

Survival of Wooden Art in Nepal: An Overview

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Investigations in the span of thirteen years have shown this researcher remarkable progress in the preservation of the architectural heritage of Nepal. Major efforts are being made to maintain the medieval identity of Kathmandu Valley towns, even as twentieth century standards of living are sought after. Concern for the survival of a uniquely Nepalese environment is both national and international, so that much has been done in Patan, Bhaktapur, and the Durbar Square of Kathmandu. And it has been done well. Restoration and preservation as soon as possible are essential, for the traditions of Nepalese architecture exist in vulnerable wood and brick. This short report is intended to outline some of the successes and problems that are presently linked to the survival of three building types in Nepal: the *bahal* (courtyard-enclosing monastery), the multi-roofed tower of palace or temple, and the ordinary house.

The four-sided courtyard building of sacred or secular usage in Nepal is linked to the venerable *catushala* plan of ancient India,¹ and it may be called the basic

unit of city planning, as any air view of Kathmandu Valley will confirm. Courtyards open intensely congested neighborhoods and palace compounds to light and air,² and they provide practical open spaces for Buddhist monastic or settlements of Hindu priests. They are, in every way, cells for living.

Chusya Bahal was completed in 1649 to house an image of Harihara Lokeshvara in Kathmandu.³ The Nepali term *bahal* (Newari: *baha*) refers to a normally two-storey building of Buddhist use with its floors divided into many rooms that open into a central court. From the street a *bahal* looks fairly plain, its small window openings giving it an almost defensive appearance. But its main entrance is typically marked by a very ornate *torana* or tympanum door covering that is made of carved wood or wood and metal (that of Chusya Bahal, lacking its original paint, is dated Nepal Samvat 793 or 1673 A. D.).⁴ Inside and directly opposite the entryway, across an open courtyard, rests a small and dark shrine room. This encloses its image behind wood-screened doors that are carved with

extremely complex geometric and vegetal designs. The door is also richly carved, as are all of the windows, balconies, lintels, cornices, and roof struts around the entire court. Patterns of fenestration⁵ and framework are exactly those of domestic and royal architecture, but there is perhaps greater multiplication and certainly more frequent depiction of major gods. If one may expect faceted delicacy within a Buddhist bahal, one may also look for simplified grace of the more restrained carvings like those of the heavenly maidens and attend Itum Bahal in Kathmandu. The juxtaposition of the relatively plain with tradition the extraordinarily elaborate is in fact a constant theme of Nepalese building design, organizing entire walls as well as windows or doors.

Some of the best of Nepalese wood sculpture is found in monasteries like Chusya Bahal and Itum Bahal, but it is an unfortunate fact that they no longer receive the public attention that is now focussed on other, more accessible buildings. The religious courtyards had belonged to sanctified worlds apart, closely integrated religions of the Newar people and their kings. But the Buddhism of Kathmandu Valley is itself in a state of decline, this due in part to the conquering of the sheltered area by the Gurkha armies of the Hindu king Prthvi Narayana Sah in 1768, as is well known. Bahals now usually function as apartment complexes, housing families that may or may not be Buddhist, and there are not always priests available to attend to shrines. Nearly all of them are poor. And so the innumerable bahals as centers of study and worship built together with sacred spaces are generally

crumbling, and prospects for their long-term survival do not always appear to be good. Yet some were in similar straits when Cecil Bendall published his photographs in 1886 (*A Journey in Nepal and Northern India*, Plate V) and they still stand. The process of official selection—the making of choices for the future—has already begun as Nepal establishes Protected Monument Zones for its cities. “Essential” bahals will presumably remain.

Horizontal courtyard designs, having walls that are rarely more than two storeys high, are both contrasted and complemented by the vertical thrusts of towers with many roofs. These belong to temples or palaces as key monuments to which the popular term “pagoda” is often applied; although temples are properly given the term *mandir* (Nepali) or *dega* (Newari). Their form is sometimes related to the “stupa” built in Peshawar by Emperor Kaniska, as according to N. R. Banerjee,⁶ and like that lost early tower these imposing buildings can hardly be considered practical. While much space is enclosed by upper floors, it is space that is used for little more than royal observation of the surroundings, for occasional storage, or a part of a great marker or crown above a *sanctum sanctorum* and its enshrined spirit. Like the bahal, the freestanding or attached tower of many roofs may be precisely analyzed as a three-dimensional projection of *mandala* diagram;⁷ it is part of a Pan-Asian preference for tower temples that are oriented toward heaven.⁸

The most important factor for this analysis is that the tower is adorned with a breathtaking amount of ornament, rem-

inding the viewer that Nepal presents more and better wood carving than any other culture in Asia. The building is carved from threshold to pinnacle (with metal additions as well), but the major emphasis is upon roof supporting struts (Newari: *tuna*). These structural parts are usually cut and painted to represent individual deities (Newari: *bilanpau*) of the Hindu/Buddhist pantheon. Carved struts under the heavy roof corners, called *kumsala* on "corner horse" figures represent griffins of tremendous strength. These elements are among many that call for general comparison to architecture in Kerala, South India. All Nepalese strut carvings are meant to be colorful, active, supernatural, and dramatic, as they burst out from buildings with a kind of cinematic theatricality. The total effect is nowhere more exciting than at the hilltop temple of Cangu Narayana founded in the 4th century A. D. and last rebuilt in the 18th century. Strut figures project out to meet the roof with their bases braced against brick walls; they remain individuals rather than blend into a wall matrix, like that of medieval stone architecture of India. They are the only angled elements below the roof line of the simple post and lintel structures, and their forms are delineated by clear contour line as they are enlivened by brilliant polychrome.

Tower buildings are generally better preserved than *bahals*, perhaps because of their visual prominence as they punctuate the skylines of valley towns, or because they are frequently the focus of Hindu devotion. Noteworthy examples include the Siva temple of Kumbhesvara in Patan (earliest inscription of N. S. 512 or 1392

A. D.) and the tower of Nyatapola Mandir (1708 A. D.) in Bhaktapur, both with five roofs, and the important but little known temple of Indrvara Mahadeva in Panauti.

Kasthamandapa temple in the heart of Kathmandu is a familiar Hindu pilgrimage site that dates to the 11th or 12th century⁹ and it deserves special mention here. It is dedicated to Lord Pacali, tutelary deity of a *pancalika* or administrative unit to Kathmandu;¹⁰ it was and is a place of gathering and rest.¹¹ It also represents the first great success story of restoration by the Department of Archaeology of His Majesty's Government. The accomplishment of 1966-67 is considerable because of many difficulties involved. Tile roofs underlain by a layer of clay tend to absorb water, allowing plants to sprout and their roofs to separate the tiles and loosen wooden planks that are under the clay, mortar made of mud disintegrate and must be replaced; cement is often needed for lasting restoration but it is mostly imported and very expensive in Nepal; exterior walls of important buildings require sharp-edged and highly polished bricks that are quite unique to Kathmandu Valley.¹² At Kasthamandapa the temple had been choked by shops. Today it is clear and stable. More recent preservation procedures have been completed at the large Hindu temple of Dattatreya in Bhaktapur and its attendant Pujari-matha for the use of priests and pilgrims both buildings probably having been established in the 15th century. Restoration was directed in 1971-1975 by a team from the Federal Republic of Germany, after very serious decay had occurred and supervision continues to the present. The second structure, once a *sattal*, now houses the offices of the Cooperative Bhaktapur Development

Programme, and Dattatreya remains a place of active worship. Pujari-matha presented especially complex interior obstacles for it consists of four floors of interconnected but irregularly shaped sacred and domestic rooms that are arranged around three courtyards or chauks. These are adorned by some of the finest window carvings in the country.

An especially prominent example of successful rebuilding and restoration is the *nautale* or Vasantapur tower of the royal palace compound of Hanuman Dhoka in Kathmandu. This vertical structure achieves a 100 feet height of nine full storeys and supports four tiled roofs. Its lower levels appear to be the oldest structure of the Lahan Chauk courtyard, an enclosure that was embellished with towers by Prthvi Narayanat Sah¹³ and his successor. But the court is not as old as second nearby space, Mul Chauk, that was built in 1564 A.D.¹⁴ The *nautale* stands at the street side of its walls, court. It impresses visitors by the tremendous mass of its walls, especially on the lowest two floors where multiple vertical columns enclose brick filling from floor to ceiling. Stepped horizontal beams rise to the ceilings in semi-corbel construction on the lower six floors¹⁵. And the width of the building is unvarying at all but the smaller top level, added by the conqueror's son. It is not telescoped within itself (so that the inner core of each storey projects upward to from the outer walls of the next higher floor) as in multi-roofed temple style.

The survival of this structure is due to tremendous effort and of painstaking research by the UNESCO-HMG Hanuman Dhoka Conservation Project from 1972 to the present. The first stage was completed in January,

1975.¹⁶ For future ages, its structural parts were replaced by original methods and with original materials. Sculptures were recarved to capture classical patterns as closely as possible, by traditional craftsmen¹⁷, and then left plain, since the pigments of most originals had faded away completely. Metallurgical study allowed for the reestablishment of casting techniques that had long been lost, and these were utilized to replace hundreds of bells that had once rung with every breeze under the multiple roofs¹⁸. Most important, a potentially disastrous lean of the Lalitpur tower was corrected by almost total rebuilding of its upper levels. What appeared to be already ruined in 1969 was in fact returned elevation by 1975. And so a great national monument has been saved. It may still be compared to the related palaces of Prthvi Narayana Sha's reign at Gorkha and Nuwakot, so that full range of royal architectural styles belonging to the 18th century remains for study and appreciation.

Lessons learned at Hanuman Dhoka have more recently been applied in the \$3,009.00 restoration of a small but important temple-pavilion, Cyasilim Mandap of c. 1726 in Bhaktapur, a festival shrine for Bhairava.¹⁹ The edifice was rebuilt from foundation upward²⁰ in 1974-1975 by the Vereniging Nederland-Nepal in cooperation with the National Art Gallery in Bhaktapur and the Department of Archaeology. Its continuance keeps open a vital artery of religious life in Nepal, as illustrated annually. Thousands of Newar worshippers, especially Jyapus or farmers, pass through the structure to begin the new year by worshipping the fiercely protective Bhairava as part of the Bisket jatra celebra-

tion.²¹ The custom is remarkably illustrative of both social and physical geography.

Palaces, bahals, and temples may be described as "super houses", for structural methods are essentially the same for all. A section drawing of a standard Newari dwelling shows, for example, that access from floor to floor is facilitated by very steep narrow stairways or ladders that lead to trap door openings.²² Materials, methods, and general appearance relate in all categories, so that it is logical to include here a third and equal variety of architectural masterwork: the house. Private dwellings are the least likely to maintain their traditional appearance and high quality of craftsmanship, even if designated zones do restrict drastic modification of their exteriors. It is unrealistic to expect that any culture of modern times will refuse the "advantages" that corrugated metal roofing, linoleum, ceramic tile, concrete, and other new materials offer to home owners, but it may still be hoped that the neighborhood surroundings of certain major monuments (Kumbhesvara temple, Mahabouddha temple, Svayambhunatha, etc.) will be maintained in traditional building materials and colors. Most Nepalese monuments belong to closely packed streets having stone paving, red brick walls, wooden windows, projecting balconies, and roofs of red tile. When any such harmonious setting — the context of the work of art — is upset by the introduction of something "foreign", the monument themselves are marred, even defaced. Yet such change is a trend in Nepal.

It is, of course, inevitable that some

of the arts of this uniquely medieval civilization will be lost; an arm of the Kathmandu palace was itself partly amputated to make way for New Road (Juddha Sadak) after the 1934 earthquake, and in 1970 the severed stump of the building, with its fresco paintings, was removed. But again the story of preservation is in many ways positive, and the uncertainty of the 1960's is somewhat lessened. Tourism and archaeology are major concerns now, and local agencies are better equipped to evaluate international proposals. Graduate students and other investigators are supervised by the Institute of Nepal and Asian Studies at Tribhuvan University, while major exhibitions such as "Nepal: Where the Gods are Young" and "The Sensuous Immortals", both from the Los Angeles County Museum of Art, promote understanding of portable objects that have been removed from architectural settings. Making choices in Nepal is difficult, for there are treasures everywhere. A single domestic complex may bring this last point home. Utterly refined in its elegant state of impending collapse, but lacking patronage it is 14/42 Tingal Tole in Kathmandu, a house and a masterwork that is worth seeking out.

When patrons are found, the most important model for restoration methodology will undoubtedly continue to be that of the Hanuman Dhoka Conservation Project carried out in three phases, this project was financed by donations from Japan, Italy and Britain, as well as UNESCO and Nepalese government funds. Phase one accomplished renovation of the Nassal Chowk area in time for its use as setting for the coronation of King Birendra on February 24, 1975. Phase two involved repair of the

leaning Lalitpur tower as well as the octagonal Bhaktapur Tower. Phase three completes the work with rehabilitation of the Villas Mandir or "House of Enjoyment" that joins the four towers built by Prthvi Narayana Sah to enclose a courtyard called Lohan Chowk.³ As indicated, the project is a very large one, but most noteworthy is the revival of traditional crafts that has occurred since the efforts began. These are returned to as follows.

In addition to bell casting by *cire perdu* method, brick making of *telia* (Nepali "oiled" brick type or is practiced with great success. It is a major revival. To summarize, this involves digging local clay from about five feet below sub-soil, removing foreign matter from it and putting the clay in wooden moulds slightly larger than 8"x2"x4" size of the final baked brick, then letting the brick dry in the shade for a day. A final form is given to the semi-firm brick as one face is flattened with a mallet and then knife-trimmed to sharp wedge shape. The face of the brick is whetted with a piece of stone or timber for a uniform surface and, after five to eight days, slip glazing with special clay obtained from the village of Hadigaon, northeast of Kathmandu, is carried out. John Sanday explains further that this clay is stored after excavation beneath eaves of paddy straw throughout the rainy season and that during this time, "microscopic fungus growth like fine red dust"²⁴ is washed from the straw into the clay. This gives it special color and texture. The clay is further stored for six to ten years before being used to make slip for ceramics and bricks.

After a brick is painted with slip, its face is burnished with a stone to high lustre

and, after more drying, it is baked. Both clamp kilns (wherein bricks are twice stacked with combustible material to be burned through) and coal-fired rotational kilns are used. The wedge-shaped bricks may be bedded into thick lime mortar with very narrow joints (one-tenth of an inch) at the front, and the glaze gives them rich red hues while making them impervious to water.

The making of roof tiles presented no special problems at Hanuman Dhoka, but a new system for resisting destructive plant life is being tested. Timbers are treated and then covered over with tarfelt, clay is put down (sterilized against plant life, traditionally practiced by heating over fire), herbicides are sprayed on, and tiles are soaked in silicone to prevent the retention of water. Woodcarvings at all levels below the roof were remade by craftsmen of the Newars, mostly from Bhaktapur and the survival of their past customs is indicated by the fact that only three carvers in Bhaktapur were entitled to perform the all-important act of "opening" the eyes of divine images.²⁵ Those carvings that had not disintegrated required extensive washing and cleaning. Multiple coats of watercolor paints were removed. Approximately 15,000 pieces of woodwork were numbered, coordinated with drawings, removed, cleaned, and replaced exactly. Yet these details are but a hint of the work that was actually done at the palace (80% of Kirtipur tower's timbers had to be replaced due to capillary action throughout the boarding beneath its cooper roof, for example and it must be noted that almost every step of the project, such as deciding to use an insecticide and fungicide called *Wykamol plus*, was taken with the inheritance of

future generations in mind. The medieval era never really ended in Nepal, so that most of its historical monuments remain truly living ones. Still, if Lazarus does not need to be raised from the dead he certainly does need Intensive Care.

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FOOT NOTES

- 1 Expansion of the simple plan to geometric elaboration in later temples is briefly explained by Andreas Volwahsen in *Living Architecture: Indian*, pp. 50-57
- 2 In 1880 Henry Ambrose Oldfield estimated that the Kathmandu palace had between 40 and 50 courts while the palace in Bhaktapur had 99 (*Sketches from Nepal*, p. 97).
- 3 A combined Hindu /Buddhist name for an image or deity is not unusual in the syncretistic society of Nepal.
- 4 While most major bahals are listed in David Snellgrove, "Shrines and Temples of Nepal", fine plans and drawings of Chusya Bahal and other monuments referred to here are found in *The Traditional Architecture of Nepal* by Wolfgang Korn. City plans appear in *The Kathmandu Valley Plan* released by His Majesty's Government of Nepal.
- 5 For window design analysis see U. P. Shah, "Glimpses of Nepal Woodwork", and R. M. Bernier, "Wooden Windows of Nepal--An Illustrated Analysis".
- 6 N. R. Banerjee, "Some Thoughts on the Development of Buddhist Art in Nepal", p. 74.
- 7 Research in this subject is most thoroughly represented by the work of Dr. Christopher George.
- 8 Kerala in South India presents greater similarity to Nepalese design than do China, Japan, or Bali, but comparison of Rajasthani and Pahari patterns may be most fruitful. One should note accounts of the escape of the Rajput king of Chittore from the Muslim armies of 'Ala-ud-din (Northey and Morris, *The Gurkhas*, p. XV) as well as brief Islamic suzerainty over Nepal that is possibly indicated by D. Prasad in "A Silver Coin Struck in Nepal in the name of Ala-ud-din Muhammad Shah Khilji". Giuseppe Tucci upholds the importance of Rajput connections in his "Preliminary Report of Two Scientific Expeditions to Nepal" p. 129.
- 9 R. J. Thapa, "Kashthamandapa" pp. 33-43.
- 10 Pacali Bhairava is prominently associated with the ruling family today, while from the 14th century the monument has belonged to Goraksanatha, an incarnation of Siva; and his followers, the Nathas (Slusser and Vajracarya "Two Medieval Nepalese Buildings", pp. 209-210).
- 11 Kashthamandapa is like Dattatreya in Bhaktapur in having been a sattal, that is dharmasala or public rest house. (*Ibid.*, p. 169).
- 12 Korn, p. 44.
- 13 The Hindu conqueror lived here from 1769 to 1774 when he moved to his palace at Nuwakot. There he died in the following year (*Institute of Nepal and Asian Studies, An Introduction to Hanuman Dhoka*, p. 28).
- 14 *Ibid.*, p. 61.
- 15 Such stepping is often found at the tops of windows and doors in buildings having very thick walls, like the Nuwakot palace.
- 16 Niels Cutschow, "Restoration of the Cyaslim Mandap in Bhaktapur", p. 227.
- 17 Traditional arts continue to be practiced with government sponsorship at the Patan Industrial Estates as well as in private workshops throughout the country.

- Major work is also being done in the restored Bhaktapur square area.
- 18 John Sanday, "The Hanuman Dhoka Royal Palace", pp. 5-6.
- 19 Gutshow, p. 225.
- 20 A choice was made to restore the 40 year-old one storey form rather than the three-roof edifice that had existed before the great earthquake of 1934.
- 21 Mary M. Anderson, *The Festivals of Nepal*, pp. 41-46.
- 22 A section drawing showing standard accommodation is found in Korn, p. 22.
- 23 The timely summary by John Sanday in "The Hanuman Dhoka Royal Palace, Kathmandu" is especially valuable for its explanation of revived craft and craft guild activities.
- 24 Sanday, p. 7.
- 25 *Ibid.*, p. 12.
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