

Patan: Reading Urban form in Cultural Landscape

Pratyush Shankar

Ford Asia Fellow 2008-09, CNAS (Center for Nepal and Asian Studies),

Tribhuvan University, Kathmandu, Nepal

Assistant Professor– Faculty of Architecture,

CEPT - Center for Environmental Planning and Technology University,
Ahmedabad, India

pratyushshankar@gmail.com

00977-9851110400

Ways of reading cities

Cities historically have been complex entities both in terms of their physical form and the processes that they support. Cities have been sites of action, innovation and convergence of new ideas and carry immense meaning for communities. Using multiple narratives to understand cities or urban spaces might lead a richer and comprehensive understanding of the city rather than a definitive normative way of interpreting the city. The burden of 'Art and Architectural historians' way of looking at cities as an artifact does not help either. A piece of Architecture is easy to abstract and attribute its form to some singular factor like power statement, climate or construction system. It is doubtful how one can use such a singular definitive narrative for a city. To complicate matters further, the history of Architecture for Asia mostly written ignores the vernacular tradition and has almost always concentrated on the classical iconic examples to form the narrative of the past. In the process what they tend to develop is a kind of singular narrative of the city leading to stereotyping old cities.

Cities will be better understood if we were to not only refer to special or 'evolved' examples of architecture or public spaces but also the most humble once that embody the knowledge system that have been honed and transmitted for many generations amongst common people. For example it is rather futile to read too much into the form of the city and correlate it with religious symbolism aloneⁱ. One cannot attribute the obvious physical features of medieval cities in South Asia to a singular factorⁱⁱ like religious belief systems and symbolism. This kind of normative approach tends to create a layer of mysticism around the "exotic old city". This approach of attributing the space to a singular idea even though important, does not allow us to understand the rich and complex urban spaces of cities in more than one way and undermines many undercurrents or concurrent phenomenon that could have contributed in space making. It is a classic example of treating a city like an artifact rather than a space that is dynamic

This paper is an attempt to form other narratives to understand the urban form and texture of Patan town and it begins by an assumption that communities have over a period of time developed a specific attitude towards the natural landscape while creating space for themselves. We can refer to such traditional knowledge systems from both phenomenological and morphological perspectives to understand the present form of Patan townⁱⁱⁱ. The unique or generic geographical setting of the city needs to be deconstructed further to understand the form of the city. The role of religious institutions in this cultural landscape can then be understood from their actual negotiations and appropriation of urban space

Tracing the origins: The hill valley settlement phenomenon

Patan town is located in the Kathmandu valley in Nepal, south of the bend of river Bagmati in geographical setting that can be described as valley and moderate hilly condition. See figure 1, which shows the location of the Patan town with respect to the topography conditions and surrounding water bodies. Patan town is characterized by Durbar square nearly at the center of the town, numerous temples, *viharas*, public places in form of open squares, water fountains, *Pati (semi covered shelter)*, *Stupa* and *Chaitya*. Traditional houses in wood and brick are linear with double bays running parallel along the street and gable part of the house joining with the next. The houses are always organized around a shared courtyard. The courtyards often connect with each other and also serve as primary movement spaces. Patan has had layers of history with written records, sculpture and fragmentary architectural remains scattered throughout the city attest to the Licchavi period settlement (Slusser 1997: 96). The main settlement was concentrated around the Durbar square and Mangal bazaar area. During the Malla period it was a city-state, which competed with Kathmandu and Bhaktapur. Patan has been a predominantly Buddhist town with about 150 *viharas*.

To better understand the form of the Patan town it might be worthwhile to also look at generic patterns of the settlement in the surrounding areas. The settlements in the Himalayas in general and for most hill settlements have developed a certain pattern in countering and using the natural resources to ones advantage. This is obvious if one were to observe how communities have used topography, water resources and forest produce to ones advantage over centuries. The settlement patterns seen in this part is also a result of such an attitude towards natural landscape. On closely observing settlement patterns in and around Kathmandu valley, the following key physical attributes can be observed

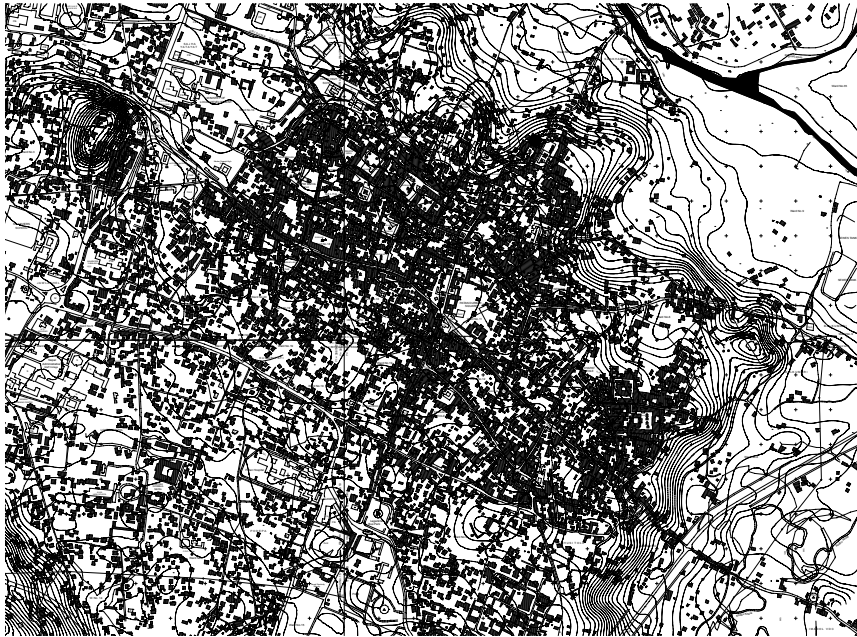


Figure 1: Topographical condition in and around Patan

The valuable ridge

It is common knowledge that majority settlement in hilly areas is mostly on the higher grounds, leaving the low lands, which are more fertile, available for agriculture. Valleys are the most precious resource as they provide the source of water and fertility for agriculture. Investigating further, within the attitude of settlement on higher grounds there seems to be certain distinct patterns that can be observed in majority of the cases. The ridges kind of condition which is marked by a narrow flat piece of high ground with low lying slopes around its circumference, seems to be the most preferred zone for the settlement. A ridge in any hill valley condition is a definite special zone that allows for access and control of nearly always two different valleys on both its sides. It is also relatively flat and allows for flexibility of built form. The condition will also allow for settlement to spread in all direction allowing for a polygonal profile.

Conceptually this attitude towards the ridge like conditions, for preference of settlement implies a special relationship that man establishes with natural condition. It is an attempt to position itself with respect to the natural landscape in hope for future security and growth. The decision to locate oneself with respect to the overall topographical condition is the first and foremost act that will impact the future form of the settlement. The common knowledge that communities gain over centuries of organizing space should have ideally influenced the large cities like Patan as well.

See figure 2 for abstract diagrams and aerial pictures of some common pattern of settlements on the ridge conditions

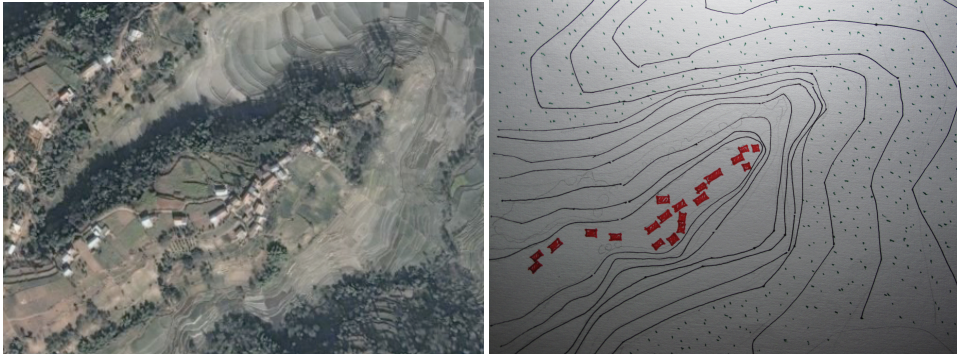


Figure 2: Settlements on ridge at edge of Kathmandu valley and its abstraction

The valley green belts and movement

The other condition that seems to be preferred for location of houses or settlement seems to be the human movement corridors. On closer examining some movement corridors that exist on the rim of the valley, it is clear that most important ones run parallel to the valley like condition (big or small).

The movement develops parallel serpentine form sometime coming very close and at other times far away from the water channels in the valley conditions but at the same time following the general direction of the movement of water itself. See figure 3 for views and abstract diagrams of such conditions. This resultant linear strip like development is usually characteristics of smaller settlements. This is an important condition to be found in between (on the connectors) larger important settlements. But often such conditions are found as extensions to the core of the settlement itself



Figure 3: Waterways, movement channels and linear settlements

Since such settlements are linear, there is a limit to their growth. But what is most interesting in these settlements is an idea of the front, which is the public face of the built form and the backside, which is personal private and negotiates with the natural condition of slopes towards the water source. This negotiation of the back of the built fabric is in form of private yards, agriculture fields and orchards. Again the conditions is important for conceptual understanding as linear strips of built form that position itself in cusp of the two very distinct realms of nature on one side and man made movement corridor on the other. Such places are also preferred for future commercial space. This seems to be a very common phenomenon in many hill valley condition but a very important one for understanding larger towns that expanded to cover such linear strips^{iv}.

The valley streams, temples and the *peepul* tree

At a more detailed scale there is another generic condition that seems to occur in most of the valley settlements. The water streams or through occurs at the lowest parts within the valley condition. These water streams have always had a lot of importance for communities for obvious reasons of utility for irrigation and daily use. Communities have accorded very special sacred meanings to such precious natural resource. These meanings or communal attitude towards natural streams is expressed in form of a *Peepul* tree and sometimes a small shrine around the zone where the manmade settlement and the water stream intersect. See figure 4 for images of such conditions. Such places, often over a period of time become special and sacred for the community and come to connote public nature. The *peepul* tree and the way it is circumvallated, itself is a very powerful idea in terms of marking the space. By consciously developing a culture of recognizing and celebrating such important landscape zones the community pays it due homage to the most important natural resource: water. This is an important phenomenon that can be used to analyze public places or zones that lie on similar topographical conditions in the Patan town.



Figure 4: The Peepul tree on valley condition near water source, around Bungamati village

It obvious that there are certain generic attitude towards landscape in terms of locating oneself to its reference, modifying it or attaching meanings to it, that communities have practiced over a period of time. We can find similar conditions in smaller settlements of both Bungamati and Kokhna that are places of historic significance. (See figure 5 and 6. For example both lie in ridge conditions with valley floor for agriculture, extensions that run parallel to movement axis and ideas of shrine and sacred tree around the water streams). However a detailed study will be needed to establish the intricacies of such condition through rigorous spatial analysis.

Reference to such practices are not to be found in any canonical texts or stone inscription but nevertheless are very important as they have guided the making of space for centuries. Such tradition is often referred as the vernacular or traditional knowledge systems that are passed on from one generation to next and influence space right from the humble dwelling to public places or even the construction of the chariot *rath*.

The generic tradition of space that we have observed in other settlements of smaller size and significance helps us in clearly understanding their relationship with the landscape. This can prove to be handy when looking at larger settlements where at times the layers of man made interventions over a long period of time makes it difficult to see correlation between built form and natural landscape



Figure 5: Village Bungamati on edge of the valley



Figure 6: Village Khokana on edge of the valley

Patan: The core and the world outside

The abstract diagram for Patan (Figure 7: Patan main movement and topography) can be explained in terms of a large core around Durbar square in a relatively flat (or less sloped) area and outwards extension occupying the small ridge like conditions from north till the eastern side. The movement is market by two predominant attitudes:

- Short Northeast to Southwest connectors between the river through the agriculture fields going up to the ridge to the core of the city
- Singular Northwest to Southeast connectors that move way beyond the core itself and away from the city on both sides

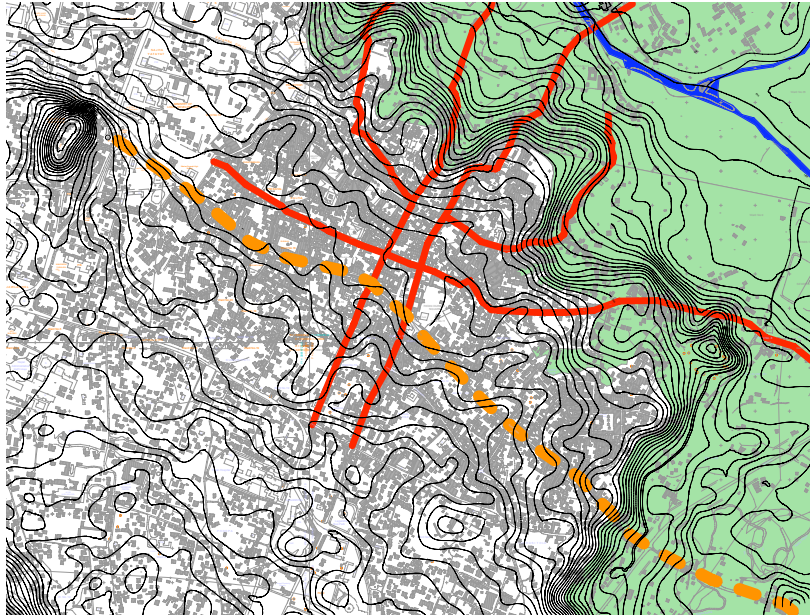


Figure 7: Patan main movement and topography

Observing the settlement and the topography at a larger scale it becomes clear that the main core lies on the ridge like condition. This again is a natural response that is prevalent in the area as observed earlier in the settlements in the valley. According to Slusser (1998: 97), the Licchavi occupation was concentrated around the Patan Durbar square area with smaller villages or towns present around it, which were eventually absorbed in the city.

The choice of location the core area of the city does suggest a very conscious attitude towards landscape imagined at a very large scale. The imagiability of the city with respect to the outside world further gets established the main N-W to S-E connectors that runs adjacent the Durbar square, Mangal Bazaar, Sundhara and points towards the mound on the N-E which has a monastery cluster and the West Stupa. This can also be read as the connection with what lies beyond the realm of the city: its link with the world outside. The *Machhendranath rath jatra* also passes through this route to finally reach the village of Bunagmati where it stays for six months.

This is an important phenomenon and can be further understood from the point of nature of interaction between the realm of religious symbolism and the natural landscape. Mounds and hillocks have always had special symbolism in Hindu and Buddhist culture and have been revered to be sacred and also removed from the humanly existence. The path leading to the mound is suggestive of a very important status to the hillock, most probably due to the importance of the monastery (Raksevera Mahavihar Bahi) that must have existed on it or due to the West Stupa^v. Julia Shaw

(2009: 127) discussed the important concept of the hilltop Stupa while discussing the topographical context to the Buddhist archaeological site at Sanchi in India. The other perspective can be had from the role of the monastery itself in facilitating cross border trade. *Sanghas*, at least the Indian sub continent have facilitated the trade by providing lodging, storage and lending facilities in monasteries to merchants. The Kathmandu valley has historically been a hub for long distance trade with Tibet and the Indian Sub-continent (Whelpton 2008: 27)

The “social space” of Patan

The shorter connections that connect the core of the town with the low lying areas and agriculture fields towards its eastern arch have given a prominent structure to the town. Figure 7 shows the movement axis and the core of the city in relation to the topography of the place. It is very clear that the movement routes are a direct response to the topographical condition on the eastern edge of the town as all of them run parallel to the valley conditions that are formed parallel to the movement of surface water. (Which has been marked by cyan in figure 8). This is the typical negotiation of the surface water stream that we have observed in many other smaller settlements in the valley. These movement connectors run parallel to the surface water streams that run across to the agriculture fields around the valley part of the slopes. This is the one of the system that influences the form of the city as it guides the space that gets organized around these movement axes and also form the backbone of the most important physical and physiological link of man with agriculture. These short connections form the backbone to hold the key communal elements and function of the city at a more immediate basis. This is the “social space”^{vi} that people create, nurture and mould for their own self, far removed and an anti-thesis to the abstract space like Durbar Square that the state creates.

This is a very intimate and communally responsive feature that emerges from the attitude of the community towards their landscape and agriculture. It has qualities of immediacy and close connection with the daily life and perhaps ritual of the people of Patan. The communal aspects of such space are discussed in the section on Monastery.

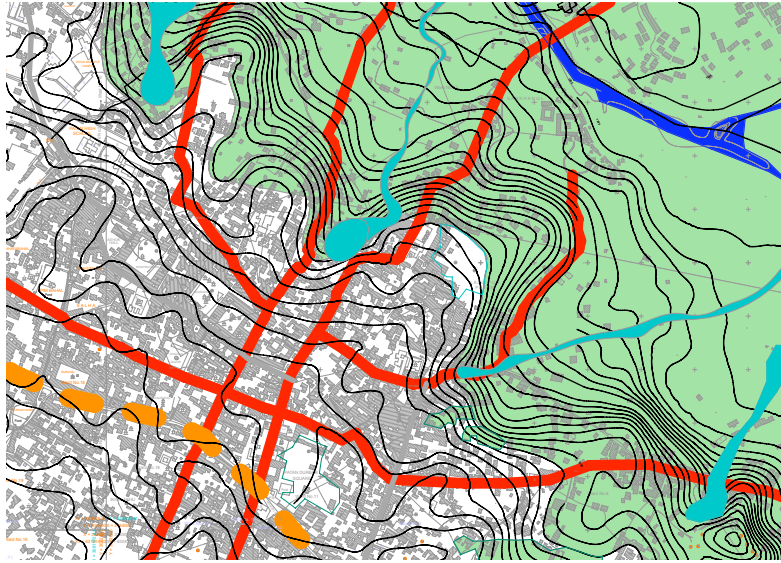


Figure 8: The edge conditions on in Patan

The Urban Innovation

In the discussions above two very distinct systems that give an overall structure to the town of Patan have been described. The first one is a result of an imagined positioning of the town in the landscape and a symbolic long axis connects it with the world beyond. The other is a skillful negotiation of the natural landscape while using the same to ones advantage and recognizing opportunities to create space of communal significance. The structure of the town becomes both powerful and flexible when these two very different spatial systems are superimposed in one space and that is what adds such a urbane character to the Patan. A kind of a grid is achieved when these two systems that emerges out of very different concern come together. Together these connectors form the skeleton of the town. The Durbar square lies at very important the junction where these two systems (one highly imaginary and one very real) come together.

The monastery as negotiator of the outside

The monastery institutions and their appropriation of urban space is another area of interest but has largely been ignored by scholars. The Buddhist tradition of space and its role in urbanity in Newar valley needs to be probed further. Gerard Toffin (1991: 75) had hinted on the role Buddhist monument in Kathmandu and Patan, would have played in creating spatial symbolism by quoting the *Svayambhu Purana* at a very general level. Niels Gutshow (1997: 13) also refers to the concept of Kathmandu valley being connoted as a *Mandala* in Buddhist texts. Both are references at a very general level and would need further investigation to establish correlation of such symbolism with space.

The general notion as related to spatial location of Monasteries in Newar cities has always assumed them to be part of the main city. But if we were to do a closer examination of certain monasteries with respect to the main core that we have identified and the landscape around it might lead to certain interesting findings. John Locke (1985: 187) and many other authors have clearly articulated the difference of between the *bahi* and *baha* type of monastery in Newar region both in terms of the difference in its Architecture form as well as practice. The *bahis* are relics of an earlier tradition and were soon relegated to the outside due to changes in ideas of celibate monk, social high status of the Vajracharya and sanction of the tantric Buddhism by the ruling elite. Gellner (2003: 160) concludes with certainty that *bahi* monastery represent the older monastic tradition within Buddhism, which soon went out of favor with the advent of the concept of the married monks. Moreover the Bahis were reduce to being the older marginalized monastic tradition as Hindu Brahmanical practice influenced the majority of the Buddhist rituals as well. Moreover Locke (1985: 189) mentions a certain incidents amongst other during the Malla period that does suggest that *bahis* followed the other worldly forest dwelling dharma. It was in response to the efforts by King Siddhi Narasingh to reform the monasteries that the members of the *bahi* claimed there followed the otherworldly forest-dwelling dharma. Akira Shimada (2009: 219) in his article of monasteries and urbanity in India explained a very important concept. While studying monasteries in Central and Southern India, that exist just outside the urban center but they were never really out in the wilderness or forest. In his article the authors goes on to speculate the role of monasteries in taking up other function of the city that were considered demeaning like handling the cremation, issues with lower castes and even trade

Based on John Lockes (1985: Appendix maps) maps locating all of the monasteries of Patan and surrounding, a map marking the *bahi* structures with respect to the ground survey and contours of the place has been prepared (Figure 9: Location of *bahis* in Patan). The location of most *bahis* shows some striking similarities as most are towards the periphery (outside) of the main core of the city and most are in prominent landscape conditions.

Many of the *bahi* are on the edge of the core town that we have identified in the flatter portion of the town. As concluded by Shimada (2009: 219) monasteries that existed outside the city were not necessarily out in the wilderness but at once they were an antithesis to the concept of urbanity^{vii} but were also dependent on the urban centers for its sustenance and growth. It is quite possible that *bahis* were really located outside the city core and some continued to occupy important position on the main routes leading out to the city. Over a period of time, they became part of the main town. This leads to certain interesting conditions that must be accounted for while

analyzing the urban form of Patan town. The role of *bahi* monasteries in defining the peripheral spaces of the city can be analyzed further from spatial perspective. Some *bahi* monasteries that are towards the east and south of the make for very interesting spatial readings (Figure 10: Location of Bahis on edge of the town)

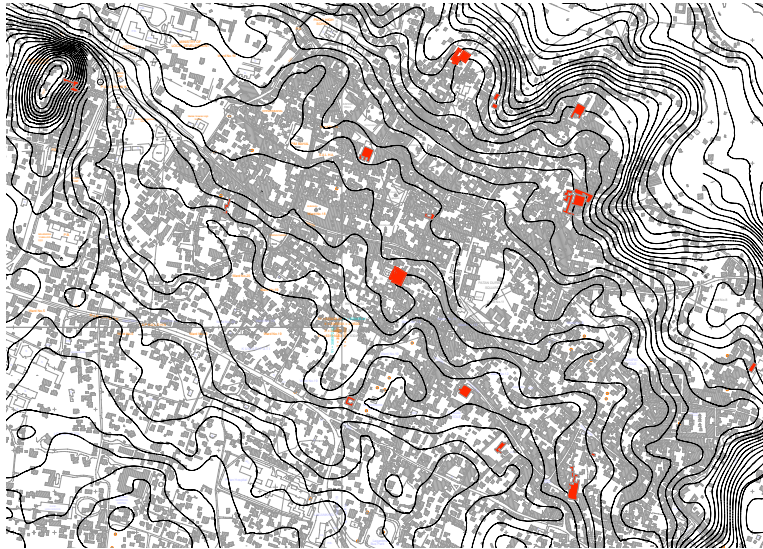


Figure 9: Location of *bahis* in Patan

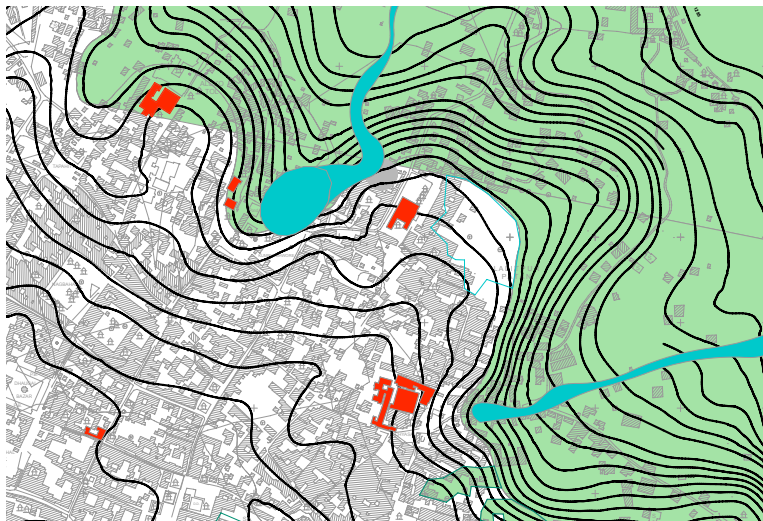


Figure 10: Location of Bahis on edge of the town, Patan

It seems they were always located in special landscape conditions with respect to the main routes as well (Figure 11: Aksevera Mahavihar bahi, Pulchowk, Patan). The monasteries outside influenced the surroundings space that eventually had more and more public connotation. These spaces then contested or harmonized with other structures like *peepul* tree, small

shrines and water tank to ultimately give a complete communal character to the place^{viii}. The examples are kvahlachi *tol*, Aluko *tol* and area around Kumbheshwar temple. All are important public place with many building of community importance (Figure 12: The *bahis* near natural waterways in valley and public place around). These areas are right on the lowest part of the valley and road have formed around the surface waterways (lowest spots of the valley conditions). Both these public places also have *bahis* next to it. These spots which were very much part of the periphery of the city eventually become part of it and *bahis* seems to have played an important role in adding a legitimate function to the periphery rather it being merely extensions of the core^{ix}. However the layers of built form in surrounding area do make such correlations difficult to discern on site but it does become clearer when studied through topographical, hydrology, vegetation and built form information in maps

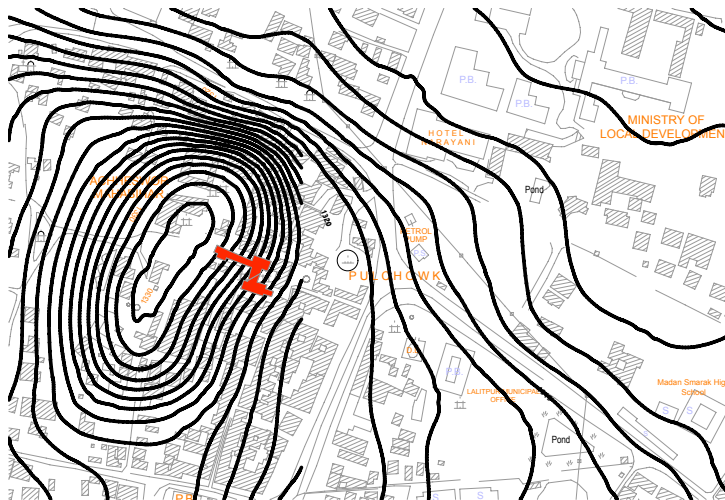


Figure 11: Aksevera Mahavihar bahi, Pulchowk, Patan



Figure 12: The *bahis* near natural waterways in valley and public place around

The urban residential block and role of the monastery

The urban residential structure of the Patan town shares morphological uniqueness with the other valley settlements of Kathmandu, Bhaktapur, Thimi and Kiritipur. Neils Gutschow (1978: 57) in his important work on structure of Bhaktapur town has demonstrated the relevance and function of the square as a key feature in the city and went on to establish the correlation between rituals and space. His analysis forms a very important basis to further deconstruct the urban spaces in the valley settlements^x. However his conclusions that “urban spaces in Newari being essentially *ritual spaces*” is one narrative in describing these cities. Urban space in itself shows huge variation and there is possibilities to further investigate their relevance and origin.

The residential cluster that are characterized by houses organized around inter connected open courtyard are the most important and unique innovation in space that we have seen in this part of the world. Linear houses surround a square or rectangular open court with mostly a *Stupa*, *Chaitya* and/or other motif structure in the open space. The long side of the house opens out to the courtyard and often has a smaller backyard courtyard as well. But this arrangement is not complete and definite by itself and allows for possibilities to connect with adjacent court and has a kind of systemic property that allows for various possibilities (Figure 13: Typical multi court residential cluster west of Mangal Bazaar, Patan). In Patan one can find residential cluster of various scales, starting from residences organized around a very large open space such as in Bubahal and Nagbahal. At smaller scale the residential cluster may also consist of only one courtyard around which three or four houses are organized. Many such large cluster often have monastery, temple, *pati* or other community structure in some of the courts adding a communal function to the space. It is a kind of introverted systemic way of organizing residential spaces making while incorporating other non-residential use of common value (like monastery, *Stupa*, *Chaitya*) for the community to create a fairly complete, safe and rich living environment.

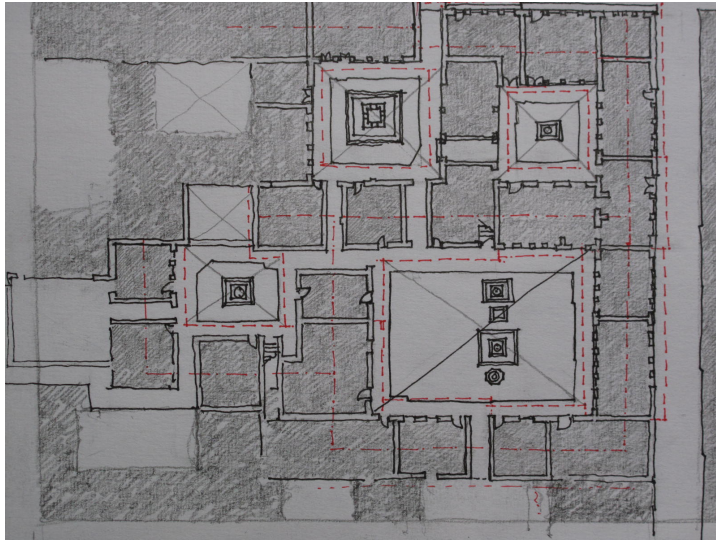


Figure 13: Typical multi court residential cluster west of Mangal Bazaar, Patan



Figure 14: Monastery courtyard, Rantankar Mahavihar, Patan

The residential clusters with such multiple communal courtyards, which are found in cities of the valley is something that is unique to the region. The idea (of residential square) and its adaptation in the course of time is an embodiment of very formal attitude towards space organization and needs to be further analyzed. The focus of architecture studies so far has been more towards classical artifacts (meaning important buildings) and Durbar square and such residential clusters have largely been ignored by most subject experts.

The first clue seems to come from the spatial organization of the monastery itself. One can safely assume that existence of monastery as an institution in

some form or other predates the origin of much of Patan town. The architecture of the monastery offers interesting possibilities from the point of view of replicability and diffusion of ideas about space. The monastery embodies ideas of a perfect formal negative space in form of a courtyard around which activities are organized. Courtyard as an idea was nothing new, because in all probability court would have been used as utilitarian open space within or out side the house in vernacular traditions. But the monastery structure by virtue of organizing space in a clean, perfect and skilled manner elevated the idea of a courtyard from a mere utilitarian element to that of hallowed, dignified and tranquil space. Such space offered an inner perfection or freedom within, independent of the world outside (Figure 14: Monastery courtyard, Rantankar Mahavihar, Patan). Seen in context with the Buddhist philosophy of removal of self from the immediate world or for search of the inner truth, the courtyard space was a complete expression of these ideals. The courtyard seems to offer an inner freedom, which perhaps also complimented the psyche of the Buddhist community, whose religion never ever became the religion of the state.

The next important stage must have been the change in practice from celibate to married monks. The fact that family (married monks) quarters were organized around the monastery courtyard must have connoted very communal and domestic ideas about the space now. This must have been an important step in diffusion of the idea of courtyard outside the monastery structure itself. It was a kind of readymade template available to be used and perfected over a period of time for organizing residential spaces in the city. This template of courtyard based residential communal living offered possibilities to create a world within, which signified both freedom and sacredness at the same time. So it is not surprising to find many such residential clusters in Patan with monasteries, *Stupa* and *Chaitya* as formally incorporated in the clusters themselves.

The vernacular housing typology in Newar region has also contributed to the success of the residential courtyard based spaces. The typical rural house type in Newar region is linear with double bays running parallel to the ridge. It is usually a long house with smaller gable ends and opening on the longer side. Often even in rural setting the house would turn to form 'L' shaped plan. This house type was perfect to be used in forming clusters of many such houses that surround a rectangular or square courtyard. The gable ends of the house get connected with adjacent units and long sides continue to remain open on both sides to get light and air. Often in the front opens out to a large court and backs would open out to smaller ones. Moreover the linear bay system allows for the house to be turned in the corner without much apparent problems. Once corners are taken care of the rectangular built form around the courtyard is complete.

Conclusions

The town of Patan has obviously gone through much change and transformation due to layers of human occupation it has experienced. Role of natural factors like material, climate and topography has largely been ignored while looking at cities in Asia, especially the ones that are old. As is clear from the case in Patan, the attitude and expression of communities over a long period of time towards natural condition especially the landscape of the immediate context has an overwhelming influence on the manner in which cities take shape. It is not to be seen as only a functional response to counter problems posed by topography or water but it is a reverence and acknowledgment of nature. Often such acknowledgement leads to expressions in space that remain markers for such a special relationship between man and nature. The formation of public places on such special landscape conditions is a case in point. It is also evident that such attitude then becomes part of the culture of place making and gets ingrained in the practice of through rituals. The condition of Peepul tree and shrines around the water stream is a classic example of such cultural expression.

The other issue is the role of Buddhist institutions in influencing the space making attitudes in the Patan^{xi}. The monastery as the ‘other’ in a Hindu state, even though not really a minority, had ideas of space that were not only very simple but also very powerful. The residential monastery for married monks as an idea was a both sacred and palatable for the general mass at the same time. The residential courtyard based communal living spaces are an outcome of such an influence, and such organization is only to be found in Newar area^{xii}.

It is not surprising that monastery not only became part of the social fabric Patan but also began to exert influence in attitude towards space in the city at large. However this is just one important narrative for the city and there is always possibilities for many more

Endnotes

ⁱ The discussions by David Gellner in his article “Does symbolism ‘Construct an Urban Mesocosm’? Robert Levy’s Mesocosm and Question of value Consensus in Bhaktapur” is important and interesting for discussions on the theoretical construct that can be used to understand space in cities

ⁱⁱ Most cities of medieval period in Indian sub continent including Pakistan and Sri Lanka always had a strong idea of the inside- outside, different quarters for different social

groups, lower caste towards the outside of the core, gates, burning *ghats* outside the city etc. I do not think these are features specific to a 'Hindu' city or cities of Newar valley

ⁱⁱⁱ The discipline of culture landscape offers much interesting possibilities to understand cities morphology and recent works by Amita Sinha and Rana P B Singh while analyzing Mathura (Vrindavan) and Varanasi respectively demonstrate interesting possibilities. These are mostly special examples. One can however use similar methodology to read spaces in many more old urban settings

^{iv} Most old cities like Patan would have outgrown their original core and would have engulfed either neighboring hamlets and such linear extensions. The historical description by Mary Shepherd Slusser about growth and origin of Patan corroborate such outgrowth

^v Presently houses and shops occupy the entire Pulchowk hillock. It is only when one probes further through drawings and some ground verification one realises some historical importance of this place as a special natural condition with some institution of symbolic importance

^{vi} Using Lefebvre concept of social space

^{vii} The concept of the celibate monk as associated with Bahis fits well conceptually if these monasteries existed outside the periphery of the city

^{viii} The role of the water fountains *Hiti* in urban space, if understood from its systemic and cultural attributes along with its negotiation with the natural landscape can surely lead to some interesting readings of Patan

^{ix} A correlation between Bahis and peripheral space can only be supported by series of drawings showing the actual negotiation in space. It was not possible to include all visual material in this article

^x The large amount of work by Neils Gutschow in documenting and writing about Kathmandu valley towns is a huge base line resource for any researcher concerned with architecture and urban space. Subsequent researchers are indeed privileged to have such a resource as reference material. That is why I believe more research can be done on issues related to Urban morphology and theories pertaining Newar cities

^{xi} In Patan the influence of monastery court on other residential area is most clear. But it might also be true for Kathmandu as well.

^{xii} The nature of organizing housing clusters differs greatly in cities of western Himalayas such as Chamba, Kullu, Leh, etc. or even in medieval cities in western India (Gujarat, Rajasthan) or older cities in South India (Karnataka, Tamil Nadu and Kerala). Newari cities (especially Patan, Kathmandu and Bhaktapur) show a very distinct and formal form of housing cluster while making good use of rectangular courts to organize communal living. Such formality in space is missing even in Dhulikhel another historically important Newari town at the rim of the valley

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Visual Source:

All photographs by author

All sketches by author

Plans have made use of CAD drawings as base layer. Source KVTDC

Aerial pictures using Google Earth