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THE OLD VILLAGE CENTRE OF LAMAYURU IN WEST LADAKH:

An analysis of the Spatial Ordering of Architectural and Socio-Cultural Structures.

Reinhard Herdick

Preliminary remarks

This contribution 1 is based on are directed towards a characterization and analysis of the old village centre of Lamayuru. Both the village and the monastery are called gYung-drung. It is an old enclosed fortified town that has hitherto attracted little attention, probably because it is initially out of view for the visitor approaching it along the road, lying as it does behind the massive building of the present-day monastery.

Somewhat more remote historical dates apply in the village only to a cult building that, on the basis of its ornamental features, can be assigned to the "Alchi period" (see below). No other concrete historical clues are known to exist. Thus it is not even known when exactly the cult building and monastery of the original school (bKa'-gdams-pa) were appropriated by a more recent monastic school ('Bri-gung-pa) (Petech 1978: 324). The only thing certain is that the 'Bri-gung-pa came to Ladakh around the middle of the 16th century (Petech 1977: 29). The monastery and its history, however, are not the object of discussion here.

Signs of heavy decay have been observed in this architecturally and culturally highly remarkable village centre within the past fifteen

^{1.} The research for this contribution was carried out in 1979 as well as (and to a considerable extent) last summer. In connection with the work done for this contribution, I should like to thank Tsering Tundup, Sonam Kunga, Lama Konchok Sonam, Phunchok and Yangchan Dolma, and Konchok Thabka, along with Isabelle Riaboff, Peter Schwieger, Nina Walcher, Ralf Kübacher, Philip Pears and all other unnamed persons.

years, and the imminent destruction of a number of houses, along with the construction of a new truck road that will reportedly impinge on the village and fields, will bring about additional change. Measures to preserve the village's unique ensemble of parts are desperately needed.

Many families are shifting to the newer part of the village. Nevertheless, some ten houses in the old village are still inhabited. A number of older informants had precise knowledge of earlier functional and social features of the village. In their opinion, their culture has been influenced by the Dards ('brog-pa). The extent of the Bön (bon-po) impact, occasionally cited, is controversial.

Indeed, there are several differences in comparison with other Ladakhi villages. Certain shrines and cult objects are not found around individual houses or within the wider surroundings (monastery and village), or else are not visible to the outsider, having been transferred to inside settings. There are also differences in social structures. Thus there is no class of "low" or "impure" persons (rigsngan) in Lamayuru: everyone is a butcher, musician or blacksmith; only for very specialized forging, for example, would a person go to one of the surrounding villages. As regards the study of the complex social structures, it was carried out within the whole village; in line with the topic, however, only the old village is dealt with. One may go so far as to say, though, that certain present-day forms of organization clearly reflect the original form in the old village. Beyond the normal economic situation in Ladakh, mention may be made of the heavy caravan trade (even after the closing of the border) along with animal husbandry. The caravans that are constantly passing through bear witness to this, pack animals having placed their stamp on the character of the village. Finally, Lamayuru's central position within the region is notable. Twelve high-lying summer villages (phu) are satellites to the village, and twenty-five monasteries are subordinate to the 'Bri-gung-pa monastery. In winter the high-lying villages are said to be uninhabitable (as the designation implies), and it is purportedly only the stream in Lamayuru that does not freeze over. One may assume that the village exhibits a significantly larger population in winter.







Fig. 1 Aerial photograph of the ancient fortified village from the south (1979). In the background, the walls of the monastery. Lamayuru is the only surviving rdzong of Ladakh. — Fig. 2 There are only underground or covered passageways in the village. — Fig. 3 Fortifications from the east.

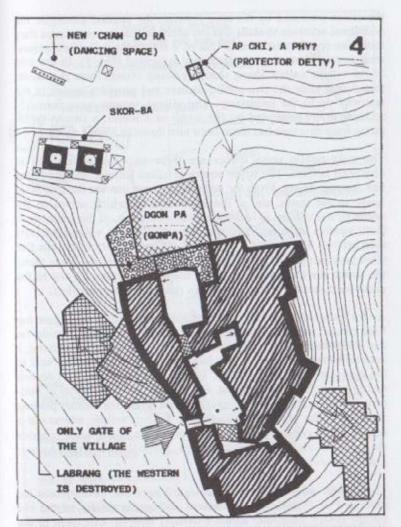
The old village (rdzong)

(Remark: The contents of this and the following chapters are based on architectural features.)

The old village is remarkable in its character as a fortified town (rdzong), in which, in times of need, all the herds of cattle can be sheltered. This function remained even after the village expanded. The village lies on a long stepped spur of rock that extends into the elongated river valley at a geographically exposed point, approximately dividing in half the length of the valley's cultivable land. The high, narrow ridge provided good defensive opportunities and a broad view of the valley. The rock formations, moreover, were relatively easy to shape; there are a number of hollowed-out cavities in them.

Figure 4 shows that the site was an enclosed, flatly constructed complex of houses that resembled an extended "castle" with two large courtyards. The outer ring of the wall, from which the slope in most places fell away sharply, formed a component of the houses. It consisted of a four-to-twelve-metre-high foundation wall of unplastered stones (or else ones plastered with clay), on top of which the actual houses were set (Fig. 3). In the north, the former course of the ring is unclear, since the present-day monastery now stands there, revealing several stages of construction together with extensions. Without the monastery the northern boundary would be a strategic vulnerability, as a large drop (approximately ten metres) in the ridge offered opportunity to attack from above (see remarks below), or otherwise the village may have continued above the drop, given that the ruins of the former residence of the astrologer are located there (see Fig. 5).

The houses usually have four floors, and often a superstructure rather like a tower, and steep stone steps inside as well². Together with the network of paths through the village, they constitute an additional form of defence. Passageways are all underground or bridged over (Fig. 2). If one is unfamiliar with the system of paths,



Diagrammatic plan of the village centre Lamayuru. Fig. 4 The plan shows the building structure of the ancient village with is two squares and the fortifications of the castle (rdzong) with its single gate. In additions, there are the Labrang, the gonpa and the diverse extensions.

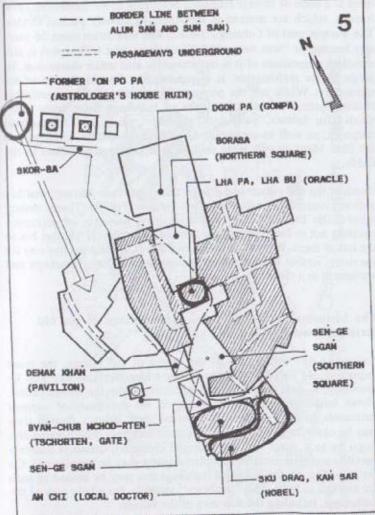
A paper on the patterns of spatial ordering in houses in Lamayuru and the K\u00e4thm\u00e4ndu Valley (as contrasted with one another) in terms of symbolism and functionality was delivered for the proceedings of the 7th seminar of IATS in Graz, 18-24 June 1995.

the effect produced by the faint lighting, the angular passages, the additional accesses to stalls and the tiered levels (in some cases they look like spiral staircases) is that of a labyrinth; it is often impossible to tell where a particular house is located (Fig. 5). In the part of the village called Shung shang (gZhung srang) there is a wider tunnel that joins the two public squares and provides access to the stairway up to the monastery. The village squares were formerly architecturally separated by the width of a house; a two-to-three-metre-long structure has since been torn down to form a passage.

The only public open spaces are these two village squares at displaced heights. The upper square is called Borasa, and the lower one Seng-ge sgang. From the upper square one can see the mountain range to the south, and at the lower square, which serves as the centre of the village, is found the latter's lone exit, in the south-west. Both squares were, and still are, important during village festivals (see below). The dances ('chams) of the community of monks that were previously held on the lower square no longer take place there; the dance site ('chams-do-ra) was transferred higher up and to the north-west, next to where the monks dwell (Fig. 4, upper left).

As for individual buildings in the village: The only village gate has been placed very adroitly, being out of view from the outside far and wide thanks to a rock formation in front of it. (Lo Manthang, a culturally comparable site, also has only a single city gate.) Next to the gate, on the village square, is a pavilionlike building (de-mag khang), now heavily damaged, that served as an observation platform during village festivals, and as a rest-house for visitors passing through. To the south of the gate is the Seng-ge temple, whose site is described in greater detail below. Somewhat lower down, outside the gate and along its axis, is a large, porticolike chörten (byang-chub mchod-rten).

The various areas of architectural significance and development are indicated on Fig. 4. On the eastern and western sides of the old village centre were later added a densely built-up extension to the village comprising similar structures (crosswise shading); in the west there are similar underground passageways that are not immediately visible. Between the gompa and the village, finally,



Diagrammatic plan of the village centre Lamayuru. Fig. 5 This plan shows the underground passageways, Seng-ge temple, pavilion and living quarters for certain groups. Also indicated is the dividing line between the two parts of the village: Alum sang and Shung shang.

there is a zone of storage buildings belonging to the monastery (bla-brang), which are marked in the figure by closely packed circles. The western part of Labrang ('De-ba) was torn down some 26 years ago because it "was very old." The eastern part (rTsi-tsho) is still standing; demolition of it is unfortunately also under discussion. To judge by its architecture, it is presumably the oldest area of the monastery. While not the picture of perfection, it is nevertheless characteristic. In both complexes of buildings there were many sheds (for horses, yak, dzo) serving trading and agricultural purposes, as well as containing household equipment, kitchens and the like. Many monks were said to have previously worked in the fields.

North of the old village and gompa there is a small "shrine" that has a direct connection with these two entities (Fig. 4). There, among others, the tutelary deity Apchi resides, his axis of reference pointing not to the centre of the monastery or the old village, but to the left of them. It is said that this is a means of showing the way for the deity, so that he can protect and circumambulate the gompa and settlement in a clockwise direction.

The historical build-up of the surroundings of the old fortified town (see Fig. 6)

Following this description of the centre of the village, the most important old sacred buildings in the wider surroundings will be discussed, as well as their spatial relationship with the village centre. These buildings may all be assigned, on the basis of various indicators, to the "Alchi (A-lci) period" (see below), though they may be older. In the case of other sacred buildings with nothing else to go by (e.g. mani walls and simple chörtens), dating is scarcely possible and thus remains speculative; they may be equally old. On the map (Fig. 6), the historical buildings that may be treated as such are marked in bold. They "embrace" virtually the whole area of the settlement, including the new area of the village.

The most striking feature is an agglomeration of chörtens (mchodrten) beyond the village to the west, along the western bank of the stream (G). The buildings in question are seven large chörtens with

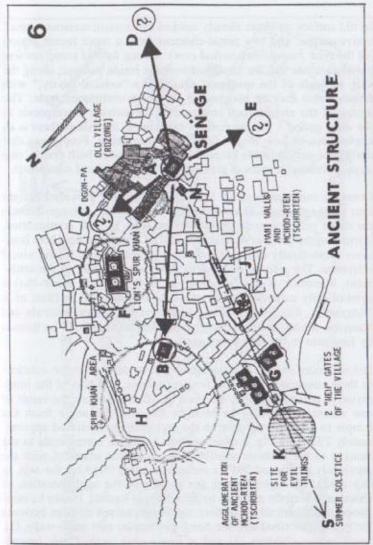


Fig. 6 structure of the ancient village (grey) and surrounding areas. Seng-ge temple at the centre (A) of a group of five temples (B,C,D,E). In the north-east there is the circular path(F). Area (H) of the crematory "houses". Axis of the summer solstice (S) with the fivestupas (G) and other sacral buildings (T,J,N).

an old surface structure already marked by erosion; numerous small votive stûpas; and two portal-chörtens from a more recent period (of the type: byang-chub mchod-rten). Among the old group are five portal-chörtens that are furnished over the inside passage, along the side surfaces of the quadratic squinchlike "cubical cavity," with frescoes that may be assigned to the above-mentioned style. The dating of the architectural structure on the outside corresponds to the same period. No inscriptions exist, but in the village there is an explanation of how the edifices came into being. People say that during the period of the kings these chörtens were built one by one as propitiations in cases of grave lapses by certain local inhabitants.

Compass measurements of individual structures provided insight into another motive. The side wall surfaces of the passage through the more recent western portal-chörten lead, in their continuation, directly to the Seng-ge temple (294°). The Seng-ge temple here functions symbolically as a gatekeeper, as is underscored by the visual reference. The gate, in fact, marks the ritual boundary of the settlement, inasmuch as the "negative" or "evil spirit" (e.g. me-tho) is symbolically ushered out through it to the area (K) in front of it (Kagane-la, Ka-gin-la) during a number of village festivals and domestic rituals, and may there, depending on the ritual, be thrown by four men in the four directions.

Below, under section 8, some detail will be devoted to the solstices in their connection with the *Seng-ge* temple, and also to the interpretative possibilities they are open to. For the present, the result of one measurement may be brought forward: the angle from the temple to a significant point in the surroundings measured approximately 292° (see Fig. 6 under section 7), which corresponds to the bearing to the summer solstice. This is almost identical with the previously mentioned 294° (a recheck is called for),4 but the axis, in any case, runs right through the middle of the agglomeration of chörtens, where the entrance to the village is located. It may be mentioned parenthetically that there are further sacred edifices between the group described and the *Seng-ge* temple: two mani-walls (J), small votive chörtens (J) and a *byang-chub mchod-rten* (portal-

Fig. 7 This plan shows the Seng-ge Temple as a observatory for the winter- and summer solstices. They used the four landmarks (three mountains and a valley) for measurement. Mountain Khar for instance marks the sunset point during winter solstice.

MWDS S

^{3.} According to Howard (1985), "Archaeological Notes on mC'od-rten Types in Ladakh and Zanskar."

The accuracy provided by a good compass is ±1/2".

chörten) outside the Seng-ge village gate (N). This prominent "solar axis" was evidently of great importance.

To the north-west and east of the village there are a number of artificial hollowed-out spaces, as well as natural caves, that will reveal signs of possible old age only after archaeological investigations.

The Seng-ge temple (A) and the associated group of temples (B,C, D,E), along with the crematories (H) and the two large chörtens along the circumambulatory path (F) are described further below.

Brief remarks on the most important social structures (Figs. 8, 9, 10)

The smallest important social unit is the so-called "main house" (khang-pa). Each main house has its own name, which is often mentioned in addition to the family name. Further, each main house in Lamayuru has on the roof terrace a "main god" (lha-tho) to whom a "family group" relate. The possession of inalienable fields is closely bound up with main houses. The "family groups" also extend to the so-called "subordinate houses" (khang-ngu, khang-chung, chung-rtsang), in which usually sisters, parents and grandparents live. For each main house there is one male overseer; when the latter dies, however, a grown son or his wife may assume this function. In Lamayuru, there are 37 or 38 main houses. Two of these houses also own fields in other villages.

It is principally social status that attaches to the concept of a main house, and this is associated with various rights and duties in the village community. Certain jobs are reassigned on a yearly basis. The reassignment usually occurs at the beginning of the ploughing and sowing season, at a precisely fixed point in time (the tenth day of the third Tibetan month). These jobs include, for example, those of the village head ('go-pa) and his assistant (utal), the overseer of water rights (chu-dpon), watchmen to keep domestic animals from causing damage to fields (lo-pa) and the organizer of repair work to the gompa and sacred buildings (trongs-dpon). Further, there are

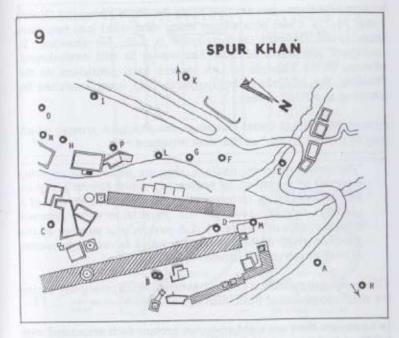
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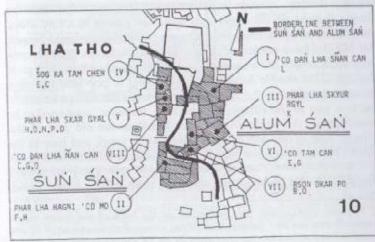
various forms of organization for the village herders; for regulating the use of water mills; as well as in multifamily contexts, particularly in order to facilitate work in the fields. The short planting season requires, for climatic reasons, a quick and effective prosecution of labour.

For all matters of socio-economic and religious importance within the village community there are monthly village meetings (on tshi-bcu jak day). These occur in two territorially precisely delimited areas, horizontally defined social units, the so-called bcu-tshogs, each with its own name. The village is divided into two halves, so to speak: the eastern half is called Alum san ('A-lam-srung), and the western one Shung shang (gZhung srang). The dividing line runs through the two squares and the land the Seng-ge temple overlooks to the east (Figs. 5 and 10). The question how many main houses are located in one village half was spontaneously answered with ten, but this merely corresponds to the original concept of "group of ten," bcu-tshogs. In fact, Alum san comprises 20 main houses (khang-pa), and Sun san 17; see Fig. 8.

Again, the khang-pa play a role in the organizational form of the bcu-tshogs. The group of each village half meets on a rotational basis in one of the "main houses," so that this type of house must exhibit a correspondingly suitable size for the kitchen and the usable space on the flat roof. A complex of religious ceremonies, a common meal and a discussion period are common features of these meetings. The seating arrangements during this discussion period correspond approximately to those during public marriage gatherings (Fig. 12). The talk is heated, but a consensus is reached through carefully weighed concluding words from recognized authorities (usually elders). The religious part, held under a ritual master (dbon-po) in the kitchen, is concerned, among other things, with worshipping Padmasambhava, reciting various mantra and preparing various forms of gtor-ma. It is crucial that each representative of a khang-pa consume certain "barley cones" (tshi-bcu mchod-pa).

This spatial-social unit (bcu-tshogs), consisting of main houses of defined social status, appears to exist in many ethnic groups in the





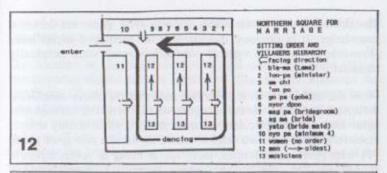
western Himalaya - one example being the Dards ('brog-pa) (Vohra 1983: 71-75). Cases of a village being subdivided into two parts seem to be frequent, as originally in Leh, for instance. In Lamayuru, the status of these bcu-tshogs is still unweakened, whereas in the example of Leh modern local politicians do the deciding, the bcu-tshogs head councils only being consulted for advice or to discuss matters.

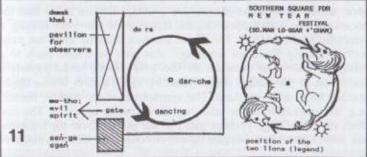
Among the vertical social groupings, the *pha-spun* groups, which may be termed "clans," are the most important.

"According to recent findings, they are understood as being members of a number...of households, which form a group on the basis of certain reciprocal rights and duties,...worship of a common tutelary god and the possession of a common crematory (spur-khang). [...] A person is a member of the pha-spun group of the household in which he resides by reason of birth or marriage." (Brauen 1980: 23-24).

This form of organization comes into prominence principally during the ritual complexes of birth, marriage and death.

In Lamayuru there are eight pha-spun groups, each associated with tutelary deities - certain superordinated lha-tho - that, like the simple lha-tho on the upper roof level, are placed in a tiny room. One pha-spun group comprises between two and seven main houses. All lha-tho have particular names (Fig. 8),5 whereas the pha-spun only occasionally has a name of its own. Four groups have two main lha-tho. This double form exists, according to previous findings, because the old lha-tho was transferred from the village centre to the new part of the village; the old deity, however, continued to be worshipped. All eight lha-tho are found in the old part of the village: four in one half of the village (Alum sang), and four in the other (Shung shang) (see Fig. 10). If the table is referred to (Fig. 8), it is seen that more "main houses" of the pha-spun group are always found in the half of the village where the main lha-tho is also found.





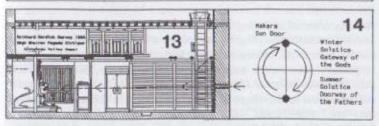


Fig. 11 Diagram of the direction of dance in the southern square during the New Year's festivities on the day of the winter solstice. Whereas in the myth the sun shines into the open mouths of the lions, the dancers dance in the opposite direction, so as not to be eaten up by the lions. — Fig. 12 Diagram of activities of the northern village square during marriages (Dancers dance counter clockwise). — Fig. 13 At midwinter the sun shines through a hole in the wall into the mouth of a tiger deity (Bågh Bhairav Pagoda, Kirtipur, Kathmandu Valley). Possibly this reflects an ancient cult of similar structure, as in Fig. 11. — Fig. 14 Makara and the zodiac according to Snodgrass.

^{5.} Regional relationships may be posited on the basis of the names of the superordinated *lha-tho*. Isabelle Riaboff has shown that *lha-tho* no. V is also found in Zanskar, and the *pha-spun* name for no. IV apparently indicates that the group is from Kashmir.

The shifts and exceptions within the pha-spun group are common knowledge. It is obvious, though, that the territorial social units (bcu-tshogs) and the vertical ones (pha-spun) were originally identical.

From the table (Fig. 8) it is further seen that the above-mentioned definition referring to the assignment of particular crematories (spur-khang) to a particular pha-spun group is valid in only several cases (e.g. I, III and, to a certain extent, II). In one pha-spun group (V) with seven main houses, there are as many as seven different spur-khang. Pha-spun and spur-khang, however, represent a unit of sorts within the context of ancestor worship. Brauen notes that the ancestors are worshipped on the last day of the year during a symbolic feeding (1980: 86). Since ancestor worship does not exist within "purely Buddhist teaching," this may be traced back to a primitive cult. The location of the spur-khang in Lamayuru is north-east of the village (Figs. 6 and 9), along a river whose upper reaches have dried up there. The symbolism of the aquatic context (e.g. as a threshold to the other world) is readily apparent. The line from the old village (village gate) to the point where the solstitial sun sets is possibly a relevant factor: not one spur-khang is south of this line.

A certain social ordering comes out spatially in the location of the various crematories (Fig. 9): astrologers (dbon-po), the families of nobles (sku-drag, khang-sar), the lama and the rinpoche have their respective sites on the eastern bank (in the figure, the locations of this sequence of spur-khang are marked C, B, A and R). Of particular interest is the shape of the crematories in the case of nobles: they are "twin-shaped" (B), which is, according to informants, one feature of the royal house.

Lamayuru appears to have figured as the seat of royalty in the course of its history. According to inscriptions, the many mani walls (man-thang) and numerous chörtens (mchod-rten) along the kilometre-long western exit route were donated by noblemen (in the minds of the villagers, there are 108 chörtens along this route). The residence of the nobles in the old fortified area of the village is in the vicinity of the Seng-ge temple (Fig. 5). It is an easily defendable

seat of power in an architecturally prominent location, and with an excellent view over the broad valley.

The location of the residences of several other important village functionaries should also be mentioned (Fig. 5). The house of the astrologer (dbon-po) was once situated in an exposed location in the area of the present-day monastery, on an outcropping of rock next to the circumambulatory path (skor-ba) around the two large chörtens. Today only the ruins can be seen; the present house is located in the lower area of the village (see arrow). The house of the local doctor (am-chi) stands between the nobles' complex and the Seng-ge temple, while the house of the oracle (lha-pa) was placed as a "tongue" between the village's two public squares.

The Seng-ge temple, its position, its special location in the valley, first historical references and remarks on ornamentation

The Seng-ge sgang lha-khang (lit. 'lion-hill/rock-temple') is, from the point of view of cult furnishings, significantly older than the gompa (dgon-pa) itself. The temple is located a fair distance beyond the gompa, on a ridge of rock (sgang) within the old fortified village of Lamayuru - to be precise, on the village's lower square (which bears the same name as the temple), directly south of it and next to the only gate (Seng-ge sgang gi sta-sgo) in the old closed fortification wall. At the same time, it lies at one end of the curved line running between the two bcu-tshogs, the distinct territorial parts of the village (see Fig. 5), and thus has assumed a certain integrative role between these two areas of the village. Given its function as a gatekeeper and its connection with certain village festivals, the Seng-ge temple represented the central cult object of the old village (see below).

This central function is heightened further by its earlier spatial position within a - in Ladakh apparently unique - group of five temples, consisting of the Seng-ge temple in the middle and four other temples placed outside the village in the four cardinal directions (Pandey and Samphel 1979:3 and Fig. 6; A,C,D,E). The

temples were named after the four cardinal directions and are securely embedded in the oral tradition, as well as in the spatial conceptions of both villagers and monks. The Western temple6 has been preserved down to the present, in the area of the new village. The Western and the Seng-ge temples are within sight of each other (compass bearings 138° east and 318° west). On the basis of these two temples, however, it can be stated that an exact orientation towards the cardinal directions is not produced, but this is not surprising, experience having taught that, at least in the Himalayan region, the ideal conception of a settlement almost never coincides with spatial reality. The exceptions in Ladakh are solar positions co-ordinated with landscape features (see below). The position of the remaining three temples can be determined only inexactly. Concerning the northern one, the villagers are of the notion that it must have been in the present-day gompa (dgon-pa), possibly the small room next to the 'du-khang containing the old figures, or else the legendary meditation cave of Naropa). Snellgrove and Skorupski, on the other hand, tell of a visitor who saw an old temple being torn down by the villagers in 1971 (1977: 21), and in photos of my own from 1979 a room-sized cubical structure marked with yellow pigment, not existing today, can be seen on the eastern side of the monastery (Fig./Photo 1).

The present-day sangha of the 'Bri-gung-pa school no longer has any ritual association with Seng-ge and the Western temple — a situation somewhat comparable to that of the Likir dgon-pa in Alchi (A-lci). Both temples, based on their furnishings, may be assigned to the bKa'-gdams-pa school, the original occupants (Keilhauer 1980: 284), or possibly to the period of Rin-chen bzang-po (Snellgrove and Skorupski 1977: 1, 21). In the Western temple, only fragments of frescoes are to be found. The wall frescoes, the sculptures, the wooden pillar with its striking capital, and the entrance portal are thought to correspond chronologically to the "Alchi period," i.e. around the 10th and 11th centuries (Snellgrove, ibid.). According to more recent findings by Roger Goepper — in part, on the basis of inscriptions — Alchi (A-lci) should be shifted two to two and a half centuries later (1990, 1993). In any case, the origin of the group of five temples is at least assured for the early Lamaist period.

The frescoes in the Western temple, which exhibit features parallel to those at Tabo,7 have been discussed in connection with a reproduction in Francke (1974). In Seng-ge itself are found - along with wall frescoes containing Avalokiteshvara and a Vairocana mandala (Snellgrove 1977: 21) - painted wood sculptures of the Tathâgata Buddhas, including one sculpture of Vairocana that stands out, to the sides of which are two figures each, placed on top on one another, of the other four Tathâgatas. A. and P. Keilhauer demonstrate that the iconographical details of the horns on the Garuda (khyung) above Vairocana are characteristic of the Bön (bon-po) native to the region (1980: 285) - an indication of a former sphere of influence, such as one comes across frequently. In the secondary rooms are found three life-size Tantric tutelary deities.

Relevant to my own architectonic interest is the background for the choice of location and orientation of a cult building. According to studies in the Kathmandu Valley, for example, the orientation to ascensions of heavenly bodies is of significance in some cases (Herdick:1993). Before my studies in Lamayuru, moreover, I came across some similar singular features in Ladakh.8

Concerning the location of the oldest temple in Lamayuru (Seng-ge), it was not obvious why the most exposed site in the surroundings was not chosen for it. This is in the area of the present-day monastery, on a built-up rock called Karpa. The gate, the village's lower square and the Seng-ge temple are one functional unit, which could have been shifted (the gate, however, which faces west, only within the lower area of the hill ridge).

According to Keilhauer, under the name "Lotsawa"-khang (temple of the translators); 1980: 281.

Mrs. Klimburg-Salter of Vienna kindly pointed out to me that a certain hatlike covering recurs as part of the monks' habit on the frescoes in Tabo/Lahul.

^{8.} In the first place, during my previous work in Ladakh, farmers constantly drew my attention to the exact observation of sunrises and sunsets with reference to land features; secondly, I had already heard of Francke's description of a sun marker for field cultivation in the vicinity of Khalatse (Kha-la-rtse) (The Indian Antiquary, vol. 35, 1960; 239-240). I obtained important concrete references to sun markers and measurement sites in Ladakh from Michael Khoo, who has already been able to substantiate various examples. Further, through an exchange of information during seminars, I am familiar with the studies conducted by Elisabeth Stutchbury in Lahul and Kim Gutschow in Zanskar.

^{9.} In the present-day monastery, a huge block of rock penetrates into the cube of the building. During measurements it was determined that even on the first floor, the outside west wall serves, at an interval of 1.5 m, as a blind for an approximately 12-metre-wide wall of rock. The rock in this area was not removed.

Surprisingly, during several specific inquiries among old inhabitants of the fortified town about places to observe the solar progression, Seng-ge sgang was always named. The temple's location, given its cliffs falling off to the east and west, is well suited to such a purpose. Up until some twenty years ago, it was customary to climb the roof of the Seng-ge temple on special occasions to do just that. The more readily accessible observation site, which is used almost daily, was in front of the temple, however: towards evening in summer, just outside the gate, at a rock formation called Shong-do, or in front of the western wall of Seng-ge; in the morning, on the eastern side of the temple, on a small hill called Khen-grag, next to the am-chi's house, where today the view is barred by a new construction. People still often collect nowadays at the evening observation site.

The targets observed to track the movement of the sun along the horizon are highly noteworthy. These are the sun's demarcation points, or markers - so-called nyi-tho. It was said that the time for the beginning of certain agricultural phases could be read from them - for instance, the beginning of sowing or ploughing, a point in time that is of great importance for the rotation of various duties in the village. The four solstitial points (nyi-ma log-hyas), however, were stressed even more - points there called "when the sun stands still" (nyi-ma bzhugs-byas). Two mountains in the west and one mountain and a cut in the valley in the east serve as the demarcation points (Fig. 7). These are the mountain Khanr, the most important point for the sunset in mid-winter (compass bearing 228°), and the mountain Re-nak in mid-summer (292°); for sunrise, it is the mountain Sak-skya in mid-winter (123°) and the cut in the valley in the direction of Hemis Shukpa (He-mis Shug-pa) (approx. 60°) during the summer solstice. Concerning the mountain Re-nak (Rinag), an artificially place of demarcation was said to be located on its southern slope.10

From this context it is clear that the sacred site of the Seng-ge temple was at the same time an astronomical measuring site for exactly determining important seasonal periods that, in certain cases, were tied to important annual festivals. Whoever is familiar with outdoor direction-finding by means of compass readings knows that locations can in practice shift only minimally in the context of three mountains. If this is applied to the astronomical measuring site of Seng-ge sgang, the criteria for the choice of location were determined on the basis of this use being put to it.

Petech discusses the early religious history of Ladakh and the disputed chronology of what is presumably Lamayuru's oldest shrine. In this connection he comments upon Francke's remarks on the Bön (bon-po) in the region of Khalatse (Kha-la-rtse), which is near Lamayuru. Further, Lamayuru is mentioned by Cunningham and Francke as being originally a bon-po shrine, but this was rejected by Hoffmann, Biasutti-Dainelli, Tucci and a rin-po-che (questioned by Petech) (1977: 164). Snellgrove mentions in the same connection that Francke, in putting forward his chronology of the Bön, makes reference to the frescoes that have the colour of a piece of clothing (1977: 21). Petech goes on to say that Lamayuru is apparently the oldest monastery in Ladakh. It is said to have been visited by Nâropa (956-1040); the oldest building there, though, namely Seng-ge sgang, is not associated in local tradition either with Rinchen Zangpo (Rin-chen bzang-po; 958-1055) or with one of his disciples, which Tucci, too, sees as a problem for the chronology (1977: 165).

Now, it is interesting that, in spite of its name, there is no noteworthy lion sculpture in the Seng-ge temple, with the exception of the minor position occupied by lions as beasts of burden in low relief along the thrones of the Tathâgatas - a feature also found, for example, in the old monastery of Tabo/Lahul. The obvious supposition is that we are here dealing with an older cult site that was built over or redefined for other uses, with its original name being preserved.

^{10.} The problems involved with measurements are not the measurements themselves but determining the proper target, since there are many peaks next to each other. In addition, the mountain names mentioned by the various informants probably do not refer to the exact point of demarcation on the mountain in question. What is of evident importance, though, is the fact that the idea of systematising comes from the locals. The astrologer ('on-po) also told of observations made from the roof of his house ('on-po-pa). Since the previous on-po-pa was located uphill at the monastery, next to the large chorten 224

⁽mchod-rten) with the circumambulatory path (skor-ba), his individual observations were not pursued further. Once back home, I was able to check with exactitude the solar measurements as a function of latitude, the angle of elevation of the mountain peak and the angle along the ecliptic (55°5°). The results correspond with minor discrepancies to the measurements made in the field.

Legends concerning Seng-ge

The singular nature of the old cult site is underscored by legendary points of reference to it, as mentioned in the texts dealing with the foundation of the Lamayuru dgon-pa. 11 But they are also firmly anchored in the minds of Lamayuru's inhabitants, in subsidiary legends within the oral tradition, as well as in the way certain festivals are celebrated. Summarizing what is found concerning Seng-ge in Pandey and Samphel, in their history of the monastery:

During the time of Shakyamuni, the Lamayuru Valley was a lake inhabited by serpents (naga or klu). The site of the present-day monastery arose on a rocky ridge above the lake. This site was visited by the wandering ascetic Arahat Madhyantaka (Nyimagun, a disciple of Ananda). He rode to a small island in the middle of the lake, from which point he offered barley seeds and water to the naga, throwing the seeds into the lake. By virtue of his spiritual power, the lake flowed off into one direction and dried up. Afterwards earthen lions came out of the [resultant] swamp, to the place today called Seng-ge sgang. Through the waving motion of the lake, the above-mentioned barley seeds had arranged themselves into a swastika pattern (g.yung-drung), and they later sprouted within the mud. For this reason the Lamayuru gompa (and the village) is still called Yungtung Gompa (gYung-drung dgon-pa) (1979: 1-3).

Later, in the 10th century, the Buddhist saint Nåropa came and meditated in a cave there, and a hermitage arose. According to Snellgrove, the foundation by Nåropa himself is a legend worked upon by the 'Bri-gung-pa, in order to provide themselves a connection with the site (1977: I, 21). Paldan further describes the legend as stating that the serpents watched over the (lake) site, and "Nimagon" worshipped the serpents with a "chu-gtor" rite (1982: 10). In Keilhauer it is stated, in addition, that the serpents (klu) resided in the lake, and that Nimagun "descended like a bird upon the waters" during the performance of his rituals (1980: 280).

The legend concerning the lions is what is most firmly fixed in people's minds. They tell of two mud lions that crept to the above-mentioned site and died there. The cause of their death is said to be the loss of their habitat and their confrontation with sunlight. Furthermore, the centre of the swastika is said to have been exactly in the same place. The precise location of the "dead" lions is at the flagpole (dar-chen) on the lower village square. The position of the lions when they "died" is of particular interest: they lay in a circular formation with opened jaws, in such a way that the head of one lion looks upon the tail of the other. The "direction of rotation" - the direction the heads face - was against the movement of the sun (i.e. counterclockwise); in other words, the sun shone into their faces (see Fig. 11).

The villagers know still another tradition concerning the site where the lions were buried. The two large chörtens (mchod-rten) along the circumambulatory path (skor-ba) next to the gompa are mentioned as the site in question (F, Fig. 6). In the minds of the monks, they are as old as Seng-ge sgang (10th-11th century). The skor-ba is of the greatest significance for the villagers, and throughout the whole year appears to be the village's most popular object of worship. A number of elements, such as what were originally 108 prayer wheels donated by noblemen (according to an inscription) and the 71 stone tablets with Buddhist deities, were added later.

There are a few outside references to this tradition that may strengthen it. The location of the villagers' crematories is north-east of the village. These "houses" (spur-khang) are also used in a form of ancestral worship. The location of the death sites of the lions would be analogous, as far as the direction is concerned. It is further striking that, on the four side walls of one of the cubic-shaped eastern chörtens, various pairs of lions may be found in place of the four pairs of different mythological figures. 12 And the lion's throne (seng-khri) does not appear to function in its "usual" form either, since the lions are standing on all four feet and do not bear the upper part of the chörten. The easterly situated chörten of the two has eight niches inside, within the large "dome receptacle" (bum-pa)

Pandey and Samphel, A Brief History of Lama Yuru Monastery (see bibliography). This provides a conspectus of the foundation legends. The detailed original text belonging to the monastery was photographed by the author.

^{12.} One particular feature among all the lions is their wide-open mouth and a front paw held horizontally (in attack position?); in addition, the lions are looking pairwise forwards or backwards.
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 a cosmological orientation that may have some connection with the lions. Of greater interest, though, is the direction of the inner passageway that spirals downwards: it runs counterclockwise (whereas its counterpart in the other chörten runs clockwise).

The relationship of Seng-ge sgang to annual festivals

The two uses put to the squares of the old fortified town are characteristic of the village's uniqueness. 13

The previously mentioned lower, southern square (Seng-ge sgang) acquires particular significance in light of the "old" New Year's festival that used to be held there (Figs. 11 and 5), it having taken place around 22 December, that is, during the winter solstice. Brauen notes that the "old" Ladakhi New Year (so-nam lo-gsar), which differs by several months from the Tibetan New Year, may be found throughout the whole western Himalaya/Karakorum/Hindu Kush region, where it originated (1980: 90-95).

The crucial point, however, is the connection the festival can be shown to have with Seng-ge sgang. During this festival, the dancers circle around in their dance counterclockwise (Fig. 11), since otherwise they would be eaten up by the two lions. This dance motion is explained on the basis of the aforementioned position of the two lions at the flagpole (dar-chen). In other words, the supposedly "dead" lions were always regarded as being "symbolically alive." It is known that the Bön (bon-po) perform their circumambulatory worship (skor-ba) in a counterclockwise direction. This is apparently a further indication of an earlier Bön shrine.14 The dances ('chams) performed by the monks of the present-day Lamayuru gompa are of interest in this connection. Originally the dances took place together with the "old" New Year's festival on the village's lower square (Seng-ge sgang). Among other things, a cone of tsampa (gtor-ma) was thrown out the village gate; the "evil" (me-tho) of the previous year was symbolically removed. Then the 'cham were shifted to the third month of the Tibetan calendar, and finally to (the sixth day of) the tenth month. The site of the 'cham dances was itself also transferred up to the outer area of the monastery; the "old" New Year's festival on the lower square, with dances by the villagers, has since stopped being celebrated. As with all 'cham, the victory over an earlier religion must have been the theme of the sacred dances; the former dance site is significant in this regard.

Marriage ceremonies still take place in part on the upper, northern square (Borasa), within the old fortified town. What is most striking during the course of such a ceremony on the square (see Fig. 12) is the analogous direction in which the "marriage helpers" (nyo-pa) dance: again counterclockwise. 15 This shows that this direction of circling recurs in Lamayuru, and can be regarded as characteristic.

To a certain extent the ranking within the village hierarchy can be seen from the seating order, particularly that of the main participants (nos. 1-6). It is interesting that the first four rankings (1. lama, 2. minister, 3. local doctor/healer, 4. astrologer) precede the village chief ('go-pa). Also, the second rank refers to the historical position held by a nobleman or man of power in Lamayuru. The highest ranks are placed in the north-eastern part of the square, and a certain male-female division (east-west) may be seen.

References to the solstices

As shown above, the Seng-ge temple is connected with an astronomical site for measuring the solstices; with the course of the sun which, in the legend, shines into the mouths of the lions; with the circling motion of the village dances; and with the village square (Seng-ge sgang) and the celebration of the "old" New Year's festival, which was held during the winter solstice (Figs. 11 and 7). Khar Peak, the demarcation point for the winter solstice from the observation point Seng-ge/village gate, was apparently of the greatest significance in the context of the celebrations. On the other hand, the line from the Seng-ge temple to the point where the sun

^{13.} The concept of the old village and the use put to the squares is the same as the vertical conception of a house; see fn. 2.

^{14.} The bon-po are famous for circumambulating in the opposite direction. The defineated context is possibly one explanation for this.

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The direction in which the nyo-pa dance is performed is normally clockwise; see Brauen 1980:69.

sets solstitially in the summer is immensely important as an axis of construction: as we have seen above, a number of sacred cult and portal buildings lie along this axis (Fig. 6).

While there are connections between the lion and the sun in many cultures, I am not aware of any in Tibetan mythology, apart from the seng-khri elements on chörtens.

A scheme of ordering parallel to the circularly positioned pair of lions turning in a direction against the movement of the sun is portrayed, however, by Snodgrass in his *The Symbolism of the Stûpa* (1992: 309); there references to Indic mythology are established. Fig. 229 in his book is concerned with the *makara* and the zodiac (see Fig. 14). The *makara* are positioned in precisely the same position as the two lions. He terms the winter solstice the gate of the sun, the "gateway of the gods"; the summer solstice corresponds to the "doorway of the fathers." In further remarks, he demonstrates the connection between *makara* and lions:

"The Face of Glory [explained by Snodgrass on the same page as the face of time, as a mask of destruction and creation, death and life, darkness and solar light] combines in its angry countenance the features of the aquatic and chthonic animal, the makara, and those of the solar and celestial animal, the lion. It is called the Simha-mukha, 'face of the lion', and the lion is cognate with the Sun; it is the cognizance of Sârya, the Sun God, and is emblazoned on his banner..." (1992:307).

Interpretation of the Lamayuru legend; comparative legends concerning the lake and the lions, with further solar associations

Gropp, in his article "Alte Mythen des tibetischen Hochlandes," goes into the legend of Lamayuru, and at the same time points out thematically corresponding parallels to other cultures within the broad regional context. He refers to a "pre-Tibetan aboriginal folk," the possessors of an old culture, who may be the source of a number of myths that turn up in similar fashion in a number of places on the

"plateau." "The creation story, as recounted, features the reclaiming of farmland from a lake and the banishing of the latter's spirits." The local deities were in various ways incorporated into the major religions of Buddhism, Hinduism or Islam.

In Lamayuru, he sees the legend of the wandering ascetic who conquers the serpent spirits (klu) by means of a clockwise swastika of barley seeds as a symbol of the teacher Shâkyamuni, who tames the old Bön spirits who turn the swastika to the left. The serpents assume the form of mud-covered lions and flee in the face of the clockwise swastika.

In the Kashmir Valley there is a similar legend involving a lake, whose waters a brave Hindu deity drains, while several hundred kilometres to the north of Ladakh, in the oasis of Khotan (Tarim basin), home to Indo-Scythian/Iranian peoples, there is another old tradition of a lake being drained. In the valley of Kuku Nor there is a comparable legend among a Mongolian tribe (further to the north-east), and finally the legend of the valley of Kathmandu is also mentioned (Gropp 1982:315-317).

Having been occupied with the Newars in the Kathmandu Valley, I am aware of some points not mentioned in the conventional legend. The most common version is the one in which Svayambhû arises in the form of a lotus blossom on Svayambhûnāth Hill. This island hill projected out of a legendary lake - a lake that was later drained by the deity Mañjushrî. Conclusive datings of the present-day Svayambhû stûpa, the most important Buddhist shrine in the valley, date only to the early medieval period, if older bâhâ structures at the foot of the hill are neglected.

Possibly one of the original local deities in the Kathmandu Valley is a tiger deity (Bågh Bhairav) - to a certain extent comparable with the lions in Lamayuru (according to sources dating to 362 N.S., Bågh Bhairav was originally called Gum de or Gum dyah, lit. 'forest/hill/mountain god'). According to the legend of this god's origins, the tiger was formed from earth by herder children and then came to life. Further leads and legends on this Bhairav, in their combination, bring interesting parallels to light.

The tiger legend refers to the oldest area of settlement in the Kathmandu Valley (Gopala dynasty, up to the 2nd century A.D.), and the cult site for Bågh Bhairav is located on a long hill which, like Svayambhûnâth, overlooked the lake surface (present-day Kirtipur). A further legend refers to the place of Bågh Bhairav's origin, in connection with a Brahmin, on the south-western edge of the valley. In another legend, according to earlier remarks by Carl Pruscha (Vienna), there is possibly still another connection between this place of origin and the lake: Bhairav rode on a ship over the lake and reached the shore in this area of settlement (around present-day Macchegau).

According to my own investigations into the Bagh Bhairay16 temple (which has existed in its present form since the 16th century), there are further singular features to it: Exactly at the winter solstice, a ray of the sun shines through a hole (dyahpvah) in the wall of the temple into the gaping mouth of the larger-than-life-size earthen tiger god (see Fig. 13). According to statements made by Kirtipur's inhabitants, the deity was so powerful that it invariably put out the Vedic fire of the Brahmins in distant Pâtan (Agnisâlâ temple) with the "directional beam" of its gaze. Michael Witzel, who has studied the Agnisâlâ temple on multiple occasions, describes a legend that confirms the statements of Kirtipur's inhabitants concerning the place of origin and power of the Bhairay, and comes to the conclusion that, during the daily ritual at the Agni temple, various legendary way stations are still of significance with respect to the Brahmin and Bhairav (1986:5-6). Parenthetically one may note that the great stupa in Kirtipur (called Cilanco, and legendarily constructed by Asoka), is the only one of the large stupas of the Kathmandu Valley that has the main sides of its foundation (E-W) facing towards the sunrise of the winter solstice instead of, like all the others, towards various points of the moonrise (Herdick 1993:106). Bågh Bhairav is regarded today as a Tantric deity and a tutelary god of the city and the region; the "Buddhist priest" is a Bajrācārya from Kirtipur's Mahāvihāra, which houses the above-mentioned stûpa.

Bågh Bhairav, who goes back to a herder deity, was apparently involved in a conflict with the two major religions. It may have been an old solar cult site (nowadays Bhairav no longer has any ritual associations with the winter solstice). On the one hand, this tiger deity has now been incorporated into "Buddhism" through the Bajrācārya pūjāri; and on the other, the legend concerning the Brahmin points to its incorporation into "Hinduism." His influence over the Agnisālā was broken by the placement of a Ganesha along the high-powered line of sight (this Ganesha is, at 623 N.S., the oldest dated sculpture in Kirtipur).

The Seng-ge sgang in Lamayuru and the Bâgh Bhairav in Kirtipur share related features of a common substrate - structural parallels of an old culture. Perhaps similar features will turn up in other regions of the Himalaya.

Conclusion

We are here confronted with an old independent village culture combining a seat of rule and traditional social structures. What is prominent, and up till now has been little noticed, is the fortified nature of the village. It seems to be the single still existing so-called dzong (rdzong) in Ladakh. The lion temple (Seng-ge sgang) in the middle of the old village is more ancient than the monastery in its present form. The temple seems to go back to an original cult, for which there are structural parallels in other old cultures within the wider region.

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^{16.} The monograph Bågh Bhairav in Kirtipur: Baudokumentation des Tempelkomplexes und Untersuchungen zu sozialem Umfeld, sakraler Topographie, sowie lokaler und regionaler Position is still unpublished.

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PRELIMINARY REMARKS CONCERNING SOLAR OBSERVATION, SOLAR CALENDARS, AND FESTIVALS IN LADAKH AND THE WESTERN HIMALAYA.

Michael Khoo Cardiff

1: Introduction

Visitors to Ladakh, if they inquire into the nature of the calendar being used there, will usually be told that the Tibetan system of calculation (rtsis)1 is followed, wherein the weeks are reckoned on a seven day cycle related to the planets (as in the West), while the months follow the phases of the moon, starting and ending with the new moon.²

However, Ladakhis also use a number of other less well reported calendars, which are based on the observation of the sun and the stars. These include nyi tho - 'sun markers' - natural or artificial features in the landscape which record the annual passage of sunrise and/or sunset across the horizon; and observations of groups of stars, in particular the rgyu skar group of constellations³ which lie roughly along the ecliptic. This essay will focus on the 'sun markers', and the way they are used, and some of the customs and

In this essay, words in italics are transliterations of Tibetan/Ladakhi words following the Wylie system. Where I have cited works which contain Tibetan words spelled under a different system, in order to prevent confusion, I have as far as possible 'translated' these words into Wylie.

^{2.} For an introduction to these systems in Zangskar, see Tashi Rabgyas and Osmaston 1994.

^{3.} See Das 1902 (1992): 316-317; Jest 1975: 100; Tashi Rabgyas and Osmaston 1994: 112. This system of constellations is based on the 'nakshatra' scries of constellations in Hindu astronomy, for details of which see Burgess 1860 (1989): 202-254, map opposite 320, 377-380 (1 wish to thank Dr. Peter Annier Service of the Royal Greenwich Observatory, for providing me with this invaluable reference). For a list equating the Tibetan rgyu skar with the Hindu 'nakshatra', see Tucci 1941 (1989): 258-259.