

Conserving continuously evolving cultural landscape case: vernacular settlement of village Nirmand, Himachal Pradesh, India

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Abstract

Hill settlements have emerged and evolved responding to the given condition of nature and hence the generated built environment is always context specific with sensitivity towards natural and cultural attributes based on which the specific indigenous cultures and cultural forms have evolved. Study of these cultural forms indeed justifies the elements and parameters based on which the built environment have been generated whereas the approach and design strategy not just addresses the functional needs, but it also comprise of scientific and technological adaptations, innovations to address specific needs of the socio-cultural- geographical context of the specific culture.

The hill settlement of village Nirmand at *Himachal Pradesh*, India is one such interesting example which exhibits components of its origin, evolution depicting parameters of continuity and change over the period of time which clearly indicates that how indigenous communities have answered the needs with sensitivity towards culture and nature reflecting the deep interrelationship between man and nature as the vernacular cultures have always been living in harmony with nature and the resultant cultural forms have been symbolising the aspirations from nature.

The settlement pattern, neighbourhood clusters and house forms of village Nirmand depict the unique interrelationship between tangible and intangible tenets which have created a cultural landscape of this region , filled with religious significance, sensitivity towards local materials, tools and technologies, climate responsive solutions, as well as architectural details. These signify the attributes and values which are at the core of the cultural landscape where the above mentioned tenets can be clearly observed, analysed and understood to justify the rootedness and traditions of the vernacular practices and how the same has been a perfect solution for the local context.

However, over the period of time the urbanisation has penetrated with the ease of mobility and building construction sector. It has resulted into the sprawl of the settlement whereas the focal point and core of the settlement has shifted from the centre towards the outskirts in order to be nearest to the approach road providing direct connectivity to the trade routes. Unfortunately, the expansion of the settlement is giving birth to the context less and faceless structures which are built using reinforced cement concrete, instead of local materials such as timber and stone. Inhabitants have left their indigenous dwellings unattended and have moved out to this new bustling area. Other factors such as scarcity of water resources, climate change, decrease in agricultural activities, animal rearing, reduced

moisture content in soil, migration, etc are also challenging factors which have paused a question on the survival of the vernacular settlement of village Nirmand.

Thus, the paper intends to bring the micro level issues related to the survival of the vernacular settlement along with recommendations whereas the effort has been made to address the grassroots level issues in constantly evolving cultural landscape in order to retain its authenticity and integrity.

Keywords: Vernacular, Cultural Landscape, Settlement Pattern, Urbanization, Migration, Climate Change, India

1. Research Methodology

The continuous research on this selected case since Year 2012 with multidisciplinary approach has incorporated with ethnographic study where an emic approach has been adapted to decipher cultural attributes which are indigenous and unique. The study has been strengthened with periodic preliminary field visits comprising of documentation of architectural components, mapping, community interaction, stakeholders' consultation and visual documentation which has led to identify the pattern of changing dynamics. Further, it has led to identify challenges and recommendations to safeguard the integrity of the evolving cultural landscapes.

2. Introduction

Vernacular settlements have always originated and flourished in the coherence with the given conditions of nature. Constructed using locally available resources, with bare minimum needs, the vernacular settlements have been the best examples reflecting relationships between man and nature. In this conceptions indigenous communities have always kept the Mother Nature as supreme and hence their tangible and intangible actions have always been suggesting sense of respect towards the same. The hill settlement of Nirmand village has interesting features, attributes and characteristics which depicts that how man and nature relationships lead to the generation of distinguish cultures and cultural forms.

Another significant attribute of indigenous cultures is the reflection of their culture through cultural forms. They are more meaningful, simple, humble and honest forms catering to the functional and socio-cultural needs. As said by Demetri Porphyrios, "Vernacular architecture are example of straightforward construction, to the rudimentary building of shelter, an activity that exhibits reason, efficiency, economy, durability and pleasure (Oliver, Paul. 2003). Built with community, these settlements are reflection of shared way of life & value system, signifying affordability, sustainability and adaptability. In a way, these settlements are result of interaction between nature, culture to address needs, both tangible and intangible of the ethnic groups. As said by Paul Oliver, Vernacular houses are built to meet specific needs, accommodating values, economies, and way of life of culture that produce them." (Oliver, Paul (Ed)., 1997). These cultural forms are result of continuous evolution, leading to advancements, improvisations and modifications with changing times and hence needs. The resultant cultural forms reflect aspects of continuity and change which may be tangible or intangible in nature. The interaction with other cultures have also led to cultural amalgamations where they must have exchanged ideas and values as well as cultural forms. The knowledge traditions passed on from one generations to the next has made the continuity of these cultural practices possible. "Embodying particular values and needs, homes are built with integrity, and authenticity in ways that have frequently achieved beauty of form and unity of design, and in turn are transmitted to subsequent generations." (Oliver, Paul. 2003). These processes can also be seen in the evolution of architectural dwellings at multiple levels, starting from organization to the spaces, scale and proportion as well as elements of space making at dwelling level and at settlement level.

The study of house forms and settlement pattern at village Nirmand clearly provides evidences which exhibits multi-layered cultural parameters and how the same has been reflected in the form of architectural patterns where the indigenous way of life and the close link with natural context is clearly visible, along with other factors shaping the evolution of the settlement.

3. Location, Setting & Geographical Context

The district Kullu is located between two rivers Bias and Satluj, in which Nirmand is one of the biggest village located at the height of 1493.52 metres above sea level. It is located 17 kms North East of Rampur which is one of the thriving town on the banks of Satluj River. Unlike any other vernacular settlements, Nirmand village exhibits tenets of physical considerations regarding given conditions of nature. The town has originated within the terrain landscape, which is surrounded with upper and lower contours having elevation range from 1300 metres to 1600 metres The location of spring water also has been one of the major factors resulting in the emergence of the settlement in certain way. Built using locally available stones, and timber the indigenous practice of building using stone and timber in certain methods has created a significant cultural landscape which coincides with the natural setting.



Figure 1: Satellite Image Depicting the Village Settlement & Context

Source: Author

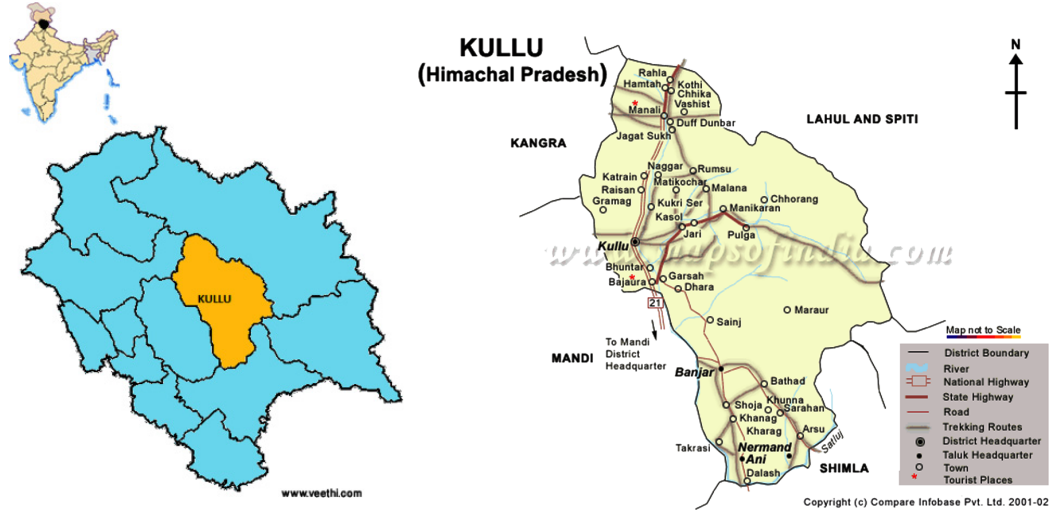


Figure 2: Map Showing Location of District Kullu in Himachal, & Village Nirmand
Source: <http://arki-travel.blogspot.in/2012/06/hill-stations-of-india.html>

4. Defining Cultural Landscapes: Establishing Theoretical Base

Organically evolved cultural landscapes are the result of the continuous evolution of the interaction between man and nature. The cultural milieu comprising of distinguished socio-cultural – religious-economical realms reflect the deeply rooted linkages and associations with their natural settings, in which they have survived, evolved and sustained through changing times. “The "cultural landscape" embraces a diversity of manifestations of the interaction between humankind and its natural environment.” (UNESCO, 2008.) Indigenous surviving settlements still retains its components, attributes and significance reflecting the evolution in form of way of life and material culture of inhabitants. These tenets demonstrates challenges, opportunities, patterns of change and precursors leading to layered and dynamic characteristics where the close interrelationship between nature, culture and cultural forms can closely be observed.

The settlement pattern of village Nirmand exhibits distinguished features incorporating clusters with shared community spaces, open spaces and agricultural open spaces accommodating usage pattern and daily needs of the lifestyle. Architectural elements and assemblies are not just elements of aesthetics here, but simultaneously they also exhibit climate responsive attributes at dwelling as well as at cluster level. More than just addressing the physical needs of the way of life, Nirmand has outstanding religious significance where the associated values are manifested in the built forms at sacred and secular spaces at dwelling level, cluster level and at settlement level.

As any other case of continuously evolving cultural landscapes Nirmand is also going through the dynamic changes at tangible and intangible levels which have accelerated with the rapid growth of urbanization. Construction of approach roads, ease of access to modern materials, migration for better way of lives, changing occupations, economic conditions, disappearance of the native building practices, etc are some of the issues which have pause

threats to the survival and continuation of the traditional practices. Even though changes are inevitable, retaining the authenticity and integrity of the vernacular settlements is the need of an hour. In order to achieve so, the paper is an effort to identify issues at grassroots level and deciphers methods, ways and possibilities which may help to bind the attributes and help to strengthen and survive the authenticity against the odd challenges of urbanization and identified issues.

5. Cultural Attributes

“Nirmand must have been a commercial center of some importance in Eastern Himachal Pradesh long before small cities such as Mandi, Rampur, Bilaspur and others gained fame.” (M. Postel, A. Neven, and K. Mankodi., 1985) A trade route branching from the Beas at the present village of Aut proceeded over the Jalauri Pass, to Nirmand, Rampur Bushahr, Sarhan and onto Tibet. The earliest record is found in 7th century AD which mentions name of the rulers, as well as socio-cultural and political aspects of that era. As per the oral history it is believed that the town was established by Lord Parashuram (God of Hindu mythology). The folklore goes as Parashuram had organized *Yagna* (religious offerings-ritual) and had invited Brahmin communities from across the country. After the ritual got completed, he insisted these Brahmins to settle down at this place and build their community living spaces.



Figure 3: Parashuram Temple, Village Nirmand
Source: Author



Figure 4: Women of Indigenous Communities, Village Nirmand
Source: Author

As per the Census of India, the town comprise of indigenous communities such as Brahmin, Rajput, Bairagi, Kayastha, Sud, Mahajan, Sunar, Kumhar, Lujar, Chamar, Dagi, Kattait and Koli. Mainly inhabitants are landowners and agrarians, cultivating their small strips. Majority of routine work related to farming is done by women.

The fairs and festivals of Nirmand also mainly revolve around the religious significance, where the sacrifice ritual which is organized every 12 years in the memory of Lord Parashuram is the most significant one. On these days religious procession is taken with all deities of five clusters and are journeyed of the entire town on a traditional route connecting all primary clusters' sacred centers. Gods are taken out in palanquins accompanied with musicians, priests and inhabitants. It is believed that these Gods are the decision makers of everyone's' and entire villages' welfare.



Figure 5: Cultural Traditions, Village Nirmand

Source: Author

The women of Nirmand practices religious songs and worship the Gods and Goddesses by gathering in the neighborhoods. These songs are mainly depicts and glorifies the deities. Women of the communities wear indigenous attire with silver jewelries and also observes fast on significant religious days. Apart from the Hindu mythological Gods and Goddesses, inhabitants worship "*devta*" which are local deities. They also worship elements from nature and hence these practices also help to conserve the resources from Mother Nature which are essential for the survival of the inhabitants.

Traditional communities are mainly involved in the pastoral and agricultural activities. Most of the inhabitants have farmlands in the close proximity of 1 to 3km where they go from early morning and return by late morning. Again in the evening they visit their farms, settle their cattle and return back to the dwellings. Most of the time all the activities related to farming and cattle herding are taken care by women only. As per the communication with the inhabitants, traditionally grains were cultivated.

6. Architectural Significance

The ground floor of the house forms, known as *Khudd* are kept for cattle, where the entrances are very narrow and small with the average height of 1.5 meters. This is also serving as the main entrance to the house. Because of the geographical considerations the cows of the region are very small in size and hence can enter through the small door. The consideration of safety, security and adverse climatic condition are the physical considerations for this derived size of the entrance. Each entrance is made out of stone or wood and intricately are intricately carved depicting motifs and ornamentation depicting nature or mythological symbols. Inhabitants consider their houses sacred and as per the local regional tradition, one must entre at sacred place after bowing the head is also one of the significant cultural aspect associated with the unique main entrance door.



Figure6: Traditional Entrance Doors with Small Size, Village Nirmand

Source: Author

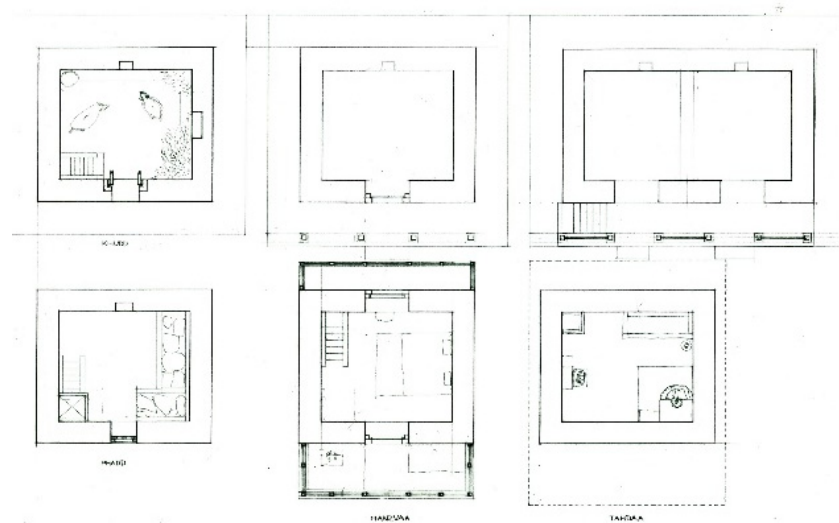


Figure 7: Spatial Organization of Dwellings, Village Nirmand

Source: Author

Cluster Formation & Settlement Pattern

There are five traditional clusters which are resided by distinguished Brahmin Gotras (identical ethnic group). Each of them have their own community deity temple which serves as the primary religious space and holds the most important place in lives of the inhabitants. Being very religious, the inhabitants' way of life has been closely revolving around the sacred centers and rituals associated with the same. This living practice is also present in youth and children. Interestingly each sacred center is located in the close vicinity of water sources, which over the period of time have died. The custom signifies worship of elements of nature around which the survival of the indigenous communities depends upon.

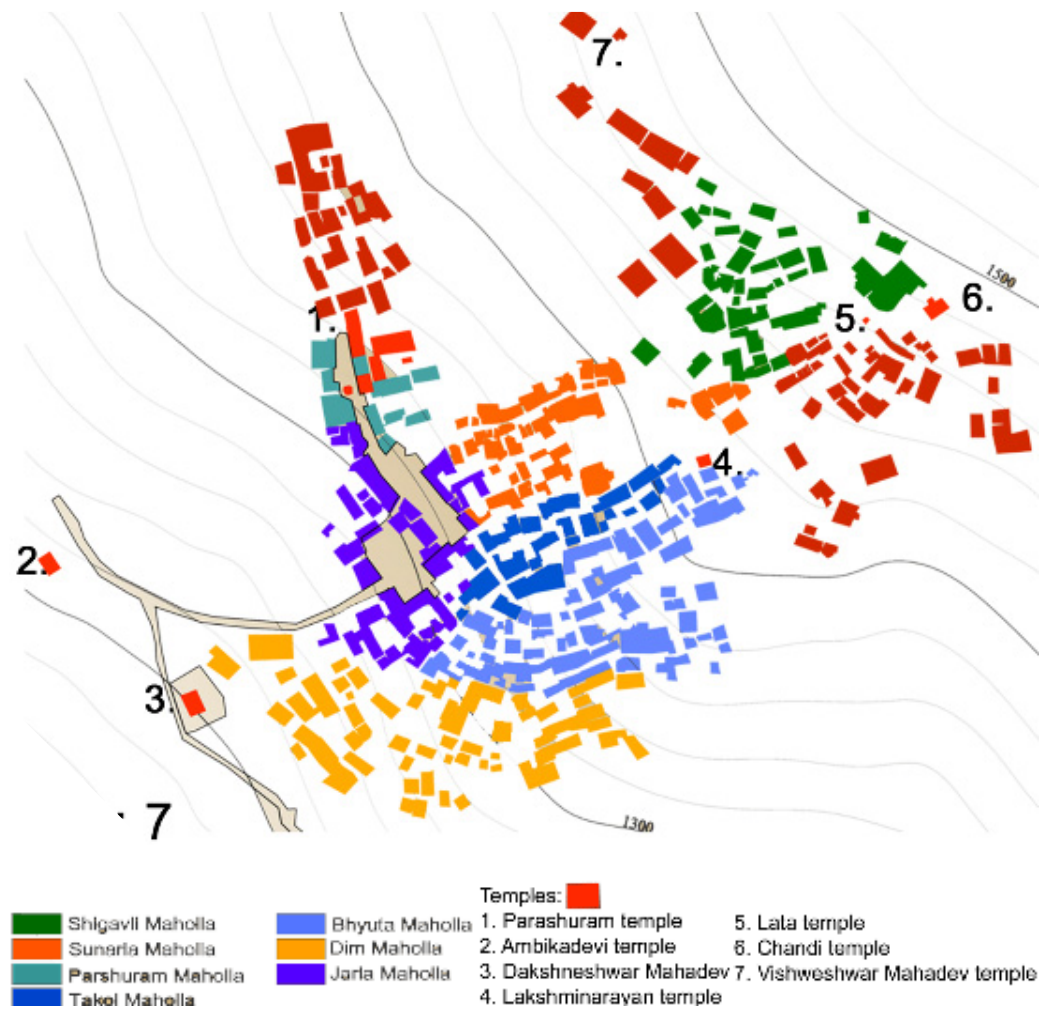


Figure8: Settlement Pattern, Village Nirmand

Source: Author



Figure 9: Types of Cluster Formation, Village Nirmand
Source: Author

These clusters are developed with the organization of dwelling units parallel to the main streets. Back side of the house forms shares the private courtyard which serves as the multi-functional community space. In front of the house there exists small open land which is used for outdoor cooking, to have sunbath during cold seasons, to conduct activities related to agriculture, storage and also to organize small gatherings during festivities or ceremonies. This multipurpose space is used throughout the day while only for sleeping and cooking the inner spaces are used.

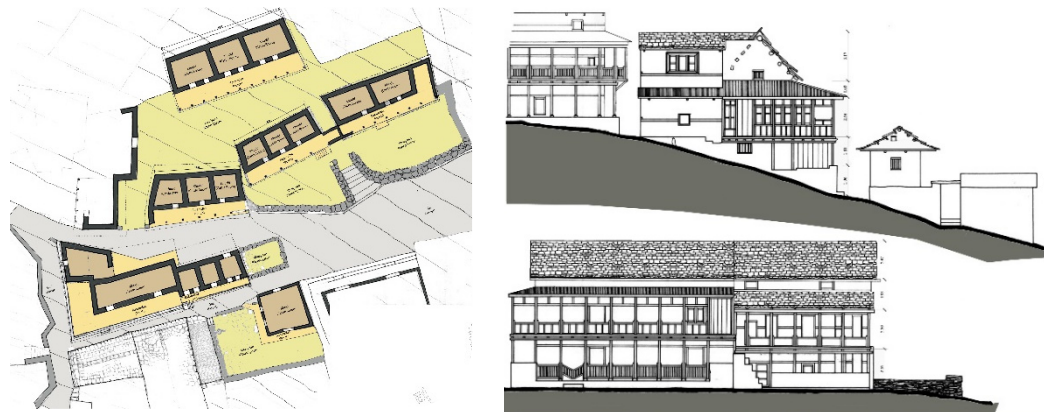


Figure 10: Hierarchy of the Spaces at Cluster Level, Village Nirmand
Source: Author

The verandas and balconies in the later stages of houses are also significant spaces on ground floor and second floors where women weaves, elderly reads, children play and other activities are performed like cleaning grains, cutting vegetables, etc. from morning till late afternoon. Once the sun set, activities shift from semi open areas to the enclosed spaces. Moreover, the orientation and placement of all houses parallel to the natural terrain provides clear space in front allowing natural light to penetrate the verandas and open spaces in front of the houses.

7. Materials & Building Construction Technology

Having its location in earthquake prone zone, the traditional construction practice is distinguished with earthquake resistant stone and timber construction technique which is widely seen not only in other Himalayan regions, but can also be seen across European, Mediterranean, as well as across East Asian regions. However, the way these materials are assembled and techniques evolved indicates the uniqueness associated with each cultural group and their indigenous attributes.

Built using stone and timber having locally available materials, communities have made their houses with dry masonry techniques, whereas the timber members are used as frames with intricate joinery details while the dry stone masonry serves as infill. The distinguished stone and timber construction technique is not just the use of the available material; rather the attitude with which the construction methods are evolved depicts technological advancements and resilient nature towards seismic forces. Also, the orientation of these built forms is parallel to the terrain and not perpendicular to address the earthquake forces.



Figure 11: Built forms with Stone and Timber Construction, Village Nirmand

Source: Author

8. Aspects of Authenticity & Integrity

The indigenous settlement of Nirmand has sprawled parallel in response to the natural terrains depicting significance of respecting given conditions of nature like any other vernacular settlement. The distinguished method for earthquake resilient structure signifies the unique skills and intelligence of the traditional knowledge system, which is effective even after many years of its invention. The significance of religious aspect at dwelling level, cluster level and settlement level exhibits close link between indigenous culture and cultural forms. Worship of various elements from nature reflects that how Mother Nature is respected by inhabitants today. The tradition of socio cultural fairs, festivals and religious

gatherings are passed down from previous generations to the next and are still in practice indicating the living traditions irrespective of change in material culture. Even though the new dwellings are built with modern techniques, temple precincts are built using traditional technique only suggesting that there are still indigenous craftsmen and skilled artist who has potential to revive the disappearing tradition.

9. Evolution: Continuity & Change & Present Condition

Over the period of time the settlement has evolve keeping the Parashuram Temple as a sacred central point. The evolution of the built form depicts different cultural forms of different stages. The most original form is rectangular one with slopping roof having square floor plan, built using stone and timber construction technique. It seems that defence and security must have been the primary concern along with the protection from the climatic conditions. The second stage developed with introduction of projected balconies on the second floor, which served as an extension to the living room. While, the later stage expanded in the planner form where the inner space became rectangular instead of the square one. The last development of the indigenous construction technique depicts built forms with an added screen of façade which were built with timber and elaborated with embellishments and carvings depicting the socio-cultural status of the inhabitants. Most of the present house forms from vernacular style are from this last stage, while the evidences of the earlier stages are only few, out of which many have been abandoned and hence become ruins.

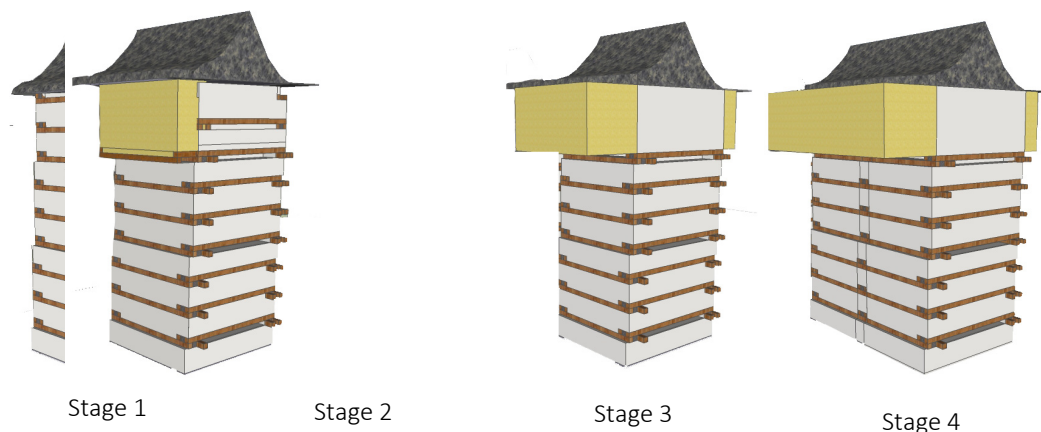


Figure12 : Evolution in Traditional Built forms, Village Nirmand

Source: Author

Simultaneously, the town has expanded towards the approach road where the market exists. The newly built structures are constructed using modern materials and does not follow any aspects or principles from the previous indigenous way of building. The shift in the building style is resultant of rapid growth of urbanization, easy availability of modern materials, desire to build 'contemporary' house forms as well as commercialization. Over the period of time the inhabitants have moved towards the market area keeping their

dwellings as it is in the traditional clusters. However, having sacred notion of the dwellings, they visit their ancestral home every day to perform rituals, offer food and to worship the house deity. This custom has made the abandoned houses still partially in use.

The youth and new generations have also started migrating for better educational and economic prospects leaving elderly inhabitants behind. All these changes have dynamic impact on different factors and tenets which are closely interlinked with each other. One such direct impact is seen on the occupational activities. The traditional agricultural activities have reduced as new generations refrain from doing so, rather they fancy for jobs in any given sector. Moreover, the shift in weather pattern, effects of climate change has shown greater impact on the life of inhabitants. The moisture retaining capacity of soil has decreased, scarcity of water has aroused, as water levels have gone further below leading to dried water structures. This has severely impacted the farming and production of the crops. As per the inhabitants, before approximately thirty years, the production was consumed by villagers themselves and the surplus was sold out in the market depicting the flourishing economy of the village based on agricultural activities. With all the changing factors and impacts today villagers' are importing their grains from outside, as instead of cultivating the grains, they have focused on producing cash crops for economic benefits.



Figure13: Changing Landscapes, Village Nirmand

Source: Author

10. Issues and Threats

After understanding the significance, evolution and changes following issues have been identified which are threats to the authenticity and integrity of the settlement and its traditions:

- Insensitive and unsympathetic construction activities in village
- Insensitive additions and alterations to the traditional structure
- Impact of climate change
- Limitation of availability of indigenous resources
- Change in Agricultural Pattern
- Drying Water Sources
- Disappearing traditional way of building
- Migration
- Lack of awareness to preserve the structures

- Absence of heritage bye laws and policy in order to conserve the morphological significance at dwelling level, cluster level and at settlement level

11. Recommendations for Continuously Evolving Cultural Landscapes: to Ensure Authenticity and Integrity

The village still has the potential to bring back its glory and conserve the authenticity and integrity associate with the culture if below discusses aspect shall be implemented:

First and foremost there is an urgent need to sensitize youth that how the repair works must be done and how alterations and additions with changing needs must be realized without compromising the values of the vernacular traditions. The recent installation of public drinking facility on the façade of the oldest main temple at the center of the village with cladded ceramic tiles above the stone wall is one such example, which depicts that if not sensitized, one might end up losing the sanctity and originality of the built form.

Moreover, the open space in front of the dwellings, which served as multipurpose space that also allowed the sun light to reach all the dwellings on the streets are disappearing with the upcoming reinforced built forms as extension of the old dwellings. The conservation of open spaces is recommended to prevent the loss of distinguished settlement pattern.

The use of cement blocks must be limited, while promoting the use of local stones for paving as it affects the water penetration capacity along with the essence of the visual coherence of the traditional streets. The building height of the upcoming structures in vernacular settlements must be restricted along with choice of building material, usage pattern and spatial organization.

The indigenous building crafts must be revived and construction with traditional ways must be promoted with financial aids and grants. Inhabitants must be encouraged to propose adaptive reuse to the partially abandoned dwellings. The traditional water structures must be revived and rejuvenated.

Heritage listing and notification of the same to be conducted to identify significant clusters and measures should be taken to prevent them from further decay. Heritage impact assessment should be done to conserve the authenticity and integrity of the village. In order to do so, building regulations must be drafted and implemented.

Employment generation opportunities shall be created by devising roles for inhabitants in the heritage listing, documentation and policy design projects where the inhabitants must be made part of the decision making process along with implementation. Hand on workshops and exemplary model structures to be created which may cater the need of the changing times for the inhabitants along with retaining the authenticity and integrity of the significant values.

Revolution in agriculture sector must be created by doing research and necessary implementations which may help to increase the production. The role of gender must be respected and Men should be encouraged to participate in the activities and employment

opportunities. Women being epitome in community, they have potential to collaborate and work for the protection and conservation of tangible and intangible cultural heritage. Simultaneously, the local educational institutions shall incorporate activities and hands on courses revolving around cultural significance of the unique traditions of within and around Himalayan regions.

Religion being the most significant tenet of the attributes, religious & sacred temples shall be given the role of nodal cultural institutions which can help to engage villagers for the activities related to identification, preservation, conservation, capacity building as well as to raise awareness for the valuable and rich cultural heritage of village and a moral responsibility to retain the significance even while undergoing through rapid growth and construction activities in changing times. Tourism management plan should be derived and sensitive interventions shall be designed and implemented to promote rural tourism.

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