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A Preliminary Archaeological Survey of gNam mtsho and Dang ra g.yu mtsho

John Bellezza

This paper reviews archaeological discoveries made at gNam mtsho and Dang ra g.yu mtsho in the last few years. During the course of seven expeditions to gNam mtsho and Dang ra g.yu mtsho¹ the author has documented a variety of archaeological sites² which with few exceptions are attributed to the pre-Buddhist period in Tibet.³ The chronological and cultural attributions associated with these sites are primarily derived from oral histories obtained in interviews with a wide variety of people at the source locations.

As a rule, it was found that only local people of advanced age and highly educated ecclesiastical figures were aware of many of these archaeological monuments. Their obscurity is typified by the fact that only a very small fraction of the population at Dang ra g.yu mtsho and gNam mtsho are conscious of their existence. Most of these sites are liable to be consigned to near total cultural obliteration in the next decades if current trends in social, political and economic development continue. It is because of this decline in awareness that a certain urgency exists in reference to revealing and documenting the archaeological treasures of the Byang thang. At the same time, however, by publicising the discovery of ancient physical remains, the door to economic and cultural exploitation may be opened as much as the portals of scientific enquiry. It is the author's earnest hope that these additions to the archaeological register of Tibet will exclusively serve to elucidate the exceptionally rich cultural legacy that was found in prehistoric times in Tibet.

In total the archaeological sites in question number at least 12 at gNam mtsho and no less than 24 at Dang ra g.yu mtsho. In the present article only a synopsis of the sites surveyed will be presented, excluding ones whose existence was verified through oral histories only. It is important to note that this tally of archaeological sites is almost certainly less than complete and that other discoveries are liable to come to light in the ensuing years.

None of these sites have been previously documented, with the exception of *Dangra khyung rdzong* and *Do ring*. A perusal of primary and secondary literary sources has not uncovered evidence of them, at least by name or location. Moreover, the Administration Commission for Museums and Archaeology Data in the Tibet Autonomous Region could provide no

data on them and neither could members of the Provincial University. Apart from the aforementioned exceptions, these discoveries represent a new chapter in the study of Tibetan archaeology in terms of Byang thang antiquities.

A major question of importance at the onset is why haven't these archaeological sites been revealed earlier? The answer seems to be that no one was looking for them. The exigencies of the geography and climate of the Byang thang are such that it proves to be an inhospitable environment. The difficult weather even in the summer must have deterred people from tarrying long enough to properly survey the region. The remoteness of the archaeological sites probably proved another obstacle as they are often located in inaccessible corners of the northern Plateau.

The methodology employed to document the sites is often called surface archaeology. At no time was even a handful of earth or stones excavated. Without the proper tools and preparation, excavation is inconceivable if the scientific integrity of the discoveries are to be retained. Another pertinent consideration in only carrying out surface archaeology is the desire to respect the prohibition Tibetans often traditionally have against disturbing the ground and the chthonic beings said to reside in it. Documentation obtained includes photographs of all the sites visited and the preparation of maps of several of them. By no means are the sites pristine or undiscovered. Without exception each of them is known to at least a small handful of local people and in some cases to virtually everyone in the region. The archaeological sites fit integrally into the economic and sacred geography of the region. For example, some of the sites are grazed by the livestock of the *'brog pa* on a periodic basis, and occasionally they may serve as encampments or exhibit other signs of habitation. Virtually all the sites fit into the scheme of the regional sacred geography. They may be the residence of an elemental deity or demon, or may manifest specific qualities of the Divine Dyads.⁴

The archaeology of the sites is still a great mystery. The chronology, culture and function of each of them remain enigmatic. Frequently, local people conversant with the sites called the ruins "*Bonpo*" at gNam mtsho and Dang ra g.yu mtsho and considered them to be the vestiges of pre-Buddhist culture in the regions.

Furthermore at Dang ra g.yu mtsho the archaeological sites were often labelled as belonging to the Zhang Zhung civilization⁵ which is said to have flourished in the period before King Srong btsan sgam po. Only on several occasions were ruins at gNam mtsho ascribed to the Zhang Zhung civilization, although they were called Bonpo or pre-Buddhist. This contrast seems to have to do with the religious orientations of the respective lake regions. Dang ra g.yu mtsho is predominantly Bonpo and it is a

matter of religious pride that the local residents connect their ancient sites with Zhang Zhung, a civilization where it is commonly believed that Bon enjoyed a position of supremacy. At gNam mtsho, on the other hand, Buddhism is the dominant religion and thus Zhang Zhung is of marginal importance to their religious history. Consequently, there is little incentive to cite this ancient semi-legendary kingdom.

The identification of ancient monuments with Bon or to the Zhang Zhung pre-Buddhist civilization is a fairly vague imputation. Even if the exact character and content of Bon and Zhang Zhung in pre-Buddhist Tibet were clearly defined, it still remains to be proven that these archaeological localities belong to these religious and cultural milieux. Perhaps certain ones have their origins in a much earlier period? Moreover, it serves little purpose to look at the sites monolithically as it is likely that they underwent various phases of development and, rather than spanning a single time period, might in fact have enjoyed a multi-epochal lifespan.

The chronology of the archaeological niches of gNam mtsho and Dang ra g.yu mtsho will not be easily forthcoming, barring further systematic archaeological enquiry. At this preliminary point in the investigation, it cannot be unequivocally established whether a particular ancient structure was founded in the Neolithic, Bronze Age, Iron Age or in the historical period. In the light of these discoveries, the development of a historical and archaeological perspective, which accounts for the period of deep antiquity on the Byang thang, is urgently called for. It may well come to pass that this evidence affords proof of a civilization with a relatively advanced material base founded as early as the Neolithic. At the very least, the chronology and nature of civilization on the Byang thang will have to be re-evaluated to accommodate these recent findings made at the great lakes.

As important a question as how old the ruins are is how new they are. Bonpo scholars such as sLob dpon bstan 'dzin rnam dag and rGyal ba sman ri mkhan po are of the opinion that by and large these sites predate the annexation of Zhang Zhung by the *Yar lung* Dynasty kings. This is not to say that this is the case with all of them. In the biographies of *sTag lung bka' brgyud* religious personalities, there are descriptions of how the renowned lama *Kong po dar she* came to gNam mtsho and began to have contests of magic with Bonpo adepts in which he emerged victorious. As a result of the *sTag lung pa's* victory the Bonpos were forced to vacate bKra shis do and adjoining areas (*sTag lung chos 'byang*: 298-301). Are some of these "pre-Buddhist" structures at gNam mtsho as late as the 12th century? In any event the questions of chronology and typology will not be satisfactorily addressed until more detailed surveys of the sites are conducted.

How important are these discoveries of archaic remains at gNam mtsho and Dang ra g.yu mtsho, and what do they contribute to our overall understanding of Tibetan civilization? The answer to these questions can only be partially answered until the exact extent and character of these archaeological nooks are better revealed. Their sheer numbers strongly suggest that at one time material civilization at the lakes was more highly developed than in the late feudal period. Until the Communist invasion of the 1950's, permanent structures at gNam mtsho consisted of five monasteries,⁶ several hermitages and perhaps several small houses owned by the *sgar dpon* and *mtsho dpon* (heads of 'brog pa camps). Dang ra g.yu mtsho, on the other hand, was considerably more developed. In her vicinity were four operational monasteries,⁷ a couple of hermitages and eight agricultural villages.⁸ Even in the contemporary period there is only one township headquarters each at gNam mtsho and Dang ra g.yu mtsho,⁹ reflecting the sparsely populated character of these vastitudes.

In contrast, at some indeterminate time in the past the two lakes were home to more buildings and inhabitations, especially at Dang ra g.yu mtsho. Seemingly a concatenation of farms, forts, monasteries and other monuments dotted the shores of the lake. While no traces of ancient agriculture were found at gNam mtsho, at least 12 disused agricultural sectors were detected at Dang ra g.yu mtsho. This string of abandoned agricultural parcels is a powerful validation of the collected oral histories, which allege that in the time of the Zhang Zhung empire the lake was host to a much expanded population utilizing a sophisticated infrastructure. Nevertheless, at this preliminary stage of investigation, the archaeological finds at Dang ra g.yu mtsho and gNam mtsho do not necessarily corroborate the historicity of Zhang Zhung, although they are persuasive evidence in favour of its existence.

At present, not only is the chronology of the archaeological sites puzzling but their functions and usages are problematic as well. Oral histories point to them as having served a variety of purposes. Among the sites are forts, monasteries and in one case a necropolis, or so say local informants. Field surveys have shown that in addition to these functions some of the sites operated as alternative centers of inhabitation, including villages and fortified settlements. Nearly all the archaeological remains have at least some oral history or legend attached to them, scanty though it may be. For this reason it is more accurate and desirable to refer to this disclosure of the archaeological heritage of the Byang thang as modern documentation rather than discovery.¹⁰

GNAM MTSHO SITES

DO RING

One of the most famous ancient personages of Bon is *sTong rgyung mthu chen*, known as the “Scholar of Zhang Zhung” (Karmay: 27). He is said to have achieved great realizations at gNam mtsho do ring (Karmay: 48,49), and this is well established in the Bon tradition.¹¹ Do ring (Long Headland), the place at gNam mtsho most closely associated with *sTong rgyung mthu chen*, is situated on the north side of gNam mtsho and, as the name suggests, it is very long. In fact, of all the headlands at gNam mtsho it is the longest, extending more than 10 kilometers into the lake. It is one of the 18 *nyen do chen* (Grup dbang gong mas byin gyis brlabs pa'i gnas: 8,9), and for this reason and by virtue of its eye-catching length is well known at gNam mtsho.

At the very end of Do ring among prolific groups of *spa ma* (scrub juniper) are the remains of structures which might be where *sTong rgyung mthu chen*'s hermitage stood. The ruined structures contained a number of rooms, indicating that the original hermitage might have been expanded into a monastery. There are no popular Buddhist associations linked to Do ring; it is one of only a few places at gNam mtsho which still retain an exclusively Bon mantle of tradition over them. According to Bon history, *sTong rgyung mthu chen* lived during the reign of the Tibetan King *sPu lde gung rgyal*, and was invited by him to help rebuild the Bon religion (Karmay: 72,73). The ruins, or at least portions of them, could well date back to this period.

At the tip of Do ring against the escarpment is a group of ruins centering around two light-coloured boulders which together span approximately 13 meters. Around the boulders both inner and outer walls were built of flat, multicoloured stones, some of which exceed 50 centimeters in length. The two layers of walls create outer and inner passageways and rooms, seeming to enhance the sanctity of the two central boulders which occupy the core of the layout. The walls appear to have once supported a roof which might have been built of *spa ma*. Roof spans are no more than 2.5 meters, a length that fully mature *spa ma* trunks attain. On a smaller boulder, resting against the rear of the innermost passage, a Bon *g.yung drung* has been inscribed and also the mantra “A Om' Hum' Ra Dza”.¹² Both of these have *rang byon* characteristics.¹³ On the uphill or north side of the central structure and adjacent to it are remnants of several foundation walls built at different levels. To the west and south of the central edifice are the remains of other walls. Although nearly forgotten locally, these remote ruins may hold the key to an important

part of Tibetan history.¹⁴ Only an in-depth archaeological analysis of the site will determine its value.

SHA DO

West of Do ring is a much smaller headland also heavily covered in *spa ma*, called Sha do (Meat Headland). Because of its thick blanket of brush Sha do supports very little grass and therefore sees little pastoral activity. The main trail around the north side of gNam mtsho bypasses the topographical irregularities created by the headlands, thus shortening the distance around the lake. As a result, Sha do, Do ring and other headlands to the west are cut off from through traffic of all types proceeding around the lake, giving them a high degree of isolation. There are no permanent abodes (*gzhi ma*) on the headlands and very few seasonal camps. According to local oral histories, in the distant past Sha do supported a Bon monastery. While this claim could not be substantiated, there is no question that ruins are found here.

The so-called *Sha do dgon pa* consists of three complexes reduced to heaps of stones and crumbling walls. The easternmost complex is approximately 13 meters long and is composed of several small rooms, each measuring between four and six square meters. The walls of the edifice, which now rarely exceed one meter in height, are skilfully constructed and as much as one meter thick. The central complex is approximately 11 meters in length and built into the escarpment. It also comprises small rooms which seem to be interconnected without hallways or corridors and to have been built with limited access to the outside. The western complex is built into a cliff and appears to be only a maximum of eight meters long. Its foundation walls integrate naturally-occurring boulders into them, a technique which persists into the contemporary period in homes and especially in monasteries in Tibet. Although not long, this structure was built in tiers. It is impossible from this preliminary survey to gauge its original height. A rear upper level wall is among the most intact at Sha do, containing some stones which are as much as one meter in length.

SNYING DO

Further yet to the west is a place called sNying do (Heart Headland) which, according to local accounts, was the site of an ancient Bon monastery of considerable proportions. Again, it proved impossible to date the ruins unequivocally or to discern their function, but the extensive nature of the ruins supports the testimonies of it having been very large at one time. The name sNying do hints at the site as having occupied a weighty position in the cultural life of gNam mtsho at some time in the past. Today it is a highly marginalized place with little significance in the

storied sacred geography of the region. Evidently, Buddhists never invested sNying do with the same degree of prominence as their predecessors.

The ruins of sNying do consist of at least 10 complexes, containing more than 50 rooms in total. The largest of the complexes is about 13 by 18 meters in size and is oriented to the cardinal directions. Its entrance is in the south facing the lake and its north side is built into the escarpment. It appears to have contained several commodious rooms leading off a central corridor or courtyard. Its walls are still as much as two meters tall and 0.75 meters thick. In the westernmost complex, which is built into a rock outcropping, two niches (*bang khung*) have survived in a wall near ground level. This is an architectural feature still fundamental to traditional Tibetan construction today. For all but the largest rooms at sNying do, indigenous *spa ma* could have been utilized as rafters. Roofs were probably flat and constructed much as they are today, of twigs and flat stones laid onto the rafters and covered with layers of wattle. Although at this juncture it is impossible to identify the function of the ruins at sNying do, it does appear that the larger structures were communal in nature and may have been ceremonial or religious buildings. The smaller complexes could have served a variety of capacities, not least of which were domiciles. Given the diversity of architectural forms at sNying do and the number of ruins, it is reasonable to hypothesize that it was once a village and/or a sacred precinct.

R TA MCHOG DGON PA

In the middle of the northern shoreline of gNam mtsho is another long headland called *Ngang pa do*, where rTa mchog (Superior Horse) dgon pa is situated. The most distinctive and sacred features of this promontory are two pyramidal rock formations which resemble horses' ears and give the site its alternative name of rTa chog. In the reddish formation closest to the base of the headland is a narrow fissure, inside which is a stone staircase leading to the apex of the horse's ear. Unfortunately, recently the staircase has become so damaged as to preclude its use. On the ground a short distance away from the formation, stone walls on its summit are plainly visible. Given the size of the summit they cannot be more than a few square meters in area, but size alone says very little about its ancient utility. Local *'brog pa* affirm that in pre-Buddhist times rTa mchog was an exceptionally sacred place and that the ruins here represent the vestiges of a Bon monastery.

Undoubtedly something was located at rTa mchog, but whether or not it was a pre-Buddhist religious monument remains to be proven. Other not necessarily mutually exclusive possibilities include a fortress and astronomical observatory. This is suggested by the limited access to the

site and its commanding position. A rTa mchog or rTa mchog dgon pa is also found at the headwaters of the Brahmaputra river in western Tibet which likewise is said to belong to the ancient Bon period according to local authorities (Bellezza 1993: 41-44).

LUG DO

Still further west around the expansive gNam mtsho is Lug do (Sheep Headland) and more ruins which the native pastoralists casually call Bon po. In front of a series of caves, on a rocky terrace overlooking the lake, are traces of foundation walls of formidable dimensions and the remains of other kinds of structures. The diversity of structural forms at Lug do make it most appealing in reference to its archaeological value, because a seemingly rich heritage is enshrined here.

It was not possible to estimate the size of the structures that once stood at Lug do because most of the foundations are obscured by ground cover. In some places, however, the walls are exposed slightly above the level of the earth, thus permitting a rough assessment. These walls are about one meter thick and very skilfully built. Near these foundation walls are three hemispherical mounds two meters, three meters and five meters respectively in diameter. These tumuli may be composed of rubble or be waste product middens but it is more probable that they are barrows (*bang so*).¹⁵

Also at Lug do are several stone circles. The smallest of these may be old tent rings (*nang ra*), long since disused. Disused *nang ra* of varying ages dot the Byang thang and are often constructed with a circular ground plan. Below the largest cave on the site is a stone ring seven meters in diameter with a crescent-shaped arrangement of stones in the center which might have a funerary function, based on its similarity to Eurasian graves of the nomadic cultures. The largest of the circles is 17 meters in diameter, built of stones embedded in the ground and lying on the surface circumscribing the periphery. In the center of this ring is a circular nucleus of stones nearly three meters in diameter. This structure, like the other ones at Lug do, is apparently of great antiquity, attested to by the manner in which it has been reabsorbed into the rocky ground. It requires centuries generally for a structure to attain this degree of integration in the poorly developed soil horizons of the Byang thang. This largest stone ring especially resembles the Mongolian and Altaic *kurgans*.¹⁶

In the 1940s Professor Tucci documented round structures which he opined were tombs belonging to a megalithic culture.¹⁷ Modern Chinese archaeologists working in Tibet have verified that certain circular arrays of stones are funerary in nature. In one recent classification of archaeological sites on the Plateau, round graves are recorded as one of five major types of monuments found.¹⁸ Not all the stone circles on the Byang thang

are necessarily tombs, according to local *'brog pa* informants. One legend attributes them to being the places where giant tents belonging to potentates were erected in ancient times, and it calls them *tshor shul*. The largest stone ring at Lug do has a particular role in the sacred geography of the Divine Dyad and is called *Thang lha'i 'bon zhon* (the Measuring Tray of *gNyan chen thang lha*) by pilgrims. This name refers to a vessel the size of which fulfils the appetite of the holy mountain Thang lha. Although it is plausible that the stone rings at Lug do are tombs, they may also have cosmological and astronomical significance of ritual importance.

mkha' 'gro'i bro ra

At bKra shis do, one of the most important sacred sites at gNam mtsho, is an unusual cave called mkha' 'gro'i bro ra (the Dancing Concourse of the Dakinis). In the sacred geographic conceptions of this important headland, it is believed that dakinis descend from the sky to dance around a pyramidal cairn in the middle of the cave floor. This cairn is called *rdo mchod* locally, corresponding to what is commonly referred to in Tibet as a *lha tho*. mkha' 'gro'i bro ra is oval shaped, about 14 meters long and eight meters wide. Its semi-circular-shaped entrance faces north on to the lake. The walls of the cave are for the most part sheer expanses of rock, four meters to seven meters tall. The roof of the cave is open to the sky; however, the north wall tapers inward towards the top, creating a partially-enclosed space below. The cave is situated at the western end of one of the two sections of the bKra shis do headland called *bKra shis do chen*. It receives sunlight from its open roof, not from its entrance. After several earlier visits, during the summer solstice in 1995, an occasion that can only be described as serendipitous, the possible ancient utility of mkha' 'gro'i bro ra became known.

On the summer solstice at midday and to a lesser degree on days bordering it, the sun pours in from the open ceiling and illuminates the entire *rdo mchod* cairn. This is the only time of the year that the *rdo mchod* is fully bathed in sunrays. The shadows that fall on the *rdo mchod* at other times lengthen and change shape throughout the year. This is because the aspect of mkha' 'gro'i bro ra and its steep walls prevent complete illumination of the *rdo mchod*, except when the sun is at its maximum elevation in the sky. The most reliable informants explained that the cairn in the mkha' 'gro'i bro ra was originally erected in ancient times.

Due to these observations it is very plausible that in deep antiquity mkha' 'gro'i bro ra was used in ritual astronomico-astrological calculations, with the *rdo mchod* acting as a register of solar cycles. Further archaeo-astronomical investigations are required to confirm the calendrical functions of mkha' 'gro'i bro ra and to explicate the exact mechanisms

involved in its usage. Other calendrical parameters connected to sidereal, lunar and solar cycles may be implicated. Unfortunately, none of the lamas nor *sngags pa* who frequent bKra shis do could verify the possible archaeo-astronomical value of the site.

In the contemporary period virtually every *'brog pa* encampment uses natural landmarks such as rock faces, gorges, clefts, large boulders and mountain tops to keep track of time. Sidereal, lunar and solar cycles are marked in this way and are used to order patterns of migration and other periodic events in the pastoral economy.¹⁹ There is every reason to believe that such a tradition has its antecedents in the distant past. According to Bon history, at the time of King gNya' khri btsan po there were 12 Bon sages (*Bon shes pa can bcu gnyis*). One of these, named sKor rtsis mkhan, is attributed with describing the four seasons on the basis of the movements of the sun, stars and moon (Dunkar Rinpoche: 57). It is also worth noting that in neighbouring China an unbroken astronomical tradition goes back to at least 1450 B.C. according to oracle records (Sivin: 56), and that the first system of calculating the ephemerides was developed in 104 B.C. (Sivin: 57). These scientific innovations in China might have influenced the development of astronomy in Tibet, although how this could have been effected is unknown.

BRA GU RTA RA

Bra gu rta ra (the Horse Corral of *Bra gu ngom ngan*) is associated with the legendary progenitor of the *A po hor* pastoralists of gNam mtsho, who is probably the most important *mtshun lha* (ancestral deity) in the gNam ru province of the Byang thang. His corral, located between sNying do and Ngang pa do according to the oral history of the region, is ascribed to the prehistoric period. It is a huge stone wall enclosure much more massive than any that have been built in the contemporary period. *'Brog pa* say that they lack the skill and manpower to build something this large, which adds to its mystique.

The walls of Bra gu rta ra are 2 to 2.5 meters tall and over one meter in thickness. It is rectangular in shape, approximately 55 meters long from east to west and 30 meters wide from north to south and covers the top of a ridge that bisects the valley of Ma ra ri des. It suffered severe damage during the Cultural Revolution but was rehabilitated during the Communist collectivization period and used as a holding pen for sheep and goats. Bra gu rta ra has now reverted to a ritual function as a shrine to the *'brog pa* genealogical gods. Against the southern wall in the middle of the enclosure are ruins of an unknown function. Also against the southern wall, to the east of the ruins, is a *lha tho* more than two meters tall consisting of heaped up stones with prayer flags strung across them. This

is the ritual heart of the site. To the east of the compound is a two-meter-tall boulder called *Thang lha'i rta phur* (gNyan chen thang lha's horse stake), an important shrine where the veneration of horses is conducted. At this juncture the archaeological value of bra gu rta ra is unknown; however, it is a very important sacred cultural site.

DANG RA G.YU MTSO SITES

PHYUG 'TSHO GROG PO

Less than eight kilometers from the agricultural village of Phyug 'tsho is a spectacular site of three major arrays of ruins. The largest group of ruins is known as *Phyug 'tsho grog po rdzong*. At its zenith it must have been as large, or larger, than *Lha rtse chos lde rdzong* or the old fort at *Phun tshogs gling* in gTsang province. It covers the summit and sides of a rock outcropping which exceeds 180 meters in length. There are no fewer than three dozen dilapidated structures many of which were multi-roomed and probably of more than one storey in height. These structures are primarily built of stone with a small percentage of them constructed of mud bricks. Most of the walls are built in a square fashion but some also exhibit rounded corners, a fairly unusual building technique in Tibet (cf. Tucci 1973: 75, 76).

Along the southern base of the outcropping is an edifice of four or five rooms with two of the rooms still intact, complete with roofs. These remarkably well-preserved rooms afford a fascinating window into ancient construction techniques and the ecology of space. Passing by a large boulder, which acts as a gateway, one of the ruined rooms is entered. Immediately adjacent to it are the two rooms with roofs. Each of them is small—about seven square meters in size. One of these rooms has two small windows, called *khra ma* by the native pastoralists. The other room is windowless. The interior and exterior walls are made of unplastered raw stone blocks. In the room with the windows there is a one-meter-tall fireplace made of adobe with a sophisticated ventilation system built against an outer wall. The *'brog pa* predictably call it a *thab kha*. The rooms each have a smoke hole in the ceiling called a *skar khung*.

The most unique architectural feature of the rooms is the all-stone roof. The slabs of stone composing the roof are supported by stone braces resting on the wall plate, two or three per wall. These stone braces act as the structural template for the radial arrangement of roof slabs that lie on top of them. In the room with the windows two of these stone braces span the entire length of the ceiling and thus function as rafters. A parallel to this style of construction is found in the villages of Gangs lung and 'Om bu further to the north, where the roofs of the homes are also built of stone slabs, the difference being that they rest on wooden beams rather

than stone ones. According to the resident *'brog pa* these rooms functioned as *gzim khang* (sleeping quarters) for the old fort.

Despite enquiring from many within the most knowledgeable people in the region, nothing concrete could be learned about Phyug 'tsho grog po. The most informed opinions assert that the fort was founded in Zhang Zhung times but that it remained viable until the time of the Fifth Dalai Lama when it was destroyed by his governor, the Mongolian dGa' ldan tshe dbang, during his military campaign in Nag tshang.²⁰ The historical validity of this claim could not be verified, but the tall precariously perched walls of the ruined edifices do indicate that at least certain portions are not more than a few centuries old, because more ancient structures would have been leveled by now. If it was older, more disintegration of the structures should have occurred, especially the mud brick variety.

Also at Phyug 'tsho grog po is a large complex of dark-coloured stone chortens called either *mchod rten smug rang* (brown stupas) or *Brum bu nag dpal*, which fell into a state of disrepair an untold number of centuries ago. Among the most curious sets of ruins at Phyug 'tsho grog po are the ones situated on a mount above the fort commonly called *Zhang Zhung dgon pa* by the local *'brog pa*. The ruins extend for about 2,000 square meter in a dense agglomeration, an index of their erstwhile size and importance. The buildings were oriented to the compass points and were built primarily of stone. Interestingly, one of the mud brick structures had its walls shored up with courses of stones. When they were built and who built them are unknown.

SKYID GSUM

Located on prominences in the environs of the village of sKyid gsum (Three Happinesses) are the traces of three forts, which are said to explain how the village received its name. The names of these three forts are *Gyang rdzong*, *Ar pa'i rdzong* and *Grag chung rdzong*. Local histories are ambiguous as to the significance of these forts, which are often labelled as belonging to the Zhang Zhung period without any degree of critical verification.

Historiographically there is good reason to believe that one or more of the forts of sKyid gsum were operational well after the 8th century up to at least the 12th century.²¹ It seems likely that during the Sa skya Ascendency period Nag tshang was one of its vassal states or feudatories.²² If this is indeed true, then it is plausible that the Sa skya princes maintained a symbol of their power in the Dang ra g.yu mtsho region, the only agricultural enclave in Nag tshang. Of all the local villages sKyid gsum is the

most likely candidate for the center of power in this period.²³ Furthermore, it is not improbable that fortresses of a more diminutive size, like the ones found at sKyid gsum, could have survived into the 17th century and the invasion by *dGa' ldan tshe dbang*, or even later. Sadly, historical documents which could shed light on the history of sKyid gsum or other settlements in the Dangra g.yu mtsho region have not yet been discovered.

GYAM PA'I RDZONG

In the proximity of Dang ra g.yu bun, a monastery founded in Zhang Zhung times (Karmay: 47), are reportedly the remnants of a fort and palace called Gyam pa'i rdzong. The ruins cover a hilltop and the flanks of the hill and are in an advanced stage of degeneration. Consequently, it is difficult to assess their significance. It is ironic that the physical evidence of Gyam pa'i rdzong is much more extensive than that of Dang ra khyung rdzong, which is far more celebrated in Bon literature and lore. According to sLob dpon bstan 'dzin rnam dag, both Gyam pa'i rdzong and Dang ra khyung rdzong are associated with the renowned dynasty of Zhang Zhung kings known as *Lig mig rgya*. In addition to the structural remains is a large cave on the site called *Gyam pa'i lha khang* which is believed to have housed a temple in the Zhang Zhung period, according to the *g.Yu bun sprul sku bstan 'dzin tshul khri ms*. In the vicinity is another mountain cove called *Gyam bu*, which may also have ruins of archaeological interest, although they have nearly completed their retrogression into the earth which makes detection difficult.

DANG RA KHYUNG RDZONG

On the east side of Dang ra g.yu mtsho, between Gangs lung and g.Yu bun dgon pa, is *Dang ra khyung rdzong*, surmounting a group of castellated formations overlooking the lake. This is one of the most famous Zhang Zhung monuments in the Bon tradition. According to Bon history this fort was the residence of the *Lig mig rgya* king who was assassinated, paving the way for the *Yar lung* kingdom to annex the Zhang Zhung kingdom (Norbu 1995: 27).

Even at a much earlier stage in the history of Zhang Zhung, Dang ra khyung rdzong is supposed to be where the adept *Thad mi thad ke* practised rDzogs chen with his consort, *sMan gcig g.yu lo ma* (Karmay: 47). *Thad mi thad ke* is among the 13 lineage transmitters, beginning with the *rgyal gshen* (royal priest) *Mu khri btsan po* (Karmay: 74) which could date his life back as much as 2,000 years.

Dang ra khyung rdzong is also where sacred treasures were discovered by the *gTer tons gyer mi nyi' od* and *rMa ston srol 'dzin* (Ramble: 95, 96; Karmay: 168). If the scanty historical record surrounding the fort is

accurate, it establishes that it was a leading cultural nexus in the region for many centuries.

Today, however, little of its putative former glory is detected. The highest rock formation at Khyung rdzong is a dome-shaped pinnacle called Khyung ri, which local tradition attributes as the place where the *Lig mig rgya* kings built their palace. The summit of Khyung ri is very narrow and couldn't possibly have supported a gigantic palace. An examination of Khyung ri revealed only the most minimal of ruins. This paucity of ruins might be explained by the fort having undergone utter annihilation in war, by virtue of its fame. Who might have destroyed it and when it might have been destroyed are questions that only add to the enigmatic history of the region. Next to Khyung ri is a tall, reddish outcropping called *Brag bong ya*, the dwelling place of local protector deities, which has no architectural remains; but around other crags are several seemingly insignificant ruins. There are a number of caves at Dang ra khyung rdzong including one where the lama *bLa chen dran pa nam mkha'* is said to have meditated.

G.YUNG DRUNG LHA RTSE

Under the lamas *gShen rgyal lha rtse*, *Lha sgom dkar po* and *Ol sgom gun 'dul* a retreat center was founded at g.Yung drung lha rtse, located just south of 'Om bu. It was founded during the renaissance of Bon in the 11th to 13th centuries and became a thriving center of the Zhang Zhung snyan rgyud tradition of rDzogs chen.²⁴ A number of caves are found here some of which have recently been reactivated as retreat venues. Small structural remains are located at the uppermost part of the site.

'OM BU ZHANG ZHUNG MONASTERY

No fewer than three monasteries are known in 'Om bu, the largest village of Dang ra g.yu mtsho, which has 100 homes and is endowed with fairly broad agricultural lands. The only monastery still active is one built around 1890 in the Iron Tiger Year (*Bod ljongs nag chu sa khul gyi lo rgyus*: 586), in the upper part of the village. Until the Cultural Revolution another dgon pa built centuries ago existed in the middle of town. The site of this larger and older monastery has been completely effaced by the construction of new homes. Apart from these two monasteries built in the Tibetan period there is the site of a third one, which is understood to have been founded in the Zhang Zhung period. It is located at the edge of the escarpment behind the village. Traces of it are barely detectable. Barring a thorough archaeological investigation, little of substance can be said about this long-neglected site.

GANGS LUNG LHA RTSE

On the south side of Dang ra g.yu mtsho at a place called *'Bum nang chu*, located near the foot of Gangs lung lha btsan ri,²⁵ are the region's most enormous ruins. So monumental are these remains that rather than an isolated fort, Gangs lung lha rtse might represent the vestiges of an ancient township which might well have been several times the size of present day 'Om bu. According to local savants a Zhang Zhung citadel of premier importance existed here.

The citadel centers around two benches which rise above a walled vale that incontrovertibly was farmed in the past. The lower of the two benches contains a number of foundations just sticking out of the hardened ground. These massive walls are made of granite and are 1.85 meters in thickness. Approximately 90 meters in length are exposed, marking the layout of what in the past were buildings of monumental proportions. In the middle of this bench are the only standing walls on the site, measuring 18 meters square, with walls 1.75 meters thick built of granite blocks. On the upper shelf are ruins level with the ground in a dense aggregation covering approximately 600 square meters. There are also signs of other structures at Gangs lung but evidently these weren't as large as the ones found on the two benches. Other than its name and ambiguous period of construction nothing else could be learned about Gangs lung lha rtse historically. Its great age is indicated by the manner in which the ruins have been engulfed by the obdurate ground. Its size alone makes it a very worthy candidate for exploration.

MEGALITHIC SITES

South of Dang ra g.yu mtsho, on the opposite side of the *rTa sgo gtsang po* from the *rTa sgo rin po che* range, are two megalithic sites including one of the most magnificent in Tibet. One megalithic site discovered near Dang ra g.yu mtsho by George Roerich is described as consisting of standing stones surrounded by slabs arranged in a square. Nearby are tombs flanked by stones in a square configuration aligned from east to west with a large stone in the east (Tucci 1973: 52; Tarthang Tulku: 97). This description does not accurately reflect the findings of the field survey and may well refer to yet another site. In addition to the two sites enumerated below is at least one other known to the 'brog pa of the region.

There are four monoliths at a narrow constriction in the trail running along the east bank of the *rTa sgo gtsang po* at a place called *Lug gtug brang*. These standing stones are planted in a row adjacent to the edge of a steep river bank. Made of pink porphyry, a volcanic stone, three of them stand about one meter tall and the fourth stands 1.7 meters above the ground. These stones are called *rdo ring* (pronounced *do lang* or *do rang* in

the local dialect) and are said to be shrines to *rTa sgo dge rgan*, the principal peak of the *rTa sgo rin po che* group. Native *'brog pa* believe that these stones protect the expansive *Sangs rgyas* plain which opens up before them. The sacred status of the monoliths is underlined by the votive offerings of small stones and strips of cloth placed on top of them. Informants allege that they were erected at a distant time in the past and may date back to the Zhang Zhung era. Mined from a nearby mountain, the stelae have been hewn into a rectangular shape. Originally they might have been put up as boundary markers, since they are found in a natural bottleneck at the southern frontier of the Nag tshang province.

GSUM 'BUG RDO RING

Downstream from the confluence of the *rTa sgo gtsang po* and *Ngang ma gtsang po* is an extraordinary megalithic site. It is situated on a shelf about 50 meters above the east bank of the *rTa sgo gtsang po*. The site boasts hundreds of pink and red monoliths of locally occurring porphyry, organized into two separate quadrangles. The larger of the two quadrilateral arrays is located to the west and consists of roughly 800 menhirs accurately oriented to the cardinal directions. The stones are placed in rows with their two broadsides facing north and south.

The western quadrangle measures about 20 meters on its north side, 19 meters on its east and south sides and 17.5 meters on its west side. These measurements are provisional, however, because the original dimensions of the alignment of stones could not be accurately gauged due to a slight disturbance of the site on its north and west sides. Despite some minor disturbance, the original character of the monument is remarkably well preserved. The *rdo ring* in the western quadrangle protrudes an average of 25 to 50 centimeters out of the surface of the ground, but there are more than 50 menhirs that exceed 60 centimeters in length. The longest monoliths tend to be in the south-eastern corner of the quadrangle. The tallest stone in the group sticks 95 centimeters out of the ground and an uprooted one measures 115 centimeters in length. The shortest stones are less than 125 millimeters tall. The longer monoliths are tabular in shape like the *lug gtug brang* specimens but more crudely hewn. The shorter stones are pointed on top and have a pyramidal appearance. The smaller stones appear to be naturally occurring hunks of rock while the longer ones were quarried. The arrangement of the stones in rows loses some of its coherence in the sections of the quadrangle containing the shorter stones.

East of the eastern extremity of the western quadrangle is an isolated row of eight of the largest monoliths at *gSum 'bug*. This row is parallel to the western quadrangle and situated 4.5 meters away. Six of them are in

situ and two have been uprooted. The tallest in situ stone rises 116 centimeters out of the ground and the longest downed stone measures 145 centimeters and is the longest specimen of the gSum 'bug *rdo ring*.

Approximately 55 meters east of the western quadrangle is another quadrilateral arrangement of upright stones. This eastern group is roughly 12 by 16 meters in size. Its dimensions could not be accurately determined because the stones are heavily disturbed. The eastern quadrangle is much sparser with only about 150 menhirs. A good percentage of them are no longer anchored into the ground. Some of these dislodged stones have been piled up in the center of the array. Like the western sequence, the stones in the eastern quadrangle are oriented to the compass points. Between the two quadrilateral arrangements of stones is a ruined rectangular-shaped structure measuring 10 meters from north to south and 5.5 meters from east to west. A similarly shaped structure is found on the west side of the western quadrangle two meters beyond the nearest *rdo ring*. It measures about 17.5 meters north to south and 8.5 meters east to west. Their original height could not be determined but only surmised from the existing pile of stones. They might have stood at least two meters tall. These two structures are also oriented to the cardinal directions and thus correspond to the alignment of the *rdo ring*.

A variety of megalithic sites have been discovered in Tibet (cf. Chayet: 57, 58; Tarthang Tulku: 97; Tucci 1973: 50-58), dating from the pre-Buddhist period. It has been suggested that they arose out of a Megalithic culture that had its roots in the Neolithic (Tucci 1973: 57,58). The megaliths do not possess uniform characteristics; on the contrary, they seem to represent a wide range of typologies. Perhaps the megalithic site most resembling the gSum 'bug *rdo ring* in terms of location and configuration is the site discovered circa 1927 by the Roerichs in gNam ru (cf. Roerich 1931; Bellezza: 29-32). Like gSum 'bug, the gNam ru *rdo ring* site was composed of rows of standing stones. There are critical differences, however: the gSum 'bug *rdo ring* does not have cromlechs nor circular arrays of stones, nor does the gNam ru *rdo ring* have adjoining structures. Yet another major difference is that unlike gNam ru, gSum 'bug is not a site of worship or veneration, at least in the contemporary period.

Evidently, the gSum 'bug *rdo ring* was funerary in function, representing a kind of necropolis. The oral history of the site supports this assertion. Below the megaliths until some 50 years ago there used to be a permanent settlement (*gzhi ma*) known by the same name. The 'brog pa who had right of tenure here finally abandoned it and moved across the rTa sgo gtsang po to the small village of *kya rgan*, where the local *sgar dpon* resided until the Communist takeover. gSum 'bug was vacated on account of it being considered an inauspicious location. Reportedly, inhabitants at gSum 'bug

used to experience bad dreams and other negativities, culminating in a retreat from the settlement. Furthermore, the oldest woman interviewed, an octogenarian who actually spent her youth at gSum 'bug, related that many years ago a human skull and other bones were washed out of a gully below the megalithic monument. There is no living tradition associated with gSum 'bug beyond its reputation as an insalubrious spot. The pall hanging over gSum 'bug hints at it being a long forgotten funerary monument. Standing stones associated with graves are found in a number of locations in Tibet (cf. Chayet: 57; Tucci 1973: 51-58), so this hypothesis is well within the realm of possibilities.

In lower Kinnaur in Himachal Pradesh, India, Kinnauris erect mortuary stones in memory of their ancestors called *katang* which are the focus of rites of ancestor worship. Likewise, the gSum 'bug *rdo ring* might also have been the object of necrolatry. Individual monoliths in series, or the whole group of them en masse, could feasibly have been planted as the cultic funerary monument of a clan or tribe. Each of the stelae may have been raised to commemorate the death of a single individual whose remains were disposed of in a cremation or "sky burial" (*bya gtor*). Furthermore, the structures accompanying the monoliths might have been used as burial vaults or to conceal cists. These structures were presumably where the leadership or aristocracy of the culture that built gSum 'bug were interred. Conjecture here can only yield to facts when an exhaustive archaeological survey of gSum 'bug *rdo ring* is undertaken.

The archaeological sites enumerated above, as well as at least one dozen others the author was apprized of by local informants but did not visit, point to Dang ra g.yu mtsho as being a vital cradle of Tibetan civilization in ancient times. It is also fundamental to note that oral histories corroborate modern climatological and paleontological studies, which posit that a much more conducive climate existed thousands of years ago on the Byang thang.²⁶ The warmer and moister climate, which reached its peak in the Holocene, could have proved a potent impetus in the founding of an ancient civilization on the Byang thang. Categorically, in most quarters, the natives of Dang ra g.yu mtsho recognize that their civilization has been declining for many centuries and that these changes have been associated with climatic and ecological modifications which have increasingly tested their resilience and will to survive. The archaeological documentation provided above may be among the most important material evidence adducing the reality of a Byang thang-based civilization in ancient times. At the very least, it keeps alive the flame of speculation about the pre-Buddhist cultural status of the Northern Plains of Tibet.



1. RUINS AT GANGS LUNG LHA RTSE
(DANG RA G.YU MTSHO)
PHOTO: BELLEZZA SUMMER 1995



2. DISUSED AGRICULTURAL LAND AT GANGS LUNG LHA RTSE
(DANG RA G.YU MTSHO)
PHOTO: BELLEZZA SUMMER 1995



**3. INTACT STRUCTURES AT PHYUG 'TSHO GROG PO
(DANG RA G.YU MTSHO)
PHOTO: BELLEZZA SUMMER 1995**



**4. LARGEST STRUCTURE AT S'NYING DO
(GNAM MTSHO)
PHOTO: BELLEZZA SUMMER 1995**



5. LARGEST STONE RING AT LUG DO
(GNAM MTSHO)
PHOTO: BELLEZZA SUMMER 1994



6. GSUM 'BUG RDO RING
(NEAR RTA SGO RIN PO CHE)
PHOTO: BELLEZZA SUMMER 1995

Notes

1. gNam mtsho (Heaven Lake), situated 150 kilometers north-west of Lhasa as the crow flies, is a maximum of 85 kilometers in length and covers nearly 2,000 square kilometers. Dang ra g.yu mtsho is located 350 kilometers west of gNam mtsho on the central Byang thang. Like gNam mtsho, Dang ra g.yu mtsho exceeds 80 kilometers in length, although it is much narrower. These two lakes are among the most sacred in Tibet and economically are among the most important on the Byang thang.
2. Special thanks are due to *sLob dpon bstan 'dzin rnam dag* and *rGyal ba sman ri mkhan po* and *Bya do rin po che* who, over the course of the past few years (1991-1996) have unstintingly shared their time and expertise. These eminent scholars have helped to orientate the author to the possible locations of archaeological sites and have assisted in the interpretation of the finds. Many thanks are also due to my Tibetan sources who have provided their invaluable time and knowledge on these sites. Their assistance was positively essential to the process of discovery. This chapter in archaeology has been opened because the *'brog pa* were willing to share their profound sense of environment and history.
3. For a description of the term "pre-Buddhist" see, for instance, Stein 1972; Tucci 1949; Tarthang Tulku 1986; Nebesky-Wojkowitz 1956; Haahr 1969; Chayet 1994.
4. The Divine Dyads refer here to male and female counterparts in the sacred geography of the two regions. They assume the form of husband and wife (*yab* and *yum*) or brothers and sisters (*lcam dral*). The primary female elements of the dyads are gNam mtsho and Dang ra g.yu mtsho and the primary male elements of the dyads are gNyan chen thang lha and rTa sgo rin po che respectively. In what appears to be the most ancient substrate of legends associated with these sacred geographic entities, gNam mtsho is married to Thang lha and Dang ra g.yu mtsho is married to rTa sgo rin po che. However, in the relevant *bskang ba* and *gsol kha* texts a number of other relationships between the divine mountains and lakes are possible, although the basic male-female dichotomy is preserved in each case.
5. Zhang Zhung is the name of a pre-Buddhist civilization centered around far western Tibet but perhaps including (through a system of vassalage) vast areas of the Great Western Himalaya and the Byang thang. Documentation of Zhang Zhung is still sorely lacking, leading some scholars to question its very existence. Increasingly, however, a factual foundation favouring it is coming to light, although the character of its language, polity and material base is not well understood. For top Bonpo scholars such as *sLob dpon bstan 'dzin rnam dag*, *rGyal ba sman ri mkhan po* and *Nyi zla tshe dbang*, Zhang Zhung was very much a reality, although the evidence they offer does not necessarily hold up to academic scrutiny. For a discussion of Zhang Zhung see, for example, Ramble 1995; Karmay 1972; Beckwith 1987; Stein 1972; Namdak (*rNam dag*) 1973.
6. These five monasteries were as follows: a) east of gNam mtsho—*bKra shis do*

- gon pa*; b) north—*Bya do gon pa*; c) west—*Do skya gon pa*; d) south—*Gur chung gon pa*; e) 20 miles north of gNam mtsho—*Phug pa gon pa*.
7. These monasteries were: a) north of Dang ra g.yu mtsho—*'Om bu gon pa*; b) east—*Dang ra g.yu bun gon pa*; c) south-east—*Phyug 'tsho gon pa*; d) south—*Se shig gon pa*.
 8. The eight agricultural villages on the north and east sides of the lake were: 1) *Lung gnyi*; 2) *'Om bu*; 3) *Gangs lung*; 4) *La lung*; 5) *Kyil gsum*; 6) *Lha sa*; 7) *Phyug 'tsho*; and, on the west side of the lake, 8) *A' chen*.
 9. These township headquarters are gNam mtsho chu at gNam mtsho and *'Dam khung shang* at Dang ra g.yu mtsho.
 10. The archaeological sites surveyed in this article will be treated in more detail in a forthcoming book by the current author entitled, *Divine Dyads: the Ancient Civilization of Tibet* to be published by the Library of Tibetan Works and Archives (LTWA). This monograph will examine the cultural history and sacred physical geography of Dang ra g.yu mtsho and gNam mtsho compiled from field surveys, interviews and primary and secondary literary sources.
 11. sLob dpon bstan 'dzin mnam dag, and rGyal ba sman ri mkhan po, among other Bon scholars, are convinced that *Do ring* is associated with *sTong rgyung mthu chen*. In terms of geographic correlations this is one of the most important pieces of lore concerning Zhang Zhung times in Bon history.
 12. This is a Bon dharani with each of the syllables representing the five human attributes—body, speech, mind, knowledge and activity field respectively—in their purified condition. It is recited as a prelude to certain sadhanas to prepare a practitioner for more immersed levels of meditation.
 13. *Rang byon*, or *rang byung* (self-formed/self-manifested) is an extremely important phenomenon in conceptions relating to Tibetan sacred geography. Often, unusual or sacred natural phenomena or topography are believed to have magically appeared from an inner potentiality, without the agency of an external creating force. Famous saints, and especially the places where they practised religion, are frequently associated with rang byon effects.
 14. One of the great lacuna of Tibetan history is the exact nature of the relationship between the sPu rgyal and Zhang Zhung empires in the Pre-Imperial period. It is still a puzzle how these two empires stood vis-a-vis one another and what kinds of trade, commerce and other interactions they may have shared. *sTong rgyung mthu chen* in the Bon historical tradition is said to have been a cultural bridge between the two empires, translating a tremendous body of texts in the Zhang Zhung language into Tibetan (Karmay 1972).
 15. *Bang so* are funerary mounds found throughout Tibet chronologically spanning the Bronze Age to the Imperial period, and have been the subject of research and speculation since the early part of the 20th century. They are treated in a wide range of Tibetological works. Good sources of data on the bang so include: Haarh 1969; Chayet 1994; Hu Xu Tru 1993.
 16. *Kurgans* are burial structures found in Mongolia, the Altai region of Siberia and Turkestan and consist of earth and stone heaped over ancient graves of the cist type. It was George Roerich who first appreciated in the 1920s the parallels which exist between the kurgans and barrows on the Byang thang.

Kurgan is a generic term referring to burial structures over a wide range of Central and North Asia and inclusive of many cultures. This diversity is also borne out chronologically, with kurgans striding a time span from the Afanasyevskaya culture dated to the end of the third millennia B.C. to Hunic times in the early centuries of the Christian Era. For a description of *kurgans* see, for example, Paulinskaya: 30-32; Lubo-Lesnichenko: 47, 48;; Vainshtein: 57; Gryaznov 1969: 46, 52, 89-91, 93, 102; Roerich: 19, 20.

17. Professor Tucci discovered what he thought were either graves or ritual sites, consisting of circular areas enclosed by boulders piled on top of one another with one or more monoliths in the center. These included monuments at *Seng ge rdzong* and *Dop tra rdzong* (Tucci 1980: 225, 244, 245). Tucci distinguished between circular stone sites with or without a central stele. An example of the latter is found near *Rwa sgreng* (Tucci 1973: 51, 56).
18. A summary of the five kinds of archaeological finds in Tibet would include: rock art, megaliths, round graves, slabstone graves and Xin duo spur ruins, according to Hu Xu Tru 1993: 224-226.
19. This is corroborated by sLob dpon bstan 'dzin nmam dag, who spent over four years at *Byu ru mtsho* near gNam mtsho between 1945 and 1950 with his master, sGangs ru tshul khri ms rgyal mtshan. During his many interactions with the 'brog pa he observed their system of using natural features to tell time.
20. The invasion, subjugation and consolidation of *Nag tshang* during the reign of the 5th Dalai Lama is mentioned in a history of the province (cf. La stod 'jam dpal 1989[?]: p.259).
21. In 1127 Genghis Khan defeated the Minyak dynasty and conquered the Byang country of *Ngam ring*, which lies adjacent to *Nag tshang* (Stein 1972: 34). It is unlikely that the Dang ra g.yu mtsho region could have escaped the devastating invasion of Genghis Khan.
22. The Tibetological historian Robert Vitali has formulated a hypothesis that explains the political status of regions like *Nag tshang* as being under the control of the Sa skya rulers during their Ascendency period (interview 1995). It does seem unlikely that sparsely populated *Nag tshang* could have eluded the might and domination of the Sa skya pa and their Mongol overlords.
23. During a period that corresponds with the second diffusion of Buddhism in Tibet, the rDzogs chen master gShen rgyal lha rtse founded a hermitage at g.Yung drung lha rtse with the patronage of a sponsor from sKyid gsum (cf. *Biographies of the Lineage Lamas of the Zhang Zhung sNyan rgyud rDzogs chen Tradition*: 40-44). sKyid gsum might have dominated the region for centuries, because there is another reference to its influence in which it is stated that in the late 17th century *Dang ra g.yu bun dgon pa* was under the control of the sKyid gsum bla brang (cf. *Bod ljongs nag chu sa khul gyi lo rgyus*: 581). Today sKyid gsum occupies fourth place in the population figures for the Dang ra g.yu mtsho agrarian villages.
24. This is a summary of an account of g.Yung drung lha rtse kindly supplied by sLob dpon bstan 'dzin nmam dag.
25. Gangs lung lha btsan ri is one of the eight peaks in the rTa sgo rin po che group called *rTa sgo mched bdun rol brgyad* (cf. *Zhang Zhung Hri pa gyen med*).

26. It is now well accepted that from the post-Pleistocene period onwards the climate of much of the northern hemisphere, including Tibet, gradually warmed, eventually becoming even warmer and moister than it is today. For an overview of climatic change in Central Asia and China refer to Dolukhanov: 359-360; Lamb: 251, 415. These studies provide a perspective on the state of the earth's climate in ancient times. For more specific treatment of the Tibet Plateau see, for example, Tarthang Tulku: 47-50; Zheng Benxing: 93-101; Huang Cixuan 1983. The former mentioned contains two articles found in the *Beijing Science Press* on spore-pollen analysis in southern Tibet and on the Byang thang. Unfortunately, the author did not get an opportunity to examine them but had to be satisfied with an oral appraisal of their contents.

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