi (A-49) and dGon-ro dmar-lding (B-120), etc. (figs. 351–353). These letters appear to be of significant age and are the best candidate we have for the existence not of a system of writing per se, but for the use of a letter as a religious and/or magic symbol in the protohistoric period. In Bon, the letter A is charged with cosmogonic and metaphysical symbolism, which could possibly refer to an early adoption from Indic sources. The letter ‘A’ occupies a cardinal position in the scripts of many Indo-European cultures past and present.

¹⁹³ In sGrol-ma phug, bKra-shis do-chung (J-1), there is a highly damaged inscription that reads: (ln. 1) *skyo rten po do phug du gtad do* / (ln. 2) *do phug gñ lha 'dre rnam kyis* (ln. 3) *gtad {tshīg} 'dīs dam nyams/so (+ d/srol)*. See p. 579 for an explanation of my system of transcription. The style of calligraphy (somewhat disorderly and florid) and the use of the *log gi-gu* (reverse letter i) is reminiscent of the Dunhuang non-Buddhist ritual texts composed in Old Tibetan. Given these paleographic and orthographic distinctions, it appears that this sGrol-ma phug inscription dates to the imperial period or its troubled aftermath (*kheng-log*). I first studied this inscription in Bellezza 1997a, pp. 186, 187. Having reexamined it, I now suggest a different but no less enigmatic reading: “In the headland cave, I hand over (*gtad*) sKyo rten-po (a personal name)! *Lha* and *'dre* of the headland cave, (slay) the oath-breaker through the words/utterances of this *gtad* (malediction).” There are short inscriptions at the sNgo-sog petroglyph site (I-29), which on the basis of their chirographic, orthographic and lexical features, also appear to date to the early historic period. In the east sector of the site we find: (ln. 1) *spyi tī sde myang rmang la snang* (ln. 2) *gis bris khyung po* (ln. 3) *{tha} chun (= chung) gyis brgyis* (mod. = *bgysis*) *pa'o* (Written by sPyi-ti sde myang rmang la snang. Done by the youngest Khyung-po (a clan name)). This inscription probably refers to a finely carved *rdo-rje* in close proximity, which exhibits the same wear and repatination characteristics, and possibly to other motifs on the same rock panel. The *rdo-rje* may have been carved to signify the Buddhist ownership of the site or to mark the location of a spiritual treasure. On a panel in the west sector of sNgo-sog, we read: *Khyung pho li la brtsan*, a proper name and one with linguistic qualities I suspect are of western Tibetan (Zhang-zhung) origin. This inscription probably autographs some of the representational compositions located on the same panel. They include a *mchod-rten*, anthropomorph, horse (?), and peacock (?) that were rendered in the early historic style of rock art. This relatively late rock art exhibits quite a bit of decadence in terms of the artistic quality of the images. Another possible imperial period inscription is located at Brag-gyam (I-24), where dozens of different types of *mchod-rten* were engraved. It reads: (ln. 1) *co gru zhang btsun thar byang gīs* (ln. 2) *bzhengs*. The variant translations are as follows: Made by Thar-byang, the monk of Co-gru (a clan name) *zhang* (signifies maternal affiliation); Made by Co-gru zhang btsun thar byang; or Made by Co-gru zhang, the monk, for enlightenment. Co-gru (= Cog-ru) denotes the Upper Tibetan Cog-ro clan (cf. Vitali 1996: 123). The territorial bounds of this clan are found in *Rin chen bzang po rnam thar 'bring po* (*ibid.*: 330 (n. 522)). In the vicinity of the above inscription is another one written in four vertical lines, which is accompanied by a small *mchod-rten* at the Brag-gyam site. It reads: *snang za mo bsod namsu zhengs* (mod. = *bzhengs*) (Established for merit by sNang-za mo). Another Brag-gyam inscription located next to *mchod-rten* no. 28 reads: (ln. 1) *gshen rgyal* (ln. 2) *bkris* (probably = *bkra shis*, the personal name of the individual who carved the *mchod-rten*?). This inscription indicates that at least some of the carved *mchod-rten* of Brag-gyam were made by followers of archaic sacerdotal traditions.

¹⁹⁴ Some of these are studied in Bellezza 2000b; 1997b.

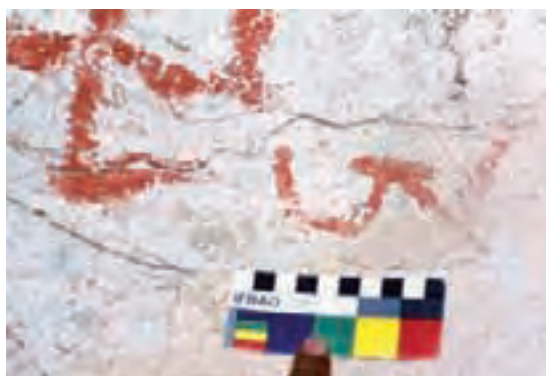


Fig. 352. The Bon letter A, *dGon-ro dmar-lding* (B-120)



Fig. 353. An archaic Tibetan inscription, *bKra-shis do-chung* (J-1). Due to the highly unusual formation of the letters, any reading is problematic



Fig. 354. On a limestone boulder 5 m long surrounded by a stone wall, a red ochre *pa-tra* (36 cm in length) was defaced by the carving of a *ma-ñi* mantra. *Se-mo do South* (B-126)

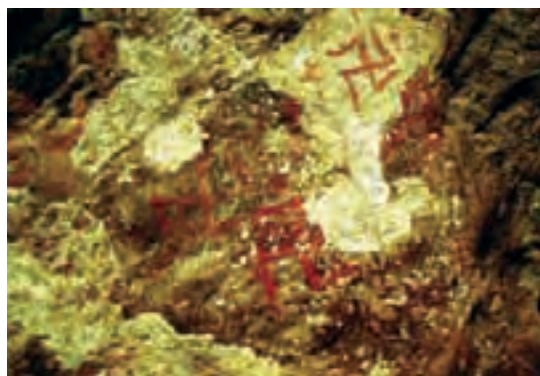


Fig. 355. Swastikas of *Lha-'dre phug* (J-19). The light area is where a portion of the cave surface was damaged, obliterating nearly half of a counterclockwise swastika. Another swastika was painted on the raw surface

The historic struggle between the Bon and Buddhist polities is graphically represented in the rock art and epigraphic record of Upper Tibet. This rivalry is most evident in the frequent vandalism of Bon motifs and inscriptions at many of the region's rock art theatres. This bellicosity possibly began as early as the last quarter of the eighth century CE (when King Khri-srong abolished the Bon religion) and must have extended until the Buddhist takeover of most of Upper Tibet, sometime between the 11th and 13th centuries CE. The physical evidence at rock art sites for violent encounters complements the scant historical evidence we have concerning the spread of Buddhism in Upper Tibet. The placement of mantras, swastikas and other symbols on caves and cliffs was a sign of spiritual occupation and political dominance for both of Tibet's religions. This claiming of territory had powerful ecclesiastical implications, at least on a symbolic level. It is not surprising, therefore, that certain protagonists of Bon and Buddhism tried in a very literal sense to erase or minimize the presence of the other.¹⁹⁵ A vivid example of this competition is met with

¹⁹⁵ Geographic competition between the Bon-po and Buddhists has not been consigned to history and continues to the present day in Upper Tibet (and in other places in the Tibetan world). For instance, at *bKra-shis do* (J-1, J-2), the adherents of both religions are still actively placing their idiosyncratic emblems and writings on the limestone

at sTong-shong phug (J-5). The jumbled placement of compositions and writings, the presence of lewd graffiti and the superimposition of inscriptions chronicle clashes between Bon-po and Buddhists, culminating in the defeat of the former by the 13th century CE (Bellezza 1997a: 250).

At the sKabs-ren pungs-ri site (I-3) in Ru-thog, a carving of a five-tiered shrine from the archaic cultural horizon was obscured by the superimposition of an inscribed *ma-ṅi* mantra (Bellezza 2002: 139, XI-19d). At Se-mo do South (B-126), in a small cave just east of rGwa-lo phug, a deliberate attempt was made to efface a red ochre inscription consisting of a counterclockwise swastika and the syllable *Om*. Likewise, in a small cave west of rGwa-lo phug, grit was rubbed into the rear wall to destroy a panel of pictographs and inscriptions that were probably of Bon-po origin, as suggested by Bon inscriptions on adjacent walls. In front of rGwa-lo phug, on a boulder 5 m long surrounded by a stone wall, a red ochre *pa-tra* (the so-called endless knot) 36 cm long was defaced by the carving of a seven-syllable *ma-ṅi* mantra upon it (fig. 354). This *pa-tra* is of the same type as found in conjunction with Bon inscriptions at Lha-khang dmar-chag (J-8) and bKra-shis do-chen (J-2), and was almost certainly made by the hands of a Bon practitioner. This superimposition, an unmistakable expression of contempt or fear of the other, reflects the usurping of the site by Buddhist practitioners. Another egregious example of the rivalry between Bon and Buddhist adherents is found in Lha-'dre phug (J-19), at the foot of Mount Gyer-rgyung/Gyer-gyung, in gZhung-smad. In this limestone cave a number of counterclockwise swastikas in different red ochre pigments were painted before a thick chunk of the cave ceiling was removed, annihilating the pictographs drawn on it (the proximate pigment applications are still in situ) (fig. 355). A red ochre counterclockwise swastika was drawn on the raw surface of the ceiling (in a gesture of defiance and religious reoccupation?) by the Bon-po. This event occurred far enough in the past for the exposed surface to have undergone significant geochemical change. rTa-ra dmar-lding (B-124) is another site where tensions between the Bon-po and Buddhists were played out (their respective epigraphy litters the site). On the north side of the mouth of the rTa-ra dmar-lding defile, a 50-cm-tall counterclockwise swastika in a beige pigment was made on the cliff face. The same pigment was used to obliterate nearly all of it, while nearby Buddhist inscriptions were left unmolested (fig. 356).

9.3 A Cross-cultural Archaeological Analysis of Rock Art

In previous works, I have called attention to the thematic and stylistic parallels that exist between the rock art of Upper Tibet and that of other Inner Asian regions (Qinghai, Mongolia, the Altai, and southern Siberia). As shown, these artistic congruencies indicate a close association of the physical environment and way of life in the respective regions, which are based on stock rearing and hunting in not dissimilar steppe and montane biomes. These social, economic and geographic commonalities gave rise to what can be called the great Inner Asian tradition of rock art (with its multiple cultural and linguistic branches). This interregional rock art tradition is primarily distinguished by the vibrant depiction of wild ungulates in various hunting arenas. The hunt portrayed in a bold and forceful manner occurs throughout Inner Asia. These general similarities in rendition and subject matter are supplemented by specific types of compositions common to both Upper Tibet and north Inner Asia.

caves and fissures. Now armed with synthetic red paint, their zeal to make their mark adversely impacts the integrity of the ancient rock art of the site. In the Klu-khang chambers of Se-mo do South (B-126), recently painted red ochre counterclockwise swastikas and simple inscriptions (consisting of *A*, *ma* and *hum*), mark the symbolic reoccupation of the island by the Bon-po. Sallying forth from their homeland in sPo-che, and in the face of increased Buddhist religious pressure exerted on their enclave, the Bon-po have struck back in this modest but highly ideological way.



Fig. 356. A counterclockwise swastika painted on a cliff face was purposely obliterated using the same type of pigment. rTa-ra dmar-lding (B-124)

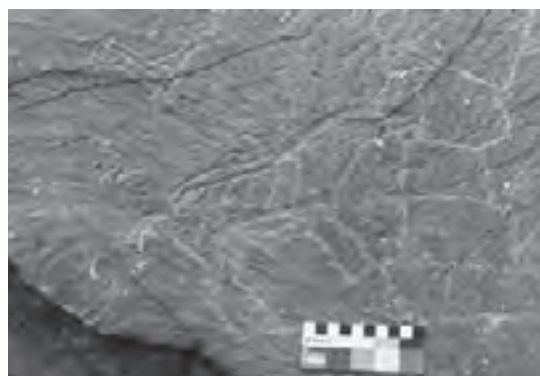


Fig. 357. A striped carnivore (tiger?) with what appears to be a long tail curled over its back, Rwa-'brog 'phrang (I-1). Above the carnivore is a wild ungulate with the double volute ornamentation characteristic of Ru-thog rock art. Prehistoric epoch

Cultural parallels between Upper Tibet and the steppes to the north underpin the general structural affinities of this rock art and the specificity of certain categories of compositions. These interregional commonalities in cultural and ethnical makeup mirror those we have examined in reference to funerary monuments and small copper alloy artifacts. As propounded, these material parallels are likely to be the product of exchanges between the Inner Asian steppes and Upper Tibet in the first and second millennium BCE. Although the two territories have much in common, archaeological, historical and linguistic evidence incontrovertibly establishes that Upper Tibetan culture developed along its own lines, largely divergent and independent from the cultures of north Inner Asia. This is graphically depicted in the rock art repertoires of the steppes and Upper Tibet, which possess many motifs unique to each of these territories.

I will now focus on specific rock art parallels between Upper Tibet and north Inner Asia in order to further analyze how these different paleocultural regions were tied together. As noted in Bellezza 2002a, these common motifs include but are not limited to:

- 1) Squatting anthropomorphous figures with bulbous objects emerging from between their legs
- 2) Striped and spotted feline compositions marked by gaping jaws, pointed ears, prominent eyes, and a tail curled back over the body (fig. 357)
- 3) Wild ungulates (probably caprids) with spiraling horns
- 4) The use of volutes and S-shaped designs to ornament the bodies of wild ungulates¹⁹⁶

According to archaeologists working on the rock art of the steppes, the squatting figures of north Inner Asia are fertility and cosmogonic symbols. Relying on non-direct means, these are frequently dated to the developed Bronze Age (Bellezza 2002a: 138, 139). Feline and ungulate art of the steppes characterized by curvilinear embellishments is widely attributed to the Iron Age Scythians. I have argued that the closely related S-shaped (double volute) design of Tibet, given its significant design variability, was in all probability not limited to the Upper Tibetan aesthetic

¹⁹⁶ These thematic commonalities are discussed in Bellezza 2002a, pp. 137–139. Probably most important of all is the rendering of zoomorphous compositions based on a schema of S-shaped lines. This is discussed below.

of the Iron Age (*ibid.*: 137, 138). Indications are that this indigenous decorative feature remained a part of Upper Tibetan rock art through the protohistoric period and even into historic times. I cite wild ungulates pursued by carnivores at the Ri-mo gdong site (I-33) as a good example of a composition featuring curl-shaped flourishes that can be assigned to the historic period.¹⁹⁷ The highly realistic execution of these animals and lightly accreted repatination indicates that we are dealing here with petroglyphs of a more recent pedigree. In Upper Tibet, the four specific types of motifs presented above are exclusively distributed in Ru-thog. As we shall see, this has significant ramifications for the elucidation of the cultural composition of Inner Asia.

In order to better appreciate the affinities between the rock art of Upper Tibet and the Inner Asian steppes, let us review the schematic modes of design. Scythian art of the first millennium BCE exhibits cleanly cut lines and a dynamism that is based on the scroll or spiral element (Kilunovskaya and Semenov 1995). According to Kilunovskaya (2003: 53), there are three main decorative elements in Scythian petroglyphs: the S-shaped line, the curl and the spiral. In making animal figures, the S-shaped line is repeated several times, to create fluid and dynamic depictions (*ibid.*: 53). Adhering to this design template causes the lower body, neck and back of animals to be S-shaped (*ibid.*: 53).¹⁹⁸ A similar schema is observed in wild ungulate petroglyphs from Ru-thog in which the top and bottom of the bodies of animals are either S-shaped or a more angular curvilinear shape (figs. 358, 359). The most popular recipients of this artistic treatment were deer and antelope, but wild yaks and sheep are sometimes also ornamented in this fashion.¹⁹⁹ This underlying schematization infuses Upper Tibetan petroglyphs with a fluidity and vitality reminiscent of Scythic rock art. This shared design canon is powerful evidence of the interrelationship between the two paleocultural complexes, for common links in their petroglyphic traditions are not limited to isolated compositions and motifs, but extend to the very way in which wild ungulate art was conceived and executed.²⁰⁰ The characteristic wild ungulate petroglyphs of Ru-thog, however, possess a double volute adornment rather than the disconnected pair of curvilinear flourishes characteristic of Scythic rock carvings and figurines. This common aesthetic element lends the rock art of Ru-thog an appearance all its own. In Ru-thog, the use of S-shaped embellishments reached its highest degree of development, and to very good effect. The beauty and grace of wild ungulates so depicted requires no further comment. As with the pillar funerary monuments and small metallic artifacts, the wild ungulate petroglyphs of Ru-thog and the Scythians are both the same and not the same. That is to say, they share certain basic structural

¹⁹⁷ For a photograph of this rock art composition, see Suolang Wangdui 1994, p. 67 (fig. 30). Note the older caprid ornamented with a S-shaped line, upon which one of the predators of the above scene has been partially superimposed.

¹⁹⁸ This design canon is illustrated for the boar, deer and other ungulates in Kilunovskaya 2003, p. 54. For a diagram of a stag from the Bizhiktig-Khaia site, in Tuva, depicting undeveloped volutes in the front and hind quarters, and diagrams of boars with similar markings, see Kilunovskaya and Semenov 1995, photos 55ff, 58ff, 59ff. This characteristic Scythic design reached the northeastern fringes of the Tibetan Plateau. A yak rendered with anterior and posterior curled lines and a S-shaped outline at the Lushan site is illustrated in Tang Huisheng and Zhang Wenhua 2001, fig. 14. According to Kilunovskaya (2003: 55), in the later Scythian period (fifth to second century BCE), the S-shaped element was replaced by a more abbreviated curvilinear design and more realistic depiction of animals.

¹⁹⁹ What appears to be a boar with the S-shaped body adornment is found at the Lu-ring la-kha site (Suolang Wangdui 1994: 55 (fig. 15).

²⁰⁰ Li Yong Xian (2001: 175–178) compares Ru-thog petroglyphs with the characteristic S-shaped schema of Scythian bronze objects. The most comparable petroglyph he refers to (fig. 67) is one from the Kham-pa rwa-co/Kham-pa ri-phug site (I-7), illustrated in Bellezza 2002a, p. 252 (fig. XI-3h); Suolang Wangdui 1994, p. 77 (fig. 50). This deer composition includes an elaborately rendered pair of antlers somewhat reminiscent of antlers depicted in Inner Asian Scythian rock art and metallic objects.

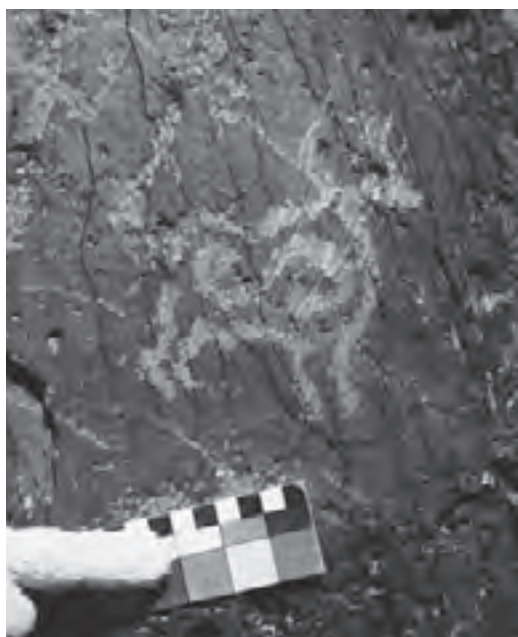


Fig. 358. Gamboling deer produced using an S-shaped schema and ornamentation, Rwa-'brog 'phrang (I-1). Prehistoric epoch

Fig. 359. A wild yak with S-shaped body ornamentation, rGyab-lung (I-27). Prehistoric epoch

elements, but these are combined to produce architectural and artistic composites of strongly contrasting dimensions. While some of the fundamental elements are interrelated, there can be no question that Upper Tibetan and north Inner Asian monuments and rock art were individualized cultural expressions.

Thematic and stylistic correspondences between the rock art of Upper Tibet and other regions of Inner Asia also manifest in other specific types of motifs and compositions. As these strengthen the bonds between these respective rock art traditions, they deserve close attention. The rock art commonalities in question include:

- 1) The rendering of ungulates with straightened legs
- 2) Deer depicted with their legs folded underneath their bodies
- 3) Small curved horns of bovidae that connect to form a circle
- 4) Bovidae with club-like tails
- 5) 'Mushroom-headed' anthropomorphs

In Scythian rock art, deer and other wild ungulates appear to be depicted on their tiptoes in what is probably a rendition of a bounding or flying movement.²⁰¹ This style of composition is comparable with early Iron Age artifacts discovered in the great *kurgans* of Arzhan. Deer with the legs folded underneath the body are another characteristic pre-Scythian/Scythian portrayal. It is commonly speculated by archaeologists that such deer carvings on deer stones depict the animal flying, which had something to do with their funerary function. These two modalities of depiction are also known from the northwestern corner of the Plateau (but not from other areas

²⁰¹ The same type of stylistic evidence is adduced to postulate north Inner Asian movements into the Subcontinent. Jettmar (2002: 98, 99) holds the view that an ungulate depicted standing on its tiptoes found at the Minar Gah site is evidence indicating that the 'Scythian animal style' was introduced into the Northern Areas of Pakistan no later than the seventh century BCE.

of Upper Tibet). Although the Scythian cervids are differently portrayed (often with prominently projecting muzzles reminiscent of a bird's bill and wave-like horns overarching their backs) from their Upper Tibetan counterparts, they share distinctive poses in common. In Ru-thog, wild ungulates are sometimes depicted poised on their hoofs as if springing up into the air (see fig. 293). The Upper Tibetan form is not as pronounced as the Scythian type in which the deer actually stand on the tips of their hoofs, but the fundamental motif of wild herbivores with straightened legs is unmistakable.²⁰² In Ru-thog (and in a less accented fashion in other areas of Upper Tibet), deer with their legs tucked underneath their bodies are known from sites such as Brag-gdong (I-6) and bShag-bsangs (I-16) (figs. 360, 361).²⁰³ These appear to depict both deer in repose as well as those flying or running at full speed.

In addition to correspondences in rock art depictions attributed to the Iron Age Scythians, Upper Tibetan rock art exhibits schematic features that in the steppic context are conventionally attributed to the developed Bronze Age. While Scythic rock art was founded on a curvilinear schema, developed Bronze Age Inner Asian rock art was supposedly structured on a rectilinear schema. Archaeologists of Russia and Central Asia have widely relied on these schematic criteria (and other inferential data) to variously assign petroglyphs to the Bronze Age or Iron Age. Needless to say, this methodology of employing indirect means to the dating of rock art is subject to chronometric verification, and can be seen only as a provisional guide to questions concerning age. Bovidae with horns forming a full circle are found in different regions of Inner Asia. They are generally attributed to the developed Bronze Age, as are many bovidae depicted with tails terminating in a ball. These two conspicuous features are also well represented in the bovidae (yaks) of Upper Tibet, which more or less conform to a rectilinear schema (figs. 362–365).²⁰⁴ If indeed these interregional schematic and stylistic rock art features date to the developed Bronze Age, we have additional evidence of cultural crossovers between the Inner Asian steppes and Upper Tibet in the second millennium BCE.²⁰⁵ This would tend to strengthen the thesis that Bronze Age cultural antecedents played a seminal role in the establishment of funerary pillars and slab-wall structures in Iron Age Inner Asia, Upper Tibet included. Whatever the precise chronology in question, thematic and stylistic parallels remain, signifying potent cultural exchanges between Upper Tibet and other regions of Inner Asia. Petroglyphs of the pre-Scythian/Scythian period are thought to be rooted in developed Bronze Age rock carvings such as those made by the Okunev culture (Kilunovskaya 2003: 56). If indeed certain Upper Tibetan rock art dates to the developed Bronze Age (circa second millennium BCE), we might expect the same endogenous cultural carryover into more recent periods to have been in operation. This appears to be evidenced at ICe

²⁰² See, for example, Bellezza 2001, figs. 10.54, 10.56; 2002a, fig. XI-10d.

²⁰³ One of these is illustrated in Bellezza 2002a, XI-3g.

²⁰⁴ For examples of ball-shaped tails at the sGog-ra site (I-5), see Bellezza 2002a, pp. 236, 237 (figs. XI-3f, XI-5f). For circle-shaped horns from the Nga-lung and rTsa-phug petroglyph sites of Ru-thog, see Suolang Wangdui 1994, pp. 63, 64 (figs. 25, 26).

²⁰⁵ The establishment of a chronology on the basis of schematic features alone is rather tenuous. In Upper Tibet, we see many geometrically transitional schemata between those based on straight and curved lines, so that clear delineation into neat categories is problematic. Examples of Upper Tibetan compositions founded on a rectilinear schema that some Russian archaeologists would probably attribute to the Bronze Age include those of mTha' kham-pa ri (see Suolang Wangdui 1994, p. 89 (fig. 71) and sGog-ra (see Bellezza 2002a, pp. 235–237 (figs. XI-1f to XI-5f). At sKabs-ren spungs-ri (I-3), two deer based on a rectilinear schema with S-shaped body ornamentation reveal highly variable repatination qualities that can only be indicative of considerable age differences. See Bellezza 2002a, pp. 136, 137, 236 (figs. XI-9d, XI-19d). This underscores the significant chronological variability that appears to define analogous schematic and ornamental elements of Upper Tibetan rock art. Such long-term aesthetic development is indicative of indigenous cultural forces at play, whereby formative design features recur.



Fig. 360. A deer jumping or with its legs folded underneath its body, Brag-gdong (I-6). Protohistoric period



Fig. 361. Two deer depicted running or flying, bShag-bsangs (I-16). Prehistoric epoch



Fig. 362. Two wild yaks with horns forming full circles and ball-like tails, sNgo-sog (I-26). Prehistoric epoch



Fig. 363. Wild ungulates conceived more or less on a rectilinear schema, sKabs-ren spungs-ri (I-3). Prehistoric epoch



Fig. 364. Two wild yaks, one of which has an elongated rectilinear body, Rong rde'u-sna lhas site, rGya-gling (I-15). Prehistoric epoch



Fig. 365. Wild yak with full-circle horns and ball-like tail, bShag-bsangs (I-16). Prehistoric epoch

do (J-7) where pictographs structured on both rectilinear (phase one) and curvilinear (phase two) schemata co-inhabit the same rock panels (Bellezza 1997a: 238–246).

Another putative developed Bronze Age composition widely distributed across Inner Asia is the so-called mushroom-headed anthropomorphous petroglyph.²⁰⁶ A somewhat similar composition is met with at the Brag-gtsug (I-25) site (fig. 366). This constitutes yet another thematic link between the rock art of the steppes and Upper Tibet that requires investigation. The depiction of these anthropomorphs, not only with mushroom-like heads or headdresses, but with long rectangular bodies, raised arms and bent legs, demonstrates a close stylistic resonance. As with other rock art analogues, this can probably be seen as evidence for the fusion of religious and aesthetic conceptions that drew the Inner Asian steppes and Upper Tibet into the same pan-cultural orbit.²⁰⁷

Recently, petroglyphs featuring a cart from the Shar-tshang site (also called bShag-bsangs, I-16) and one from rGya-gling (I-15) were discovered by an art historian at Tibet University (Blo-bzang bkra-shis 2002: 61–64) (fig. 367). In his paper, Blo-bzang bkra-shis provides only drawings of this rock art. The Shar-tshang specimen depicts a vehicle with cross-shaped wheels being pulled by what appear to be two horses. This petroglyph is situated 50 m northeast of the main site, on an overhanging rock face. The more ambiguously rendered rGya-gling specimen shows three bisected circular forms along a single axis. The middle circular object (body of the carriage?) is connected to a perpendicular shaft ending in objects that seem to represent draught animals. The author compares them with chariots from the Qinghai sites of Lushan and Yeniugou, and dates the Upper Tibetan specimens to 1000 BCE to 600 CE. According to Tang Huisheng and Zhang Wenhua (2001: 259), the chariots with two wheels of four spokes each of the Yeniugou and Shebuqi sites were primarily used between the Shang and Warring States periods. They date similar chariot petroglyphs of the Heishan site in Gansu, to circa 1000 BCE (*ibid.*: 92, fig. 222). It must be noted that in many regions of north Inner Asia (including Inner Mongolia) and the Upper Indus, comparable ox- and horse-drawn chariots and carts also occur in rock art. They are generally thought to date to the second millennium BCE.²⁰⁸ On the other hand, Tang Huisheng and Zhang Wenhua believe that the three petroglyphs of chariots at the Lushan site can be dated to the last third of the first millennium BCE (based on the fact that they were drawn in perspective, their more refined appearance, and their similarity to chariots on Qin and Han tablets) (*ibid.*: 260, 261, figs. 60, 61). The discovery of two cognate specimens in the central portion of the Byang-thang is liable to have significant historico-cultural implications. It seems to establish that wheeled

²⁰⁶ A discussion of mushroom-headed anthropomorphous figures is found in Devlet and Devlet 2002, pp. 125–127. This reference relates them to shamanistic depictions and the consumption of fly-agaric.

Mushroom-headed anthropomorphs from the Chinge River site, Tuva (dated to Bronze Age), are illustrated in Kilunovskaya and Semenov 1995, photos 7, 30ff. For mushroom-headed figures from the Upper Yenisei basin, Mongolia, Khara Chulan and Chuluut rock art theatres (attributed to the late second millennium BCE), see Devlet and Devlet 2002, pp. 126, 127. In Devlet (2004: 29, 31), there are diagrams of anthropomorphs with mushroom-shaped heads or headdresses from Yenisei, Mongolia and Inner Mongolia, all of which wield bows; and other specimens from Yenisei, Chukotka and the Altai. These figures are also known in Kazakhstan and the Altai, where they are usually associated with animals facing towards the figures. These animals may depict shamanic helping spirits. See Devlet 2004, p. 28. The strongest stylistic correspondences with the Upper Tibetan composition are exhibited by the Yenisei and Mongolian variants of the mushroom-headed figures.

²⁰⁷ In surveying these thematic and stylistic links emphasis must also be given to ungulates with bi-triangular bodies distributed in the steppes and Upper Tibet. Well-studied bi-triangular ungulates from Saimaly-Tash, Kyrgyzstan, attributed to the Bronze Age appear to be among the earliest examples in Inner Asia. For a discussion of the bi-triangular motif in a cross-cultural context, see Bellezza 2002b, p. 376.

²⁰⁸ For example, see Devlet 2004, pp. 41–52; Francfort 1992, pp. 98, 100.

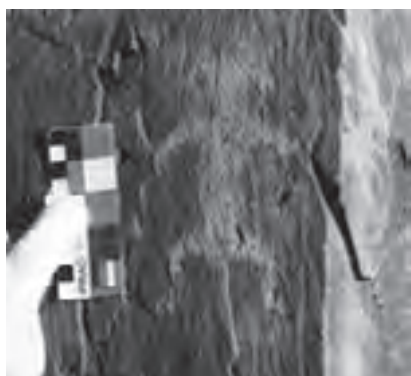


Fig. 366. A squatting anthropomorphic figure, arms raised, with mushroom-like head or headdress. Brag-gtsug (I-25). Prehistoric epoch



Fig. 367. Wheeled vehicle petroglyphs; left: bShag-bsangs (I-16); right: rGya-gling (I-15) (after Blo-bzang bkra-shis 2002)

transport, an extremely important Inner Asian technological innovation, was known to at least a section of the ancient Upper Tibetan population. The rarity of the motif, however, suggests that animal-drawn carts were not produced in the region with any degree of regularity. I think it more plausible that the Upper Tibetan petroglyphs were inspired by individuals who traveled between the steppes and the high Plateau as part of economic, military and/or cultural associations, bringing knowledge of technological developments in the field of transportation with them. The existence of wheeled vehicles in the rock art of Upper Tibet is one of the most vivid signs of ancient cultural intercourse between Upper Tibet and north Inner Asia. If the periodization assigned to the cart motif is correct (subject to archaeometric verification), its occurrence in Upper Tibet is positively indicative of Bronze Age and/or Iron Age interregional influences.

To reiterate, the chief motifs in the rock art of Ru-thog consonant with rock art attributed to the late Bronze Age pre-Scythians (circa 1200 to 800 BCE) and Iron Age Scythians (800 to 300 BCE) include:

- 1) Striped and spotted feline compositions marked by gaping jaws, pointed ears, prominent eyes, and tails curled back over the body
- 2) A schema based on S-shaped lines
- 3) The use of curvilinear flourishes (S-shaped lines, curls and volutes) to ornament the bodies of wild ungulates
- 4) The rendering of ungulates on the tips of their hoofs
- 5) Deer depicted in a recumbent or flying position

The localization of these rock art features in Ru-thog furnishes us with valuable archaeological evidence regarding a prime conduit of cultural interaction between the Inner Asian steppes and Upper Tibet. The attribution of the steppic rock art variants to the pre-Scythians/Scythians indicates the timeframe in which this interface is likely to have taken place. It must be pointed out that the systematic comparison of the north Inner Asian rock art under consideration to artifacts recovered from scores of *kurgans*, undertaken by numerous archaeologists, supports a broad Scythic chronological and cultural attribution. The stylistic and thematic correspondences between the various media are clear and convincing. It is likely, therefore, that by the early Iron Age, Ru-thog

had substantial cultural contacts with regions to the north and/or west. Indus Kohistan, a zone of north Inner Asian cultural interpenetration in the Indian Subcontinent,²⁰⁹ could constitute a western channel of communications. A northern channel probably stretched to Eastern Turkestan, a region where Scythic influences are indicated.²¹⁰ Ru-thog is situated south of the southwest corner of Eastern Turkestan, and is separated from Indus Kohistan by the extreme western fringes of the Tibetan Plateau. Ungulates exhibiting S-shaped schema and adornments are also found in Ladakh and Zanskar, areas in closer geographic proximity to Indus Kohistan.²¹¹ The occurrences of this rock art tradition on the western margin of the Tibetan Plateau intimates a geographic line of transmission between north Inner Asia and Ru-thog. Cultural permeability between the steppes and the Plateau during the Iron Age may even have affected regions further south. It is thought that the rather sophisticated population that came to be interred in the cave system of Mebrak in Mustang may have originated in Eastern Turkestan (this assertion is predicated on the types of beads and baskets, pottery shapes and funeral rituals revolving around the deposition of goat and sheep heads) (Alt *et al.* 2003: 1533; Simons 1997: 505). The Mebrak site is supposed to have been poised on important east-west and north-south trade routes (Alt *et al.* 2003: 1533), which should have brought it into close contact with Upper Tibet ('Brong-pa is situated immediately to the north). It can well be imagined (but not yet proven) that items like bamboo, medicinal plants and textiles moved north from Mebrak while animal products and salt reached this trade nexus from Upper Tibet.²¹²

²⁰⁹ Francfort takes the typical striped feline petroglyphs of the Upper Indus, Ladakh, Zanskar, Ru-thog, Mongolia, and Inner Mongolia as evidence for the arrival of Saka-related tribes into the northwest Subcontinent and adjoining areas during the first millennium BCE. Although he believes that the feline petroglyphs probably pre-date the migration of the Yüeh-chih tribes into the Subcontinent in the second century BCE, the spread of this people into the Subcontinent supports the notion of widespread population movements along these routes. Francfort also postulates an economic model in which the Pamir Saka were impelled to make seasonal forays to the northwestern Subcontinent for grazing purposes. See Francfort 1992, p. 98.

²¹⁰ Tang Huisheg and Zhang Wenhua (2001: 260) assert that Ru-thog was an important passageway between the northern steppes and the Tibetan Plateau but provide little empirical data to support their position. Cultural connections between Ru-thog and Eastern Turkestan may have also existed in a later period. In 1992, six tombs were excavated at Nga-lung (sp?), in Ru-thog. The superstructures were circular and composed of variable-sized stones heaped together. These structures were 2 m in diameter and 1 m in height. The burial pits were rectangular. The interments included a mother with child and an adult couple. Unglazed greyware, charcoal, bits of bone ornaments, an iron hook, a horseshoe of iron, small beads, and a hair rope (with black, red and white braids) placed around one of the corpses were found in the Nga-lung tombs. Also, the remains of textile eye covers were discovered, mirroring a mortuary custom practiced by the Uighurs. Nga-lung has been estimated to date from the fourth to eighth century CE. See Huo Wei 1995, pp. 44–48.

²¹¹ See deer petroglyphs from Choksti (Zanskar) and Matho (Ladakh) in Francfort *et al.* 1992, pp. 152, 153.

²¹² In 1995, a community burial was discovered in a Mebrak cave system (B Group). Dated 400 BCE to 50 CE, remains of around 30 naturally mummified bodies were found resting in wooden coffins with ornamental carvings and elaborate paintings. Several types of wild ungulates were depicted on the coffins. Grave goods included personal ornaments, utilitarian objects and the remains of domestic animals. The corpses exhibit morphometric affinities to Mongoloid populations. Residential caves were hewn into the rock faces at different levels above the valley floor. The burial cave (3600 m) is located in the seventh or highest story of the cave system. The corpses bound in a crouching position were placed on or underneath wooden biers. Bamboo mats woven with different patterns served as burial shrouds. Ornaments included bronze bangles, necklaces of shell, and carnelian and glass beads of different shapes and patterns. Other personal belongings were textile garments (made from cotton, wool, linen, and other plant fibers) and fur garments (including a pair of trousers and elaborately-made goat hide boots), a wooden bow and a wooden lute. The cotton textiles display a wide variety of weaving styles (including velveteen) and the adroit use of dyes (including madder, indigo, lac, tannin, flavonal, composite varieties, and still unidentified compounds). Other grave goods consist of pottery vessels, wooden containers and woven bamboo mats. Twenty-eight organic samples were radiocarbon dated and calibrated with dendrochronological data, and indicate that the burial cave was used over a period of around 400

The nature of the intercourse that passed through the northern and western conduits into Ru-thog, and which resulted in the adoption of cognate rock art compositions, is still obscure. We might expect that Iron Age trade, migration and/or warfare between Ru-thog and the Inner Asian steppes were directed through these geographic thoroughfares. It does not appear that there were easterly access points into Ru-thog that were well used during the Iron Age. This is typified by the absence of the rock art traditions under discussion in all areas of Upper Tibet except Ru-thog. Had the pre-Scythic/Scythic flows into Ru-thog been initiated through the Sino-Tibetan marches or by breaching the Kunlun Range east of the 82nd meridian, cognate rock art motifs should also have appeared in the rock art repertoire of the central and eastern Byang-thang, but they did not. This lack of contiguity suggests that the bulk of interregional communications after circa 1000 BCE did not come across the Plateau from the east.

The question remains: who brought what where in the late Bronze Age and Iron Age? Did the Scythians carry the cultural cargo that gave rise to the rock art commonalities southward and westward into Ru-thog or was the inverse true? I am inclined to believe that the late Bronze Age and Iron Age cultural contacts tended to come from the north; that is, from the Inner Asian steppes down to Ru-thog. I base this observation on the fact that by the middle third of the first millennium BCE, the Scythians were pursuing an unfettered nomadic pastoral existence, whereas Ru-thog in this period appears to have been host to a well-developed sedentary culture based on agriculture. Conflicts between settled societies in the south and the roving steppe nomads of the north were played out again and again across late Bronze Age and Iron Age Central Asia. Hence, a clash involving an intrusion of nomads into Ru-thog would be in keeping with the general migratory patterns of this era. Significant intellectual and religious debts may be implicit in these liaisons between the steppe nomads and the Upper Tibetans. For example, Bon quasi-historical materials indicate that prehistoric priests were active in north Inner Asia (Hor).²¹³ As we shall see, there are a number of correspondences in the funerary rites of the Tibetans and Scythians which we must also take into account (see Part III, Section 9).

Regarding cultural transmissions between Upper Tibet and the steppes in the second millennium BCE, the migration of Europoids (Andronovs, Tocharians, etc.) towards eastern Central Asia may well be indicated. The ideas and technologies responsible for the creation of analogous rock art in Upper Tibet, therefore, could have been facilitated by human movements originating in the Inner Asian steppes, terminating not in Eastern Turkestan and Inner Mongolia but continuing in an attenuated or sequestered form directly south into Upper Tibet. These human transfers possibly took place via routes that encompassed the Sino-Tibetan marches as well. If some of the zoomorphous rock art of Upper Tibet is of developed Bronze Age origin, its distribution throughout much of Upper Tibet suggests that whatever paleocultural fusions there were with northern Inner Asia in this period, they were more fundamental or far-reaching than those of subsequent periods. The territorial distribution of what might possibly be Bronze Age compositions lends credence to the

years. The bones of domestic animals are comprised of 11 goat heads, two sheep heads, and a dismembered stallion. The population practiced barley and wheat cultivation and animal husbandry. Injuries were successfully treated, proof of a high standard of medical knowledge and the existence of armed conflict. See Alt *et al.* 2003; Simons 1997. For a photograph of the various levels of the B Group cave system see Schuh *et al.* 2005, p. 127. The placement of the interments at the highest level of the cave complex raises intriguing questions concerning the eschatological beliefs of the inhabitants. Perhaps this burial position was chosen to allow the dead access to the heavenly afterlife. Ideological parallels to the mountaintop burials of Upper Tibet are possibly indicated.

²¹³ As noted by Denwood (cf. 1977: 223, 224), Hor is an ambiguous ethnonym (and toponym) that in Tibetan literature has come to be equated with various Turco-Mongolian groups, including those of pre-Yuan times. As an inclusive racial and cultural term, Hor may even refer to certain early Indo-European groups of Central Asia.

view that the funerary slab-wall and pillar monuments of Upper Tibet were primarily derived from Bronze Age cultural prototypes. Like the rock art based on a rectilinear schema, these funerary structures spread across much of Upper Tibet, far beyond the confines of Ru-thog. In fact, a zoomorphic rock art tradition characterized by angular lines reached as far as the cave at lCe do (J-7), on the western shore of gNam-mtsho. This is even farther east than the territorial extent of the sui generis slab-walls and funerary pillars.

The ebb and flow of early religious beliefs, cultural traditions and technologies must have passed through regions northwest (Eastern Turkestan, Pamir Knot, Brushal, Indus Kohistan, etc.) and/or northeast of the Plateau (Gansu corridor, Inner Mongolia, etc.), great vortices of humanity since deep in antiquity. This geographic bivalency seems especially applicable to the Upper Tibetan rock art tradition, as analogous themes, styles and techniques extend across the Plateau from Baltistan in the west to Qinghai and Inner Mongolia in the east.²¹⁴ It is more difficult, however, to postulate cultural movements through the Sino-Tibetan marches as having a seminal impact on the monumental funerary traditions of Upper Tibet, because the defining slab-wall and pillar structures do not extend beyond the 89th meridian, far short of the northeastern fringe of the Plateau. If such directional factors were paramount in the creation of the sui generis monuments, they should also be distributed in eastern Nag-chu, northern Khams and A-mdo, but this is not the case.

A more refined analysis of the origins and development of Upper Tibet's archaeological resources must await the procurement of more data, particularly chronometric data. This will permit us to better trace the cross-cultural flows that spawned the creation of cognate monumental and artistic elements. A chain of cause and effect whereby a specific cultural trait has a definite temporal and spatial source is only part of the overall picture. The commonalities in funerary monuments, metallic artifacts and rock art we have been probing were part of material and mental universes springing forth from interrelated environmental and human orders. The interconnections between the cultures of Upper Tibet and north Inner Asia, therefore, are attributable to the ever-changing currents of humanity sweeping over Eurasia since remote antiquity, as well as to quantifiable points in time and space.

In Part II, we turn our attention to the great literary traditions of the Tibetans and the ways in which these reflect the archaeological record we have been exploring. As we shall see, the ancient cultural heritage of Upper Tibet has been accorded considerable coverage in Tibetan texts, furnishing a much more personalized and intimate picture of the distant past than that offered by the empirical record.

²¹⁴ The most comprehensive study of Qinghai petroglyphs to date is Tang Huisheng and Zhang Wenhua 2001 (with English summary for each chapter). Thirteen sites have been discovered in the Tibetan and Mongolian grasslands of Qinghai, the most important of which include Lushan, Yeniugou and Huaitoutala.

