

# CULTURAL HERITAGE SENSITIVE URBAN DEVELOPMENT STRATEGY

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## **Abstract**

This report highlights the unequivocal significances of peripheral historic settlements of Kathmandu valley and the private historic buildings as a significant part of cultural heritage there. Taking the case of Panga as one of such settlements, it discusses the methods to signify their heritage value in a historic settlement and formulates the strategies related to cultural heritage and urban development prioritizing the potent areas. An aid of electronic “application” for survey and ArcGIS has been incorporated for spatial analysis to prepare this report. Prioritization of significant areas in terms of heritage value are done with spatial mapping of the cumulative values determined with indicators that the traditional heritage buildings have remained intact from layers of changes that came to the historic settlement.

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# **Cultural heritage sensitive urban development strategy; a study of Panga as heritages at the edge.**

## **1. Introduction**

### **1.1 Study background**

The notions of 'heritage', nowadays shared worldwide, were originally shaped following European cultural backgrounds and are mainly based on material authenticity, aesthetic qualities, and historical and artistic values (IIAS, 2014). Efforts to define heritage has overturned in three different perspectives, from monuments to historic urban landscapes (Built environment aspect), from heritage to urban living heritage (heritage realm aspect) and from tangible to intangible aspects (conceptual aspect) (Kawan, 2012). Extensive researches and frequent changes in the notion of heritage and its realm have been deliberate in defining heritage and its delineation. In concern to Nepal's heritage conservation trends and practices, the overall dialect of heritage is centric to an individual monument. Only the heritages in the core of major historic cities are highly prioritized; despite the fact that cultural heritages lie sparse throughout all historic towns in Kathmandu valley (Kawan, 2012). As the global heritage discourses emphasize heritage practices associated to conservation of physical artefacts, they are more focused on development of local identities and tourism. But they rarely take into consideration the implications of heritage conservation for people who live in the proximity of celebrated heritage sites (IIAS, 2014). Most often these practices overlook the broader significances and values of heritage attributes and then the people do not bother in conserving the heritages.

Therefore, urban development practices are most often exercised undermining the historical significances, socio-cultural significances and heritage values in the competency for economical perspectives. Kathmandu valley is extremely unique with seven world heritage sites in such a small area that were enlisted into UNESCO world heritage list in 1979.

## **1.2 Problem Statement**

Prevalent drawbacks and confusion in heritage discourse regarding the definition of cultural heritage has influenced heritage management in Nepal. The archaeological mindset and conservative mechanisms adopted for heritage conservation in Nepal not only signifies incapability of existing strategies and institutions but also highlights the urgency of an effective framework suffice of addressing intermingled living urban heritage in Kathmandu valley. More specifically, sparsely existing heritage attributes at the peripheral settlements have not been a focus to the mainstream of heritage conservation guidelines in Nepal though they contribute inseparably to the formation of historic cities. Heritage attributes that comprise this unfocussed domain are private heritage buildings, monuments and cultural landscape they form.

## **1.3 Objectives**

The main objective of this research project is to advocate for conservation oriented development in traditional settlements and designate room for cultural heritages in the national urban development strategy. The study also tends to assess the heritage values and significances of heritage attributes in the study area to help develop strategies for generating economic opportunities and mitigating development pressures to existing heritage setting.

## **1.4 Research questions**

What do we signify as cultural heritage in traditional historic settlement and how can we place conservation of peripheral urban settlements into the mainstream of heritage conservation?

## **1.5 Research Methodology**

One of the historic settlements is chosen as a study area as per its traces of urban development and transformation. Its urban morphological character is studied for an inventory preparation of heritage attributes that still exist in this settlement. ArcMap is used as a tool for mapping heritage attributes and the built up space.

- Site visits and Focus Group Discussions with the local inhabitants

- Presentations and meetings with the intellectuals and social groups in Panga
- Sharing information about the research going on to raise awareness on traditional Newari architecture and townscapes in Kathmandu valley along with their importance from centuries as the main heritage resource and identity.
- App preparation and the questionnaire survey using the app.
- GIS Mapping and documentation of heritage properties in the study area
- Identifying the values and significances of heritage attributes by incorporating them to GIS for portraying the level of significance using different indicators
- Spatial analysis of the study area with respect to values of heritage areas and properties and its impact on the urban development.

### **1.6 Expected Outcomes**

1. A Complete GIS base map for traditional Panga area and a basis for planning future development sensitive to cultural heritage preservation.
2. A brief inventory of heritage attributes existed in the study area both tangible and intangible.
3. This project has a potent to form of a redevelopment plan in course of reviving the historic urban landscape in Panga.

## 2. Literature review

Historic cities perhaps possess the web of buildings and streets from different periods stratified with various urban characters and cultures over centuries which are sharpened to form the quality urban system (Cohen, 1999). Poete's notion of historic cities to possess capacity to cope and transform their inherited shapes and patterns portrays their ability to grow as living being. With constant flux of market forces in these historic living cities; there are temptation of 'change and continuity' in urban systems, built environment and community life. Lichfield (1988) further argues that urban conservation relates this change from within the socio-economic priorities of community and thus is prone to affect built environment comparable to the existing urban fabric. In this aspect the major role of urban conservation is seeking planned change, avoiding disruption of traditional and contemporary community patterns so far as practicable (Lichfield, 1988 and Antonio, 1995). So, urban conservation should be a built in part of development activities of the community as the way to manage resources for the future development.

However, decisions on conservation often get intermingled on signifying the values; leaves less room for future development and drive them unknowingly in area-based conservation approaches. There is a greater risk of stimuli from actors to label special interests on historic areas to integrate heritage resources into urban system (Jansen-Verbeke and Govers, 2010) as,

*"value has always been the reason underlying heritage conservation. It is self-evident that no society makes an effort to conserve what it does not value."* (Torre, 2002; pp.3)

Australian Heritage Commission (2000) devised the process for protection of urban heritage with three fundamental components,

- Understanding Heritage Significances and values
- Developing objectives to retaining significant values
- Manage to achieve objectives

### 2.1 Indicators for assessing heritage values of attributes

Various indicators have been proposed for determining the heritage values of the traditional buildings that enables us to assess them. In this assessment, Prof. Tiwari (2012)

maximum change indicating the present form of the buildings with lesser values. Then a cumulative values with the ranges provided for each indicator is summed to find out the significant heritage buildings for future planning.

### **Historic values for buildings**

The historic values for the traditional buildings can be valued according to the age the building has remained intact into its original form. According to Prof. Tiwari, four particular categories for the timeline of the buildings being constructed. They are:

- More than Hundred years
- Pre 1934 earthquake
- 1934 to 1950
- Post 1950

### **Criteria for originality of traditional height**

The traditional buildings used to be of 3 storeys height so far as the records from Malla period suggest. Thus, the original building height to the recent addition of floors also is considered for originality of traditional height.

- Traditional height (3 floors plus attic)
- Added floor to the traditional height (4 to 5 floors)
- 6 floors or greater

### **Criteria for Integrity of Structure**

An assessment of the integrity of structure is also done according to the construction system of traditional buildings. They are categorized according to the following

- Overall traditional construction system
- Hybrid (addition of concrete slabs)
- Concrete frame structure

### **Criteria for integrity of façade**

The changes in the buildings' façade can also be assessed through the following characters.

From the traditional patterns of the building facades to the recent new faces of the buildings could be assessed and valued.

- Symmetry and traditional patterns
- Divided and partly changed
- Totally new facade

### **Traditional architectural elements**

Similarly, the presence of the roofs in the traditional way and the windows of traditional style at different periods from Malla style to the contemporary style can also be assessed.

- Roofs- Sloping/Eaves/Tinned/Flat
- Traditional windows- Large malla style/ traditional lattice

## **2.2 Concerned Acts**

### **2.2.1 Guthi Sansthan Act**

Under this act, exclusive power is provided to the Guthi Corporation to manage properties under its ownership. The continuity of local festivals and maintenance of monuments and cultural heritages in the country lies within the jurisdiction of this authority. This corporation has been very much inefficient in taking care of the monuments and properties under its jurisdiction. Many of the guthi land have either been encroached or privatized in course of land reform in the country and they lack appropriate documentation.

### **2.2.2 Ancient Monument Preservation Act, 1996 (Fifth Amendment)**

In the context of Nepal, AMPA is the main act for the conservation, protection and management of the cultural property which was enforced from 1988. Department of archaeology empowered by this act, is the supreme authority to imply this act. It has so far focussed in safeguarding the integrity of the world heritage sites in our country while its jurisdiction has to be redefined because of the theoretical shift in cultural heritage management. This invites the inefficacy of this authority to encompass the preservation of private historic buildings that lie in the town.

### **2.2.3 Town Development Act**

According to this act, town development committee can control, restrict any development work in its planning area. This committee defines land use and development plan addressing different resources in its planning area. New developments are not permitted against the

land use plan or development plan without prior approval from it since they should comply with integrated physical development of the town. KVTDC now KVDA is responsible to imply this act in Kathmandu valley.

#### **2.2.4 Local Self Governance Act**

At present, local authorities have gained political power and thus represent the local community into decision making in local development plans. This act reinforces municipalities for devolution of responsibilities, resources to a local community level in order to be self-capable and efficient to look after their respective area. VDCs and Municipalities are the local jurisdiction bodies under this act which are responsible for the conservation, protection, management and preparation of inventory of locally important historic buildings, monuments, etc. They are the only authority to approve the planning application within their municipal area and power to demolish the illegal constructions too.

### **2.3 Policies regarding cultural heritage and urban development**

#### **2.3.1 Land Use policy-2012**

This policy is concerned on the optimum utilization of land while preserving natural resources and cultural heritages, through classification of land and enforcement of land use control accordingly. The future growth and land use to some extent can be controlled but for the existing land uses, this address is limited and superficially analysed.

#### **2.3.2 National Urban Development Strategy-2014**

NUDS 2014 excitingly aims in integrating art, architecture and culture as a part of urban development, in both existing and new urban areas. It also has linked economic incentives (such as tourism) with the preservation of heritage and culture in urban areas and has promoted the innovation of art, architecture and culture in new urban areas.

#### **2.3.3 Long Term Development Plan of Kathmandu Valley (Vision 2035)**

The long term development plan of Kathmandu valley has been envisioned in 2002 as Vision 2020, and now it's being revised as Vision 2035. This plan has aimed in rejuvenating the core historic cities through the preservation of the historical, cultural and social assets as one of the strategy. It also aims in vertical renetting in the core city to create economically vibrant

city and conservation of traditional townships, their architectural, cultural, social values, art and crafts. However, the recent earthquake and its decisions uncomplimentary to its objectives has raised a question to its successful implementation.

### **3. Brief about the study area**

Panga lies to the south-east part of Kirtipur municipality and covers ward no. 9, 10 and 11 including some parts of wards 12 and 18, out of a total of 19 different wards of the municipality. It can also be described as the typical Newari settlement having 90 % as Newar population to be precise, along with very few people from Chhetri caste (immigrants from other localities). In most of the settlements, various caste groups within the Newar community are found. But in case of Panga, most of the people are from Jyapu caste, the negligible amount of people from Shrestha, Naye and Kusle castes. None of the higher castes like Bajracharya (Buddhist priest), Rajopadhyaya (Hindu priest), Shakya (Goldsmith) etc. are found; which defines the uniqueness of this settlement. Even in the majority caste of Jyapu, only Maharjan and Dangol are found out of various sub-castes of Jyapu caste groups.

#### **3.1 Urban Morphology**

This settlement does also portray the shape of a shell, termed literally as Shankha according to which the name is given 'Sankhapur'. The present form of this settlement stretches along a major axis from north east to south west from Dhwaksi area to Janasewa School respectively into a small hillock surrounded by agricultural land. It comprises a main square at the centre known as Lachhi along this axis for all socio-cultural, religious and economic activities to occur from the past. This small town also accounts with surplus of urban elements as heritage attributes intricate with many intangible facets like the ponds, wells, shrines, temples, chaityas and patis as in other bigger historic cities of the era. Along with the spatial hierarchy of open spaces, these urban elements add the characteristics urban features to this settlement and is closely interlinked with socio-cultural activities of the

people. Likely to these features, the private buildings with elegant instances of craftsmanship line the streets of Panga.



*Figure 1: Heritages in Panga Area*

#### **4. Findings of the study**

Altogether, 788 households were surveyed in Panga limiting it into the traditional core area. They constitute both traditional and contemporary buildings. These buildings are basically assumed to fit into the set of indicators developed by Prof. Tiwari in his recent publication. From all the indicators assessed, a total sum of 21 grade points is given, of which the range with highest significance is allocated to be from 17-21 and the lowest from 5-8. In the figure below, the highlighted portion contains the maximum number of buildings with highest heritage value. Thus, these areas in Panga need to be prioritized for the future development plans according to their significant heritage value. Heritage values of buildings and places lie in a hierarchical order in settlements depending upon their intactness and have to be prioritized accordingly.

Apart from the spatial mapping of heritage values, the physical condition of traditional buildings due to the earthquake were also studied as an additional factor. About 38% of the respondents who had another house to live in, and 30% without another house to live in had major damage to their buildings in core area.



Figure 2: Cumulative Heritage Value of buildings in Panga

Table 1: Physical condition and family with another house in the area

		Physical Condition						Total
		No Data	completely col	major_da mage	minor_d amage	no_visibl e_dam	partially_ coll	
No	Count	35	43	126	75	97	43	420
	% Another_house	8.3%	10.2%	30.0%	18.1%	23.1%	10.2%	100.0%
Yes	Count	20	41	126	61	50	31	329
	% Another_house	6.1%	12.5%	38.3%	18.5%	15.2%	9.4%	100.0%
Total	Count	69	85	257	143	157	77	788
	% Another_house	8.8%	10.8%	32.6%	18.1%	19.9%	9.8%	100.0%

Table 2: Physical condition and type of construction of buildings

		Physical Condition						Total
		No Data	complete ly_col	major_da mage	minor_d amage	no_visibl e_dam	partially_ coll	
brick_and_ceme	Count	20	0	14	56	58	0	128
	%Type_of_Const ruction	15.6%	0.0%	10.9%	28.1%	45.5%	0.0%	100.0%
hybrid	Count	6	13	64	41	9	17	150
	%Type_of_Const ruction	4.0%	8.7%	42.7%	27.3%	6.0%	11.3%	100.0%
mud_mortar_kac	Count	3	68	131	26	2	53	283
	%Type_of_Const ruction	1.1%	24.0%	46.3%	9.2%	.7%	18.7%	100.0%
mud_mortar_pak	Count	1	1	47	13	3	6	71
	%Type_of_Const ruction	1.4%	1.4%	66.2%	18.3%	4.2%	8.5%	100.0%
rcc_framed_str	Count	35	1	1	26	85	0	148
	%Type_of_Const ruction	23.6%	.7%	.7%	17.6%	57.4%	0.0%	100.0%
Total	Count	69	85	257	143	157	77	788
	%Type_of_Const ruction	8.8%	10.8%	32.6%	18.1%	19.9%	9.8%	100.0%

According to the construction technology, the physical condition of traditional buildings is found to be worse. Out of 150 hybrid buildings, 42.7%; of 283 buildings constructed with mud mortar and *kachhi* bricks 46.3% and of 71 buildings constructed with mud mortar *pakki* bricks 66.2% had major damage due to the earthquake.



*Figure 3: Damage Level due to Earthquake in Panga*

This signified that most of the traditional and partially traditional buildings are prone to collapse due to the earthquake. It indicates that in course of preservation of heritage buildings from ages, their aging also needs to be considered. Besides the physical attributes, the awareness level about cultural heritage is very low among the people and less studied by practitioners and authorities in comparison to the international understanding of heritage discourse. Panga being one of the peripheral historical settlements, the heritage buildings here are over-shadowed and their existence are seldom considered in development plans, strategies and policies. Most of the discussions ended up with a note on lacking incentives provision to the communities and private heritage owners for promoting cultural heritage preservation trends. As a result, rapid conversion of land use and building use to rental provisions and new construction became inevitable. Besides, Industrial hegemony has also been prevalent in private sectors and communities to discourage traditional building technology. The present boom in construction of Reinforced Cement Concrete (RCC), steel structures and prefabricated buildings as a replacement to the old building stocks seems more like manipulative in historic cities.

## **5. Recommendation**

Following are some of the recommendation:

1. Identification and assessment of heritage attributes and values through inventory preparation needs to be highly prioritized
2. Peripheral historic settlements and private heritage buildings are important segment of cultural heritage that need to be considered into the main stream of heritage discourse. They need to be associated with monuments and intangible half.
3. Major effect is seen into the old building stocks with traditional construction technology and less maintained. Provision of incentives and economic opportunities needs to be strengthened for encouraging the owners.
4. Development plans can further be conceptualized regarding high value urban areas to revive the traditional urban setting and facilitate compatible modern development towards integrity.
5. Building regulations, uses and codes need to be considered for both old stocks being demolished and also for newly developed buildings.

## **6. Conclusion**

Hence, cultural heritage doesn't lie only within the monuments alone in world heritage sites but to the periphery of Kathmandu valley also and are full of unequivocal heritage attributes with local heritage significances. They are also liable for consideration during the formulation of development plans and strategies of historic towns. The recent earthquake has even proven that such heritage attributes especially the private heritage buildings are more vulnerable to disasters and in addition out of sight to the decision makers. Since the authorities lack these basic information i.e. the base-map of heritage attributes, they need to be first determined and their heritage values are identified in prior as a significant step for preparing the cultural heritage sensitive urban development strategy. Unlikely, the urban development strategies are concerned towards economic development without bothering about heritage attributes and their existence in the historic towns.

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## Appendix: Questionnaire

**Building ID:** .....

1. Building typology: Row house/ isolated/ courtyard/ gated house
2. Building facade: brick exposed kachhi/ brick exposed pakki/ plaster/Stucco/paint
3. Age of the Building :
  - More than Hundred years
  - Pre 1990 B.S. earthquake
  - 1990 to 2045B.S.
  - Post 2045 B.S.
4. Type of construction: Mud mortar kachi/ Mud mortar pakki/ Hybrid/ Brick and Cement/ RCC framed structure
5. Building style: Malla/ Shah/Rana/Contemporary
6. windows- large malla style/ traditional lattice/ Rana style/ contemporary (multiple choice)
7. Floor height: .....
8. No. of floors.....
9. Roofs- Tile sloping roof / Tinned Sloping roof /RBC flat/ RCC Flat
- 10. Criteria for originality of traditional height**
  - Traditional height (3 floors plus attic)
  - Added floor to the traditional height (4 to 5 floors) 6 floors or greater
- 11. Criteria for integrity of façade (multiple choice)**
  - Symmetry and traditional patterns Vertical Division
  - Partly changed (Window change, Plaster surface)
  - Totally new facade
- 12. Traditional artistic elements in facades (multiple choice)**
  - Carvings in wood/brick
  - Painting on wood/brick
  - Sculptures within the buildings/walls
13. Current building use
  - Ground Floor \_\_\_\_\_
  - First floor \_\_\_\_\_
  - Second floor-----
  - Third floor-----
  - Fourth floor-----
14. Physical condition: No visible damage/Minor damage/Major damage/partially collapsed/completely collapsed
15. If damaged/collapsed how do you re-construct?

Rebuilding whole in Traditional/ rebuilding whole in modern/ adjustment in original building/  
 Leave the place

16. Present ownership:

Private	Guthi	Community	Government
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17. Do you have other house to live? Yes/No

18. How many family members are residing in this house?.....

19. Type of Family: Nuclear / Joint / Compound

20. Is the space available in your building sufficient for residing family members? Yes/No

21. How many are employed?.....

22. State the type of employment: (fill in the blanks)

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23. Road type: brick paved/ stone paved/ pitched/ gravelled

24. Access: Motorable/ Non-motorable

25. Do you have your own vehicle? Yes/ No

If yes, Motorbike/ Car/ other

26. Where is the parking?

Public place	Courtyard/Street	Common parking place	Own House
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27. Name of Guthi .....

28. Major Problems of your place (multiple choice)

Light and Ventilation	Staircase and circulation
Dampness	Pollution (Dust)
Floor height	Accessibility
Infrastructures (water, drainage)	

29. Name of owner: .....

Contact No. ....