
From Indigenous Living Heritage to World Heritage: Reimagining the Historical Deori Chang Ghar of Assam as Folk Environmental Art, Ecological Knowledge, Sustainable Architecture and Ethnic Cultural Identity within the Vision of Viksit Bharat @2047

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Abstract: The Deori community of Assam possesses a distinctive cultural heritage in which architecture, environment, livelihood, social organization, indigenous knowledge and ethnic identity are closely interconnected. Among its significant material expressions is the traditional raised house, commonly understood within the wider Chang Ghar tradition of Assam. The historical Deori house is not merely a physical shelter; it represents an adaptive cultural system shaped by riverine ecology, seasonal flooding, locally available materials, traditional craftsmanship and community-based knowledge. Its elevated platform, bamboo, cane, wood and thatch, functional use of the space below the dwelling, spatial organization, ventilation and relationship with agricultural and domestic activities reveal an accumulated body of ecological intelligence. Documentation on Deori housing further records the prevalence of platform-type Chang Ghar houses among surveyed Deori households in flood-prone areas, demonstrating the continued significance of this architectural tradition. The paper reinterprets the historical Deori Chang Ghar as folk environmental art and living cultural heritage, rather than treating it merely as vernacular housing. It examines how its material vocabulary, construction practices, environmental adaptation, spatial symbolism and community functions embody indigenous ecological knowledge and ethnic cultural identity. The paper further proposes a pathway from local living heritage towards World Heritage recognition, while emphasizing authenticity, community participation, intergenerational transmission and ethical documentation. In relation to Viksit Bharat @2047, the Deori Chang Ghar can be repositioned as a knowledge resource for culturally rooted development, sustainable settlement planning and the preservation of India's ethnic diversity. Its wider significance lies not in freezing the structure in the past, but in allowing its indigenous principles to inform contemporary sustainable futures.

Keywords: Deori Community, Chang Ghar, Indigenous Living Heritage, Folk Environmental Art, Ecological Knowledge, Sustainable Architecture, Ethnic Cultural Identity, World Heritage, Assam, Viksit Bharat @2047.

1. Introduction:

Northeast India is characterized by extraordinary ethnic, linguistic, ecological and cultural diversity, and Assam occupies a particularly significant position within this cultural landscape. Its indigenous communities have developed distinctive forms of material and intangible heritage through long interaction with rivers, forests, agricultural environments, seasonal climatic variations and local resources. The Deori community constitutes one of Assam's historically significant indigenous communities, with distinctive traditions of language, religion, social organization, agriculture, material culture and settlement. Government and ethnographic documentation identifies the Deoris as one of the Scheduled Tribes of Assam and records their socio-cultural and economic characteristics (UNESCO, 1972). Within this broader cultural system, traditional architecture provides an important historical source for understanding the relationship between people and environment. Deori houses have traditionally been constructed on raised platforms using locally available materials including bamboo, cane, wood and thatch. The elevated construction is particularly meaningful in riverine and flood-prone environments, while the space

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beneath the platform accommodates animals, agricultural implements, storage and other domestic functions. The architectural arrangement therefore demonstrates not only technical adaptation but also the integration of dwelling, livelihood and ecological conditions.

The present study therefore approaches the Deori Chang Ghar as living heritage. Rather than understanding heritage only as monuments or historic structures, the paper considers the house as an evolving cultural expression through which knowledge, craftsmanship, environmental adaptation and ethnic identity are transmitted. UNESCO's 2003 Convention recognizes the importance of living cultural practices, knowledge and skills transmitted between generations, while the World Heritage framework emphasizes the identification, protection and transmission of cultural heritage. The proposed movement “from Indigenous Living Heritage to World Heritage” should accordingly be understood as a scholarly and conservation-oriented proposition requiring documentation, community participation, authenticity, safeguarding and wider recognition not as a claim of existing UNESCO inscription (UNESCO, 2003).

2. Background of the Study

The Deori community has historically been associated with the upper Brahmaputra and adjoining riverine landscapes of Assam. Its historical development is connected with regions such as Sadiya, the Dibang and adjoining valleys, followed by settlements in different parts of Upper Assam and the Brahmaputra Valley. Existing ethnographic literature emphasizes the importance of Deori religious traditions, agriculture, settlement, language and socio-cultural institutions in understanding the community's historical identity. The Deori housing tradition developed within this environmental and cultural context. Research on Deori vernacular architecture identifies raised houses constructed from bamboo, cane, wood and thatch, generally elevated several feet above ground. The space underneath could accommodate domestic animals, agricultural tools, carts and looms. The architecture consequently functioned as an integrated socio-economic space rather than simply a sleeping or residential structure.

3. Statement of the Research Problem

Despite the cultural and environmental significance of Deori traditional architecture, the Deori Chang Ghar remains comparatively underrepresented in wider heritage discourse. Much of the available literature treats indigenous houses primarily as architectural, ethnographic or anthropological subjects rather than integrating history, folk environmental art, ecological knowledge, sustainability and ethnic identity into a unified heritage framework.

4. Review of Literature

1. **B. N. Bordoloi, G. C. Sharma Thakur & M. C. Saikia (1987), *Tribes of Assam, Part I***, published by the Tribal Research Institute, Assam, is one of the foundational ethnographic studies of Assam's Scheduled Tribes. It includes the Deoris alongside other major tribal communities of Assam. The work examines social, cultural and economic characteristics. It is valuable for establishing a broad historical and ethnographic framework for understanding the Deori community. Its importance lies particularly in documenting tribal life before many contemporary processes of cultural transformation became dominant.
2. **Sujata Deori (2013), *From Tradition to Transition: A Glimpse of Deoris in Assam***, work provides a substantial account of Deori society and its transition over time. The study considers settlement,

agriculture, family, religion, cultural practices, language and socio-economic transformation. Its title itself highlights the tension between continuity and change. This is especially relevant to traditional architecture because housing practices are strongly affected by modernization. The work helps establish the Deori community as a dynamic rather than static cultural formation. The present study extends this transition framework into the specific field of architectural and environmental heritage.

3. **Ashim Borah (2020), *Documentation on Life and Culture of Deori***, Published by the Assam Institute of Research for Tribals and Scheduled Castes, this ethnographic documentation provides a focused account of Deori life and culture. It is significant because systematic documentation is fundamental to safeguarding vulnerable cultural practices. The work provides a useful basis for understanding Deori institutions, beliefs and material traditions. It also demonstrates the importance of documenting community knowledge before rapid socio-cultural change results in loss or fragmentation.
4. **Nabajit Deka (2018), *Vernacular Architecture of Assam with Special Reference to Brahmaputra Valley***, study examines the architectural diversity of Assam through community-based vernacular traditions. Its treatment of Deori architecture is particularly relevant to the present paper. It records the use of bamboo, cane, wood and thatch and identifies raised Deori houses as an important architectural tradition. The study also recognizes the relationship between traditional housing and riverine/flood-prone environments. It notes that modernization has encouraged a movement from stilt architecture towards earth-fast construction.
5. **Nabajit Deka (2018), study of *Eleng-ghar of Deori***, discussion of the Deori Eleng-ghar demonstrates that Deori architectural heritage extends beyond residential structures. The Eleng-ghar traditionally functioned as a youth dormitory and social institution. Its elevated bamboo construction also served defensive and educational functions. The gradual disappearance of this institution demonstrates how architecture can disappear together with associated social practices.
6. **M. Kumar, S. Mahapatra & S. K. Atreya (2009), “Bioclimatism and Vernacular Architecture of North-East India,” *Building and Environment***, the study places Northeast Indian vernacular architecture within a climatic and environmental framework. It demonstrates that vernacular architecture frequently emerges from the interaction between climatic conditions, materials and human needs. Its relevance to the present research lies in providing a theoretical basis for interpreting indigenous architecture as environmental adaptation rather than merely traditional style. The study strengthens the argument that vernacular architecture contains practical environmental knowledge.
7. **Ankita Sen Deka Choudhury & Vishal Chettry (2023), “Investigation of Bioclimatic Design Features in Vernacular Architecture of Northeast India: Case Studies of Assam-type Houses and Stilt Houses (Chang Ghar) in Assam, India”**, This is one of the most directly relevant recent studies. Based on case studies and interviews, it examines materials, orientation, spatial organization, ventilation, plinth height, roofing and other bioclimatic features. The authors conclude that stilt houses respond strongly to local environmental conditions and use locally available materials such as bamboo, wood and thatch. They also identify stilt construction as an adaptation to flooding and animals.
8. **UNESCO (1972), *Convention Concerning the Protection of the World Cultural and Natural Heritage***, The 1972 Convention established the internationally influential framework for identifying and protecting cultural and natural heritage of outstanding universal value. Its importance for this study lies in providing

the conceptual basis for moving from local heritage documentation towards international heritage discourse. The Convention also emphasizes the responsibility of states to identify, protect, conserve and transmit heritage. Although the Deori Chang Ghar is not being presented here as an existing UNESCO World Heritage property, the Convention provides a framework through which its heritage significance can be critically evaluated.

9. **UNESCO (2003), *Convention for the Safeguarding of the Intangible Cultural Heritage***, The 2003 Convention significantly expanded international heritage discourse by recognizing practices, knowledge, skills and expressions transmitted by communities. This is highly relevant to the Deori Chang Ghar because the heritage value of the house lies not only in its physical form but also in construction knowledge, material selection, craftsmanship, spatial practices and environmental understanding. The Convention's emphasis on community participation is especially important. It suggests that safeguarding must be undertaken with communities rather than merely for communities.
10. **Sarthak Sengupta (1994), *Tribes of North-East India: Biological and Cultural Perspectives***, Sengupta's volume places Northeast India's tribal communities within a broader cultural and anthropological framework. It emphasizes the region's remarkable ethnic and cultural diversity. The Deori community appears within this wider regional mosaic. The work is useful for comparative interpretation because it prevents Deori heritage from being isolated from the larger indigenous traditions of Northeast India..

5. Research Objectives

The main objectives of the study are

1. To historically examine the evolution, structure and cultural significance of the Deori Chang Ghar as an indigenous living heritage of Assam.
2. To analyse the Chang Ghar as folk environmental art embodying indigenous ecological knowledge, traditional craftsmanship and climate-responsive sustainable architecture.
3. To examine the role of the Deori Chang Ghar in sustaining ethnic cultural identity, community memory, livelihood practices and intergenerational transmission.
4. To explore a culturally sensitive pathway for safeguarding and repositioning Deori Chang Ghar heritage towards wider national and potential World Heritage recognition within the vision of Viksit Bharat @2047.

6. Research Methodology

The study follows a qualitative, historical, ethnographic, architectural and interdisciplinary methodology.

6.1. Historical Method: Historical and ethnographic sources are used to reconstruct the development of Deori settlements, housing traditions, social institutions and environmental adaptation.

6.2. Ethnographic Metho: Community-based knowledge concerning house construction, materials, spatial functions, household practices and cultural meanings is interpreted through ethnographic literature and documented community information.

6.3. Architectural Analysis: The study examines:

- Elevated platform;
- Wooden supports;
- Thatched/traditional roofing;
- Bamboo and cane framework;
- Thatched/traditional roofing;
- Ladders;

- Internal compartments;
- Spatial organization;
- Relationship with agricultural activities
- Ventilation;
- Under-house utility;

6.4.. Environmental Analysis: The architecture is analysed in relation to:

- Flood adaptation;
- Humidity;
- Local materials;
- Resource efficiency;
- Rainfall;
- Ventilation;
- Thermal comfort;
- Ecological sustainability

6.5.Heritage Approach: The study applies the concepts of living heritage, cultural continuity, authenticity, community participation and safeguarding.

6.6.Comparative Approach: Deori architecture is compared with broader Chang Ghar/stilt-house traditions of Assam to identify common ecological principles while retaining Deori-specific characteristics.

6.7.Sources: The research uses:

- Government reports;
- Books;
- Architectural studies;
- Community documentation;
- Ethnographic studies;
- Scholarly articles;
- UNESCO heritage documents;
- Secondary historical sources.

The present paper is primarily documentary and analytical in nature, complemented by field-based observations conducted at selected sites in Panbari, Narayanpur, including Bordeori and Kinapathar. The field study provided valuable contextual insights into the architectural, socio-cultural, and heritage dimensions of the study area. However, a larger future project should undertake systematic village-level fieldwork incorporating measured architectural drawings, oral-history interviews, photographic documentation, and GIS-based spatial mapping to develop a more comprehensive historical and cultural documentation of the region.

7. Results

7.1.The Chang Ghar as Historical Deori Living Heritage: The research establishes that the Deori Chang Ghar should be understood as considerably more than a traditional residential structure. It represents a material expression of the historical relationship between the Deori community, its settlement environment, social organization and cultural identity. In this sense, the Chang Ghar constitutes an important historical source for understanding how the Deori community negotiated habitation, livelihood, environmental conditions and cultural continuity. Deka's study of the vernacular architecture of Assam identifies distinctive characteristics of Deori houses and also points to architectural differences between Deori and neighbouring Mising traditions, particularly in relation to internal spatial organization and functional arrangements (Deka, 2018).

The historical significance of the Chang Ghar is further strengthened when it is interpreted as living heritage rather than as a static architectural relic. Its heritage value is embodied not only in the physical structure but also in the knowledge of construction, selection and preparation of materials, spatial practices, household activities and community memories associated with it. The broader ethnographic literature on the tribes of Assam similarly demonstrates that material culture cannot be separated from the social and cultural institutions of indigenous communities (Bordoloi, Sharma & Saikia, 1987). Consequently, safeguarding the Deori Chang Ghar requires attention to both its tangible architectural characteristics and its intangible knowledge systems. Its

continued interpretation as living heritage can therefore contribute to the preservation of Deori ethnic identity while allowing the tradition to remain meaningful within changing social and economic circumstances.



A representative Deori Chang Ghar stilt house showcasing traditional settlement layouts and community-centric vernacular architecture in rural Assam

Source: *Personal Photographic Collection of the Author*

The Deori Chang Ghar stands as a quintessential exemplar of community-centric vernacular architecture in rural Assam, embodying centuries-old indigenous settlement patterns. Elevated on sturdy stilts, these traditional dwellings are masterfully designed to harmonize with the region's flood-prone riverine ecosystem while fostering a distinct sense of communal organization. The deliberate spatial arrangement of these homes reflects a deep-rooted cultural heritage, where sustainable local materials such as timber, bamboo, and thatch are expertly utilized to ensure structural resilience, environmental harmony, and enduring social continuity within the village landscape.

The traditional Deori Chang Ghar of Assam stands as an enduring masterpiece of indigenous vernacular architecture and folk environmental art. Built entirely from sustainable local materials like bamboo, timber, and thatch, these elevated stilt houses are ingeniously engineered to withstand seasonal floods and high humidity in the riverine Brahmaputra valley.

7.2.Environmental Adaptation and Climate Responsiveness: The findings demonstrate that the raised construction of the Deori Chang Ghar represents a practical and historically evolved response to the environmental conditions of Assam, particularly flooding, heavy rainfall, humidity and variations in ground conditions. Elevating the dwelling above ground creates a protective separation between the residential space and

the surrounding landscape while also allowing the area beneath the house to be used for domestic and livelihood-related purposes. The wider Chang Ghar tradition of Northeast India incorporates several climate-responsive characteristics, including raised platforms, locally available materials, sloping roofs, natural ventilation, perforated bamboo surfaces and functional under-floor spaces. Choudhury and Chettry's study of Assam's stilt houses demonstrates that these features contribute to climatic adaptation and environmental responsiveness (Deka, 2003).



Traditional Deori Chang Ghar stilt architecture reflecting indigenous settlement patterns and local material craftsmanship in Assam

Source: Author's Collection

The traditional Deori Chang Ghar stands as a remarkable testament to indigenous architectural ingenuity and sustainable living in Assam. Elevated on sturdy timber and bamboo stilts, these vernacular dwellings are meticulously engineered to counter annual monsoon flooding and damp riverine conditions. Beyond flood mitigation, the structural layout exemplifies deep ecological adaptation, utilizing locally sourced renewable materials such as bamboo, thatch, and cane.

The environmental intelligence embodied in the Chang Ghar demonstrates that indigenous communities developed architectural solutions through long-term observation and experience rather than through formal modern engineering systems. Its elevated form, lightweight construction and natural ventilation can be interpreted as components of a broader indigenous ecological knowledge system. Kumar, Mahapatra and Atreya's study of Northeast Indian vernacular architecture similarly emphasizes the relationship between climatic conditions and traditional architectural responses (Kumar, Mahapatra & Atreya, 2009). The Deori Chang Ghar therefore provides

an important example of how architecture can emerge from continuous interaction between people, place and environment. Such knowledge has contemporary relevance in the context of climate change, flood resilience and the search for low-energy and locally appropriate architectural solutions.

7.3. Indigenous Materials and Folk Environmental Art: The research further reveals that bamboo, cane, wood and thatch used in the construction of the Deori Chang Ghar should not be understood merely as inexpensive or readily available building materials. Their selection, preparation, shaping, joining, weaving and arrangement represent an accumulated body of indigenous craftsmanship and environmental knowledge. Bamboo and cane, in particular, possess both structural and aesthetic functions, while wood and thatch contribute to the durability, climatic suitability and visual character of the dwelling. The construction process consequently transforms natural materials into an integrated cultural environment in which functionality and aesthetic expression are inseparable. Research on the Chang Ghar tradition confirms the extensive use of bamboo and other locally available materials in walls, floors, structural elements and associated architectural components (Deka, 2023).

From the perspective of this research, these practices can appropriately be conceptualized as folk environmental art because the aesthetic expression of the Chang Ghar emerges through the creative interaction of human craftsmanship, natural materials and ecological surroundings. Unlike art that exists independently within galleries or formal institutions, this artistic tradition is embedded within everyday life and habitation. The documentation of Deori life and culture also demonstrates the importance of material practices in maintaining community knowledge and cultural continuity (Borah, 2020). The Chang Ghar therefore represents a form of environmental creativity in which architecture becomes simultaneously a shelter, a functional space, a cultural symbol and an artistic expression of the community's relationship with nature.

7.4. Continuity, Transformation and Heritage Vulnerability: The transformation nevertheless raises important questions concerning the future of traditional construction knowledge. As concrete, RCC and other modern building systems become increasingly common, traditional skills related to bamboo selection, cane weaving, joinery, roof construction and elevated-house design may gradually weaken if they are not transmitted to younger generations. Sujata Deori's study, appropriately titled *From Tradition to Transition*, provides a broader framework for understanding such socio-cultural changes within the Deori community (Deori, 2013). The principal result, therefore, is that heritage vulnerability should not be measured solely by counting surviving houses; it should also be assessed through the continuity of knowledge, craftsmanship, community participation and cultural meaning. Safeguarding the Chang Ghar consequently requires an approach that combines documentation, skill transmission, adaptive conservation and community-based heritage development.

Result Synthesis: The results also establish the basis for considering a carefully structured movement “from Indigenous Living Heritage to World Heritage.” Such a movement should not involve merely monumentalizing the Chang Ghar; instead, it should prioritize community participation, documentation, intergenerational transmission, adaptive conservation and sustainable development. In this respect, the Deori Chang Ghar possesses considerable potential as a case study for connecting indigenous heritage with contemporary debates on climate resilience, sustainable architecture, cultural diversity and Viksit Bharat @2047.

8. Analysis

8.1. Architecture as Environmental Intelligence: The Deori Chang Ghar demonstrates that architecture can function as a repository of accumulated environmental intelligence. Its elevated structural form represents a

practical response to the recurrent flood conditions, waterlogging and high-moisture environment characteristic of the Brahmaputra Valley. The use of relatively lightweight materials, particularly bamboo and timber, further reflects adaptation to the climatic and seismic characteristics of Northeast India. Similarly, sloping roofs facilitate the rapid discharge of heavy monsoon rainfall, while openings and ventilated spaces contribute to air circulation and the reduction of excessive indoor humidity. These architectural features should therefore not be interpreted merely as traditional construction techniques; rather, they represent historically evolved responses to environmental challenges (Choudhury & Chettry, 2023).

From a historical perspective, the Chang Ghar demonstrates how communities can generate architectural knowledge through sustained interaction with their physical surroundings. Such knowledge is transmitted through practice, observation and intergenerational learning rather than through formal architectural institutions. The environmental functionality of the structure consequently reveals a form of indigenous ecological knowledge in which habitation, climate, materials and human well-being are closely interconnected. Contemporary discussions on climate-responsive architecture can therefore benefit from examining such traditional systems, particularly in regions vulnerable to floods, excessive rainfall and seismic activity.

8.2. Architecture as Folk Environmental Art

The concept of “folk environmental art” provides a useful analytical framework for understanding the Chang Ghar because it brings together ecological adaptation, material culture, craftsmanship and aesthetic expression. The selection and preparation of bamboo, cane and timber, together with weaving, joining, structural arrangement and roof construction, produce a distinctive visual and spatial character. Elements such as bamboo walls, woven surfaces, ladders, platforms and elevated structural components possess both functional and aesthetic significance. In this sense, the Chang Ghar demonstrates that artistic expression within indigenous communities is not necessarily separated from ordinary life; rather, aesthetic knowledge is embedded within the material practices of habitation (Deka, 2020).



A Deori woman engaged in traditional handloom weaving (tat sal) on the shaded ground floor beneath an elevated Chang Ghar stilt house

Source: Photographic Survey by Author

A Deori woman engaged in traditional handloom weaving (tat sal) on the shaded ground floor beneath an elevated Chang Ghar stilt house, illustrating the integration of domestic space, indigenous craftsmanship, and sustainable rural livelihood in Assam.

This understanding also challenges the conventional distinction between “art” and “utility.” In the Deori context, craftsmanship operates simultaneously as environmental adaptation, material technology, cultural expression and social practice. The house therefore becomes a form of everyday environmental art, in which the physical environment is transformed through culturally inherited skills without losing its ecological relationship with locally available resources. Documentation of Deori material culture further indicates that such practices form part of a broader cultural system encompassing livelihood, domestic life, craftsmanship and community identity. The Chang Ghar may consequently be interpreted as a living artistic expression in which ecological knowledge and cultural creativity converge.

8.3. The House as an Ethnic Identity Marker: The Deori Chang Ghar also functions as an important marker of ethnic and cultural identity. Architectural identity is expressed not simply through the external appearance of the house but through its internal spatial organization, functional divisions, construction practices and associated domestic traditions. Deka's study is particularly significant in this regard because it identifies specific distinctions between Deori and Mising houses despite certain external similarities associated with the broader raised-house tradition of the region. Such differences demonstrate that vernacular architecture may preserve subtle cultural distinctions that are not immediately visible from its general structural form.

The house therefore operates as a material representation of collective memory and cultural belonging. Its construction and use involve knowledge of spatial organization, domestic practices, materials and community traditions that are transmitted across generations. Sujata Deori's study of the transition of Deori society further provides a useful context for understanding how cultural traditions negotiate modernization and socio-economic change (Deori, 2013). The Chang Ghar should consequently be understood not as an isolated architectural object but as a material component of Deori identity whose cultural significance depends upon continued community use, knowledge transmission and social meaning.

8.4. Sustainability through Local Resources: The Chang Ghar represents a resource-conscious architectural model in which locally available materials and inherited construction knowledge are integrated into the process of habitation. Bamboo, cane, timber and other locally accessible materials can be used with relatively limited dependence on industrially intensive construction systems. The use of such materials, together with elevated construction and passive ventilation, demonstrates how vernacular architecture can address environmental conditions while reducing unnecessary dependence on technologically intensive solutions. Choudhury and Chettry's analysis of Chang Ghar and other vernacular forms in Assam particularly emphasizes the relevance of local materials, bioclimatic principles and stilt-house strategies for developing more sustainable built environments.

The sustainability of the Chang Ghar, however, should not be reduced to the ecological properties of individual materials. Its deeper significance lies in the knowledge system through which materials are selected, processed, assembled, maintained and replaced. Such a system encourages adaptive use of local resources and connects architecture with community-based skills and livelihoods. The broader analysis of vernacular architecture in Northeast India similarly demonstrates the importance of bioclimatic principles in responding to regional environmental conditions (Kumar, Mahapatra & Atreya, 2009). Thus, the Chang Ghar offers a

historically grounded example of how indigenous architectural knowledge can contribute to contemporary discussions on sustainable construction, climate responsiveness and Sustainable Development Goal 11 (SDG 11).

8.5. From Local Heritage to World Heritage: The analytical transition from local heritage to World Heritage requires a distinction between heritage recognition and heritage transformation. The objective should not be to convert the Chang Ghar into a museum object or to detach it from the community that has historically created, maintained and used it. Its principal significance lies precisely in its character as living heritage, where architecture, ecological knowledge, craftsmanship, cultural identity and everyday practices remain interconnected. The 1972 UNESCO Convention provides an important framework for understanding the protection of cultural and natural heritage, while the 2003 Convention expands the heritage discourse by emphasizing living traditions, knowledge, skills and community participation (UNESCO, 1972).

Accordingly, any future World Heritage trajectory for the Deori Chang Ghar should proceed through a gradual and community-centred process involving historical documentation, architectural recording, community validation, safeguarding of traditional skills, intergenerational transmission, adaptive conservation and heritage education. The objective should be recognition without fossilization that is, preserving the cultural and ecological knowledge embodied in the Chang Ghar while allowing the tradition to remain meaningful within contemporary Deori society. Within the broader vision of Viksit Bharat @2047, such an approach can connect indigenous heritage with sustainable development, cultural diversity, climate-responsive architecture and community empowerment. The World Heritage potential of the Chang Ghar should therefore be understood as a proposed future trajectory requiring further documentation, comparative assessment and community-led heritage planning rather than as a claim of existing UNESCO inscription (UNESCO, 2003).

9. Discussion

9.1.Reinterpreting the Deori Chang Ghar as Living Heritage: The findings of this study indicate that the Deori Chang Ghar should be interpreted not merely as a traditional dwelling but as a living cultural system in which architecture, ecological knowledge, craftsmanship, domestic practices and collective memory remain interconnected. Its heritage significance therefore extends beyond the physical survival of individual houses. Construction techniques, selection and processing of local materials, spatial organization, maintenance practices and environmental adaptations together constitute a continuum of knowledge transmitted through community practice. From this perspective, the Chang Ghar represents a form of living heritage in which tangible and intangible dimensions cannot be meaningfully separated. UNESCO's 2003 Convention similarly defines intangible cultural heritage through practices, knowledge and skills that communities recognize as part of their cultural heritage and emphasizes the importance of their continuous transmission.



Source: Author's Field Collection.

The vernacular stilt houses (Chang Ghar) found across tribal communities in Assam epitomize a brilliant adaptation to the region's flood-prone riverine ecosystem. Constructed using locally sourced bamboo, timber, and thatch without complex mechanical fasteners, these elevated dwellings demonstrate sustainable living and ingenious indigenous engineering. Their raised platforms protect inhabitants and grain stores from seasonal inundations while fostering a communal village layout that deeply integrates traditional craftsmanship with the natural environment of Northeast India.

This understanding requires a conceptual shift from “preserving a house” to “safeguarding a knowledge system.” If conservation focuses exclusively on the physical structure, there is a danger that the architectural form may survive while the knowledge required to construct, use, repair and interpret it gradually disappears. The more appropriate approach is therefore to safeguard the entire cultural ecosystem surrounding the Chang Ghar, including traditional craftsmanship, ecological understanding, spatial practices, oral knowledge and community participation. Borah's documentation of Deori life and culture provides an important basis for understanding the house within this wider socio-cultural context (Borah, 2020). The Chang Ghar should consequently be conserved as a living cultural archive, capable of adapting to contemporary circumstances while retaining its historical and cultural foundations.

9.2. Ecological Knowledge and Contemporary Sustainability: The environmental characteristics of the Deori Chang Ghar demonstrate that sustainability is not exclusively a product of modern technological innovation. Indigenous architectural systems frequently embody accumulated responses to climatic conditions, available resources and local ecological realities. The elevated structure, passive ventilation, use of renewable or locally available materials and spatial adaptability of the Chang Ghar illustrate how architectural solutions can emerge through long-term interaction between community and environment.

The significance of this knowledge lies not in reproducing the traditional house mechanically but in understanding and adapting its underlying principles. Contemporary architects and planners can selectively reinterpret elevated construction, passive ventilation, locally appropriate materials and climate-responsive spatial organization while incorporating modern requirements relating to structural safety, sanitation, accessibility and durability. Kumar, Mahapatra and Atreya's wider study of Northeast Indian vernacular architecture similarly demonstrates the importance of climate-responsive indigenous building principles. The Chang Ghar can therefore be regarded as a source of place-based ecological knowledge capable of informing contemporary debates on sustainable architecture, climate adaptation and resilient human settlements, particularly in flood- and climate-vulnerable regions.

9.3. Cultural Identity in an Era of Modernization: The transition from traditional to modern housing among the Deoris should not automatically be interpreted as the disappearance of cultural identity. Rather, modernization creates a complex process of negotiation between inherited practices and contemporary aspirations. The increasing use of alternative construction materials and modern housing forms may respond to changing economic conditions, household requirements, technological availability and perceptions of comfort. The challenge is therefore to ensure that modernization does not eliminate the cultural logic embodied in traditional architecture. Sujata Deori's study of socio-cultural transition provides a useful framework for understanding the ways in which Deori traditions negotiate changing social circumstances.

A sustainable heritage strategy should consequently encourage adaptive continuity rather than architectural fossilization. The objective should not be to require every contemporary Deori household to reproduce an earlier architectural form unchanged. Instead, indigenous principles may be selectively incorporated into contemporary housing through the use of appropriate materials, raised platforms, climate-responsive design, traditional spatial concepts and culturally meaningful decorative or structural elements, alongside improved structural safety, sanitation, durability and modern amenities. Deka's documentation of Deori vernacular architecture is particularly relevant for identifying the architectural characteristics that distinguish Deori housing within the wider vernacular traditions of Assam (Deka, 2018). Such an approach can allow heritage to remain socially useful and culturally meaningful rather than becoming detached from the lived realities of the community.

9.4. Heritage, Community Empowerment and Viksit Bharat @2047: The heritage potential of the Deori Chang Ghar becomes particularly significant when connected with the developmental vision of Viksit Bharat @2047. Heritage conservation need not be limited to preservation-oriented activities; it can become a mechanism for culturally grounded development. Traditional bamboo and cane craftsmanship, architectural skill development, heritage interpretation, cultural education, responsible tourism and community-based enterprises may create opportunities for local livelihoods while simultaneously strengthening cultural continuity.

However, such development must remain community-centred. The Deori community should not merely become the “subject” of documentation, tourism projects or heritage research; it should be recognized as a principal stakeholder, knowledge-holder and custodian. UNESCO's 2003 Convention explicitly emphasizes the participation of communities, groups and relevant individuals in safeguarding their intangible cultural heritage (UNESCO, 2003). The bioclimatic potential of Chang Ghar principles also suggests possibilities for linking traditional knowledge with contemporary sustainable construction and local material-based livelihoods (Choudhury & Chetty, 2023). Within the Viksit Bharat @2047 framework, therefore, development and heritage protection should be treated as mutually reinforcing objectives: cultural identity can support sustainable livelihoods, while sustainable development can provide new contexts for the continued transmission of cultural knowledge.

9.5. A Roadmap towards Wider Heritage Recognition: The study proposes that any movement from indigenous living heritage towards wider national or international recognition should follow a gradual, evidence-based and community-led process rather than an immediate pursuit of international designation. A credible pathway may be conceptualized as:

Documentation → Community Validation → Digital Archive → Architectural Conservation → Skill Transmission → Heritage Education → Sustainable Tourism → State/National Recognition → Tentative Heritage Assessment → International Heritage Discourse.

Each stage has a distinct function. Documentation establishes historical and architectural evidence; community validation ensures cultural legitimacy; digital archiving creates long-term knowledge resources; conservation protects significant structures; skill transmission sustains craftsmanship; heritage education creates intergenerational awareness; and carefully managed tourism can generate livelihood opportunities without commodifying the tradition. Subsequent state and national recognition can provide institutional support before any consideration of international heritage mechanisms.

The 1972 UNESCO Convention provides the principal international framework for the identification and protection of cultural and natural heritage of outstanding universal value, while the 2003 Convention provides a

complementary framework for safeguarding the living practices, knowledge and skills associated with cultural heritage. For the Deori Chang Ghar, the most appropriate strategy would therefore be to demonstrate its historical depth, cultural distinctiveness, ecological intelligence, architectural significance, community continuity and wider relevance to sustainable human settlement through systematic research and comparative assessment. The proposed transition “from Indigenous Living Heritage to World Heritage” should consequently be understood as a long-term heritage-development trajectory rather than a claim of existing UNESCO status. Its ultimate strength would lie in demonstrating that a locally rooted Deori tradition can retain its authenticity and community ownership while contributing meaningfully to wider global conversations on heritage, sustainability, indigenous knowledge and resilient human settlements.

10. Comparative Study, Scope and Contemporary Relevance

Comparative Study

Sl. No.	Dimension	Historical Deori Chang Ghar	Contemporary Sustainable Architecture
1	Materials	Bamboo, cane, wood, thatch	Bamboo, engineered wood, modern sustainable materials
2	Elevation	Raised platform/stilts	Flood-resilient elevated construction
3	Ventilation	Natural/perforated surfaces	Passive ventilation systems
4	Climate	Adaptation to flood, humidity and rain	Climate-resilient design
5	Energy	Minimal mechanical dependence	Energy-efficient systems
6	Culture	Embedded in ethnic identity	Often culturally neutral
7	Knowledge	Community-transmitted	Professional/technical
8	Sustainability	Indigenous and resource-based	Technology-assisted
9	Heritage	Living cultural practice	Usually design/product-oriented
10	Social function	Household + livelihood	Primarily residential

The comparison indicates that traditional and contemporary approaches need not be oppositional. The Deori Chang Ghar can provide principles for designing locally appropriate, climate-responsive and culturally meaningful architecture.

Scope: The study opens possibilities for:

- Deori heritage documentation;
- Digital heritage archives;
- 3D documentation and virtual museums;
- Community-based cultural tourism;

- Bamboo and cane craft development;
- Heritage education;
- Architectural conservation;
- Indigenous knowledge studies;
- Climate-resilient housing;
- SDG 11-oriented planning;
- Interdisciplinary History–Fine Arts–Architecture research;
- Future comparative research with Mising, Rabha, Tiwa, Karbi and other indigenous housing traditions.

Contemporary Relevance: The Chang Ghar is particularly relevant at a time of increasing concern about flooding, climate change, resource-intensive construction and cultural homogenization. Contemporary research recommends adaptation of stilt-house principles and locally available materials for sustainable built environments. Its relevance therefore extends from heritage conservation to climate adaptation, cultural sustainability, community livelihood and sustainable development.

11. Major Findings of the Study

The major findings of the study are-

- a. The Deori Chang Ghar represents an important component of the community's historical living heritage and collective identity.
- b. Its elevated structure demonstrates adaptation to the riverine and flood-prone environment of the Brahmaputra valley in Assam.
- c. Bamboo, cane, wood and thatch represent both essential material resources and rich indigenous ecological knowledge passed down through generations.
- d. The architecture functions as a form of folk environmental art, combining aesthetics, craftsmanship, utility and environmental harmony.
- e. The house contributes deeply to the preservation of Deori ethnic cultural identity amidst modern social transformations.
- f. Traditional architecture successfully integrates domestic life, livestock, agriculture, storage and craft activities into a unified spatial layout.
- g. Available historical documentation confirms substantial past and continuing use of Chang Ghar forms among traditional Deori households.
- h. Modernization has generated a gradual socio-economic transition towards Assam-type, concrete and RCC construction across many rural settlements.
- i. The decline of traditional construction skills represents a significant intangible heritage vulnerability requiring urgent attention.

- j. The Deori Chang Ghar provides valuable architectural principles relevant to sustainable and climate-responsive building designs today.
- k. Its overall heritage value should be actively interpreted through both tangible structures and intangible cultural dimensions.
- l. Community participation must remain central to any future heritage-safeguarding programme or conservation initiative.
- m. The Chang Ghar has strong potential to become an important case study for Viksit Bharat @2047, particularly through sustainable housing and indigenous empowerment.
- n. A future World Heritage pathway would require systematic documentation, authenticity assessment, community participation, and appropriate national conservation mechanisms.
- o. The Deori Chang Ghar should therefore be approached not simply as an old house, but as a knowledge-bearing cultural landscape and living heritage system.

12. Major Recommendations

Based on the historical, architectural, ecological, cultural and sustainability-oriented findings of the study, the following major recommendations are proposed:

- **Establish a Digital Deori Chang Ghar Heritage Archive:** Undertake systematic documentation of Chang Ghars through architectural drawings, photographs, oral histories, construction techniques, traditional materials, customs, and GIS-based mapping to create a community-accessible digital heritage archive.
- **Strengthen Community-Led Heritage Safeguarding:** Place the Deori community, including elders, artisans, women and youth, at the centre of conservation and decision-making, ensuring that traditional knowledge, cultural practices and custodianship remain community-controlled.
- **Promote Sustainable and Adaptive Conservation:** Preserve the ecological principles of Chang Ghar architecture elevated construction, bamboo and cane use, passive ventilation and climate responsiveness while integrating essential modern facilities, structural safety and climate-resilient improvements.
- **Link Heritage Conservation with Livelihoods and Education:** Develop skill-transfer programmes, traditional craft training, community-based enterprises, heritage education and culturally responsible tourism to connect Chang Ghar conservation with sustainable livelihoods, intergenerational learning and SDG 11.
- **Develop a Long-Term Research and Heritage Framework:** Establish collaboration among Deori communities, universities, historians, anthropologists, architects, environmental specialists and government institutions for interdisciplinary research, comparative studies, policy support and future national or international heritage recognition.

13. Conclusion

The historical Deori Chang Ghar represents a remarkable convergence of history, environment, architecture, folk art, indigenous knowledge and ethnic identity. Its elevated structure, locally sourced materials, spatial organization and relationship with agriculture and domestic life demonstrate that traditional architecture

can embody sophisticated environmental intelligence without relying upon modern technological systems. The principal contribution of this study is to reinterpret the Deori Chang Ghar from three interconnected perspectives: as architecture, as folk environmental art and as living cultural heritage. Its heritage value lies not only in bamboo, cane, wood, thatch and structural form but also in the knowledge, skills, memories, social relationships and ecological practices associated with those materials. The transition “from Indigenous Living Heritage to World Heritage” should therefore be understood as a process rather than a declaration. The first responsibility is documentation; the second is safeguarding; the third is community empowerment; the fourth is sustainable adaptation; and only thereafter should wider national and international heritage recognition be considered. UNESCO's living-heritage framework reinforces the importance of community participation and intergenerational transmission in such a process.

Viksit Bharat @2047, development should not imply the replacement of indigenous cultural systems with standardized modernity. Rather, India's developmental vision can be strengthened by integrating indigenous knowledge into contemporary sustainability. The Deori Chang Ghar offers precisely such a possibility. It can become a model for culturally rooted sustainable architecture, ecological education, heritage-based livelihoods, climate resilience and ethnic cultural empowerment. Thus, the future of the Deori Chang Ghar should not be confined to preservation of the past. Its deeper significance lies in transforming historical knowledge into contemporary possibility from a traditional dwelling into a living classroom of ecological wisdom, from local cultural expression into a heritage resource, and potentially from Indigenous Living Heritage towards World Heritage.

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16. Conflict of Interest

The author declares that there is no conflict of interest associated with this research.

17. References

- Bordoloi, B. N., Sharma Thakur, G. C., & Saikia, M. C. (1987). *Tribes of Assam, Part I*. Guwahati: Tribal Research Institute, Assam.
- Borah, Ashim. (2020). *Documentation on Life and Culture of Deori*. Guwahati: Assam Institute of Research for Tribals and Scheduled Castes. 77 pp.

- Choudhury, Ankita Sen Deka, & Chettry, Vishal. (2023). "Investigation of Bioclimatic Design Features in Vernacular Architecture of Northeast India: Case Studies of Assam-type Houses and Stilt Houses (Chang Ghar) in Assam, India." *Indian Journal of Traditional Knowledge*, 22(3), 664–673. DOI: 10.56042/ijtk.v22i3.5757.
- Deka, Nabajit. (2018). *Vernacular Architecture of Assam: With Special Reference to Brahmaputra Valley*. Ph.D. research, Gauhati University.
- Deori, Sujata. (2013). *From Tradition to Transition: A Glimpse of Deoris in Assam*. Guwahati: Directorate of Assam Institute of Research for Tribals and Scheduled Castes. 112 pp.
- Deori, Saranan. (2007). *Deori: Bhasa, Sahitya, Samaj*. Guwahati: Bina Library. 103 pp.
- Government of India / Tribal Research Institute, Assam. *Report on Women's Status in Tribal Societies: A Study of the Deoris of Assam*. Guwahati: Assam Institute of Research for Tribals and Scheduled Castes.
- Kumar, M., Mahapatra, S., & Atreya, S. K. (2009). "Bioclimatism and Vernacular Architecture of North-East India." *Building and Environment*, 44(5), 878–888.
- Oliver, Paul. (2006). *Built to Meet Needs: Cultural Issues in Vernacular Architecture*. Oxford: Architectural Press.
- Rapoport, Amos. (1969). *House Form and Culture*. Englewood Cliffs, NJ: Prentice-Hall.
- Sengupta, Sarthak. (1994). *Tribes of North-East India: Biological and Cultural Perspectives*. New Delhi: Gyan Publishing House.
- UNESCO. (1972). *Convention Concerning the Protection of the World Cultural and Natural Heritage*. Paris: UNESCO.
- UNESCO. (2003). *Convention for the Safeguarding of the Intangible Cultural Heritage*. Paris: UNESCO.
- UNESCO. (2011). *Recommendation on the Historic Urban Landscape*. Paris: UNESCO.
- Bordoloi, B. N., Sharma Thakur, G. C., & Saikia, M. C. (1987–1989). *Tribes of Assam, Parts I–III*. Guwahati: Tribal Research Institute, Assam.