Reimagining Schools in Himachal Villages

Arunima Tayal[1], Parul[2], Mehak Bhardwaj[3], Sunakshi Shokeen[4]
[1,2,3]UG Student - IAD(SOD), World University of Design, Sonipat, Haryana
[4]Assistant Professor, IAD(SOD), World University of Design, Sonipat, Haryana
Email ID: arunimatayal01@gmail.com[1], parulgarg1108@gmail.com[2], mehakbhardwaj6324@gmail.com[3], sunakshi.shokeen@wud.ac.in[4]

Abstract

Schools are deeply embedded in the cultural fabric of the communities they serve, and in Himachal Pradesh, particularly in the heritage villages of Pragpur-Garli, this relationship is especially visible. Here, vernacular traditions and social ideologies directly influence how schools are organized, experienced, and valued. This research examines how cultural logics drawn from domestic and community life—such as gendered spatial divisions, collective participation, and notions of shared responsibility—shape the everyday functioning of schools. Adopting a qualitative approach, the study combines field observations of homes and schools, spatial documentation, and interviews with students, parents, and teachers. The findings reveal strong continuities between domestic practices and educational environments. Classroom arrangements, participation patterns, and school culture often reflect inherited social boundaries, resulting in the reproduction of generational hierarchies within formal learning spaces. The research argues that schools cannot be treated as neutral institutions but must be understood as extensions of community life where traditions are simultaneously reinforced and reinterpreted. For architects and interior designers, this recognition presents both a challenge and an opportunity: to design educational spaces that respect local culture while disrupting limiting ideologies. By introducing adaptive spatial strategies, schools can foster inclusivity, equity, and innovation, enabling them to serve as catalysts for social change rather than passive vessels of continuity.

Keywords: Education, Ideologies, Inclusivity, Space, Vernacular

1. Introduction

Himachal Pradesh is known for its rich cultural heritage and strong community traditions, but its rural spaces—including homes, village commons, and educational institutions—are shaped by inherited social ideologies that influence spatial organization and social interactions. In the heritage villages of Pragpur and Garli, these ideologies are reflected not only in domestic life but also in the spatial and functional arrangements of educational environments. Educational spaces are often assumed to be neutral and universal, yet they reflect the values, hierarchies, and practices of the local community. The ways in which classrooms are arranged, who participates in which activities, and how learning spaces are valued are shaped by long-standing cultural logics that affect inclusion, exclusion, and hierarchy. The aim of the research is to critically examine how vernacular cultural ideologies influence the spatial and functional organization of educational spaces in the heritage villages of Pragpur and Garli, Himachal Pradesh. Despite significant efforts to improve infrastructure, teacher training, and access to free education in rural Himachal Pradesh, issues of inclusion and equity persist. Educational spaces continue to reflect inherited cultural ideologies that influence participation, resource allocation, and spatial arrangements. This research contributes to the discourse on culturally sensitive learning environments by offering insights for architects, planners, and educators to rethink design strategies that honor local traditions while fostering social inclusivity and equitable learning practices. The study is limited to these two villages and does not represent the entire Himachal Pradesh, as every village has its own unique cultural and social context. Additionally, the focus is only on schools, while other vernacular spaces like homes and village commons are not analyzed in detail, keeping the research scope

focused and manageable. [1]

1.1.Methodology

The research used a qualitative approach to study how cultural and social ideologies shape the organization and experience of schools in Pragpur and Garli, Himachal Pradesh. Figure 1 Shows Methodology Flow Diagram
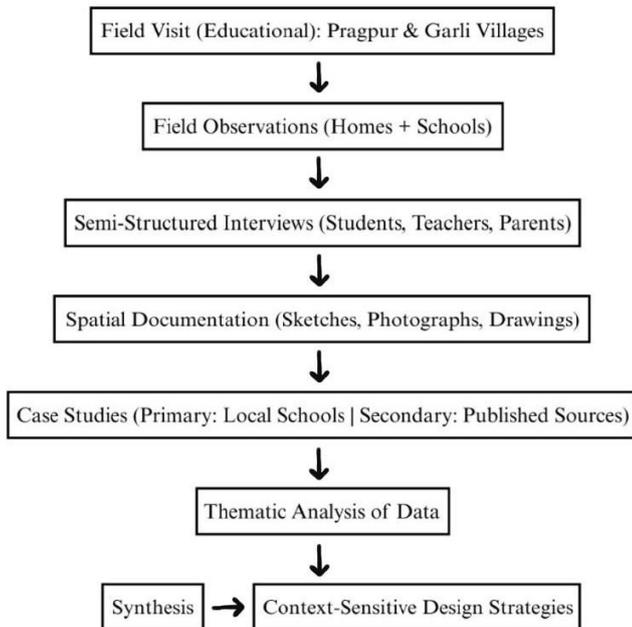

Figure 1 Methodology Flow Diagram

2. Literature

The educational landscape of heritage villages like Pragpur and Garli cannot be separated from their socio-cultural context. Rural education in India is tied to agrarian economies and seasonal rhythms. Gandhi's vision of the village community as a harmonious, cooperative unit has long influenced community-based development programs, including education. However, scholars caution that this romanticized notion overlooks structural inequalities and governance challenges, where elites often dominate participation. Literature on educational provision in rural Himachal reflects these tensions—while government schools provide broad access, disparities in infrastructure, quality, and inclusivity remain. Incorporating heritage knowledge, seasonal adaptations, and participatory governance in schools is increasingly seen as a way forward. Theories of social inequality provide important lenses to understand these educational dynamics. Crenshaw's concept of intersectionality allows an analysis of how caste, gender, and class intersect to create varied experiences of inclusion and exclusion in rural schools. This resonates with broader Indian scholarship, which shows that education cannot be understood in isolation but must be examined within intersecting social hierarchies. Structural inequalities often reproduce themselves through institutional practices, making reforms that center equity and community engagement vital for reimagining schools in heritage settings. Parallel to education, vernacular architecture and space—making in Himachal villages provide insights into how learning environments could be rethought. Scholars of transcultural and vernacular architecture argue for the integration of local building traditions with modern construction technologies, creating hybrid forms that are both sustainable and culturally rooted. Kenneth Frampton's concept of Critical Regionalism underscores this approach—resisting homogenized global solutions while being open to innovation. Himachali houses, with their linear layouts, verandas as shared social spaces, and climate-responsive features, demonstrate how spatial design reflects community practices and ecological adaptation. In this way, literature emphasizes that schools, too, can embody Vernacular 2.0—structures that are modern yet grounded in cultural context, sustainable materials, and local identity. Integrating traditions, customs, and festivals into the organization of educational and spatial life. Built spaces, from courtyards to community halls, are shaped by rituals and everyday practices, suggesting that schools can be reimagined not just as sites of instruction but as cultural anchors of the village. Global scholarship (Asquith & Vellinga, 2006; Joffroy, 2016; Yüksek & Esin, 2013) insists that vernacular traditions are not backward remnants but living knowledge systems offering models of sustainability and identity. For Himachal's heritage villages, this means education must move beyond classrooms, merging pedagogy with community life, cultural practices, and spatial identity, thereby creating schools that are both contextually relevant and future—facing. [2]

3. Primary Case Study

The villages of Pragpur and Garli, being heritage settlements in Himachal Pradesh, host a mix of government and private schools that reflect both traditional and modern approaches to educational space-making. These institutions not only serve as centers of learning but also act as extensions of community life, carrying visible imprints of cultural, social, and architectural practices. Within these schools, a clear physical separation of male and female staff rooms exists. This spatial division mirrors deeper social divisions and directly influences the classroom environment. When male and female teachers do not interact or share spaces, it sets an implicit example for students, reinforcing gender segregation and preventing healthy social integration. The division of academic streams, where medical and non-medical fields are only available in boys' schools, further spatially symbolizes male academic dominance. Such spatial arrangements signal to students that hierarchy and gender roles are built into their environment, shaping perceptions and limiting cross-gender collaboration. In both government and private schools, the washrooms are located at a considerable distance from classrooms and from one another. Instead of creating integrated service areas, the design keeps facilities fragmented, which not only increases maintenance difficulties but also enforces unnecessary divisions between students of different grades and genders. The poor planning of girls' washrooms makes them unhygienic and uncomfortable, discouraging girls from attending school, especially during menstruation, and leading to higher absenteeism. Washroom conditions overall are very poor, and they are not designed to accommodate specially abled students. For example, toilets are not accessible for wheelchair users, reflecting a lack of inclusivity in the basic design of service areas. washrooms lacking accessibility and inclusivity. Specially abled students face tangible spatial barriers in almost every school. The ratio of ramps to staircases is far below requirements, and the few ramps that exist are often not designed with correct slopes, making navigation unsafe. Stair risers exceed recommended dimensions, further adding to the difficulty. Classroom benches are standardized regardless of the students' age or size, causing discomfort and inaccessibility for younger children. These design oversights reinforce the idea that schools are not meant to accommodate diversity, undermining inclusivity and contributing to the marginalization of especially abled students within the educational space. Figure 2 shows Poorly Maintained School,
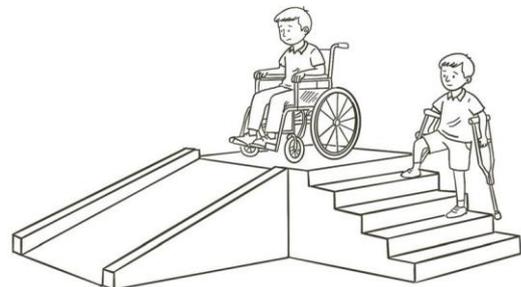

Figure 2 Poorly Maintained School

Figure 3 Ramps with Stairs Enable Accessibility and Inclusivity for Differently-Abled Users
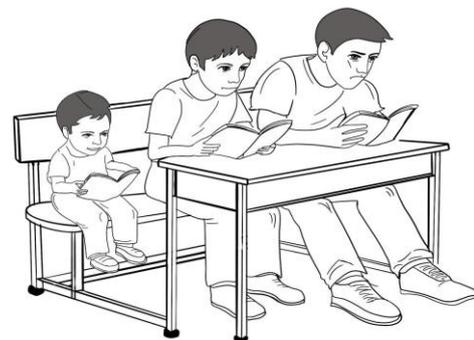

Figure 4 Standardized Furniture Overlooks Age and Size Differences, Causing Discomfort

Despite being located in heritage villages, recently constructed school buildings do not incorporate vernacular architectural features or locally adapted design solutions. Modern design approaches are implemented without consideration of the local cultural, environmental, or climatic context, leading to practical issues such as poor insulation, water leakage, and lack of thermal comfort in classrooms. Vernacular practices, deeply rooted in local architecture, were originally designed to provide thermal comfort naturally. For example, sloped roofs enabled effective rainwater runoff, preventing water accumulation and dampness. In contrast, many modern school buildings now have flat roofs, resulting in frequent dampness, mold growth, and water seepage that creates unhealthy environments for students. Students continue to sit on the floor-a traditional practice they find comfortable due to familiarity—but the infrastructure no longer supports it. Floors are now made of hard tiles that become unbearably cold in winters and too hot in summers, causing discomfort during long hours of study. Earlier vernacular practices ensured comfort as floors and walls were thermally responsive, but now infrastructure is not upgraded, so these problems are occurring. Such architectural lapses, such as the decline of vernacular practices, changes in roofing style, use of inappropriate materials, and poorly designed walls, sometimes result in extreme weather conditions inside classrooms and dampness. These architectural issues directly contribute to students avoiding school, particularly during extreme weather or due to poor hygiene caused by dampness and mold. Schools are the basic platform for knowledge, and hence awareness about the differences between modern and vernacular practices is important. Ideologies change humans, and spaces play a direct role in shaping these ideologies. When thermal comfort, inclusivity, and cultural rootedness are not addressed, the educational experience becomes both physically and psychologically challenging. community engagement vital for reimagining schools Figure 3 Ramps with Stairs Enable Accessibility and Inclusivity for Differently-Abled Users, Figure 4 Standardized furniture overlooks age and size differences, causing discomfort. [3]
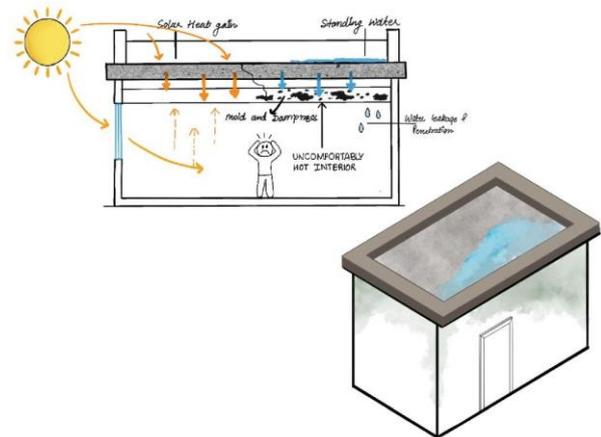

Figure 5 Flat Concrete Roofs

The boundary conditions of schools also play a critical role in shaping the environment. Many of the institutions are housed in old structures, where low-height boundary walls—typical of earlier construction—compromise both privacy and safety, raising concerns about student security. Yet, these same buildings carry strong heritage value, embodying the architectural character of the villages and offering students a daily connection to cultural identity and traditional aesthetics. Alongside this, the integration of a mandir (temple) space within several school layouts reflects the socio-cultural dimension of education. Such spatial provisions not only anchor children to shared cultural and spiritual practices from a young age but also reinforce a sense of belonging and community identity within the school setting. Government policies, such as mandatory kitchen gardens in government schools, aim to integrate local practices and provide good nutritious food. However, this is inconsistently adopted, particularly in private schools. The absence of such integrations in private institutions shows a spatial and functional divide where private schools focus purely on competitive academics. This inconsistency highlights a broader failure to reflect local community practices within school spaces, fragmenting the educational experience and further alienating students from their cultural roots. The case study underscores that without deliberate integration of vernacular traditions, inclusive design, and equitable policy practices, school spaces in Pragpur and Garli risk becoming fragmented environments

that fail to nurture cultural continuity and holistic education.

4. Secondary Case Study - Secmol, Ladakh

SECMOL (The Students' Educational & Cultural Movement of Ladakh), established in Phey village near Leh, Ladakh, functions in one of the harshest "cold desert" climates in India. The campus spans about 20 acres, at an altitude of 3500 meters above sea level, approximately 18 km from Leh town. The surrounding landscape is largely above the tree line, initially lacking vegetation, and with little water and harsh terrain. SECMOL's architecture and campus planning strongly lean on vernacular, passive, and sustainable design, emphasizing local culture, local skill, local materials, and local technology. Buildings use rammed earth walls insulated with natural materials. The design ensures maximum solar gain: rooms intended for human occupation are oriented south, large openings are provided on southern facades, and strategies to trap heat (e.g., thick walls and insulation) to retain daytime warmth for nighttime use are employed. The campus is entirely powered by solar energy (for lighting, heating, and other needs), includes solar water heaters, and incorporates greenhouse/vegetable gardens, tree planting, and landscaping adapted to the local ecology. Figure 6 shows Student-Led Activities at SECMOL Integrating Sustainability, Culture, And Participatory Learning.

Figure 6 Student-Led Activities at SECMOL Integrating Sustainability, Culture, And Participatory Learning
Source: Rmawardasia

Further, operations are managed by students, giving them responsibility over many aspects of the campus. This nurtures agency, confidence, and collaboration, embedding a sense of ownership absent in conventional schools. Structures are compactly designed, grouping habitable spaces on the sunny side, placing service areas to the north, and using passive solar techniques to minimize external energy use. The thermally comfortable interiors enable students to study and participate actively even in extreme winters, showing how climate-responsive design directly improves the educational experience. Figure 7 shows SECMOL, Ladakh

Figure 7 SECMOL, Ladakh
Source: Architecture Live

SECMOL exemplifies how educational spaces can respond simultaneously to culture, climate, and community needs. Its campus relies on vernacular logics—orientation, thick rammed earth walls, and passive solar heating—that ensure resilience in harsh winters while sustaining a strong cultural identity. Unlike the fragmented service layouts observed in Pragpur-Garli schools, SECMOL integrates core utilities such as solar energy systems, water heating, greenhouses, and gardens into the daily functioning of the campus, reducing disconnection and making services part of the learning environment. A key feature is student participation, where learners share responsibility for operations and maintenance, embedding a sense of agency and collective ownership. The design draws directly from local traditions, skills, and materials, yet adapts them for modern sustainability needs, representing a culturally grounded yet innovative approach. These strategies highlight how schools in heritage villages like Pragpur and Garli could move beyond inherited hierarchies and fragmented planning, fostering inclusivity, equity, and community integration through culturally sensitive, self-sufficient design.

SECMOL also stands as a replicable model, illustrating how vernacular principles can be reinterpreted for contemporary educational spaces across India's diverse rural contexts. Figure 8 shows Ground Floor Plan of the School Building
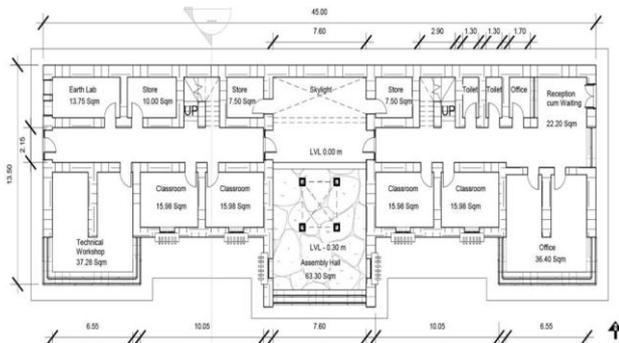

Figure 8 Ground Floor Plan of the School Building,

Source: Architecture. Live

5. Result

The study of schools in Pragpur and Garli reveals that their spatial layouts strongly reflect cultural ideologies but remain constrained by outdated planning approaches. Government schools, despite lacking modern facilities, hold heritage value through their traditional architecture and socio-cultural integrations such as mandirs, which extend community life into education. Yet, fragmented circulation, low boundary walls, and the absence of flexible, inclusive spaces limit their ability to support equity, safety, and holistic growth. By contrast, the SECMOL case in Ladakh shows how vernacular knowledge, sustainable practices, and student-led participation can shape an environment that is both culturally rooted and functionally forward-looking. Together, these cases suggest that while heritage schools provide important cultural anchors, they must be reimagined with adaptive spatial and functional strategies to align with contemporary educational aspirations. [4]

6. Design Considerations

The design of educational spaces in Himachal villages must be grounded in inclusivity, flexibility, sustainability, and cultural continuity while also responding to modern pedagogical needs. Open and non-hierarchical layouts that encourage equal participation and collaborative learning can foster a sense of belonging among children. Flexible partitions and multipurpose courtyards allow the built environment to adapt to different group sizes, activities, and evolving needs of the school. Equally important is ensuring accessibility through universal design principles, such as ramps and special washrooms, so that differently abled children can participate fully in the learning environment. Figure 9 shows Traditional Sloped-Roof Architecture in Himachal Uses Passive Solar Heating, Natural Light, And Thermal Mass to Ensure Sustainable Indoor Comfort
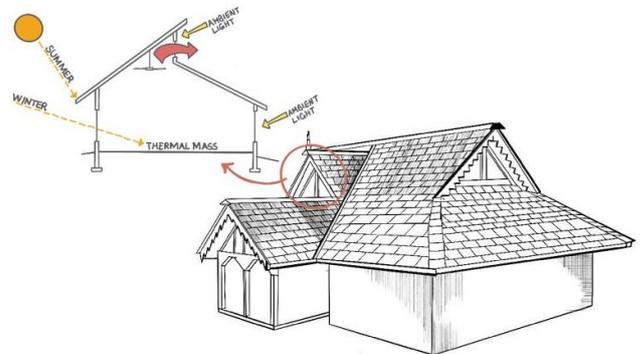

Figure 9 Traditional Sloped-Roof Architecture in Himachal Uses Passive Solar Heating, Natural Light, And Thermal Mass to Ensure Sustainable Indoor Comfort

Schools in these regions must also extend their role beyond education by becoming community-integrated spaces. By providing facilities for gatherings, workshops, and cultural exchanges, schools can strengthen the interrelationship between education and local traditions. Involving local communities in construction and maintenance further nurtures a sense of shared ownership and responsibility. Sustainability, too, forms a critical pillar, where renewable energy systems such as solar panels, rainwater harvesting, and school gardens become both functional utilities and tools for experiential learning, thereby reducing dependence on external infrastructure. The notion of blending tradition with innovation is particularly relevant in the context of Himachal. Symbolic and cultural markers, such as courtyards and prayer spaces,

continue to hold meaning, yet their reinterpretation in inclusive and non-restrictive ways points to a form of 'Vernacular 2.0'—for example, a courtyard not only for rituals but also as a flexible space for community and learning.

Conclusion

The inquiry into schools in Himachal villages shows that education cannot be separated from its cultural and spatial context. These institutions act not only as sites of learning but also as carriers of collective memory and everyday practices that define community life. By situating design and policy within this cultural framework, schools gain the capacity to nurture identity, inclusivity, and continuity while still adapting to contemporary needs. Ultimately, the future of rural education lies in recognizing schools as evolving cultural landscapes—places where tradition and innovation converge to support both individual growth and social cohesion.

References

[1]. Soini, K., & Dessein, J. (2018). Introduction to theory of culture-related spatial development. Cogent Social Sciences, 4(1), 1557583. doi: 10.1080/ 23311983. 2018. 1557583

[2]. Gültekin, E., & Özdemir, E. (2024). Transcultural architecture: Study of vernacular residential structures in Himachal Pradesh and Cappadocia. ResearchGate.

[3]. Kumar, K., & Gupta, D. (2011). A global approach to school education and local reality: A case study of community participation in Haryana, India. International Journal of Educational Development, 31(2), 123-129. doi: 10.1016/ j. ijedudev. 2010.05.007

[4]. Ozorhon, G. (2020). Vernacular architecture as a source of inspiration for contemporary sustainable design. Megaron, 15(1), 46-59. doi: 10.14744/megaron.2020.54036

[5]. SECMOL School in Leh: A role model of vernacular passive and sustainable hill architecture defined by local culture, local skill, local materials and local technology. SlideShare.