



Architects, Communities and Traditions: Empowering Communities with the engagement of Architects with Indigenous traditions

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ABSTRACT: All architecture is the incarnation of cultural norms. The cultural norms of a community are the outcomes of the people's needs of that time, hence the buildings that emerge from these indigenous traditions are a way of living. Indigenous architecture therefore is the appropriate use of the local material, the local technology and for the local people. It tends to evolve over time to reflect the environment, culture and historical context in which it exists. Bernard Rudofsky in his book *Architecture without Architects*, for the first time labelled this kind of architecture as vernacular, spontaneous, rural or indigenous architecture. The book explores the primitive and communal architecture of the non-western countries in their functionality and artistic richness, highlighting that communal architecture embodies ageless art and is an amalgamation of human intelligence and necessity mixed with creativity (Rudofsky, 1964). Hence vernacular architecture refers to those buildings made by communal builders in an informal way rather than by architects using formal design methodologies. In the beginning of the 19th century with the rise of industrialisation and modernisation, architecture rose from being an expression of local traditions to a necessity of function. As the use of standardised materials like concrete and steel increased along with rapid industrialisation and mass production, architecture became rudimentary. A shift of architects from creator to facilitator was seen with the involvement of architects with the vernacular. A need for community based architecture came to light with the rival of vernacular traditions. Indigenous traditions were incorporated to bring back the humaneness of architecture which required a tight understanding between the architect, the builder and the user.

KEYWORDS: Archigram, Plug-in City, Metabolism-Japan, Temporary Urban Living, Capsule living, Nakagin Capsule Tower

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I. Khamir-Kutch, Architect Neelkanth Chhaya and Hunnarshala Foundation

An Amalgamation of Techniques

Neelkanth Chhaya collaborated with the Hunnarshala foundation after the 2001 earthquake in Gujarat to create an oasis for the rich crafts and artisan culture of the people of Kutch. Craft in Kutch means self reliance as Kutch is a centre of natural extremities. There are various artisan and traditional communities like the Meghwals-weavers, Khattris-block printers, Sonis- silversmiths and lohars among many others that live and work there (Matter, 2019).

The idea behind the construction of Khamir was to build a structure in the fragile ecology of Kutch that respects the familiar spatial environment for the engagement of skill and workmanship. The design by the architect was a way such that it had pause points for informal exchanges and a clustered building organization which were similar to the native bhunga houses organisation. This made the space familiar to the way of living, congregating and working for the community. This resulted in higher participation of craftsmen and artisans which empowered them by not only giving economic opportunities but also building a social connect.



Image 1. The Khamir Resource Craft Centre-Kutch View showing the intermingled ecology and structure

Using local materials and appropriate construction techniques the architect successfully involved the community in the building the centre. The indigenous technique of using mud walls was used as the community already had, had an experience of living and making thick rammed earth houses-Bunga- in their local villages. The rammed earth walls on the plinth had layers that merged into the landscape. Using mud made the interiors cool and absorbed the sound of tools while working.

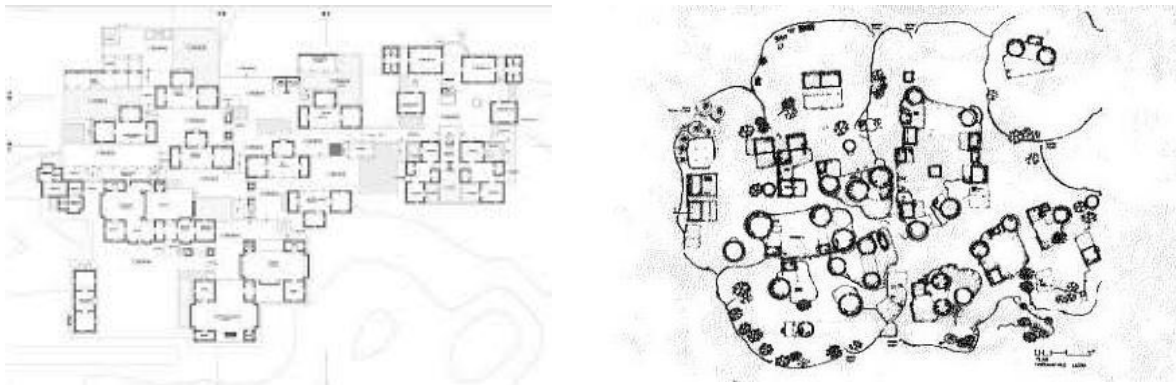


Image 2. (Left) Bhunga village organisation-kutch, (Right) Khamir Organisation-Kutch Both plans depicts the similarity in organisation, scattered blocks suitable climatically

The built up spaces are mainly a cultural construct where the architect is employed to strengthen an identity that the people of Kutch, he has amalgamated modern techniques to indigenous traditions. The upper story was made with slender steel columns with Wattle and daub panel infills above the robust mud walls. Wattle was made by the community with the available wood, reed and vines in the area and daub was made with the clay and dung of Kutch. These unconventional gestures of amalgamating styles, by the architect has provided for a built up environment having utilitarian spaces that does not romanticize the village and are yet acceptable by the native communities.



**Image 3. Wall construction Khamir- Kutch
Infill of wattle and Daub panel by local
community
in steel framework**



**Image 4. Earth construction Khamir- Kutch
Local residents participating in native earth
construction**

The details of the project like the double layer Mangalore tiles, plinths as ‘otlas’ and intermediate informal spaces moderate the indigenous poetics of the overall built environment. They enhance what is already known by the community. Khamir therefore can be considered as a centre where the architect empowered the community socially by their involvement in construction, economically by providing a utilitarian space for native crafts and physiologically by responding to the values, tradition and identity intrinsic to the context (Matter, 2019). Khamir enhances what is already known through the indigenous traditions by the community to create contemporary yet pragmatic architecture.

II. Aranya Housing-Indore, Architect BV Doshi

The Kit of Parts

In 1989, the Vastu Shilpa Foundation was entrusted with the task of preparing a master plan with innovative options to develop a township in Aranya. Its main objectives were to create a new township with a sense of continuity with the existing settlement patterns by providing a good living environment. (Serageldin, 1997, p 105) The Aranya Housing Project was for the EWS group of the society and was based on a participatory approach. The planners and architects had planned the whole scheme from the financial to the structural level and created a kit of parts. This kit had detailed drawing of each segment from which the residents could choose and construct their houses. 80 Model brick houses or prototypes of one, two and three stories were built for demonstration showing various layouts. This acquainted Aranya’s residents with the techniques, building systems, materials and structures.



Image 5. Aranya Housing- Indore View of the 80 model houses by the architect

The options of core housing for the EWS included: site, plinth and service-core (latrine and water tap); site, plinth and service-core (latrine and bath); site, plinth and service-core (latrine and bath) and one room (kitchen) (Serageldin,1997, p 106).Community involvement during the construction process was done as parts of the building were placed with monthly installments. To enhance the quality of space, the architect had left a 0.5 meter gap between the street and house allowing for expansion. Architectural elements like Porches, platforms, balconies could be incorporated in this area encouraging and strengthening social ties and empowerment. Most of the houses were given a back access point for animals, vehicles or that part could also be rented out to provide economic empowerment.

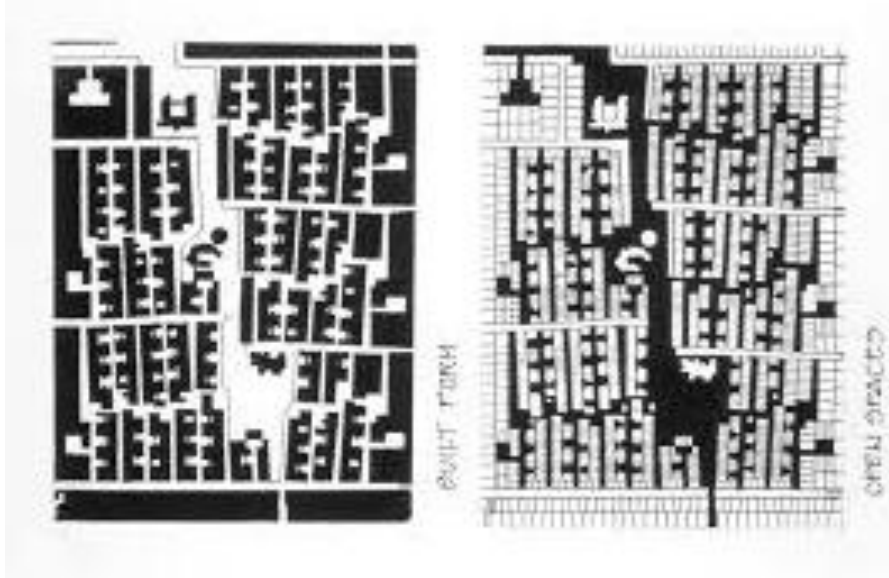


Image 6. Planning of Aranya Housing- Indore (Left) Built form, (Right)Open spaces; Depicting equal importance for open spaces for community involvement

Doshi kept in mind the importance of neighbourhood for the people and therefore kept no physical wall demarcating the entry and exits, extending families far and beyond. Public life could seep into the living space. For Doshi, designing homes required thinking of the spare time he residents had. Clusters of 10 houses were formed at the planning level that opened in a street. The backside of each house were like courtyards, open space for play and service areas.



Image 7. Incremental Aranya Housing- Indore (Top) Incrementation as per the need of family and availability of money(Bottom) Resident participation in the making, choosing from the kit of parts available



Image 8. Aranya Housing- Indore Open spaces with wide street allowing interaction between residents as well as scope for further addition to built form

Together they formed the central spine. Other intersecting streets and open spaces allowed the families to interact as one community. The architect's efforts to use the design process to help build a sense of community between the different cultural, ethnic and religious groups can be seen as a step of social empowerment. As a sense of community was encouraged by the informality of the different planning levels from masterplan to house and to individual land use, by the cooperation of the neighbours needed while building shared facilities and by the presence of the shared otta between them.

The project, being a case of incremental housing has seen evolution through generation. Over time people build according to what they could afford and the needs of the families. The never ending evolution of a project was way beyond the architects vision as well.

Aranya housing project shows the involvement of architects and planners in a way that reflects the architecture of empowerment to the community as it gives the poor the opportunity to shape their own houses-destinies. It also encourages social bonds by making the community share physical, cultural and contextual parameters. Thus celebrates the life of common people. This participatory project clearly demonstrates being a community development process based on local economy public inputs where the architect is not the sole shaper of the built environment.

“To my surprise, the work of enabling people to create the space they occupy has proven to have a more significant effect on that space and the relations between residents than direct design.” - Ewa Kipta (Serageldin,1997, p 76)

III. METI School-Rudrapur, Architect Anna Heringer

The Material Under Foot

Anna Heringer believes that the most sustainable strategy for sustainable development is to cherish and use your very own resources and techniques and not depend on external factors(TED, 2017). The METI School, in Rudrapur Bangladesh was built by Anna and two NGO's Shanti and Dipshika funded the construction of this unique building. For the School, Anna used sustainable material like mud that is right under the feet and bamboo that grows abundantly in the area. The community participated in the process of construction, as there was no electricity in those remote villages and human energy became essential. Moreover, communities in these areas are usually content to get work. For construction tools Anna used the water buffaloes of the community, who mixed the straw, mud and water. The METI school is made of large load bearing walls that ground the structure and a bamboo structure for the first floor that brings lightness to the structure.



Image 9. METI School- Bangladesh Front Elevation depicting material usage

Programmatically the school was designed in such a way that it has classrooms on the ground floor attached to which are the caves that became a space for reading, solo working and relaxing for the children. It was seen that when the villagers saw, the structure was built with ordinary mud and the local bamboo and using their own hands they were given an enormous boost in trust and self as well as in the community. For the long standing of the mud walls there had to be breakers on the walls that could be either made of stone straw or bamboo that was similar to trees protecting from soil erosion. And if not needed these earth walls can go back to

where they came from. Working together with the architects empowered the community education as well. This was seen as the community by themselves had to replace the whole roof structure of bamboo because the first one was attacked by beetles. Communities pass these know-hows of construction from generation to generations. This further helps in the easy maintenance of the project by the local community itself.

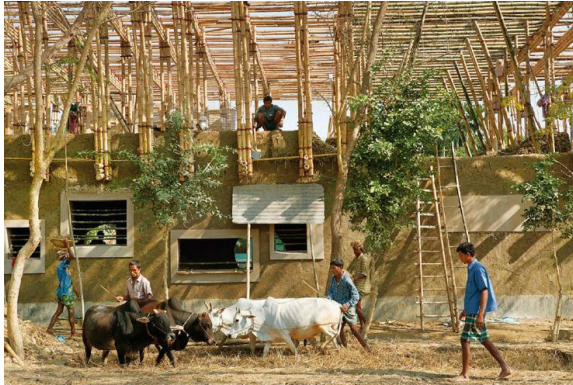


Image 10. Construction of METI School- Bangladesh (Left) Human Energy being the only tool of construction (Right) Local residents participation in full excitement

Anna physically lived on site and spent time with the workers. The main budget for the METI school was spent on craftsmanship which provided economic stability. The school was not just a building but rather was a catalyst for local community development with community engagement. If the structure was made in steel and cement the money would have gone to the urban manufacturing thereby companies not allowing the economical empowerment for the village. The whole money is rotated in that community; it becomes economically sustainable and the community gets the profit.

Anna focuses on how it is important to realise that all over the earth mud had always been one of the indigenous techniques of construction. Mud being an inclusive material allows for people of all kinds and ages to be a part of the construction process. Anna's work explore and use architecture as a medium to strengthen cultural and individual confidence to support local community economies and to foster ecological balance. (Anna Heringer, n.d)



Image 11. Mud as the primary material for METI School- Bangladesh Mud as the primary material that involves community participation, easy maintainance and construction

The METI school was a project that surely empowered the community as it is made in their place with their material and for their climate thereby making it unique. The project is created out of the vulnerability of mud as a material but at the same time empowers mud as a material as well. Mud is healthy for people, healthy for the planet and creates jobs for the local community and hence is healthy for the society as well.

IV. CONCLUSION

Involvement of architects with the community and indigenous traditions can be seen as a way of empowering both as seen in the case studies discussed above. Architects and planners now have to discard their conventional role of being the sole shaper of the built environment and the sole judge of appropriate developments and aesthetics. Projects where professionals and community are both involved crealy benefit both the parties in their own ways which sometimes appears to be very direct and sometimes not so direct. All the case studies are different in the ways in which the architect and the community were involved in the construction of the buildings. While the community in case of METI School built the whole structure with their hands, in case of Aranya they were the cause for the growth of the project. Similarly the architect's role becomes invaluable in

all these cases. In METI School where the architect is either living with the community, in Khamir he is using indigenous materials and techniques of construction while in case of Aranya Housing the architect is guiding the building process not giving direct design contributions. Yet all of them empower the community socially, economically or psychologically sometimes very directly and sometimes in a little indirect or long term manner.

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