

Sustainable Development through Conservation of Vernacular Heritage

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Abstract - Social legacy of Himachal Pradesh defines the customs and beliefs of the nearby tribes and mirrors the history of the state. A significant part of the architectural heritage in the state is religious in nature, as the state is famous for the "Land of Gods". The temples here are the fine examples of splendid workmanship and unique vernacular architecture. The indigenous architecture has survived over the ages, because of the traditional construction techniques, use of local available material that has fulfilled the need of people with in its own frame. The paper comprises of the conservation and rejuvenation of vernacular architecture of Shivshakti Temple Complex and its surroundings at Chamba. The development methods and materials utilized are moreover receptive to the area setting of the place. The objective of the work is to study and document the present condition of the temple complex. Solutions are provided after identifying the problems based on present need of visitors. The methodology adopted is based on the study of existing condition of the temple and the local construction techniques. In view of which documentation was accomplished for Shivshakti temple at Chhatrari, Chamba. Similar projects were also analyzed as a part of literature review. Based on the public survey and feedback, the existing scenario was analyzed which led to possible solutions. Condition evaluation was carried out. Outcomes given in form of adaptive reuse, material conservation of the existing buildings in the temple complex and provision for required amenities along with the upliftment of surrounding areas.

Key Words: Heritage Conservation¹, Vernacular Architecture², Sustainability³, Temple Conservation⁴, Hill Settlement⁵.

1. INTRODUCTION

Himachal Pradesh is a small hill state overshadowed by the great Himalaya in the northern part of India. Often the state is coined as the land of Gods and Goddess, called "Dev-Bhoomi". The name is appropriate, in a view of the number of temples dedicated to different deities, available in the plains and the sky high snow clad mountains. The state is the land of numerous tribal and local pilgrimage centres with several Hindu temples showcasing the splendid workmanship and architecture. As per statistics there are more than two thousand temples in the state. [2] Wood being the most easily available local natural resource was used in various fields such as construction etc. Sanctuaries of pure wood were initially erected on the deities. Temples were centrally placed in the village with open space around for religious purposes and gatherings. Similarly the

indigenous wooden temple architecture style developed and evolved incorporating numerous elements and devices from the classical stone temples and other traditional architecture styles prevailing in the area within the interiors of Himachal Pradesh.

A wooden temple built in the heart of a village generally is known as the bhandar, meaning village temple, but is also a repository for the village community.[6] In bhandar, besides the temple treasures, the people have been depositing their own valuables and the common wealth of the community.

The Lakshana Devi temple at Bharmaur, Shiva Shakti (or Adi-Shakti) temple at Chhatrari, Markula temple at Udaipur and Dakshineswar Mahadeva temple at Nirmand are few such examples. All those temples were centered as the most holy, and were essentially typical to the extant Kashmir style of stone temples.

The influences of various emperors are seen in the temple architecture over the years, for example the pyramidal roof over the earlier wooden temples were derived from the Mahayanist structure in this region built under Kanishka. The stupas and the temples belong to two different religious societies; a compromised celestial touch was given to the earthly wooden dwellings achieved by geometrical reduction in stupa; giving a pyramidal form to the roofs.

The Islamic wooden architecture of Kashmir also influenced the wooden temple architecture of Himachal Pradesh built in late medieval time. The superstructure of Kashmiri stone temples has essentially remained influenced by the traditional wooden style, having religious and secular buildings built in timber. Many of those wooden temples were converted or modified into mosques during the Islamic age in Kashmir. [1]

Kashmiri temples are characterized by two-tiered high-pitched and straight-edged pyramidal roof, high pitched triangular pediment enclosing trefoil niches and doorways on each of the four sides.

Such wooden structures, covered with roofing consisting of overlapping wooden planks are still common for the wooden temples in the interiors of Himachal Pradesh. The device of 'two birds picking from a pot' has been extensively used as the decorative elements of the wooden temples in the entire Himachal Pradesh may have been taken from the

moldings seen on several Kashmiri temples which is a modified version of the Mediterranean device, showing two birds drinking from 'water of life'.

The wooden temples building movement in Himachal Pradesh may have been inspired by the stone temple architecture of Kashmir valley, and hence the similarity in the aesthetics can be noted. The wooden temples of Bharmaur, Chhatrari, Udaipur and of Nirmand may be the vital bench-marks to trace the course of that movement.

1.1 Types of Himalyan Temples

The temples of Himachal Pradesh are classified as [10] [1]:

- ❖ The pyramidal carved stone temple which is also common in India.
- ❖ The rectangular stone and wood temple, furnished with a pent-roof and verandah.
- ❖ The rectangular stone and wood temple provided, pagoda fashion, with successive wooden roofs, one on top of the other.
- ❖ The small rectangular temple with a pent-roof, this being probably but a variety of the edifices of the second order above quoted.
- ❖ The wooden temple-type found in the Satluj Valley, temple of this type is not founded on the ground, but is erected on a frame-work, locally called cheol, of the massive deodar plinth-beams, placed on an elevated masonry platform.

The temples can also be classified on basis of their elevation and roof style:

- ❖ Gable-roofed temples
- ❖ Composite-roofed temples
- ❖ Tower temples
- ❖ Multi-tiered Pyramidal temple
- ❖ Canopied Composite-roofed temples
- ❖ Circular-roofed temples
- ❖ Composite temples

2. SCENARIO OF HERITAGE CONSERVATION IN HIMACHAL PRADESH

The rich built heritage of Himachal Pradesh comprises many magnificent structures dating back to the initial tribal people to that of the later British Empire. The state is well-known for its sheer topographic diversity and immaculate natural beauty. According to Directorate of Tourism H.P., the state received 16.31 million tourists, including 0.39 million foreign travelers, in 2014. [3] Out of which the number of tourists visited Chamba district are 1.09 million, including 970 foreign visitors. [9] The central belt of Himachal Himalayas are scattered with the number of temples constructed with deodar wood. Also the antiquated design of Himachal Pradesh is constructed with the base material used

were wood and stone and the local style of construction were adopted.

Agencies such as Archaeological Survey of India (ASI) and Indian National Trust for Art and Cultural Heritage (INTACH) are working hand in hand with the state government in the refurbishment and the conservation of these built heritages. Around 40 sites were identified and taken into consideration under the Shimla circle of ASI.

Furthermore areas such as Bantony estate in Shimla are identified and with great efforts of around 12 years and huge compensations of around 28 crores are being acquired for the maintenance of their heritage value. The government of Himachal Pradesh in January, 2017 gave a proposal for a world-class city museum and a cultural center in the town to acquire 19,000 square meter estate. [4] Thus retaining the soul of the area and on the same time showcasing the culture of the state on a larger platform along with the generation of revenue. Even though initiatives are being taken by the various agencies for the conservation of heritage in the state, but the need and scope of the hour is much more the 40 sites undertaken. The topographical limitations and the unavailability of the original building materials add to the plight of the scenario.

Identification and intervention at the sites of archaeological importance at local level should be encouraged to meet the increasing conservation needs of the hour.

3. CHHATRARI CHAMBA

Located in the Tehsil of Chamba district, the Chhatrari (32° 33'12"N 76° 07'32"E) is very scenic, natural and historical village at a height of around 6,000 feet. As per the 2011 census the total population of Chhatrari village is 714 persons out of which 355 are males and 359 are females, residing in a total of 151 households. An increase of about 4.71 percent was seen in the last decade as in 2001 census the total population was 681 persons. [8] The Chhatrari village has the typical wooden temple architecture of the prehistoric period which is as old as 700 AD through Shivshakti temple complex & surrounding settlements.

It is located around 49 kms from the district headquarters at Chamba, situated near the River Ravi. For the local people of Chhatrari, there are mainly two economy generators first one is Shivshakti temple and secondly they are dependent on agriculture. Hence the temple is main lifeline for the local people. It is famous because of its picturesque views and a temple of aadi shakti, constructed by King Meru Varman in 7th century in traditional kath kuni and farque styles. The Chhatrari temple is viewed as a standout amongst the most heavenly havens of the hills. The temple has been composed masterfully with mind blowing outlines. The place showcases a rich cultural heritage. Thus it gives an opportunity to be developed as religious and rural tourist destination to

showcase the vernacular architecture of the area at a larger platform.



Fig -1 : View of Chhatrari Village
Source: Google Image

3.1 Culture and Lifestyle: Tribes

The community here is a community that is sufficiently conscious to find meaning in its past. Its myths and artistic traditions are unrecorded, passed down by word of mouth. The native people of Chamba belong to different anthropological clans. There are two major semi nomadic troops, Gaddis and Gujjars who were full nomads initially. [5]

Gujjar's are the natives from Kashmir and have immigrated. The border between Chamba and Kashmir provided access routes for the nomadic herdsmen of Islamic community. These nomadic tribesmen with them brought their own language and culture and were not very much concerned with the political scenario of Chamba in earlier times. They travel to the plains of Punjab every autumn with their lives stock to protect it from the cold winter of the hills. Later when the area warms up they return to the hilly areas of Chamba district.

The native place of the Gaddis is not properly clear, but possibility is that they migrated from the plains to avoid prosecution. The group came into picture since the time of king Aja Burman (730 – 800).The Gaddis are a separate Community. The term Gaddi is generic in origin and includes sub communities like Brahmans, Rajputs, Khatris, Thakkurs and Rathis. The majority being the Khatris.[5] As the Brahmans and raj puts normally use their caste names as per their costum. It is quite possible that many of these have been classed as Gaddis. The census outcomes may, therefore, be considered as an inclusion of various sub-castes. They are found majorly in the Brahmaur Wazarat, which is called Gadaran, but also in other parts of the State. Languages include Bhattiyali, a Dogri-Kangri tongue spoken by majority of people in Chamba district.

3.2 Festivals

The peak time for the tourist to visit this temple is at the time of local fairs on Radha Ashtami, at the time of Minjar Mela, Suhi Mata Mela and Manimahesh yatra, in the months from July to August. [5] During these fairs the village inculcates a new life as it showcases song, dance and music in colorful attires by the local folks.

3.3 Handicrafts

Stone sculpture & Metal casting are age old art forms in district Chamba. It appears as a foremost centres of Bronze casting, being practiced since eighth century. [5] Stone sculpture dates back to historic period, a seventh century stone sculpture of Surya was discovered at Gun village.

4. SCENARIO OF HERITAGE CONSERVATION IN HIMACHAL PRADESH

Chamba was founded by King Meru Verman who later built the temple around 700 A.D. Gugga was then the master artisian of the region who built the temple, as depicted by the inscription found on the pedestal of temple of the goddess Lakshana. For the later renovations, King Sahil Varman (920-940 A.D.) and Raja Umed Singh (1748-1764 A.D.), also worked in the temple. The temple is an explicit example of wooden temple architecture in Northern India. The temple is quite similar to the Lakshna Devi shrine at Bharmour, but is different in its plan and decoration.

4.1 Architectural Style

Originally the shrine is surrounded by a main gallery sustained by twelve heavy of wooden posts of deodar. The main entrance to the temple is enclosed with decorated row of standing figures on both sides. [6][1][10] The Garbhgriha of the shrine is surrounded by pradakshina-patha which is supported by twelve heavily wooden posts.

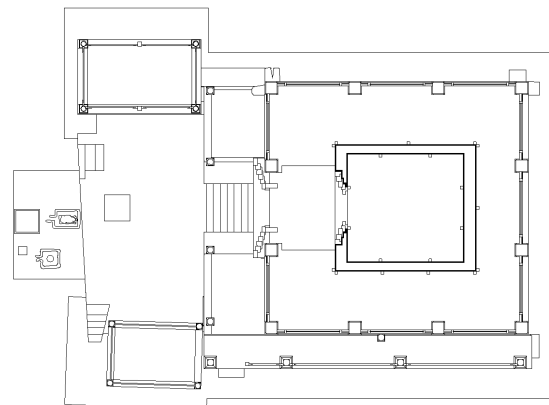


Fig-2 : Plan of Shivshakti Temple
Source: Author

White washed crude masonry with rubble blocks and clay was later used to fill the open space between the columns, flanged by a number of horizontal beams, which was renewed after the earthquake in 1905. A new wooden gallery with decadent and elegant forms from the 18th century was added in front & right side.



Fig - 3 : View of Shivshakti Temple Chhatrari
Source: Author

The structure supports a pyramidal roof with well-cut slates. The temple appears as an embryonic specimen of a highly polished and classic tradition of art. An ashta dhatu image of Sakti Devi, is enshrined in the sanctum with its pedestal.

Two sitting lions are enclosed by the outermost wall with painting projecting to the right and left at the top corners. Three standing deities and three smaller crouching ganas alternately decorate the two jambs on the next frame. Of the latter two are ox-headed; two lion-headed, one has elephant ears and one a face on his belly. Lord Kartikeya is present with six faces and a peacock, Lord Indra has his vajra and the elephant Airavata. Lord Brahma is seen with a rosary and vessel in his hand, along with his two hansas, on the right. (Singh, 1999) A row of flying figures four on each side are seen over the entrance. A row of thirteen cross-legged figures are present beneath these, of which nine represent the navagrahas, i.e. the sun, the moon, the five planets- Mars, Mercury, Jupiter, Venus and Saturn, the eclipse-demon Rahu and the comet Ketu. [6]

Incarnations of Lord Vishnu with his side faces being a lion's and a boar's and Goddess Durga slaying the buffalo-demon Mahishasura can be seen on the left side of the temple along with personifications of holy rivers of India, Ganga and Yamuna as the two lowermost figures.

The main idol of Devi in the garbhgriha is a fine brass statue. The goddess is standing on a big lotus, with reverted petals along with another old idol believed to represent Shakti Devi also existing in the shrine. Another brass idol represents a male deity [1] with a lotus and a rosary in its hands. It wears a high mukuta on his piled up hair, with long ringlets float down on his shoulders; a diadem is there on the forehead, ending above the ears in two small flowers. The eyes are inlaid in silver.

4.2 Records of Conservation

The initial maintenance and conservation of the temple complex dates back to 1748-1764 in the reign of Raja Umaid Singh. Later the maintenance was undertaken by the local people of the village in terms of Committees and panchayat.

Later in the year 1952 the conservation of the temple complex was undertaken by Archaeological Survey (ASI) of India. However a temple committee headed by the Sub-Divisional Magistrate is still in place to look into the matters at local levels.

Since then no records of any type of chemical conservation are being found and no excavations of any kind were carried out by any government or local body. The temple complex however is being subjected to structural conservation and maintenance from time to time. Some of the major interventions in the original structure of the temple in terms of conservation are [7]:

❖ Year 1963-64

The work done here was of the same nature as at the preceding monument. The work of restoring the missing compound wall towards the north in random rubble stone masonry was in progress.

❖ Year 1988-89

Restoration was done for an old outlet drain in the vicinity of the temple. The sunken floor slab in the courtyard of the temple was reset over concrete base. Replacement was undertaken for the decayed wooden planks on roof top wherever necessary.

❖ Year 1999-2000

In the initial stage of repairs the accumulations on the intermediate floor were removed. The decayed wood work was replaced with new one after application of a wood preservative. Mud-plaster was also reapplied over a sheet of polythene. Missing/broken pieces of slates of the roof were replaced and repairs to the back wall of the temple were taken care of.

❖ Year 2000-01

The decayed wooden members in the roof were replaced after properly supporting the sagging beams. The floor in between was repaired and necessary packing was given under the wooden beams. M.S. Flats were used to replace the

loose wooden columns supporting the roof. The missing roof slates were replaced.

4.3 Current Status of the Monument

The temple lies in earthquake zone V, therefore much is being done to ensure the structural stability of the built spaces. The temple receives an average footfall of around 500 people per month, which may further rise to around 1000 persons per month in peak seasons and festivals. Thus the aesthetical appearance of the area is also of prime importance which is not much taken care off. The built area requires restoration and conservation in terms of its materials and surface finishes, as the plasters and paints have worn out with time.

The complex also lacks basic facilities like Toilets, Drinking water facilities, street lighting, Provision for handicapped people, information counters, cafeteria, souvenir shop, cloakrooms/lockers etc. Provisions are needed for infrastructure like landscaped green seating areas, office, museum, store and other cultural displays. Which improves the quality of life and stay for a visitor and in turn improves the economy by generating revenue for the locals.

5. CASE ANALYSIS- MARKULA DEVI TEMPLE, HP

Udaipur is situated on the confluence of Mayar Nullah with the Chandrabhaga in Lahaul subdivision of the Lahaul-Spiti district and houses a temple of goddess kali, originally constructed in the late 8th century, when the art tradition of the Meru Varman's period was alive. After the Mauryan period, timber was replaced by sophisticated stone buildings during the Gupta period. The temple is built in typical Kath-Kuni style of architecture. A dire need to restore it was felt before the posterity is deprived of some of the finest specimens of wood carvings, which in "richness and interest of the carving exceeds the monuments of both Bharmaur and Chhatrari".

The original eighth century structure of the Markula Devi temple was a much smaller one in the architectural style, much similar to its counterparts at Bharmaur and Chhatrari in their original form [6] The Markula Devi temple has undergone repeated repairs, additions and alterations. The first stage of conservation belongs the structure of the eighth century that comprised the cells and a small square mandapa within the four wooden pillars. The rest of the structure, consisting of the outer four-wall, two additional smaller pillars on the western side and rest of the carved wood-that may belong to the sixteenth century represent the second stage.

5.1 Architecture

This temple, presently, covers an area of 135.24sqm. Of it, the temple has occupied only 66.28sqm area. The remaining

68.96sqm is apportioned for the entrance room and attendant's residence. A flight of pucca stone-built stairs leads to the door of the entrance room. From here, towards the left is the temple and on the right is the store.

The temple proper is built in a rectangular formation on a plinth, 2m high on the southern side, but almost dug into the mountain slopes on the northern side (As shown in figure 4). The northern outer wall, thus, has been withstanding the thrust of the back-fill and the superimposed load of the roof, thanks to the traditional wisdom of combining wood and stone in the construction of wall that has withstood all the stresses and strains through centuries.

The temple structure measures 1105 x 600 cms. square externally, with four-wall of the varying thickness (As shown in figure 4).The interior is divided into three functional parts. The mandapa occupies the eastern part, and measures 597 x 490 cms. square. Towards the South, it has a large-sized projected window, supported on the brackets. The ornate ceiling of the mandapa is supported on six wooden pillars. Four of them, of the original construction, describe a square formation, which encloses the most interesting and ornate ceiling.[1] [10]

Two pillars of the smaller section on the western side, opposite to the sanctum, are the later addition. Towards the west is the square sanctum, which measures 222 cms square from inside and 316 cms. square externally. An ambulatory, 87 cms. wide, surrounds it from the three sides. [1]

The roof over the mandapa is laid in a steep gable-type, which has been continued over the sanctum and ambulatory to form, what may be described as an almost vertically sliced pyramid. The pinnacle of this pyramid rises higher of the ridge of the gable-roof in front. The small temple comprised only the cella and a small mandapa, defined by the original four pillars. In the attempt, neither could they replicate the original roof-design nor innovate any other suitable design of their own.

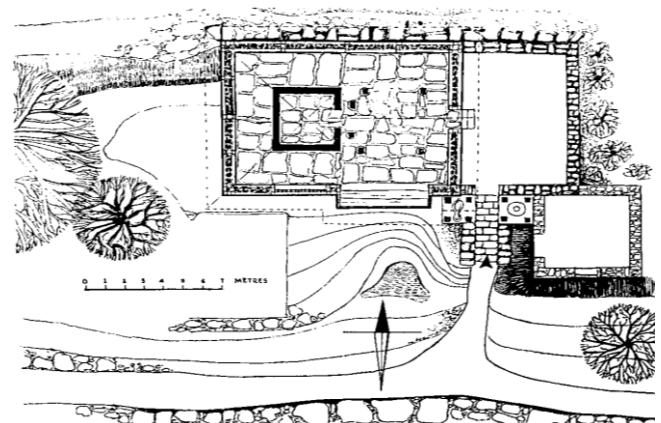


Fig- 4 : Plan of Markula Devi Temple Complex
Source: [1]



Fig- 5 : Markula devi Temple
Source: Analysed by the Author, ASI

5.2 Conservation

The temple is being conserved by ASI. The roof, walls and also the windows were not in good condition. So the replacement of roof and walls repairing were done. The windows are now provided with steel railing for safety purpose (As shown in figure 06). The temple is being conserved by ASI. The roof, walls and also the windows were not in good condition. So the replacement of roof and walls repairing were done. The windows are now provided with steel railing for safety purpose (As shown in figure 06). The walls of attendant's room and store rooms were built of stone, later covered with mud plaster (Figure 06).



Figure 6 : Markula Devi Temple: During Conservation
Source: ASI

6. SHIVSHAKTI TEMPLE: CONDITION ASSESMENT AND DESIGN SOLUTIONS

6.1 Existing Scenario

The temple complex includes 5 different built blocks, the first one is the main shrine, second and third are the front & rear sarai respectively whereas fourth and fifth blocks are the small temples of Lord Shiva and Gauri Shankar.

Table 1: Condition assessment criteria
Source: Author

Good		Well maintained and no action required
Can be intervene		Well maintained but can be improved
Immediate action required		Dilapidated and need immediate renovations

The condition assessment for the various block is as per table no 02. The whole temple complex was documented in the form of drawings for the condition assessment. Three criteria's were undertaken to assess the condition of the existing structure as per table no 01.

The Main shrine faces the west direction which opens up to a paved open area. A dilapidated structure of the front Sarai lies in the foreground. This structure requires a major amount of attention in terms of material and structural conservation. The front sarai has seen many phases of reconstruction by the local people and the authorities. A mix of contemporary and conventional materials thus can be seen on the facades of the structure. Immediate intervention is required.

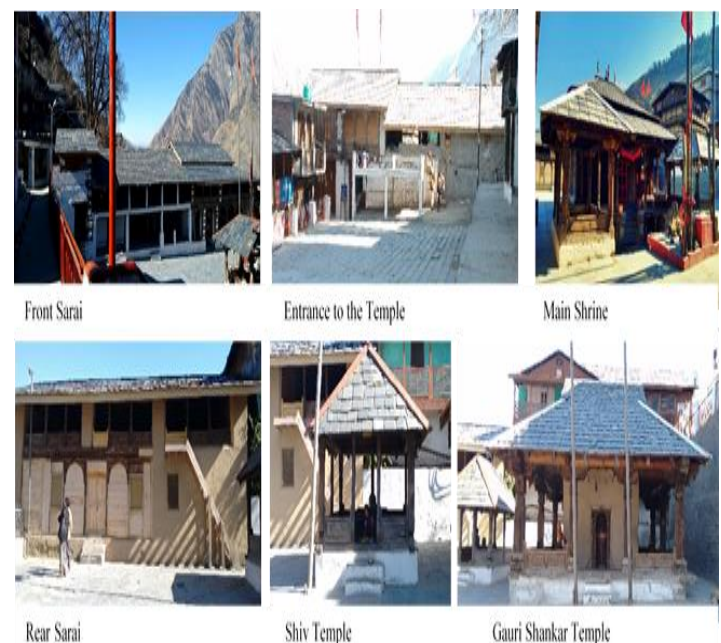


Fig- 7: Existing Views Shivshakti temple,Source: Author



Fig- 8: Existing Scenario of Shivshakti Temple Complex, Source: Author

Table 2: Condition Assessment Shivshakti temple Chhatrari, Source; Author

Physical Conditions`	Structure	Walls	Woodwork	Flooring	Ceiling	Roof	Wall Finish	Usability
Main Shrine	Green	Yellow	Yellow	Yellow	Green	Green	Red	Green
Front Sarai	Red	Red	Red	Red	Red	Red	Red	Red
Rear Sarai	Green	Yellow	Yellow	Yellow	Green	Green	Green	Yellow
Shiv Temple	Green	Green	Yellow	Green	Green	Yellow	Green	Green
Gauri Shankar Temple	Green	Green	Yellow	Yellow	Yellow	Green	Green	Green

6.2 Design Proposals

- ❖ The upliftment starts right from the entrance to the temple which was hidden within the front sarai of the temple, in the proposal the entrance is projected outward in continuation with the proposed stage for the cultural showcasing.
- ❖ Basic amenities like drinking water, stacks for shoes, toilets, security room, priest’s room, community kitchen & dining and gathering areas along with the additional facility of souvenir shop are proposed in the front sarai.
- ❖ In the main shrine the structure is well maintained however interventions are required for the wall painting which are eroded over the passage of time. Further

improvements can be done in term of flooring, woodwork and walls.

- ❖ The rear sarai inhabits a very good scope in terms of adaptive re-use as a small museum, library and workshop along with a few interventions.
- ❖ Lastly minimum refurbishment is required in the shiv temple and Gauri Shankar temple in areas such as flooring, wooden members, ceiling and roof.
- ❖ In overall complex areas are delineated for artisans, public gathering, cultural performance and to experience the scenic beauty of the hill around.
- ❖ The additional facilities provided will intern help in the revenue generation and strengthen the economics sustainability of the local people

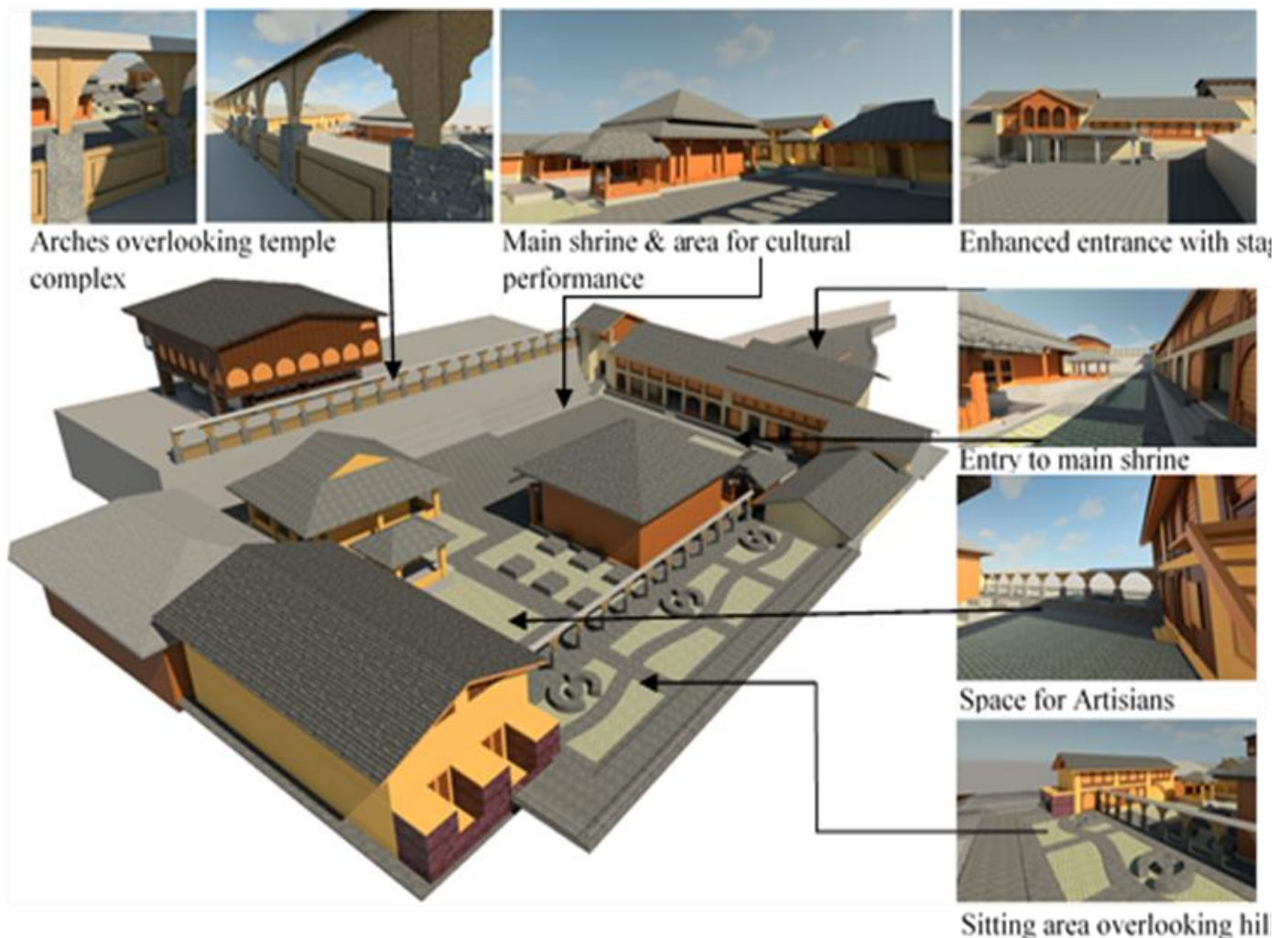


Fig- 7 : Design Proposals for Upliftment of Shivshakti Temple Chhatrari

7. CONCLUSION

Heritage is collective efforts of many generations and will be conserved in context to the combination of traditional heritage and modern environment to revitalize the local economy through tourism and thus bringing a sense of identity and belonging to its residents. Achieving the sustainability through heritage conservation by "using what already exists and replicating the typical elements identified with the help of modern material, keeping in mind the identity of the place and causing minimum disturbance to the site while designing", which creates an appropriate balance between historical, natural, cultural and other heritage assets both tangible and intangible.

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REFERENCES

- [1] O. C. Handa, Temple Architecture of the Western Himalayas Wooden Temples, Indus Publishing Company, 2000.
- [2] "Himachal Pradesh- Land of Gods," 16 August 2015. [Online]. Available: <http://www.discoveredindia.com/himachal-pradesh/land-of-the-gods/>.
- [3] HPTDC, "Dhauladhar Circuit Himachal Pradesh Tourism Development Corporation," 12 September 2015. [Online]. Available: <http://hptdc.nic.in/>.
- [4] A. Sharma, "Himachal Pradesh cabinet clears takeover of heritage 'Bantony Castle,'" The Indian Express, 05 January 2017.
- [5] O. C. Handa, Gaddi Land in Chamba: Its History, Art & Culture : New Light on the Early Wooden Temples, Indus Publication, 2005.

- [6] M. G. Singh, Wooden Temples of Himachal Pradesh, Indus Publishing, 1999.
- [7] ASI, "Archeological Survey of India," 08 August 2015. [Online]. Available: <http://asi.nic.in/>.
- [8] GoHP, "Government of Himachal Pradesh," 10 December 2015. [Online]. Available: <http://himachal.gov.in/>.
- [9] GOI, Ministry of Tourism , 13 November 2015. [Online]. Available: <http://tourism.gov.in>.
- [10] S. L. Nagar, The Temples Of Himachal Pradesh, 1990.
- [11] S. Tanwar , M Arch Thesis " Conservaation of Shivshakti Temple complex Chhatrari Chamba HP" 2016