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Collaboration and Separation in Architecture

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***Abstract*: The term "collaboration" comes from the word "work" and "with" and allude to share work, effort and interests and activity by a group of community, who individually contribute to the efficiency of the entire project. And "separation" comes from the word separate, which means separating two and more place or things. With the world growing at a rapid rate, India is also forwarded with new techniques in all the field and tradition and culture lose their local distinctiveness. This paper tells us about how to bring back the concept of traditional techniques in India the way initially it was through context and deriving architectural inference by various case study, books study and literature review done.**

***Keywords*: Traditional technique, modern architecture, separation, collaboration.**

1. Introduction

Folk = Local = Tradition

Tradition is defined as a process of interpretation, adaptation, and negotiation with the given conditions and is transmitted over generations over generations to meet the needs and challenges of time.

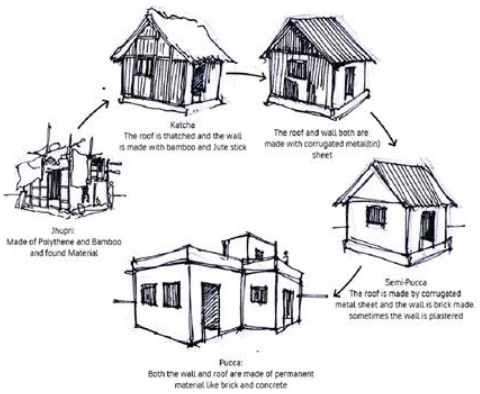

Fig. 1. Traditional houses of India

Traditional architecture is term used to categories methods of construction which use locally available resources and traditions to address local needs. Traditional architecture, also defined as "architecture without architects". It tends to evolve over time to reflect the environmental, cultural and historical context in which it exists. It is evolutionary form of architecture which grow and alters itself with the changing needs of the society. The builders of these structures are unschooled in formal architectural design and their work reflects the rich diversity of India`s climate, locally available building materials, and the intricate variation in local social custom and craftsmanship. It has often been dismissed as crude and unrefined, but also has proponents who highlight its importance in current design. It is continues to be associated with the past and is often stigmatized as an image of poverty and backwardness, it is conveniently replace for the want of more progressive, modern building. Although this kind of architecture still holds interest of architects and scholars of anthropology and sociology, it is rapidly losing its relevance to the community that is house. It has been widely typified as something out dated and not progressive. Traditional architecture may be defined as culmination of a creativity process of interpretation of building tradition, skills, and experience, which is strongly influenced by factors such as environmental conditions, material resources, social structure, belief systems, behavior patterns, social and cultural practices, and economic condition of area.

In traditional architecture, the conception of space begin with a single cell shelter. This is irrespective of the form and the material which may vary from one context to another.

Rapid development and economic and political globalization have made culture and tradition less 'place routed' and 'knowledge-based'. The importance of the tradition have a crucial role to play in the creation of future modern built. Modern architects have realized the significance of the simpler, Ecological principals incorporated in traditional Architecture and trying to adapt in modern in some form. We find something new and different in today's architectural phenomena. It's the form of attempt to revoking traditions and vernacular into the modern era. With introduction to modern technologies and materials people are trying to adhere to some principles from Vernacular Architecture.

2. Characteristics

Recognition of traditional architecture as part of culture heritage has increased worldwide over the years. There is a lot of interest in the conservation and protection of traditional architecture, but it is not possible to protect these exposed and delicate constructions without an understanding of the qualities that highlight our culture heritage. Traditional architecture is understood as how the community responds to its cultural, physical and economic environments.

Some local architecture features: local labour, craftsmanship,

local materials, application of non-professional knowledge based on experience, culture and the ability to adapt to environmental change. Traditional architecture refers to the meaning of artistic creativity of forms and volume seizing a space authentically. It refers to the sincerity of being what it is, without trying to represent something it is not.

Traditional architecture is broadly divided into three categories:

- Kachha architecture
- Pukka architecture
- Semi pukka architecture.

1) Kachha architecture

Those manufactured from short-time materials - mud, sticks, grass are defined as kachha. Kachha architecture is actually the local language, using some modified content from its immediate environment. This house is usually built by a family member and neighbours following the tradition of the village.

Fig. 2. Traditional kachha houses of India

2) Pukka architecture

In this architecture used more tenacious materials like stone or wood worked, burnt brick, lime plaster etc. Houses have required more manpower to build and it's expensive too.

Fig. 3. Traditional pukka houses of India

3) Semi pukka architecture

It is a combination of Kachha and Pukka architecture. The wall of this architectural house is made of pukka material and the roof is made of Kachha material.

Fig. 4. Traditional semi pukka houses of India

3. Traditional building material

India's diverse geographical and cultural diversity has resulted in a myriad expressions of traditional architecture based on climate and locally available material. The content was selected locally based on availability, and function.

Types of material used for construction:

1. Mud
2. Brick and terracotta
3. Stone
4. Bamboo
5. Timber

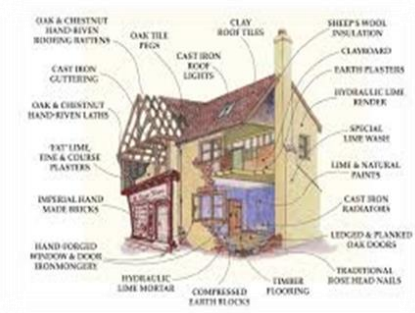

Fig. 5. Traditional houses material of India

A. Traditional construction technique

Pertaining to the construction technique, it is very vital and beneficial to the study of traditional architecture techniques of the India as these present an exact picture of how local folks have been able to counter the inclemency of weather through architecture.

1) Types of construction techniques

Kath-Khuni technique:

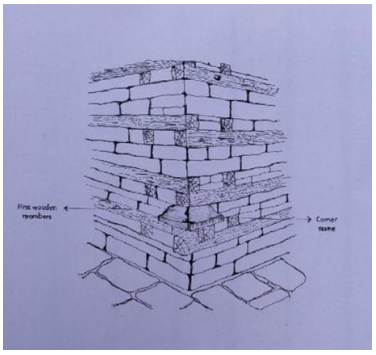

Fig. 6. Kath-Khuni technique

Construction usually involves laying out the course whose outer layer includes random debris masonry and wood, after a course of random debris rotates there is a course of wood (only the outer course), which is interlocked by dovetail random intermediate joints, place to catch wooden members in. The cavity of every outer course of the stone is filled with small stones within the wall.

Cob technique: First and simple and almost certainly the oldest system of soil building is called "cob". Cob has been used since prehistoric times. It uses sand, clay and straw. Large lumps of hard sludge are roughly molded into the shape of giant long eggs. (30-40cm long and about 15cm in diameter).

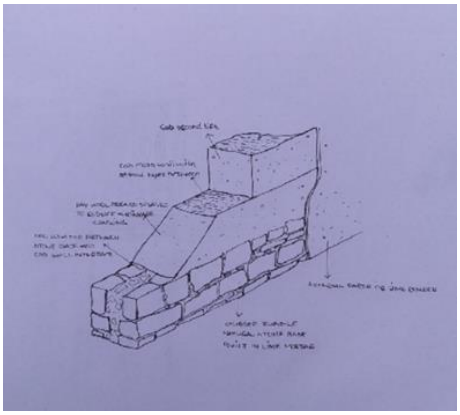

Fig. 7. Cob technique.

Straw Bale system: Straw-bale formation is a building method that uses lumps of straw (usually wheat, rice, rye and oat straw) as structural elements, construction insulation, or both.

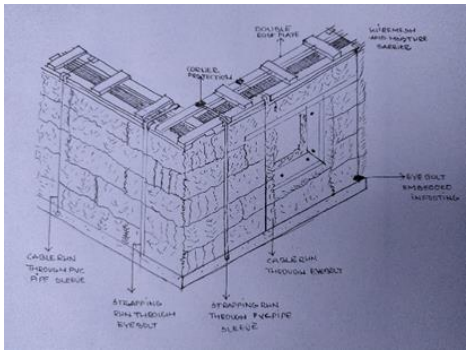

Fig. 8. Straw bale system

Rammed earth construction: In this technique the two parallel boards are firmly held apart. The vertical clay is thrown between these two planks and pressed with either a wood or metal ram stick. When a section becomes complete and difficult, both boards are moved and the process is repeated until the plan is complete.

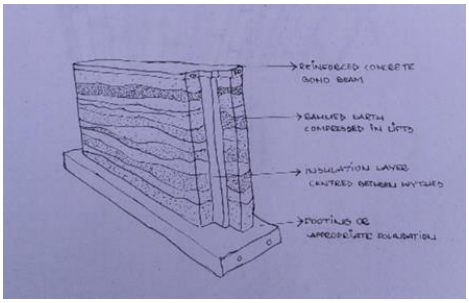

Fig. 9. Rammed earth construction

Wattle and daub: Wattle and daub is a construction material used to create walls, in which a woven mesh of wooden strips called wattle is usually daubed with a sticky material made of wet clay, clay, sand, animal dung and some combination of straw.

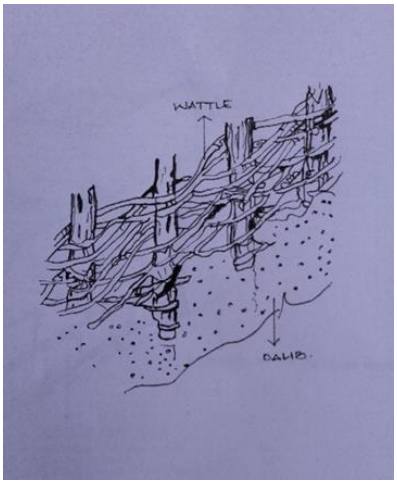

Fig. 10. Wattle and daub

All this traditional material and techniques are combined with modern architecture to create a new typology.

4. Separation of spaces in traditional architecture

With introduction to modern technologies and materials people are trying to adhere to some principles from vernacular Architecture. Traditional housing is naturally sustainable in design and is responsive to the region's climate, culture and socio-economic conditions. Housing spaces are divided according to climatic conditions and the spaces are separated according to requirement over time. First of all, there is only simple rectangular form in which all family members, including animals, live together. After they start separate room kitchen, courtyard etc. spaces like man and women

The following criteria must be observed for the typical dwelling of the different climatic zones which is:

- The site planned according to the existing flora and fauna to create an environment that respects the ecology of the site.
- Traditional planning was opposed to a huge

construction, rather a complex building interspersed with open spaces all contained with a boundary wall.

- A typical dwelling unit is square or rectangular in shape
- The dwelling are cost effective as they are constructed by local village craftsman using locally available material.
- The design of the habitat should be in sync with the way of life, religious beliefs, and custom pf its inhabitants and optimal use of spaces should be propagated.
- The houses are constructed using the traditional knowledge system by the community itself.
- The street is the most important community spaces in the traditional town. Otlas are the semiprivate spaces open out to the street where the people interact with the neighbors.

5. Conclusion

Each passing day is changing the face of our environment with high levels of globalization and development. The changing climatic conditions as well as the lack of natural resources have brought the issues of sustainability to the forefront. The urban environment in our cities is derogatory at alarming rates. Cities in the developing world are constantly reducing issues of poverty, overpopulation, lack of infrastructure, health care and infrastructure shortages, while developed world cities are facing problems of declining industrial centers, depopulation, economic and economic and economic development. Social degeneration. With a combination of traditional architecture and modern architecture we can introduce new typology and solve environmental and climate issues. Because of the introduction of traditional techniques, we should be able to understand that good architecture is always in sync with the environment in which it is placed and take care of anthropology, social, and psychological needs.

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