The Lhasa Jokhang – is the world's oldest timber frame building in Tibet?

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Abstract

In questo articolo sono presentati i risultati di un'indagine condotta sul più antico tempio buddista del Tibet, il Lhasa Jokhang, fondato nel 639 (circa). L'edificio, nonostante l'iscrizione nella World Heritage List dell'UNESCO, ha subito diversi abusi a causa dei rifacimenti urbanistici degli ultimi anni.

The Buddhist temple known to the Tibetans today as Lhasa Tsuklakhang, to the Chinese as Dajiao-si and to the English-speaking world as the Lhasa Jokhang, represents a key element in Tibetan history. Its foundation falls in the dynamic period of the first half of the seventh century AD that saw the consolidation of the Tibetan empire and the earliest documented formation of Tibetan culture and society, as expressed through the introduction of Buddhism, the creation of written script based on Indian scripts and the establishment of a law code.

In the Tibetan cultural and religious tradition, the Jokhang temple's importance has been continuously celebrated soon after its foundation. The temple also gave name and *raison d'etre* to the city of Lhasa ("place of the Gods")

The paper attempts to show that the seventh century core of the Lhasa Jokhang has survived virtually unaltered for 13 centuries. Furthermore, this core building assumes highly significant importance for the fact that it represents authentic pan-Indian temple construction technologies that have survived in Indian cultural regions only as archaeological remains or rock-carved copies.

1. Introduction – context of the archaeological research

The research presented in this paper has been made possible under a cooperation between the Lhasa City Cultural Relics Bureau and the German NGO, Tibet Heritage Fund (THF). The project is also indebted to the Lhasa municipality, the Lhasa mayor, the Tibet Autonomous Region Cultural Relics Bureau and to the Jokhang Temple Democratic Management Committee. According to the brief of the 1996 cooperation agreement between the municipality and THF, an international team consisting of European, Asian, American and African experts and volunteers carried out investigation and documentation of the old city of Lhasa and its monuments. The research built on earlier work by Chinese and local Tibetan experts of the Lhasa Cultural Relics Department.¹

In 2000, as part of the Lhasa Barkor Area upgrading project (later continued by the municipality), THF was requested to look at the drainage situation of the Jokhang.

^{* &}quot;Tibet Heritage Fund".

¹ See Qiao and Yang 1985 and Xizang Wenwu Guan Weihui 1985.

For this, THF secured authorization and full cooperation to conduct a new survey of the complex. The present author, together with architect Britta Uhlig and architecture student Esther Kehrer surveyed the historic core building. John Harrison surveyed the surrounding complex. Minyak Chökyi Gyentsen kindly provided us with a section drawing based on his 1983-84 survey. The present author and Pimpim de Azevedo

undertook additional room-byroom inspection in the entire and planned complex, and supervised the Lutsang and drainage Sungchöra project activities. Engineer John Niewoehner and Lundrup Dorje provided detail planning and implementation of the water and sanitation improvement works. Financial support for the THF project was provided by embassies of Germany, Holland and Canada, MISEREOR and Trace Foundation, www.tibetheritagefund.org.²



1. THF team 2000.

This paper elaborates on research presented by the present author in "The Temples of Lhasa", Serindia 2005, chapter 1.³

2. Site history

Tibetan histories unanimously describe the founding of the Lhasa Jokhang to Songtsan Gampo, the 32nd emperor of the Tibetan Purgyal (or Yarlung) dynasty (died ca. 649). He united the central Tibetan clans, was responsible for the adoption

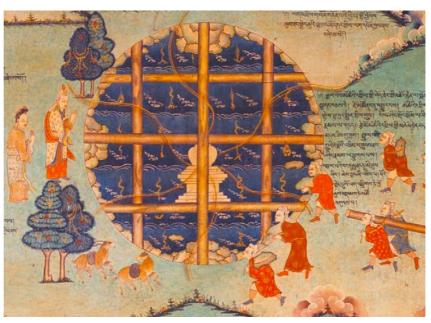
² In early 2000, the entire THF team felt very honoured when asked to help improve the water and sanitation situation of this most venerable institution. THF subsequently improved the drainage in the Nangkor corridor and laid sewage pipes in the Sung-chöra and Lu-tsang areas. We also restored the original floor level of the Lu-tsang courtyard by removing a dozen truckloads full of piled-up dirt, mostly construction rubble accumulated during earlier restoration and reconstruction works in the area. Finally we restored the historic Chötri-khang facade in this courtyard, and provided an addition to this historic building complex by building a new toilet wing in traditional stone masonry. THF, as a member of the Lhasa Old City Protection Working Group, was also permitted to carry out studies and surveys inside the main building, and so we spent several weeks in the summer of 2000 making a new survey of the complex. In 2001–2003, one of the Tibetan work teams trained by THF laid new water-proof *arga* coating over several roof sections of the Jokhang.

³ I am indebted to Matthew Akester and Prof. Per Soerensen for important contributions.

of a written script and a unified law code, and so created the first Tibetan state. This state was known to his Chinese contemporaries of the Tang dynasty as Tubo. The Tibetan empire period, which can be said to begin with Songtsan Gampo and

lasted until the mid-9th century, is associated with the architecture of defensive buildings, known as mkhar in the sources. While these mkhar in later times assumed the shape of large fortresses such as the Leh mkhar, the earliest examples appear to have been tower-like structures. None of the surviving specimens can convincingly dated to Songtsan Gampo's time except for the remains of the core of Songtsan

http://www.webjournal.unior.it



2. Founding of Jokhang, wall-painting in Norbulingka Takten Migyur Potrang, 1956-58; to the left the Nepali Queen Bhrikuti (as identified in the inscription) and Songtsan Gampo overseeing the work.

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Gampo's *mkhar* residence on Marpori hill in the Lhasa valley.⁴ All known *mkhar* sites were built on hills and slopes, including that near Songtsan's birthplace at Gyama.⁵ The Lhasa Jokhang, built on the plain at a distance of some 1.5 km from the Marpori

The Swiss art historian and Tibetan studies expert Amy Heller recently proposed that the Jokhang building

match any of the interior structures of the temple (which has been surveyed by the Chinese Cultural Relics Bureau as well as the THF team). In this way, one could have also made a drawing proposing a giant carrot as the original nucleus of the temple. So in the absence of any architectural or textual evidence supplied by Ms Heller (whose scholarship is usually much more on the mark), the tower hypothesis should be quickly discarded.

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⁴ According to research by the Tibetan architect Minyak Chökyi Gyentsen presented at the 1998 Seminar of the International Association for Tibetan Studies in Bloomington.

originally was a tower (Heller 2005). She thus directly challenges all historical records, starting from the near-contemporary Tang annals, the 8th century royal edict and the 9th century Karchung inscription, which all state that Songtsan Gampo built the self-manifest miraculous temple of Rasa. As is demonstrated in this paper, a structure like the Lhasa *vihara* can never be constructed piece-meal. It is built according to an established pattern, in which chapels and colonnaded galleries are arranged within a square ground plan. So Ms Heller's tower structure would have to have been demolished to make space for a *vihara*. But there is no single source text indicating this, nor is there any indication when this plausibly could have taken place. So to challenge the Tibetan source texts and the archaeological evidence, Ms Heller should have some very solid arguments. Disappointingly, she only offers a sketch drawing of a tower inside a building. Her tower drawing does not

Hill residence of the king, is often described in Tibetan source texts to have been built in the Pig Year 639.⁶ The impetus for the construction came from Songtsan's first wife, the Nepali princess Bhrikuti. According to the sources, she had brought Buddha images with her from Nepal, and was accompanied by Newar artisans, and so logically was in the position to instigate the construction of a temple. Songtsen Gampo is described as having personally taken part in the construction of what was to become Tibet's first Buddhist temple.⁷ It was originally called the Ra-sa Trülnang Jokhang ('Miraculously self-apparent temple of Rasa'), Rasa being the original name for Lhasa.⁸

The craftsmen are generally described as Nepali in the sources (*bal bo'i lha bzo*),⁹ and Vitali has convincingly shown that Lhasa provided asylum for the exiled Licchavi court at that time.¹⁰ According to Tibetan beliefs, Songtsen Gampo himself built most of the ground floor structures, while a Tibetan workforce assisted by Nepali artisans built the second floor.¹¹ The Chinese wife Wen-cheng is credited

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⁶ When [king Songtsen Gampo] was 22, in the Earth Dog year (638), the lake on the 'plain of milk' was drained. When he was 23, in the Earth Pig year (639), the foundations were laid. Then the king issued orders that his Tibetan subjects all had to help in building his temple, and people gathered from each region and held a conference on the building of a temple. At that time, the king marshalled 5,000 emanations and founded (a temple) the size of a medium sea-going vessel, modelled on the Henkang Vihara.' mKhas pa'i dga' ston p. 234, translated by Matthew Akester.

⁷ Vitali 1990 chapter 3 and Soerensen 1994 chapters 12-14 discuss in detail the more fantastic aspects of the founding, involving prophecies, miracles and apparitions. Soerensen 2005 indicates that an earlier temple – Tandruk – was built during Songtsan Gampo's time in the Yarlung region, seat of his dynasty. However, no imperial period structure appears to remain.

⁸ See for example the Karchung inscription quoted elsewhere. In the Dunhuang Annals, (PT. 252, & 10. 103, Bacot 1940, p. 20/42) for the year 710 we find: *btsan mo*

kim shang khong co ra sa'i sha tsal du gshegs. Thanks to Professor Toni Huber for this reference.

⁹ bKa' chems ka khol ma p.218, also Gyal rabs gsal ba'i me long translation Soerensen 1994, p. 274: 'In order to continue [the construction] Khri-btsun summoned many artists (bzo bo) from Nepal well-versed in crafts (rig byed), whereafter the upper construction was erected.'

¹⁰ See Vitali 1990, pp. 70-73 for a discussion of the founding in historical perspective.

The king ordered that the Tibetan subjects should cut wood for his temple on the morrow, and when it was not carried out, the 5,000 emanations [of himself] filled the temple with wood by the evening of the same day. The next day, he marshalled 300 artist-emanations, and while they were doing the carpentry, queen Bhrikuti sent a maid to deliver the mid-day meal, a silver platter of meat and butter, thirteen cooked dishes, rice beer, wine and so on, because she was washing her hair and had no time to go herself. The maid saw 300 artisans at work whom she had never seen before and being unable to recognise the king, she came back. Then Bhrikuti took the meal herself, entered [the temple] as her maid had just done, and got past the emanated artisans to deliver the meal to the king, who was standing over the central Mandala wearing a black cape and a red headscarf, and holding a measuring line. When the meal was brought, he let the measuring line drop, and the 300 artisans slipped and the movement of their tools went awry. Seeing that the artisans were all emanations of the king, the maid laughed out loud and as he lost his concentration, a hatchet slipped, a chisel slipped, a saw slipped, and 100 workers cut the noses of 100 lions, bored 100 holes and sheared a corner off 100 pillars.' Excerpted from mKhas pa'i dga' ston ll, p. 235, translated by Matthew Akester.

with having provided geomantic planning for the temple, but since she only arrived in Lhasa in 641 (when the Newar royalty are believed to have departed), it would appear that she was not involved the architectural design of the temple but that she may have given support to Bhrikutri when the construction work stalled. As we shall see below, the architectural model for the original Jokhang is without doubt Indian. Over the following two centuries, several of Songtsen Gampo's successors celebrated the founding of the Jokhang as instrumental to the introduction of Buddhism to Tibet, and used it to legitimize their religious policies. This is known from surviving royal edicts and contemporary inscriptions on stone steles (known in Tibet as *doring*, 'long stones'). One of them, the 9th century Kar-chung inscription, reads:

«In the time of the miraculously divine Tsenpo [title of the emperor], the ancestor Tri Songtsen [Gampo], in practising the religion of the Buddha, shrines of the Three Jewels [i.e. Buddhism] were established by building the Tsuklakhang of Ra-sa and so on...»¹²

A brief suppression of Buddhism preceding the collapse of the Yarlung empire in the mid-9th century was followed more than a century later by the Tenpa Chidar, or 'later diffusion of Buddhism' in Tibet. Significantly, one of the important protagonists of Tenpa Chidar, the Bengali Buddhist master commonly known as Jowo-jé Atisha, visited the Lhasa Jokhang and discovered Songtsen Gampo's testament underneath one of the old wooden pillars on the ground floor.¹³

Subsequently, the restoration of the Jokhang became an important *leitmotif* in the history of Tibet. Influential Buddhist teachers and local rulers established their credentials partly by their restoration activities. New rulers, especially since the settling of regional and sectarian rivalries in favour of Lhasa, regularly began their rule with a restoration of the Jokhang and a handful of other significant monasteries.

Since the 18th century, offices of the Tibetan government were established within the growing Jokhang complex. Following the death of Tibet's last Mongolian ruler, Lhazang Khan, the Tibetan council of lay ministers convened in the Labrang-teng rooms. When the government was reformed in the mid-18th century under the suzerain Qing dynasty, the offices of the cabinet known as Ka-shag were re-

¹² 'Phrul gyi lha btsan po. myes. khri srong brtsan gyi ring la. sangs rgyas kyi chos mdzod de. ra sa'i gtsug lag khang las stsogs pa brtsigs shing. dkon mchog gsum gyi rten btsugs pa dang, transcript kindly sent to Lhasa by the late Hugh Richardson in 1997, when THF assisted the Rama-gang villagers to re-assemble the pieces of the Kar-chung stele, blown to pieces in the late 1960s. The inscription is also published with translation in Richardson 1952 and Tucci 1950.

 $^{^{13}}$ This was later published as bKa' chems ka khol ma, but its authenticity, even when taken as a source compiled (rather than discovered) during Atisha's time, at least in the available versions, is generally doubted. The pillar is believed to be Pillar 3 on the map in the map section, the second to the north of the Jowo chapel.

established above the southern gate of the temple.¹⁴ Fortunately for the art historian, while the Jokhang grew and absorbed new functions, the lower two floors of the Trül-nang temple retained their early shape and detailing.

The main building phases can be discerned as follows: 15

- 7th century (ca. 639): foundation, building of a two-storied, square *vihara*.
- 9th century: Repachen (r. 815-36) adds balustrade and four tall 'skybearing' pillars. Temple is vandalized during Langdarma's persecution of Buddhism.
- 11th century (last quarter): modification of the central chapel by Zangskar Lotsawa, creation of Shey-ré Lha-khang.
- 12th century (third quarter): temple falls into disrepair because of sectarian strife, restoration after 1160, and Drolma Lha-khang added.
- 13th-14th century (last half 13th to last quarter 14th): further modification of the Jowo chapel and the upper floors, the Nepali artist Arniko builds throne for the Jowo image. Creation of the Chö-gyel and Pel-lha Chok chapels. Creation and decoration of Nangkor (at that time called Barkor) by Tri-pön Mönlam Dorjé and his successor, Kunga Dorjé. Two canopy roofs are placed above the northern and central chapels (*gtsang khang byang ma, gtsang khang dbus ma*). Part of the central courtyard is roofed with the addition of 12 'sky-bearing' pillars. These works were completed by the time Jé Tsongka-pa arrived in Lhasa at the end of the 14th century. Tsongka-pa established the first teaching throne on Sung-chöra square (which assumed its modern proportions under the Seventh Dalai Lama).
- 17th century: the Ganden Po-trang government extends the courtyard soon after 1642 (with pillars carried off from the sack of Tashi Zilnon monastery in Shiga-tsé Zilnon), and adds two more canopy roofs. Building of Labrang Teng. Chapels established around the Nangkor.
- 18th century: restoration after the Dzungar raid (1718-1721); subsequently the Tibetan government moves into the Jokhang. Government offices established on four different sides of the temple: judiciary north, finance department east, Kashag cabinet, agricultural department and finance department south, finance department west. Under the Seventh Dalai Lama, the Jokhang is extended to its present size; no more extensions or

¹⁴ In the eyes of the Qing dynasty, this location may have appeared to lend legitimacy to a quartet of mostly lay ministers governing a self-declared Buddhist state.

¹⁵ Based on *bKa' chems ka khol ma*, *mKhas pa'i dga' ston*, Soerensen 1994, the Fifth Dalai Lama's Guide, *lHa ldan rwa sa 'phrul snang gtsug lag khang gi dkar chag*, Vitali 1990, Qiao Yu 1985, Su Bai 1996, Matthew Akester, and research on site including oral information supplied by monks and Lhasa residents.

major changes until the events of 1959 and demolition of the Nga-khang in 2002.

In 1961 the Jokhang was listed as a Nationally-Protected Monument by China's State Council. It was desecrated and ransacked in 1966, occupied by armed Red Guard factions, and finally by the Chinese People's Liberation Army. An initial restoration took place in 1972, when the main building was cleaned and paintings were restored by some of the last surviving master painters. ¹⁶ Full rehabilitation and further restoration took place after 1978 and continued until the early 1990s. During this period, most of the oldest wall-paintings that had survived the Cultural Revolution, dating to the 10th-13th centuries, were removed. The quality of subsequent restorations improved dramatically, traditional techniques and methods were used, and historic paintings in other sections have been retained (for example, the 1920s murals in the Nangkor corridor were recently cleaned). In 2000, the Jokhang was listed under the name 'Jokhang Temple Monastery' by the UNESCO as a World Heritage Site, as an extension of the 1994 listing for the Potala Palace.¹⁷ In 2002, the Nga-khang wing of the Jokhang (formerly used to store ritual utensils) was demolished by the Lhasa Construction Department and the site built up with private residential housing.

3. Site description

The Lhasa Jokhang is a sprawling complex of chapels, courtyards and residential and service buildings. The temple's gilded canopy roofs have historically constituted the height limit within the central city area. The central building within the complex, measuring 44.5 meters square, is considered the original 7th century foundation. This temple is separated from the surrounding structures by a processional corridor, today known as the Nangkor. The surrounding structures include courtyards, residences of the Dalai and Panchen Lama-s, service wings, monks' dormitories, kitchens, storage rooms and government offices, including the meeting room of the Tibetan cabinet (Ka-shag), which have been added over the centuries.

¹⁶ This restoration may have been related to the resumption of Chinese-Nepalese ties and the visit to Lhasa and to the Jokhang by the then king of Nepal in 1974. The Jokhang remained closed to the public until the end of the 1970s.

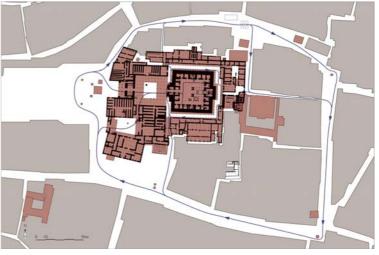
¹⁷ Report of the 24th Session of the World Heritage Committee: 'The Jokhang Temple Monastery is an exceptional Buddhist religious complex, founded in the 7th century. Its buildings and decoration reflect the high quality of Tibetan art in the 7th century and again in the 15th-16th centuries, and also demonstrate cultural interchange between Tibet and its neighbouring countries', taken from <whc.unesco.org/sites/707bis.htm>.

¹⁸ In 2000 China's State Administration for Cultural Relics famously re-enforced the height limitation by ordering the demolition of the upper floor of the Surkhang department store.

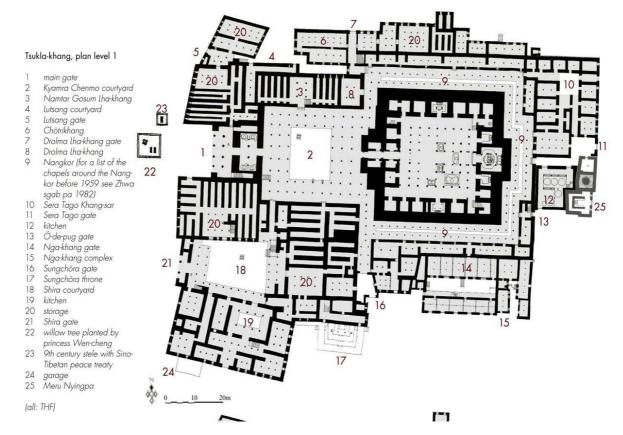
Four doors in the four directions enabled visitors to enter and perform *parikrama* (devotional circumambulation) around the Nangkor corridor.

3.1. Ground level, plan

The historic core of the Jokhang is laid out to a square plan. The entrance faces west. originally open, known as Kyilkhor-ting (*dkyil 'khor sdings* or *dkyil 'khor mthil*). This is lined by seven rooms or niches on



3. Lhasa Jokhang, site plan; arrows illustrate circumambulation routes.



4. Lhasa Jokhang, groundplan, condition 2000.

each side (except on the entrance side: six rooms and the entrance space). Roofed passages in front of the chapels are supported by rows of eight wooden pillars. The lay-out of the corner rooms is varied so that the arrangement takes on the shape of a swastika (see map section).

The three rooms at cardinal points are the largest, and according to tradition, the principal original chapels, decorated with intricately-carved wooden doorframes. Two minor chapels with carved doorframes flanking the central chapel also belong to the earliest temple. The other rooms have much plainer doorframes and were turned into chapels much later on. We have no sources of information for their early usage, but according to established practice in Indian *vihara* design, we can presume that these rooms were originally intended as monastic cells and resting places for pilgrims.

Our survey in 2000 discovered that the building has a double skin, a second wall layer which so far we have been unable to date. ¹⁹ It is not original, as completed outward-facing wooden window and doorframes in the inner wall can be discerned, which have been made obsolete by the outer wall. It is likely that the outer wall encasing the original building was built at a later time to provide structural support. This is reminiscent of the common Tibetan architectural practice of erecting external support walls for structurally weakened historic buildings, examples of which can be found at U-ru Ka-tsel and Ön Ké-ru. ²⁰ The second wall layer was certainly the most mysterious of our findings.

According to the sources, the outward-protruding extension (*glo 'bur*) of the Jowo chapel at the eastern side was built by Zangskar Lotsawa in the 11th century. If we look at comparable ground plans of Indian *vihara* buildings of the same period, we find already similar examples of sanctum chapels protruding beyond the basic square on which the plans are generally based. Therefore the degree of modification by Zangskar Lotsawa to the Jowo chapel cannot be ascertained. The Tsel-pa rulers Mönlam Dorjé and Kunga Dorjé added the outward-protruding extension of the entrance area.²¹ They sponsored a major restoration in the 14th century, which was

¹⁹ The Fifth Dalai Lama's Guide mentions that *IHa rje dGe ba 'bum* rebuilt the outer walls, p. 33, see appendix. The Thirteenth Dalai Lama writes in his inventory of the Jokhang (Lhasa blockprint edition, f5b, translation Matthew Akester): *'In the Water Hare year of the 13th cycle (1783), the temple was extensively restored by rGyal dbang 'Jam dpal rgya mtsho and the regent Tshe smon gling Ngag dbang tshul khrims, acting as preceptor and sponsor. Damaged mural paintings and woodwork around the Bar skor were replaced, the chapels were given new doors and iron grilles, and partitioning [walls] where needed, making a secondary enclosure around the main temple [...]'.

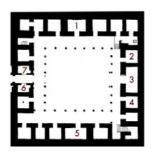
²⁰ U-ru Ka-tsel lies on the outskirts of Me-tro Gungkar town, 80 km to the east of Lhasa at n29°49' e91°43'. Ké-ru, in the Ön valley to the east of Samyé, has been discussed by Vitali 1990 under the name of Ka-chu; the external wall supports are on the eastern side of the temple. Ké-ru is also discussed by <i>Suo lang Wang dui* and *Zhang* 1986,17-29.

²¹ Gung thang dkar chag Everding 2000, p.127.

continued by the rulers of Ne'u-dong on behalf of Tsongka-pa. During that time, a skylight was added over the eastern part of the Kyil-khor-ting courtyard, supported by 12 raised pillars.

The Jokhang's plan is identical to the early Indian Buddhist monastery type known as *vihara*. Contemporary *vihara* buildings across the sphere of Indian civilization are similar to the Lhasa Jokhang in scale, room arrangement and architectural detailing. The important early post-imperial sources all confirm this information, stating unanimously that the Rasa Jokhang is based on an Indian *vihara* (in Tibetan rendered variously as *bi har, bi ha ra* and *dpe dkar*). Songtsen Gampo's alleged testament states that it was built modelled on the 'best contemporary Indian temple'.²²

The earliest known *vihara* structures belong to the Gandhara civilization and can be dated to the 1st and 2nd centuries AD, the monasteries Jaulian 2 and y (see illustration in map section). The Lhasa Jokhang plan is also comparable to monastery 1a of Nalanda, currently dated by the Archaeological Survey of India to the 6th century, and an as-yet undated temple in the vicinity of the Sanchi *stupa*. Only foundations of these sites still exist. They were built with burnt bricks and



Early phase

Imperial period, Songtsen Gampo's reign after 629. The original chapels and main images according to historical sources:

- 1 Tsang-khang Jangma with Tukjé Chenpo as main image
- 2 Tsang-khang Yena with Ö-pamé image
- 3 Tsang-khang Ü-ma with Mi-trukpa, a retinue of eight and two door guardians.
- 4 Tsang-khang Yöna with Jampa image
- 5 Tsang-khang Lhoma with Mikyö Dorjé as main image
- 6,7 Yaksha and Raksha chapels

The boulder to the right of the temple was deemed an auspicious site by Songtsen Gampo. In the 9th century, the Meru chapel was built next to it. During that time, four pillars were added in front of the Tsukla-khang's eastern gallery to support a balustrade.

5. Lhasa Jokhang, groundplan 7th century according to source texts.

²² *rGya gar gyi lha khang legs, bKa' chems ka khol ma* p.222. The other sources offer a range of Indian monasteries as model, *mKhas pa'i dga' ston* p.21 f.41b says the Jokhang is based on the *rGya'i hen khang bi har, bKa' thang sde lnga* p.116 names the 'great Indian *gTsug lag khang* Ka ma la' as a model; Soerensen 1994, p.274 lists additional examples. In the absence of a single, clearly-identifiable model, we have argued that the Lhasa Jokhang is based on a generic format, which Songtsen Gampo's alleged testament seems to confirm.

interior timber frame, and excavated fragments tell of their detailing. Well-preserved are the central Indian cave monasteries of Ajanta, Ellora and Aurangabad, *vihara*-s carved out of stone in a style imitating brick and timber architecture. Some of their ground plans closely match the Jokhang, for example Ajanta 1 (6th century), and here we also find closely corresponding colonadization and arrangement of images. We can conclude that the Jokhang's building plan followed an established pattern that was used by Indian civilizations for over six centuries as a blueprint for constructing *vihara* temples. In Lhasa, this blueprint was closely followed by Nepali artisans with no apparent local modifications.

3.2. Second level

Tibetan historical sources agree that a second floor was part of the Jokhang's original design.²⁴ This is compatible with the *vihara* design; among the Ajanta and Ellora complexes, two- and even three-storied *vihara*-s have survived (Ajanta 6, late 5th century; Ellora 11 and 12, 8th century). The Jokhang's second floor was modified during the 11th and 13th century restorations, when more chapels were added. The designs of four historic doorframes, two flanking the Jowo chapel area and two on the southern and northern sides, appear contemporary with the original ground floor chapels. The Chö-gyel chapel above the entrance was added in the 14th century.²⁵ The famous silver image of the king has been lost, but an ancient silver jug is still preserved.²⁶ The murals showing a series of mandala-s were painted during the 1972 restoration. Behind this chapel is an inaccessible two-pillar room filled with precious objects as an auspicious offering.

Over the entrance area of the Jowo chapel is an extended wooden balustrade, rich in detail. This structure is again entirely traceable to Indian origins.

On the northern section of this floor the second 'skin', an outer wall enclosing the building, is most clearly discernible. Windows and doorways of the inner wall are matched by the outer one, and a narrow gap between the two walls is visible (on the floor below, the gap is partly filled with rubble).

²³ Ajanta caves 16 and 20 prove that these *vihara*-s are stone adaptations of contemporary timber architecture: their ceiling structure is cut to imitate wooden roof beams, boards and eaves.

²⁴ bKa' chems ka khol ma reports that it took 13 years to build the second floor, p. 264; Soerensen 1994 p.274 quotes a gloss in the rGyal rabs gsal ba'i me long saying '[The erection] of the upper construction (steng khang) of the lHa sa temple and Ra mo che, these two, lasted for two months before they were completed together, but notes that this is contradicted by the majority of sources that say the upper floor took 12 or 13 years to complete.

²⁵ By the two *Tshal pa khri dpon-s sMon lam rdo rje* and *Kun dga' rdo rje*, Everding 2000, p.127.

²⁶ This jug has been discussed in detail by Amy Heller, see <www.asianart.com/articles/heller/index.html>.

Level 2 1 secret chamber filled with auspicious objects 2 Chögyel lha-khang [Songtsen Gampo chapel] 3 access gallery 4 second gallery added in 14th century 5 closed stairway 6 empty, formerly apparently Jigié lha-khang 7 Chögyel Zimpuk lha-khang 8 Jowo Rinpoché chapel 9 Shey-ré lha-khang with early mural fragments 10 Guru Tsokyé Dorjé Tsokhor lha-khang 11 staircase, access to Pel-lha chok 12 Tub-pa Tsokhor lha-khang 13 second wall-layer 10 11 12 11 11 11 11 11 11

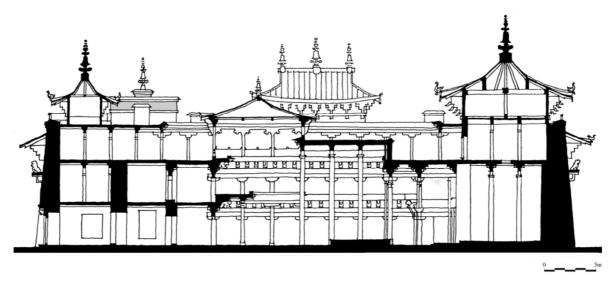
6. Lhasa Jokhang, plan, second level.

Several sections of the second floor, including the south-eastern chapel with ancient doorframe, were completely rebuilt in 1993 (see accompanying illustrations). The only area on this floor that has retained historic painting fragments is a room directly to the south of the Jowo chapel, identified by Vitali as the remains of the 11th century Shey-ré Lha-khang.²⁷ Today, this area is in disarray. Large pieces of plywood have been used to seal the open area above the Jowo chapel. Plywood hardly seems an adequate material in this context. Fragmented historic beams indicate that the area has undergone some recent changes that have resulted in the removal of historic fabric. Fragments of an ancient wooden Torana (see photo section) partly covered by bookshelves add to the mystery. We do not fully understand the pre-1959 lay-out of this area, and even if one were to remove the bookshelves and plywood walls, it would be very difficult to find out.

3.3. Upper levels

Most of the rooms on the third level were added in the 17th century. The most interesting room on the third floor, containing fragments of historic art, is the hall directly over the Jowo chapel (*Jo bo'i dbu'i thog lha khang*). Until 1967 this room

²⁷ Vitali 1990 chapter 3, see also graphic on p. 79.



7. Lhasa Jokhang, section drawing.

housed the original eight Bodhisattva retinue statues and two door protectors from the Jowo chapel, moved here during Zangskar Lotsawa's 11th century restoration.²⁸ From an opening in the centre of this room it is possible to look directly onto the roof over the Jowo's throne. On the walls, especially on the western wall, are fragments of historic wall-paintings showing unidentified protector deities.

3.4. Construction materials and methods

From the outside, the Jokhang conforms to standard Tibetan architectural practice – white-washed stone walls lined with a maroon *penbey* frieze. The central building is white-washed on polished plaster, decorated with several cornices and gilded brass images, including lions placed at the four corners. The outer wall is built from stone. The 1993 restoration revealed that the walls of some (perhaps all) of the interior chapels at least are built from baked bricks, hidden beneath mud-plaster. This conforms with the standard practice in India during the Buddhist period (i.e. 2nd century BC – ca. 1200 AD), and suggests that foreign craftsmen where at work. In Tibet, with an abundance of high-quality stone, building with baked bricks has never caught on. So far, the Trül-nang is the only historic Tibetan temple built with

²⁸ These eight *Bodhisattva*-s originally formed the retinue of the principal chapel's *Mi 'khrugs pa* image, see the Fifth Dalai Lama's Guide, p.30 in the Tibetan version, and *lHa ldan rwa sa 'phrul snang gtsug lag khang gi dkar chag* p. 68.

²⁹ Tibetan sources mention bricks in their description of the building and its foundation, *Ka chem ka khol ma* p. 218 has *pha gu*, which could mean baked brick, Soerensen 1994, p. 266 has *so phag*.

baked bricks identified so far (and the wide-scale destruction during the 1960s has revealed far more wall interiors than anyone could wish to investigate). The central ambulatory of the 9th century Meru Nyingpa chapel is built with stone, according to the 1999 investigation. It remains to be seen whether future archaeological investigation of imperial period sites in Tibet will find further usage of burnt bricks.

Regarding the timber elements, Tibetan sources mention juniper (*shing shug pa*) as the building material,³⁰ as well as 'la' wood (*gla*, tentatively identified as seabuckthorn).³¹ We investigated a small number of historic timber elements, four pillars and two beam ends carved in the shape of lions, and all were identified as juniper.

3.5. Detailing

On the ground floor, three major and two minor wooden doorways stand out. The doorways concur with those pointed out in Tibetan sources as the principal original chapels. The structure of these doorways is classically Indian, based on an established pattern refined over centuries, shared by both Hindu and Buddhist shrines, which reached its maturity during the early Gupta period. It consists of multiple, progressively recessed jambs, decorated with carved images of narrative scenes, door protectors, deities, decorative friezes and occasionally pilasters. The doorway to the Jowo chapel is flanked by two pilasters, with squatting figures at the base, which frame three sets of jambs. The innermost is covered by brass sheets, apparently covering old carvings. The middle jamb is carved in the form of a snake. The outer jamb set consists of a series of panels with carved single figures, appearing to be Bodhisattva-s, Tara-s or apsara-s, one of which holds a lotus flower. Several panels are covered by brass sheets. On each side are six panels with such images, and above the doorway are five panels with one larger central panel containing two figures. Above is a lintel that has six panels with paired images and a central panel with a representation of the wheel of Dharma. On the bottom of the jambs are carved images of the Indian fertility goddesses Ganga and Jamuna (representing the two sister goddesses representing the two rivers that water the northern Indian Doab plain), another indication that an established foreign pattern has been re-created here without modification. The doorway closely matches the doorways of Ajanta 1, 5 and 24.

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³⁰ Soerensen 1994, p. 273.

³¹ Ka chem ka khol ma p.218 and Soerensen 1994 p.265 both describe *gla* wood as having been used to lay the temple's foundations in the o-tang lake. Tibetan carpenters have confirmed in interviews that *gla ba* wood is exceptionally durable and water resistant, but that it occurs mostly as a shrub or bush and that it was almost impossible these days to find a full-grown specimen.

The doorways of the two flanking chapels are smaller, but similarly decorated by three sets of jambs and one lintel decorated with carved frames, illustrating events from the life of the historic Buddha Sakyamuni.³²

The doorway of the southern sanctum chapel has two pilasters and only one set of jambs, surrounded by a T-shaped decorative frame. T-shaped doorways are a common feature in ancient Indian temple architecture. The carvings on the jambs are eroded. The lintel has five panels with carved figures. Carvings of lion heads with impressive manes flank the lintel. Above the lintel are two pilasters and two panels with *apsara* images, and a row of ten protruding *yaksha* or *apsara* figures.

The doorway of the northern sanctum chapel, the Tuk-jé Chenpo Lha-khang, closely matches the design of its direct opposite, except that the carved lions flanking the lintel are shown with their entire bodies.

On the upper floor are four matching ancient doorways. On the eastern side, they decorate the Guru Tso-kyé Dorjé Tso-khor (s) and Chö-gyel Zimpuk (n) chapels.³³ The northern-most has been hollowed out and placed on a modern wooden frame, while the other is well-preserved despite the reconstruction of its entire surroundings. Both are of very similar design, forming curved archways, flanked by *apsara*-s. The jambs are decorated with carved Indian patterns, foliage and lotus flowers. Two rather massive lintels are decorated with figurative panels. The three panels on the lower one illustrate *Jataka* tales, the five panels on the upper one show deities.³⁴

On the southern and northern sides are doorways matching those of the northern and southern sanctum chapels, decorating here the chapel of 'Buddha and his disciples' (s) and an empty, presently unused chapel (n).³⁵ The southern doorway is flanked by two pilasters and a T-shaped frame. The inner jambs are decorated with carved foliage, the outer jambs are carved in lotus pattern. The T-frame is carved in diamond pattern, and flanked by two lion figures facing outwards. Above the lintel is

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³² These doorways and their iconography have been discussed in detail by von Schroeder 2001, pp. 406-431. He describes the doors further as being made from acacia wood, but we were unable to confirm the species of the wood used. Tibetans popularly describe them as being carved from sandalwood or juniper, but that may be due to a vague assumption that these were the woods preferably used during Songtsen Gampo's time, and sandalwood does not occur in Tibet. See also note 32.

³³ Gu ru mtsho skye rdo rje qtso 'khor and Chos rqyal qzim phuq.

³⁴ These two are also discussed in detail by von Schroeder 2001, p. 409. He identifies the images on the upper lintel of the northern-most doorway as Bhrikuti, Sri Potalak-Lokanatha, Indra, Maitreya or Kubera, Lakshmi; and on the southern-most as Sarasvati or Tara, Avalokitesvara, Maitreya.

³⁵ Thub pa gtso 'khor (s); for (n) according to Zhwa sgab pa 1982 bKa' bstan sogs bzhugs pa'i lha khang, according to Taring 1980 'Jigs byed lha khang. The Jokhang monks generally regard Shakapa as reliable. The chapels on the northern side were closed and empty during the investigation, and their original names and usage could not be ascertained in all cases. Vitali 1990 p.76 has a diagram illustrating the original placement of sculptures based on mKhas pa'i dga' ston, for (n) we find yaksha (gNod sbyin pho), for (s) yaksha (gNod sbyin pho) and 'two wrathful king kang'.

a central panel with a *yaksha* image, and a row of ten protruding *yaksha* or *apsara* images. The southern doorway is well-preserved, except for two missing panels in the outer corners of the T-frame. The northern doorway is decorated correspondingly, but the images flanking the T-frame here are winged gryphs. This doorway has been restored, with missing elements replaced by matching designs executed in modern craftsmanship.

The nine 'ancient' doorways described here are closely related in their design and match the Indian-modelled building plan, and so can be associated with the Jokhang's founding period. Their iconography is archaic by classical Tibetan Buddhist standards, because of the inclusion of Hindu deities and *yaksha*-s. The 14th century Chö-gyel chapel on the western side of the second floor level has a notably different doorway design. The Sengden Gomo main door *(seng Ideng sgo mo)*, which dates to the same period, exemplifies the preferred gate design of later Tibetan temples, with *pema-chudzö* frame, an upper lintel with lion heads and the door panel covered with canvas painted in geometric patterns. ³⁶

3.6. Colonadization

The pillars on the Jokhang's ground and second floor levels carrying the upper galleries differ widely in proportion and design from any other pillars known in Tibet.

Two separate but related styles can be identified. Type A is distinguished by its very prominent adaption of the Indian *ghata* or cushion-type moulding (here similar to a pumpkin), situated between a square capital and an octagonal shaft. The overall design closely resembles the stone pillars of Ajanta 1, 2 and 21 (all 6th century).

Type B has a much more simplified adaption of the *ghata* moulding, and while the upper part of the shaft is shaped octagonally, the larger lower part is quare. Many have images of squatting deities or *yaksha*-s carved on their bases. This exemplifies a common early Indian design type, the *purna-kalasha* pillar. Almost identical pillars in stone can be found at Aurangabad III (late 5th century), Ajanta 1 portico (early 6th) and Ellora II (mid-5th).

Type A only occurs on the ground floor at the four corners and in front of the Jowo chapel, all examples appear to be of very early date. Most pillars of type B appear to have been repaired, replaced or repainted many times.

³⁶ *Gung thang dkar chag*, see Everding 2001, p.127; the creation of the *seng ldeng sgo glegs* must be placed before 1346. Tibetans often translate *seng ldeng* as sandalwood (for which the term *tsan dan* stands more frequently). Sandalwood does not occur in Tibet and the term is usually a euphemism for the equally fragrant but locally-available juniper wood.



8. The nine ancient doorways of the Lhasa Jokhang.

Stylistically, the carving on later B types is stiffer and less artistically successful.

The row of pillars P1-P8 on the eastern side of the Kyil-khor-ting are most readily recognizable as ancient. Pillars P2 and P3 are replacements, but the brackets are ancient. P6 and P7 are ancient but have been repaired. P8 has been cast in plaster. Two support pillars (C) next to P4 and P5, probably added during the 11th century modification of this area, have some stylistic similarities to the ancient pillars, but are of different proportions.

All the pillars in this row, except for the two replacements, are unpainted, and polished by the hands of pilgrims and butter from the ubiquitous butter lamps. Some detailing has been lost long ago through abrasion, but the coat of butter is probably the best possible protection against repair and repainting. A ninth ancient-looking pillar has been added for structural reasons close to the southern swastika recess.

The brackets in the row of the eight original pillars are of uniform design, a central square medallion with Indian figures flanked by animals or *apsara-s* (see map section for illustrations); from north to south the flanking bracket images are, respectively, *apsara-s*, elephants, gryphs, *apsara-s*, gryphs, geese and *apsara-s*.

The pillars found elsewhere in the Tsugla-khang, including those on the third and fourth floor levels of the central *vihara*, are of standard Tibetan design and proportions. The raised pillars carrying the rooflight and balustrade appear to have no design features traceable to Indian prototypes.

We can conclude that pillar designs A and B match the Jokhang's groundplan, and so the designs (and some of the actual pillars) are contemporary with the founding. Nowhere else in Tibet have similar pillars survived, which serves to re-enforce the interpretation that the Jokhang was one of the earliest forays into temple-building on Tibetan soil. Later restorations have attempted, not always successfully, to maintain the early styles when pillars had to be replaced, constituting an important tradition of historic preservation.

Four tall pillars in front of the eastern section carry a balustrade (*seng g.yab*), richly decorated in the Indian mould. It contains wooden ceiling panels decorated with carved figures. A row of 24 Bodhisattva-like figures, similar to those above the Jowo-chapel gaze out of blind windows along the eastern rail of this balustrade. The design of both window frames and figures is entirely comparable to common Indian decorative features, occurring in some of the earliest known reliefs at Barhut (2nd century BC), and particularly resembling the balustrade above the entrance to Ajanta cave 1. The row of figures along the Jo-khang's balustrade, decorated like royalty with crowns and jewelry, implies that the upper area of the Jokhang at the

time was designated as a celestial mansion, the realm of the gods, following an early Indian architectural concept. The centrepiece on the lower side of the balustrade is a richly decorated panel that forms the canopy which in Indian temples is typically placed in front or above a central image.

The existence of the balustrade has been literally overshadowed, even made somewhat superfluous both structurally and decoratively, by the 14th century roofing of this area and the 12 raised pillars. The balustrade also appears to have been modified in the area above the entrance to the Jowo chapel, where the ceiling panels closest to the entrance are different in design. This area was modified in the 11th century when the Shey-ré Lha-khang was created, but our understanding of this no longer extant chapel is limited. This suggests that the balustrade pre-dates the 11th century. The detailing generally matches early Indian preferences and particularly the decorative art at Ajanta and Ellora. Tibetan sources tell us that king Repachen erected four "sky-bearing" pillars (gnam yangs ka ba) "bedecked with precious objects"³⁷ in the Jokhang, i.e. the extra-long pillars that typically support a skylight, portico or other structures added to ceiling constructions. The balustrade is indeed supported by four pillars higher than those supporting the ground and second floor levels, so we can tentatively place the balustrade to the 820s. The row of five blind-windows with Bodhisattva-like images high above the entrance to the Jowo chapel is stylistically identical and must date from the same period.

The 12 raised pillars that provide structural support for the roofing over the eastern section of the Kyil-khor-ting, forming the so-called *vajra* enclosure, were added in their present form in the 14th century.³⁸ The wooden ceiling construction differs quite sharply in design from the carved ceiling panels of the 9th century balustrade. The panels are simple squares, decorated with mantra-s painted in lotus-shapes. Ten long pillars along the western half of the Kyil-khor-ting were added during the same period, creating an additional gallery space on the second floor level.

The area in front of the Jowo chapel, including the Shey-ré Lha-khang fragments, is not so easy to understand. The 1990s restoration has left this area in disarray, plywood boards screen the second floor galleries from the chapel's entrance and historic timber elements appear structurally abandoned where the workforce could not make sense of them. Plywood walls also screen the timber and mural fragments

³⁷ Soerensen 1994 p.415.

³⁸ gNam g.yengs rdo rje'i rva ra, the 'vajra enclosure [supported by] sky-bearing [pillars]', was provided by the sNe'u rdzong ruler Grags pa rgyal mtshan following a request from Tsongkha-pa, see the Fifth Dalai Lama's Guide. However, the same source also mentions that the Tsel-pa ruler Gadé Zangpo (ca. 1396-1410, i.e. a contemporary of Tsongka-pa's time in Lhasa) extended 12 pillars, which can only apply to the same pillars and so would appear to be a confusion.

preserved in the rump Shey-ré Lha-khang. High above the door of the Jowo chapel is a row of five Bodhisattva images looking out of blind windows, closely resembling the row of 24 on the edge of Repachen's balustrade. A sixth image is found to the right of the corner pillar and beam construction that defines the entrance corridor of the Jowo chapel, making it likely that a seventh image exists at the other end of the row of images. A modern shelf with religious clay images obscures the area between these Bodhisattva-s and the doorframe below. We found a large wooden *prabha-mandala*, the traditional torana or throne back of a Buddha image, located behind the shelf. To the right of the shelf a *vyala* image can be seen (gryph with a rider). A winged *garuda* with flanking *chu-srin* (*makara-s*), which constitute the top of a throne back, rises above the shelf. This throne back is likely another important fragment of the 11th century Shey-ré Lha-khang, indicating that at one time, a large Buddha image was placed here.

A wooden triangular arch spans the gap between the northern and southern second floor galleries above the Jowo entrance corridor. The construction seems vaguely based on a well-known decorative element in Indian temple architecture, intricately decorated triangular arches placed in the entrance area. There are well-known examples at the monasteries of Alchi and Wanla in Ladakh. The Jo-khang arches are much simpler in design. It is possible that the triangular arch came to Lhasa via Kashmir and western Tibet with Zangskar Lotsawa in the 11th century, and that the triangular arch we see today has replaced an earlier (and much more decorated) one. The entrance area to the Jowo chapel has been continuously re-arranged over centuries, starting with the addition of the 9th century balustrade, and ending only recently with the placement of two plywood walls sealing the upper sections of this area.

3.7. The lions and other details

The beam ends facing the Kyil-khor-ting on the ground and second floors are carved in the shape of crouching male lions, except for one on the upper western side carved as a human face. These lion figures exemplify an ancient building tradition of early pan-Indian Buddhist civilizations, with the earliest examples found in Gandhara.³⁹ We find no identical examples in other Tibetan temples.

The Ramoché temple preserves a row of carved lion heads on a much smaller scale, decorating a beamline in the assembly hall (see chapter 2). These are similar to the rows of carved lion heads commonly placed on lintels above the main doors of Tibetan monasteries, based on another Indian decorative tradition.

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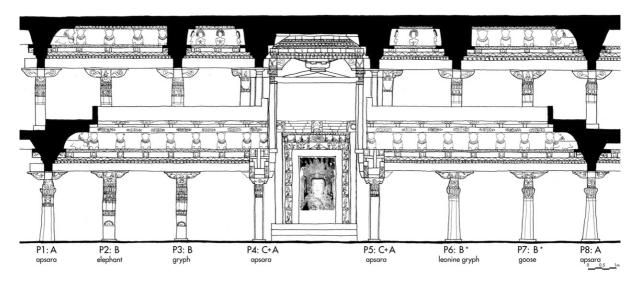
³⁹ Gandharan influences have already been noted by Vergara, Beguin 1987.





9. Songtsan Gampo, clay image in Potala Palace.

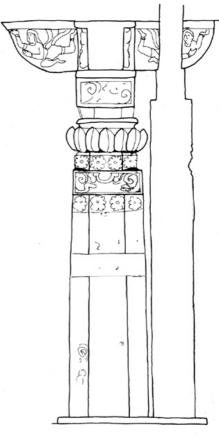
11. Ajanta, cave 1, 6th century pillars.



10. Lhasa Jokhang, colonadization.

Jokhang beam end Several lions investigated; all were carved from juniper wood. Some years ago I was given as a present a paw of one such lion that was replaced during the 1993 restoration. The paw is juniper wood, 21 cm long, 9 cm high and 11 cm wide. It has five claws. Two separate carbon datings place it with very high probability into Songtsen Gampo's time. Professor Richard Ernst, who was awarded the Nobel prize for Chemistry in 1991, kindly facilitated a Carbon-14 analysis in Switzerland's renowned ETH.40 A second test facilitated by Dr. of Achim Bräuning Stuttgart University confirmed the results. In 1999, Dr. Bräuning collected further samples in the Jokhang for testing, with matching results:

«From one of the oldest buildings in Lhasa, the Jokhang temple, four pieces of juniper wood could be investigated. One rectangular beam had a width of 34.5 cm and showed 555 growth rings. One edge of the beam is shaped in the form of a lion's head [...]. A high-precision ¹⁴C- sample from the outermost 10 rings of this beam (sample No. Hd-21765 LJo9 2C) yielded a date of 1633±17 BP which leads to an absolute calendar date of 409-428 AD (1 sigma). However, the outermost rings under the bark of the tree had been cut away, so the last preserved ring does



12. Details, 7th century Lhasa Jokhang pillar.

not represent the felling date of the tree. Since the growth rates of this wood sample range from 0.1-0.5 mm only, the cutting of about 3 cm of wood could have removed more than 200 growth rings. Thus, it is very probable that the beam originates from the first construction period of the Jokhang temple in the 7^{th} century. The tree germinated around $136(\pm 10)$ BC and was probably cut for the construction of the Jokhang temple in the 7^{th} century AD.»

On the upper wall sections and the roof of the Jokhang are a number of stone images which are locally claimed to have been placed by Songtsen Gampo as protective devices. Their actual antiquity is difficult to assess, but the sources associate them with 7th century geomancy.

⁴⁰ The results were presented at the 8th seminar of the International Association of Tibetan Studies in Bloomington, Indiana (the proceedings are still unpublished).

⁴¹ Dr. Achim Bräuning, Christine Roth and Peter Wittmann kindly contributed this paragraph to the present publication. Dr. Bräuning has also published a number of papers on his findings, including "Dendrochronologia", 19 (1), pp. 127-137.



13. The 1993 government restoration reveals the construction: the ends of the massive beams of juniper wood are carved in the shape of lions.

The most prominent is the stone lingam on the eastern side, pointing towards Jéma-lung, where Princess Wen-cheng's geomantic investigation identified the manifestation of a female demoness (*srin mo*) baring her pubic hair.⁴²

4. Mythologic features

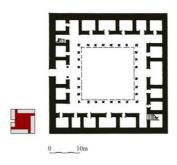
The founding of the Jokhang is surrounded by numerous of legends and myths, which have become indelible part of popular folklore deeply embedded in the

⁴² *bKa' chems ka khol ma* p.215. A stone or wooden lingam protector has become a common feature in many Tibetan temples (in Bhutan more commonly found in vernacular buildings), and it should be interesting to explore whether Wen-cheng has brought the lingam protector cult to Tibet.

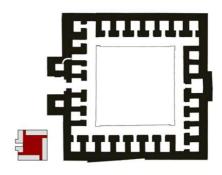
Tibetan imagination. Many of these derive from the early post-imperial source text. Particularly detailed is the Jokhang origin in Songtsan Gampo's alleged testament, the Kachem Kakoema (the testament in the pillar, *bKa' chems ka khol ma*), discovered in 1042 by the Bengali Buddhist master, Atisha, in one of the Jokhang's pillars.

This text, which has survived only in an adulterated later version, was the inspiration for a series of wall-paintings in the Takten Migyur Palace in the Lhasa Norbulingka (see illustrations). The text describes the qualities of the newly-completed Jokhang temple:

«Since [the temple] was made in the shape of a four-doored mandala the [Buddhist] lama-s rejoiced. Since the pillars were made in the shape of a ritual dagger [phur ba] the Tantrik adepts rejoiced. Since the four corners [of the foundation] were arranged in the shape of a swastika, the followers of Bön rejoiced. Since the [basic room arrangement] was in checkerboard pattern, the Tibetan population rejoiced. The entrance to this Miraculous Temple of Four-fold Happiness (dga' bzhi 'phrul kyi lha khang) faced west in the direction of Nepal.»



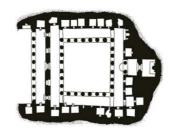
Lhasa Tsukla-khang, 7th century (CRB).



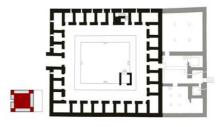
Nalanda, monastery 1a, 6th century (ASI).

Early vihara buildings

The arrangement of chapels in these monasteries (except Ajanta) gives the access corridor the form of a clockwise-turning swastika. This feature is sometimes described in Tibetan sources as linked to the Bön religion, but the comparison shows that it is in fact a feature of vihara architecture whose origin must be searched for in India.



Ajanta, cave 4, second half of 5th century (ASI).

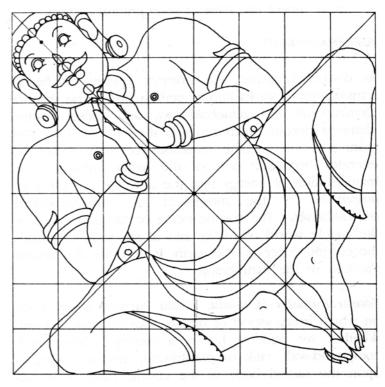


Jaulian (Gandhara civilization), monastery 2, 1st century (ASI).

14. Four early vihara buildings, swastika design feature indicated in red.

The centre of the Jokhang is called the Mandala sphere (Kyilkhorting), and standing in the center of the Mandala, there are four principal doors in the cardinal directions, so that description the of the Jokhang as a four-doored Mandala is accurate.

The shape of the pillars in the Jokhang is peculiar. No other Tibetan building has similar pillars. In fact, the Jokhang pillars are perfect examples of early Indian temple columns, with all the typical mouldings and patterns known from the classic temples of Ellora and Ajanta.



15. Sample of Indian square grid (Vaastu Purusha Mandala) for planning a temple building.

The swastika shape formed by the arrangement of the inner chapels can also be found in similar *vihara* buildings in Gandhara and Nalanda, and so seems to have been an integral element of *vihara* architecture.

Drawing a checkerboard pattern on the ground where a *vihara* is to be built is standard procedure. Within a grid of 64 or 81 squares cosmic patterns can be established, according to which the temple and its iconography can be planned. This practice is still in use in Tibet.

All four features praised in the king's account point to the fact that the Jokhang corresponds to authentic Indian temple building preferences. Thus they represent a key to understanding the authenticity of the building.

5. Context - conservation in Lhasa today

The Lhasa Jokhang is associated with the Mönlam Chenmo festival, since its inception by Tsongkapa in 1409. For the duration of the festival, two weeks starting from the 15th day of the first Tibetan lunar month, the city authorities ceded control of the city to the monks of the 'Three Seats' (Drepung, Sera and Ganden). These

monasteries established satellites around the Jokhang to be used during that period. During the Fifth Dalai Lama's time, the Ngakhang, a southern annex to the Jokhang owned by Drepung's Tantric College, took its final shape. Precious tea utensils such as silver pots and copper cauldrons were stored here. The southern wing, two storeys with penbey frieze, had a large gate leading via an alley to the Barkor. From the northern wing, a door led directly into the Nangkor courtyard. The southern and western wings of the Ngakhang complex were destroyed during the Cultural Revolution, and lay in ruins until the early 1980s. The Lhasa Construction Department then erected a three-storey traditional building to be used as public housing. Two wings of the historic Ngakhang remained in sound condition, Tenkhangshar (bsTan khang shar) and Ngakhang Pu (sNgags khang sbug), the innermost wing physically adjoining the Jokhang. THF surveyed the Ngakhang complex in 1998. Tenkhangshar, two storeys, had a classical facade onto the Ödepug alleyway. The courtyard galleries had preserved historic wooden railings. The western wing of Ngakhang Pu had an old ground floor and modern second floor; the eastern wing was the best-preserved of all.

In 1996, the Lhasa Construction Department floated the proposal to strip the Ngakhang complex off the Jokhang, and build exclusive residential housing on the site as part of the government's housing privatisation drive. However, at the time, this proposal was rejected by the municipality. In 2002, two years after the Jokhang was officially inscribed on the UNESCO World Heritage List, the Ngakhang complex remains were demolished and replaced by concrete-frame housing blocks. This shows the difficulties local conservationist efforts in Lhasa are facing. Even though



16. New construction on the grounds of the demolished Ngakhang.

local Cultural Relics the Bureaus of Lhasa and Tibet are responsible for preserving historic buildings, they often run against strong interests and difficulties unless strongly backed by Beijing. Famously 2000, the Surkhang in department store built in the vicinity of the Jokhang temple had its top floor demolished, as it violated the height limit when built in 1993. That the enforcement came seven years late reflects the general trend

of Chinese reform policies reaching Tibet usually up to a decade later.

6. Conclusion

6.1. The Jokhang – an Indian vihara in Tibet

In plan, scale and detailing Songtsan Gampo's Jokhang corresponds to an Indian *vihara*, and so is directly comparable to Jaulian monastery 2 (Gandhara civilization, 1st century), Ajanta cave 4 (5th century) and Nalanda monastery 1a (6th century). The Indian Buddhist *vihara*, evolved side-by-side with Hindu temple architecture from the 1st or 2nd century onwards, built according to a fixed plan, with rooms arranged inside a square with a central open courtyard. Because of the decline of Buddhism in India and the wet climate, no site built in timber and brick has survived there, only archaeological remains and the various rock caves. The Lhasa Jokhang is therefore a significant monument of surviving early Indian religious timber architecture.⁴³ Combining the stylistic evidence with the carbon-datings, there can be little doubt about its authenticity as a 7th century foundation.

The Tibetan founding date coincides with the presence of the Newar artisans, immersed in the latest pan-Indian temple building technologies since the Licchavi-Gupta alliance of the 3rd century, and princess Brikutri (Tritsun); supplying both motivation and technology to build an Indian temple in Tibet. Already 100 years later, Songtsan Gampo's descendent Tritsuk Detsen built another monastery, Samye, famously using a blend of three distinct technologies, those of India, of China and of Tibet, indicating an evolution of building preferences has taken place in the court. No other example of an authentic Indian *vihara* building has been found in Tibet, another indicator that Indian building technology must have soon been superseded by a blend that included indigenous Tibetan and Chinese technologies. The Lhasa Tsukla-khang is the only imperial temple to survive in a comparable state

of preservation, and a major repository of early Buddhist decorative art. During successive renovations undertaken by rulers and great Lama-s over the long course of history, the building was expanded, modified and ornamented, naturally in the style of the day, but the original core of the temple was preserved throughout with remarkable efficiency. This shows that Tibetans had long ago developed a clear

⁴³ Several distinguished scholars of the Newar civilization of the Kathmandu valley have tried to relate the Jokhang exclusively to Licchavi art and architecture. However, such viewpoint is too limited. The Lhasa Jokhang belongs to a school of pan-Indian architecture. This architectural idiom can be traced to the Gandhara civilization of the 1st and 2nd centuries BC. It reached its maturity during the 5th and 6th centuries, and the best surviving examples are the Ajanta and Ellora caves. It seems only natural that Indian architecture should have influenced early Tibetan temples, much like the Indian canonical works and treatises that were translated and copied for the organization of religious practice in Tibet.

concept of architectural conservation, and proved remarkably efficient in its implementation.

6.2. The oldest timber building in the world?

Buddhism reached Japan at about the same time as Tibet, but it took a much longer way via Central Asia, Tang dynasty China and the Korean peninsula. Just as the Tibetan Jokhang is the only surviving example of early Indian timber architecture, so Japan preserves the earliest examples of Chinese Tang dynasty architecture.

Horyu-ji in Nara is regarded as the earliest Japanese temple, founded in 607. Because of a fire and a supposed moving of the temple, many Japanese scholars assumed the extent Horyu-ji structures to only date to 670. However, Prof. Takumi Mitsutani of the National Research Institute for Cultural Properties Nara, expert in dendrochronolgy, dated the central pillar (the so-called life shaft) of the Horyu-ji Goju No To (Five-Story Pagoda) to a felling date of 594, which, when adding missing rings for the bark and seven years of curing, matches the 607 construction date. His research has helped to confirm Horyu-ji's reputation as the oldest wooden building in the world. The Horyu-ji Kondo (main hall) and other buildings of the temple appear to post-date the fire, as sample testing of timber elements only yielded mid-7th century dates.⁴⁴

Both Horyu-ji and Lhasa Jokhang are linked to the period of expansion of Buddhism through Asia, and the corresponding transformation this religion and its related artistic and architectural preferences underwent.

The Tibetans have since long associated the Jokhang with the genesis of their cultural and religious civilization. But its importance goes even beyond that, touching the cultural histories of India, China and beyond.

As miraculously-preserved physical testimony to the history of Buddhism, the significance of the Lhasa Jokhang cannot be overstated.

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⁴⁴ Mitsutani *et alii* 2006.

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