

Tales of Traditions, Aspects of Adaptations and Stories of Sustenance of the Largest River Island of the World

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Abstract – Majuli in Assam in India is the largest river island of the world which was also declared as a first such independent district of India in the year 2016. The existence of Majuli however dates back to early 20th century when its area was more than 880sq km. But with time - Majuli has shrunk as the river surrounding it has grown and which brought its present area down to 340 sqkm. The timeline saw the evolution and sustenance of the place in its own distinct ways. Adaptation through primitive vernacular architecture is found as traditional approach of sustenance for the inhabitants here. The people of Majuli have created a built environment in their own terms which is area specific, climatically responsive and integral to the region. They have used methods of construction which categorically responds to locally available resources and traditions and address survival issues at grass root level. Vernacular architecture tends to evolve over a period of time that reflects the traditional, climatic, cultural and historical aspects which exists in context of the place. The island of Majuli breathes its traditional response through its unique and indigenous ways since a long period of time. This study observes the socio-cultural, economic and ethnic traditions of the people of river island of Majuli. The paper further does an extensive case study of the dominant Mising, Deuri and SonowalKachari tribes – their various survival strategies in terms of adaptation of built forms, local construction technologies adopted using of locally available resources and sustaining all climatic and natural adversities.

Keywords– Adaptations, History, Sustainability, Traditional Architecture.

I. INTRODUCING MAJULI

Majuli, world's largest inhabited river islands, is located in the middle reach of the mighty Brahmaputra River in Assam, India. The island extends in a length of about 80 km along the East-West and about 10 to 15 km along North-South. Majuli had been a cluster of 15 large and a greater number of small islands with a total area of about 875 sq.km. (See Figure 1). The geographical region of Majuli is in the North-East state of Assam. Majuli Island is a riverine delta, a unique geographical occurrence and a result of the dynamics of vast river system. There are several river tributaries and they usually bring flashy floods and heavy load of clayey sediments every year. North and the South banks of the river Brahmaputra have the wetlands, locally known as the Beels. They are the habitat of rich flora and fauna. The island of Majuli today comprises of a total of 243 small and large villages. There are a total of 30 Satras (Vaishnavites institutional centers) in Majuli many of which are in the mainland with a distinct spiritual influence in the entire region. Each Satra represents a centre for socio cultural as well as economic activities and even acts as a democratic institution to settle local disputes.

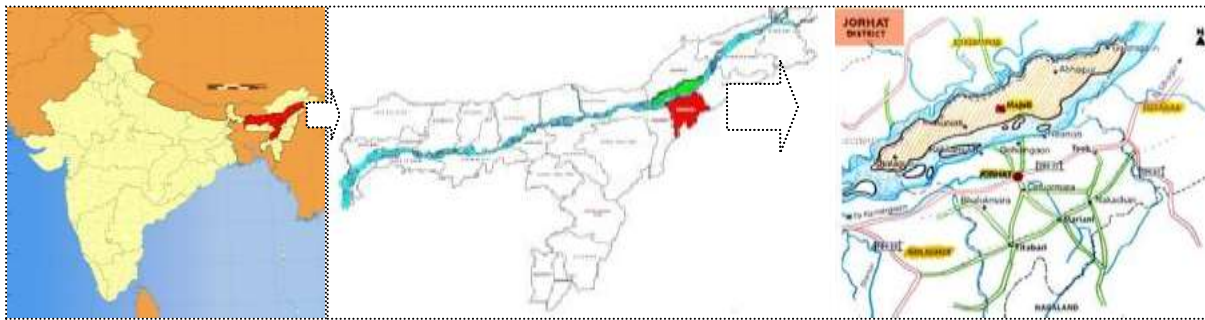
Figure 1 – View of Majuli Island, Assam.



Source – Google image

The traditional tribes settled in Majuli are Misings, Deuris, SonowalKacharis and the non-tribal communities includes Koch, Kalitas, Ahoms, Chutiyas, Keots, Yogis, and Kaivarttas etc. All the settlements have their own identity in terms of their habitats and built forms. The Mising and Deuri community has probably the most unique house form - bamboo stilts adopted for riverine tracts and counter the wetlands and along other hydrological features. All these settlements are scattered in the exceptional natural landscape with wide range of land types and water bodies (See Figure 2). The understanding and response to the natural systems by the local people is complete and exhibited in the local nomenclature of each natural component which has evolved over a period of time.

Figure 2 – Geographical location of Majuli, Assam.



Source – NATMO

Recurring major floods over the centuries have changed the morphology of Majuli. Coupled with these, several great earthquakes like those of 1897 and 1950 have brought Majuli to its present situation. Present day Majuli consists of one major island, the mainland Majuli, and nearly twenty fragmented isles most of which are thinly inhabited. Majuli represents abundance of culture, offers vernacular diversity and is symbolic of stunning panorama of arts and crafts (See Figure 3). The unique image of identity has been typical of the traditional communities of Majuli. The indigenous architectural style of Majuli responds to the regional climate, blends with the topography; vibrates with the cultural trends and is an outcome of its lifestyle and allied parameters of communities living there for ages. These illustrative narratives speak the language of skilled craftsmanship, appreciation of culture, respect to local materials and methods of the building science. Traditional or Vernacular architecture is defined as something which originates as *'Architecture without Architects'* (Rudofsky) where structures are built by amateurs without any training in design and construction. Emergence of a local signature statement is evolved through the buildings considering the local construction techniques, local labour and tools, local building materials and existing

Figure 3 – A common river boat, flora and fauna & traditional stilt houses – first glimpses of Majuli.



climate of the region (See Figure 4).

Source – Google images and primary studies.

Objectives

The study was initiated to understand the settlement pattern, the traditional ways of acclimatization and document this unique vernacular identity of the three main local tribes of the island - the Misings, Deuris and Sonowal Kacharis. The study is hence sequenced as –

- I. **Understanding** the typical characters of existing socio cultural identity of the tribes of Majuli which gives them their unique way of identity and portrays stories of their survival.
- II. **Documenting** the notable built forms that the locals of the island adopted as means of their survival which in the run became the portals of their identity.
- III. **Analyzing** the forms, features, concepts, construction techniques, use of local building materials, tools and technologies that facilitates their survival in the process.
- IV. **Discussing** the way each components of vernacular architecture can be a lethal weapon of acclimatization in adverse conditions and ensure survival of mankind.

II. METHODOLOGIES

The study was broadly divided in three phases –

- **Phase I** was to understand the existing fabric in terms of existence, evolution and uniqueness of the place.

- **Phase II** was focused on adaptation in terms of built forms, the typologies and their impact.
- **Phase III** being amalgamation of both and to look into the uniqueness of vernacular architecture of the place.

Figure 4 – Understanding Majuli – place people and architecture.



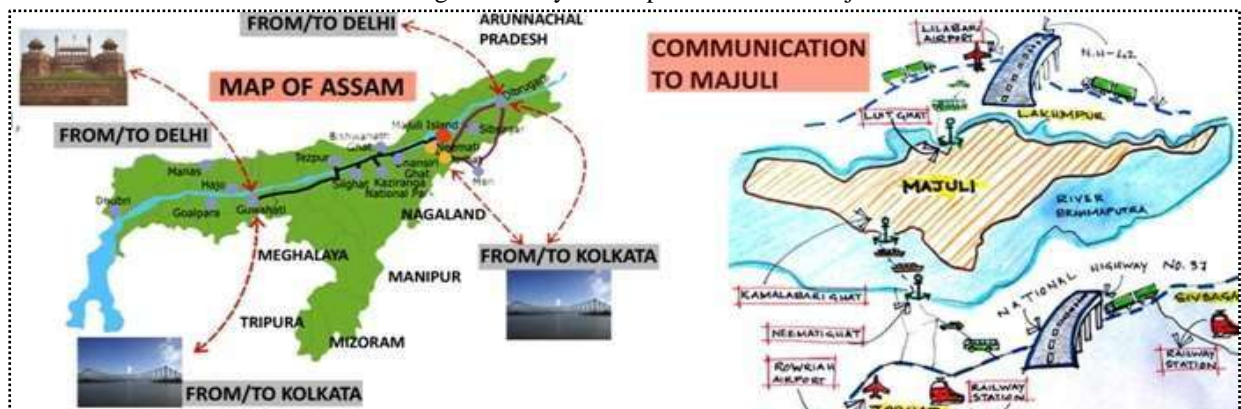
Source – Majorly primary studies and few secondary sources (Google images).

Transit points

The river island Majuli is well connected with the air, rail, road transport and river transit systems (See Figure 5) with the rest of the country-

- **Nearest airport** - Jorhat airport at Raoriah on the south and Lilabari airport at North Lakhimpur in the north.
- **Nearest railway stations** - Moriani, Jorhat and NorthLakhimpur.
- **Road transport:** ASTC depot at Jorhat, North Lakhimpur and public bus-stand at SonariChapari.
- **Ferry transport:** Neematighat is the river port from where one can reach Majuli by ferry boats sail toKamalabari&Dakhimpat in Majuli Island and takes 1 to 2 hours of sailing to cross theriver.

Figure 5 –Key transit points to reach Majuli.



Source – NATMO & Primary studies – sketches.

Climatic conditions

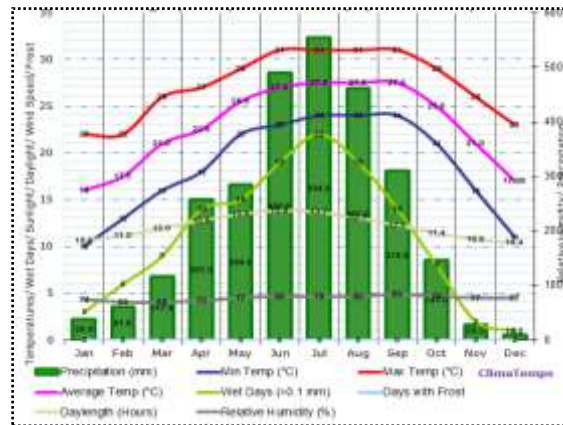
Majuli enjoys sub-tropical warm and humid climate. Summer Months are usually hot with high relative humidity. Rain fall is very high (See Figure 6).

- **Summer:**From March to July and is warm and humid. Temperature goes up to 34°C with 90 %

RH.

- **Monsoon:** From July till August, after which the post-monsoon season follows on the months of September and October. Average rainfall is around 15cm.
- **Winter:** From November till February. Temperature ranges between 7°C to 18°C with a RH of 75%.

Figure 6 – Climatic data – Majuli.



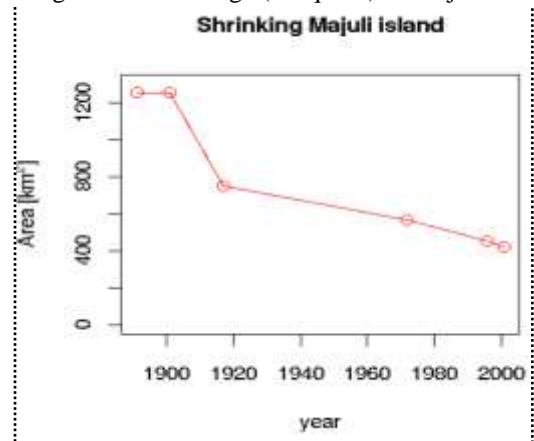
Source – Climatempgraph

Impacts of Local Conditions

The traditional built forms of Majuli is influenced by local conditions –

- **Erosion** - Gradual shrinkage of land area due to severe river bankerosion (See Figure 7). *Change in mode of survival strategies is a message that comes from the island.*
- **Flood** - Due to flood people started relying on boat as a mode of transportation during monsoon (See Figure 8). *Boat making from wooden logs and bamboo has become a cottage industry.*
- **Wild animal** - Houses were built in stilts for protecting from wild animals and flood. *Stilt houses are signature architectural statement of Majuli.*
- **Soil** - Soil is full of silt; land is fertile for agriculture and also suitable for pottery making. *Cottage industries are resultants of local soil conditions.*

Figure 7 – Shrinkage (in sq.km.) of Majuli.



Source – Google image

Figure 8 – Images illustrating soil erosion, frequent flood, wild animals and farming in Majuli.



Source – Primary studies – sketches.

Professions in the process

- **Agriculture** -Majuli has fertile land and suitable climatic condition for agriculture. It is the most

widespread occupation. The agriculture products are also commercialized and exported.

- **Fishing** - There are more than 60 large beels (water bodies) used for fish cultivation and production. This provides livelihood to a large number of inhabitants and also generates substantial revenue (See Figure 9).

Figure 9 – Population engaged in Agricultural & Pisciculture practices in Majuli (in %).



Source – Primary studies

- **Clay Products** -The river side earth available is most ideal for clay products. Majuli is famous for potteries and the products in entire valley are known for their design and quality (See Figure 10).
- **Boat making** - Being a flood prone, rain fed and water logged area - water transport is the only mode to commute. Boat making is an age old profession here and around 3000 families are dependent on this trade.

Figure 10 – Population engaged in making potteries & boats in Majuli (in %).



Source – Primary studies

- **Handicrafts** – Availability of Bamboo and bamboo canes assures that bamboo craft and cane works are practiced in Majuli (See Figure 11). Cane furniture's are exported from here.
- **Handloom**–Women are expert weavers and weave their own cloths. Mising women weave a world famous fabric called 'Mirizim' that is known for striking designs and pleasant colour combination.
- **Horticulture** - Majuli has fertile land and has indigenous cultivation and climate for horticulture. It is also known as an area of the economic development, yet mostly non-commercial.
- **Sericulture**: Approximately 20 villages in Majuli are entirely dependent on Sericulture by-product of raw silk, erhi (local silk used as winter garment) as well as other value added products.
- **Mask Making**: The popular art work of mask making is also one of the craft works of the people during the time of religious festivals.

Figure 11 – Population engaged in handicraft and handloom industry in Majuli (in %).



Source – Primary studies

III. EVOLUTION OF MAJULI

The germination and generation of development of traditional architecture of Majuli revolves around -

- I. Adaptation of local tribes
- II. Social strata and evolution
- III. Traditions of Vaishnavites

I. Adaptation of local tribes

The dwellers of Majuli are mostly of tribal folk. These ethnic tribes are the Misings, the Deuris and the SonowalKacharis who migrated to Majuli centuries ago. They settled and adapted in their own distinct ways -

- **The Misings** - The Mising tribe of Assam is concentrated mainly on the northern banks of river Brahmaputra. They are believed to be of Mongoloid origin who has settled along the banks of the river Brahmaputra mainly in upper Assam (See Figure 12). They belong to greater Tani community which comprises many tribes of Arunachal Pradesh. The Misings are the mixture of East Asian as well as the South-east Asian sub race of Mongoloid Race.

Figure 12 – Mising tribe - their origin and dance form.



Source – Google images and primary studies.

- **The Deuris** - The Deuris are religious and were originally from priest and worshipper community and depended mostly on agriculture for their livelihood (See Figure 13). They migrated from a place called 'Sadiya' which is located at present Tinsukia District of upper Assam.

Figure 13 – Deuri couple - their origin and dance form.



Source – Google images and primary studies.

- **The SonowalKacharis** -The SonowalKacharis are amongst the royal dynasties and are scattered in the districts of Sibsagar, Jorhat, Golaghat and in states of Nagaland and Arunachal Pradesh (See Figure 14). During the reign of Ahom king some of the Kacharis were engaged in gold washing of the river sand. Hence, they were called the Sonowal or the goldwasher.

Figure 14 – SonowalKachari tribe - their origin and dance form.



Source – Google images and primary studies.

II. Social Strata and evolution

Majuli is historically rich. It has been the mainstay of Assamese civilization for the past five hundred years. The Satras set up preserve antiques like weapons, utensils, jewelers and other items of cultural significance. Pottery is made in Majuli from crushed clay and burnt in driftwood fired kilns. The handloom craft works here are also internationally famous (See Figure 15). Influenced by the religious and cultural patronage of various Satras, virtually every single person on the island is involved in the three-day long raas festival, depicting the life of Lord Krishna. People from all over Assam come to celebrate this festival including a large number of expatriate members of community. The Satras are also encouraging certain art and craft traditions - NatunSamuguriSatra I sknownfor mask-making and the KamalabariSatra the finest boat makers still.

Figure 15 – Sketches of traditional arts and crafts of Majuli.



Source – Primary studies – sketches.

III. Traditions of Vaishnavites

Five hundred years ago, the Hindu saint SrimantaSankaradevaintroduced Vaishnavism in Majuli. It is a form of Hinduism that emphasizes the use of prayer, dance and ritualistic performances to attain eternal peace. Majuli became the leading centre for Vaishnavism with the establishment of Monasteries (See Figure 16). There are monks to run the socio-religious institutions which eventually dictated unique ways of development of unique art, culture, andarchitecture.

Figure 16 – Vaishnavism and its influence on built forms.



Source – Google images

I. Case Study: Mising Tribe Hut

Stilt Bamboo Hut of the Mising Tribe—The Misings constitutes 44% of the total population of Majuli and they are the most important and dominant tribal community of Majuli. They build their traditional vernacular houses by using locally available wood, bamboo, cane, reed, thatch etc (See Figure 17). Misings are extension of Burmese Mongoloid origin, they believed in staying in stilt houses.

Salient architectural features of a typical Mising house -

- Entry to the house is from eastside.
- Bedroom and sleeping spaces are in the Northside (See figure 18).
- Double height front porticogenerally used for grinding &handloom related activities.
- Stilt platform is 5 to 7 feet high in order to accommodate handloom and pig stay underit.
- The animals living under the stilt floor also getsa warmer living space.
- Living spaces are huge - a big hall with centrally placed open kitchen for a large joint family. Places around the fireplace acts as a family interactive space. The fireplace keeps the house warm during winter.
- The houses have perforated flooring for ventilation from the bottom.
- Traditional granary on the raisedplatform which acts as storage for food and pulses (See Figure 19).
- The stilts also provide protection from wild animals especially from elephants as it’s believed that they do not attack houses built on stilts and therefore doesn’t destroy thegranaries.
- The grains in raised platforms also get protected from moisture, flood,insects, and rodents.

Figure 17 – Mising Tribe house – raised stilts showing granary, duckary and pig stay.



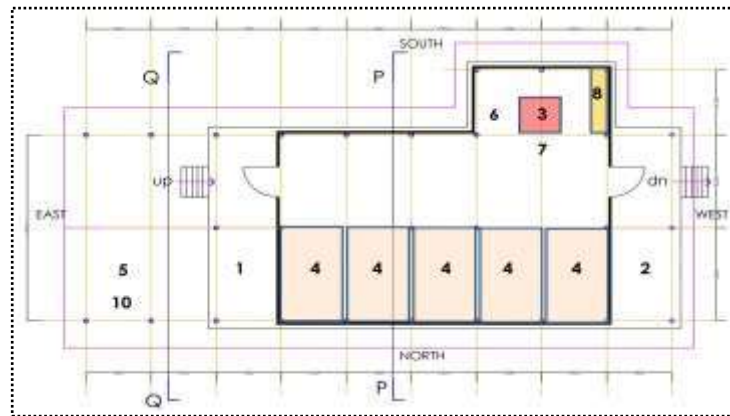
Source – Primary studies.

Analysis: Planning and construction techniques -

Legend -

1. Frontverandah
2. Backverandah
3. Fireplace
4. Sleepingspace
5. Courtyard for grinding
6. Space for Head of family
7. Guest sitting place
8. Store
9. Pigstay under stilt floor (below 4, 6 & 7)
10. Handloomspace

Figure 18 – Typical plan of a Mising stilt house.



Source – Primary study

Figure 19 – Spaces in Mising house.

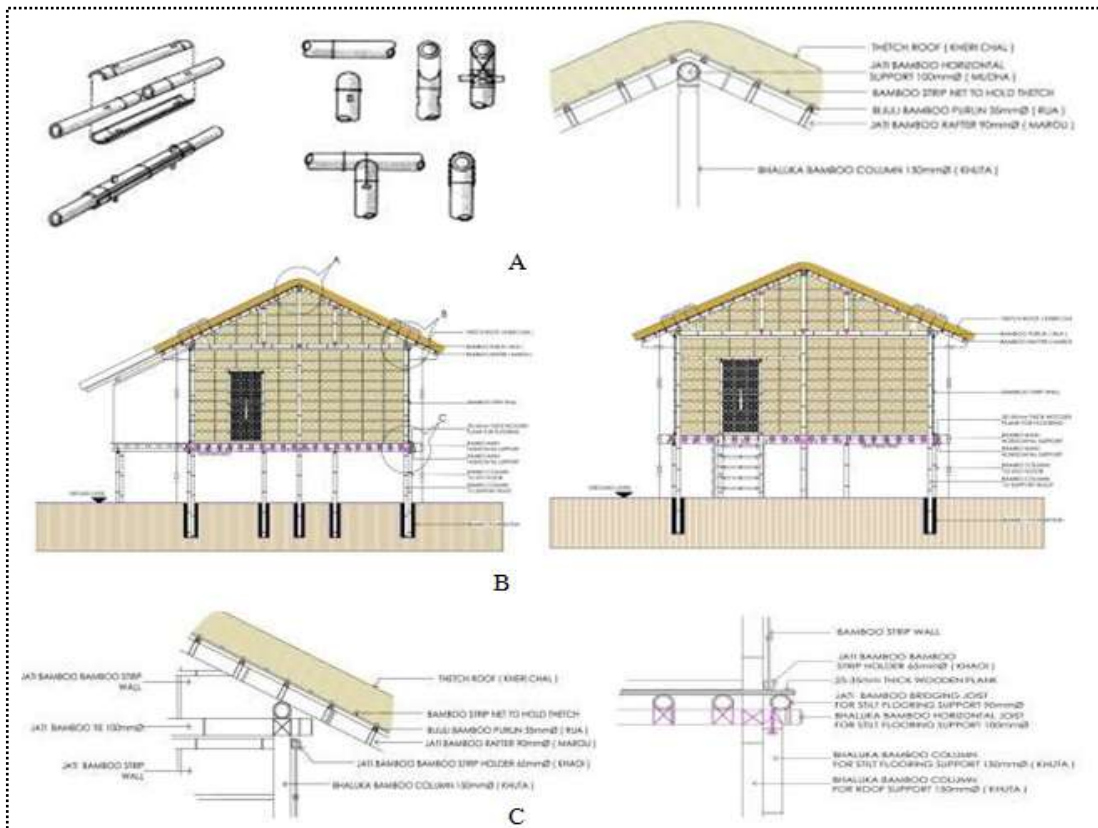


Source – Primary studies.

Salient structural features of a typical Mising house -

- **Foundation:** Bamboo columns are inserted underground up to a depth of 1000mm.
- **Column:** Separate bamboo column for flooring and roofing.
- **Flooring:** Wooden flooring over bamboo stilt platform.
- **Wall:** Bamboo split wall without plastering.
- **Roof:** Thatch roofing over bamboo truss (See Figure 20).

Figure 20 – (A) Bamboo joint details; (B) Sections PP & QQ; and (C) Structural Details.



Source – Google images and primary studies.

II. Case Study:Deuri Tribe Hut

Stilt bamboo Chang Ghar of Deuritribe–The Deuri tribe constitute 31% of the total population of Majuli. The Deuri people build their traditional houses by using wood, bamboo, cane, reed, thatch etc. (See Figure 21). They believe in staying in Chang Ghar (raised platform hutment).

Figure 21 – Typical Deuri Tribe House – Pig stay &duckary under stilt, perforated floor and detached toilet.



Source – Primary studies.

Salient architectural features typical Deuri house –

- Entry to the house is from eastside.
- Bedroom and sleeping spaces are in the northside.
- They enjoy their drinks in the cantilevered portion of the entrance verandah (See Figure 22).
- They also built their houses on stilts which includes a big hall with a central kitchen for a large family. Area surrounding the fireplace acts as family interactive space. The fire place keeps the house warm

during winter.

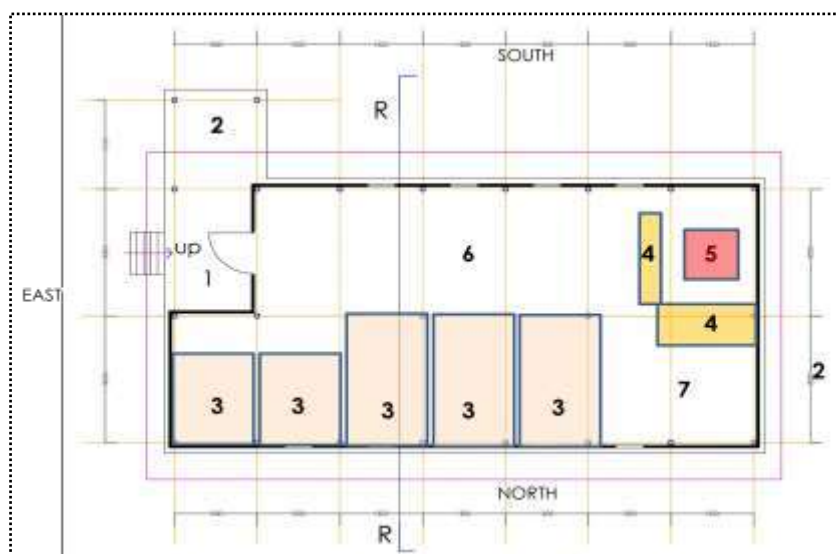
- The lower part of the house is used as an enclosure for the animals.
- The animals living under the stilt floor also gets a warmer living space.
- The floor is perforated for better ventilation and they used it to pass the unnecessary victuals to the animals.
- Deuri people cook special meals in Dudepati- an attached chand and dine sitting around the fireplace.
- A raised platform remains enclosed to the house for cleaning.
- Apart from the main building, a traditional granary is also built on raised platform next to main building.
- The grains in raised platforms are hence protected from moisture, flood, insects and rodents.

Analysis: Planning and construction techniques -

Legend -

1. Verandah
2. Drinking platform
3. Sleeping space
4. Sitting for elders
5. Kitchen & fireplace
6. Hall
7. Store
8. Handloom space in entrance courtyard in front of 1 & 2.
9. Pig stay under the stilt floor (below 3, 6 & 7)

Figure 22 – Typical plan of a Deuri Chang Ghar.

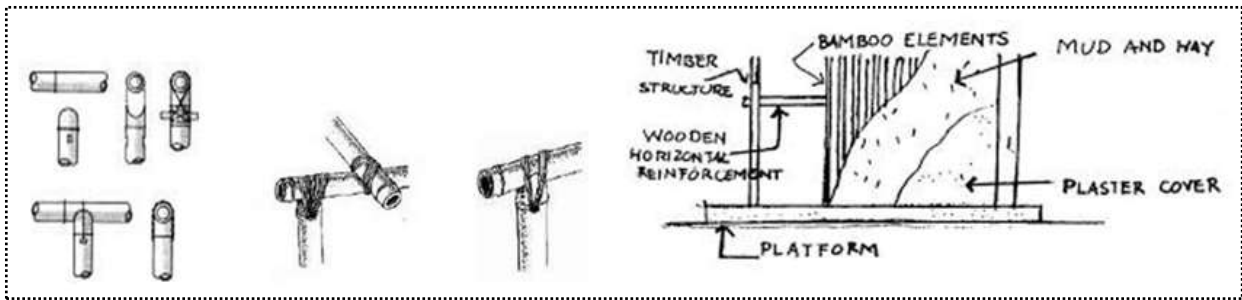


Source – Primary study.

Salient structural features of a typical Deuri house -

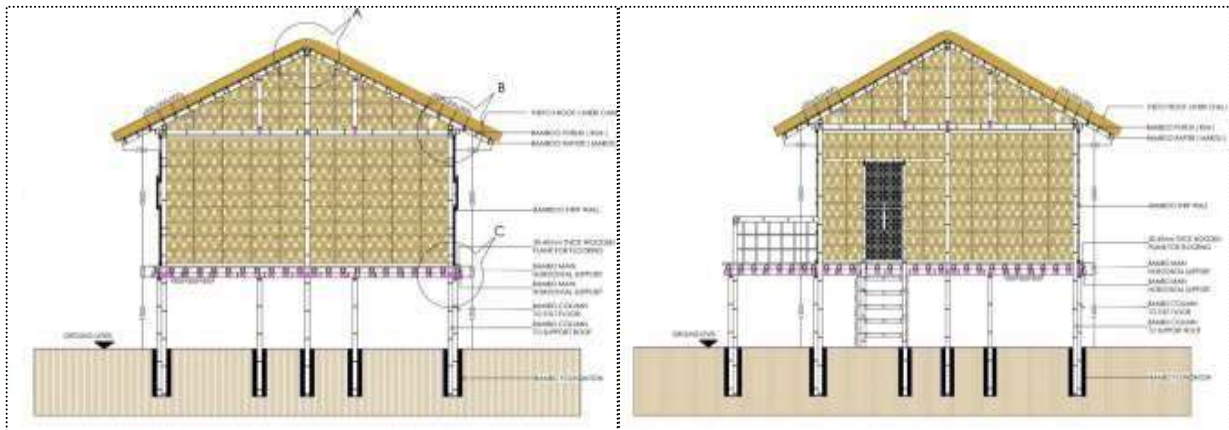
- **Foundation:** Bamboo columns are inserted underground up to a depth of 1000mm.
- **Column:** Separate bamboo column for flooring and roofing.
- **Flooring:** Wooden flooring over bamboo stilt platform.
- **Wall:** Bamboo split wall without plastering (See Figure 23).
- **Roof:** Thatch roofing over bamboo truss (See Figure 24).

Figure 23 – Bamboo joint details and door detail of a Deuri Chang Ghar.



Source – Primary studies

Figure 24 – Sections RR of a Deuri Chang Ghar.



Source – Primary studies

III. Case Study: Sonowal Kachari House

Sonowal Kachari House – The Sonowal Kachari constitutes 18% of the total population of Majuli and is another major tribal community. Sonowal Kachari tribe also has the practice of making houses on raised plinth by using wood, bamboo, cane, reed, thatch etc like the Misings and Deuris (See Figure 25).

Figure 25 – Typical Sonowal Kachari house – on stilts, weaving area in front, granary, fish catcher and duckery.



Source – Primary studies.

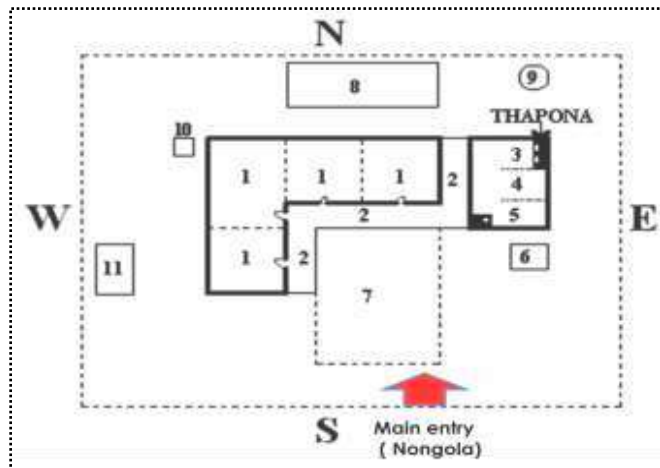
Salient architectural features of a typical Sonowal Kachari house -

- Entry from Southern side.
- The interior space has partitions for sleeping and has a wide verandah to enter to the different rooms.
- Kitchen is generally detached from the main house but connected by a corridor.
- A prayer room - 'Thapana' is a place where prayer is done which is made of clay raised above from the floor.
- The kitchen area is the most sacred place of the house.
- Walls are constructed with bamboo mesh within a bamboo frame structure.

- The walls are then plastered with cow dung and mudplasters on both the sides.
- Like the Deuris, the Sonowals also have granaries on raised platform.
- Separate cowshed, poultry shed, ring well and pond (See Figure 26).
- They have a courtyard in front of their houses for all kinds of social activities.

Analysis: Planning and construction techniques-

Figure 26 – Typical plan of a SonowalKachari House.



Legend –

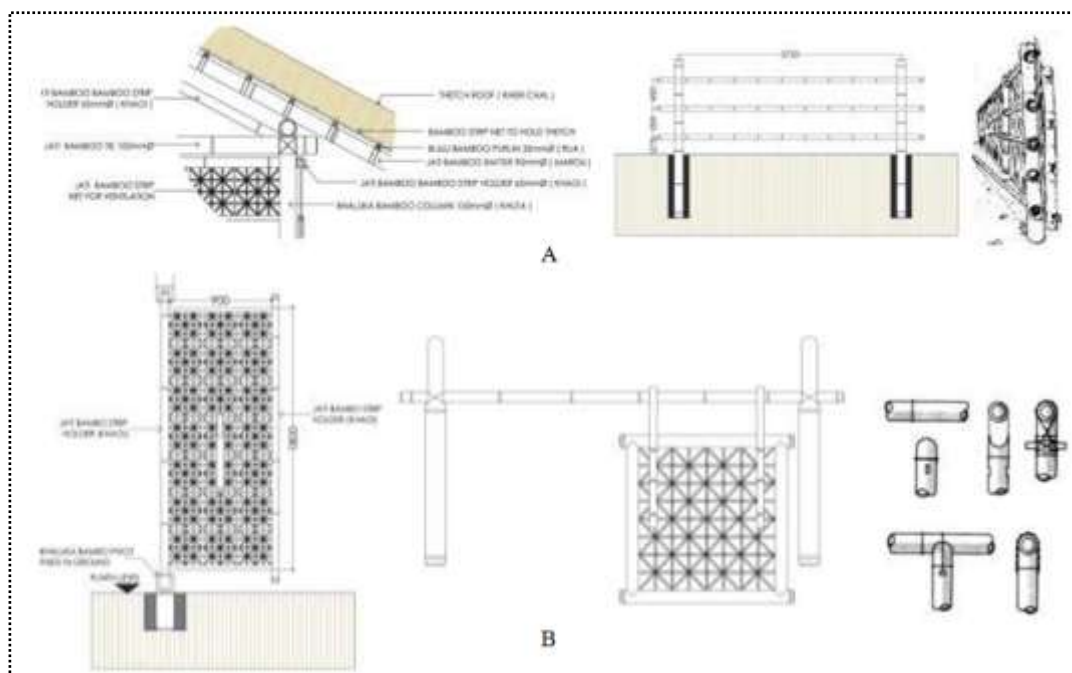
1. Bed space
2. Corridor
3. Prayer room
4. Diningspace
5. Fireplace
6. Granary
7. Courtyard
8. Pond
9. Well
10. Poultry
11. Cowshed

Source – Primary study.

Salient structural features of a typical SonowalKachari house -

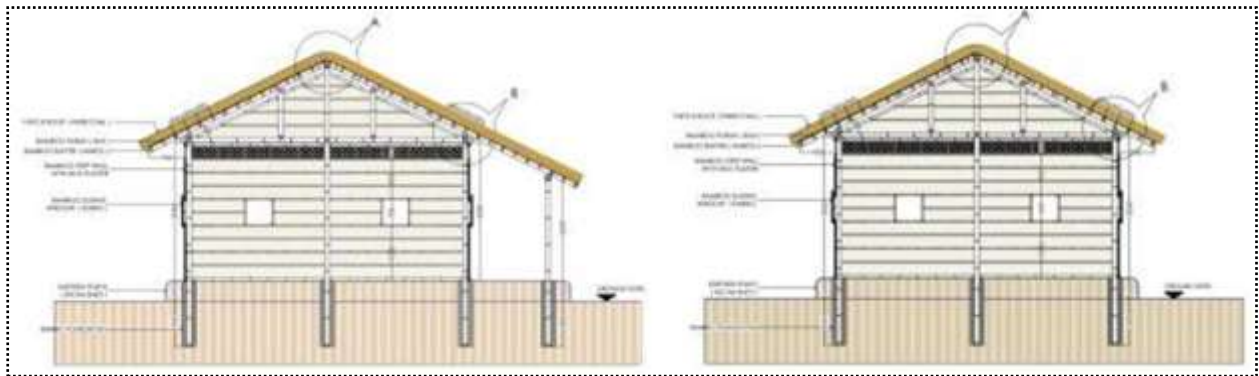
- **Foundation:** Bamboo columns are inserted underground up to a depth of 1000mm (See Figure 27).
- **Column:** Bamboo column for supporting roof.
- **Flooring:** Earth flooring over raised plinth.
- **Wall:** Bamboo mesh walls with cow dung & mud plastering (See Figure 28).
- **Roof:** Thatch roofing over bamboo truss.

Figure 27 A & B – Details of entrance gate, door, sliding window and typical bamboo joints.



Source – Google images and primary studies.

Figure 28 – Sections of a SonowalKachari House in Majuli.



Source – Primary studies.

Other construction techniques –(See Figure 29)

Figure 29 – Structural arrangements with bamboo - fence, mesh, protection and roof.



Source – Google images and primary studies.

Construction Materials

Locally available materials like bamboo, straw, clay, cane, thatch mostly out of coconut leaves, wood (See Figure 30) are the abundantly available building materials.

Figure 30 – Bamboo, straw, clay, thatch, wood.



Source – Google images and primary studies.

- **Bamboo** – It is the most common building material that is used for building construction. Bamboo has high tensile strength and is highly ductile (earthquake-proof) in nature. It is cost effective, sustainable, readily available, workable and easily/partially replaceable. Bamboo is used for column, beam, flooring, wall, and roof frame.
- **Straw**- It is the baled up dead plant stems of a grain crop, once the seed head has been harvested from the plant. It has virtually all its seed heads removed, and contains no leaves or flowers. It is a lifeless material, with an analogous chemical composition of wood. Straw is used as an energy efficient roof covering materials. It is one of the easily available local materials and requires no skilled labour.
- **Clay** – It is a mixture of water, cow dung, and mud. It is most commonly used as plastering materials in vernacular architecture. It is easily available, cheap, and workable. It is used as a plastering material for bamboo mesh walls and as floor finishing material. Mud mixed with cow-dung has anti-termite properties.

- **Thatch** - Thatching is the technique of roofing with dry vegetation such as straw, water reed, sedge, rushes, or heather, layering on the roof frame so as to shed water away from the roof. It is a very old roofing method and has been used extensively in Majuli.
- **Wood** - It is one of the most commonly used materials as a part of the vernacular architecture. From flooring to roof truss, beam and columns, timber is used in many parts of house as an alternative to bamboo.
- **Objects** - Various types of knives are used for cutting purposes, each having its own individual utility (See Figure 31). The khonta is used for digging purposes and ropes for tying purposes. Hammers are used for beating or breaking the timber or bamboo to create desired joinery.

S
Figure 31 – Local objects and tools used in construction.



Inferences and key findings -

- The three case studies are indicative of unique traditional applications suited for these settings.
- The construction techniques are refined over the time.
- The built forms over the years are backed by traditionally evolved scientific techniques.
- The tribal houses are responsive to adaptation and flexibility.
- The construction methods are naturally protective from natural forces, wild animals etc.
- The houses were combination of skilled bamboo works, carpentry and wood carving.

Understandings from structural components

- **Roofing** - The roof form prevalent in all the three studies was the pitched roof sloping on two sides with gables at each end. The bulk of the load is taken by rafters in the slope while roofs ridge takes some load in these roofs. These roofs are further covered by cladding with materials like thatch and reed. Pitched roofs have large projection and overhangs in order to protect the walls from the adverse effect of the climate.
- **Floors** - It was found that for the ground floor, the upper layer of the soil is removed and filled with more stable materials and then compacted. The floors were mostly plastered with a mixture of cow dung and clay. Compact earth is commonly used for flooring in Sonowal Kachari house while wooden planks over bamboo frame work were preferred for flooring in Mising and Deuri houses.
- **Walls** - Bamboo mesh mended in bamboo posts and frames were seen in all the three studies. Distinct use of mud and clay was seen as cladding material for all the walls and structural components of the house. Vertical loads are transferred from the roof through the columns taking it to the ground. The height of the buildings are not more than one storey with a stilt of 5 to 7 feet approximately.
- **Light and Ventilation** - Proportional openings are the main source of lighting in these tribal houses. Ventilation was seen through the ridge vent. It was found ineffective and was very popular in all the three studies. Jaalis just below the roof are used for the provision of ventilation and lighting.

V. CONCLUDING DISCUSSIONS

Vernacular architecture of Majuli is not only an Indian style of traditional architecture but also a gesture of cross-boundary and multi-cultural architectural styles of south-east Asia. The studies carried of the three ethnic tribes – the Misings, the Deuris and the Sonowal Kacharis highlight the uniqueness of traditional adaptation of appropriate building technology through sustainable planning. The holistic amalgamation of society with locally available construction materials, labour, technology, and climate goes on to prove the sustainable aspects that exist in the rural architecture in this part of the world.

The wet tropical environments of both Majuli and north-east India create a typical architectural style. The traditional architecture of Majuli has characteristics of open lay-out system of various spaces; significance of the rectangular and L-shaped layout; sloping roofs and protruding eaves as response to tropical rain,

wind and other natural elements; grilled windows and porous walls as response to tropical sun glare and humidity are integral part of Majuli's tribal houses. Building of houses on stilts as response to overcome flood and wild animals is a rational approach towards safety and security. The observation evolved from the detailed study of tribal houses in Majuli brings forth - selection of site depending on the economic criteria and climatic suitability. They are reflective of their culture, selection of building materials, use of local tools and technology. Their uniqueness also lay in exhibiting human anthropometry in construction i.e., correlating with units of measurements in foot sizes, span of fingers and thumbs. The extensive use of a typical bamboo in all parts of the building like building frame work bamboo mesh, bamboo roofing and bamboo flooring in case of stilted houses is unique.

It was also observed that a steady modernization was happening in the settlement but modernization without a sense of adjustment to changes is creating a threat leading to gradual decline of settlements. There should be changes with a conscious respect to regional architecture that have given a language of identity to Majuli. To conclude, Majuli is enriched with numerous attractive and diverse resources, which is spread over different areas of the island. Given its physical isolation, the pure and pristine environment and limited exposure to outer culture, the island holds to its uniqueness and serenity which is one of its own. This retention of original fabric and its existence amidst all adversities is narrative of its ability to adapt - each of the three studies tells traditional tales recounting innumerable stories of sustenance in the journey.

REFERENCES

1. Cooper, I and Dawson, B (1998). Traditional Buildings of India.
2. Rudofsky, B (1964). Architecture without Architect.
3. Dhote, K.K., Onkara, P and Das, Santanu (2012). Identifying the Sustainable Practices from the Vernacular Architecture of Tribes of Central India,.
4. Khandekar, Y.S., Rahate, O.P., Gawande, A.B., Sirsilla, K.A and Govindani, S.M (2017). Vernacular architecture in India.
5. Mabel, T and Chaos, Y (2015). Vernacular architecture as an important manifestation of culture.
6. Singh, M.K., Mahapatra, S and Atreya, S. K (2009). Bioclimatism and Vernacular Architecture of North-East India. Building & Environment.
7. Singh, M.K., Mahapatra, S and Atreya, S. K (2007). Development of Bio-climatic zones in North-East India. Energy & Buildings.
8. Barman, A., Roy, M and Dasgupta, A (2020). Vernacular architecture of Majuli, Assam - meaning, model and metaphor in integrating the environmental, socio- economic and cultural realms.
9. Vernacular houses typology And its respond to the earthquake, Case study: Duku ulu Village, Bengkulu, School of Architecture, Planning, and Policy development, BIT, Indonesia.
10. Sasidharan, P (2005). Vernacular Architecture - Changing Paradigms: A Case Study of Agraharams in Palakkad.
11. <https://en.wikipedia.org/wiki/Majuli>
12. <https://www.lostwithpurpose.com/majuli/>
13. <https://www.incredibleindia.org/>
14. <https://timesofindia.com/trav>
15. <https://www.india.com/travel/majuli/>
16. <http://www.climateps.com>
17. <https://travelandleisureindia.in>
18. <http://www.natmo.gov.in/>