

AUGMENTING INHABITABLE AND CONGENIAL RURAL COMMUNITY SPACES

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Abstract - Urban community, the majestic edifices in the urban areas, the picturesque skylines, aren't these the terms that fascinate everyone? Designers play a paramount role in shaping a locale. Designers can make the utmost utilization of this opportunity and create inhabitable and congenial rural community spaces. The paper showcases the proposal of an Anganwadi (a rural community space), focusing on the design which is based on the concept of direct and indirect experience of nature, which ultimately benefits the user group. It also elucidates a few low-cost construction techniques which would benefit the other party as well.

Key Words: rural community, aanganwadi, nature, low cost construction

1.INTRODUCTION

Rural community spaces: Topographically, an area that is situated outside towns and cities is coined as a rural locale. The rural community spaces are the buildings purposive to be multi-purpose areas that act as a pedestal for rural men and women to run income-generated activities and to mingle for community pursuits. Primary health care, bank, library, and Anganwadi are a few of the paramount centers which are crucial for the feasibility and amelioration of the state of a rural community

Anganwadi: In English, Anganwadi could be called "courtyard shelter". This is a rural child care center. The notion was initiated by the Indian government in 1975 as part of the "Integrated Child development services". The motto of the program was to battle child hunger and malnutrition. The other activities which are included in Anganwadi are non-formal preschool education, nutrition, and health education, immunization, and health check-up. Anganwadi ensures basic education, nutrition, and ensuring health awareness in rural India. This government-sponsored childcare runs in India at the village level.

2. What initiative can be taken by the Architects to succor the rural community spaces?

Firstly, it's time to scrutinize the finances involved in the project, and the probability of adopting alternate systems for the construction of community buildings. And secondly,

Frank Lloyd Wright, renowned American architect, and educator had quoted – "Study nature, love nature, stay close to nature. It will never fail you" Hence, Biophilic design can be the savior. An imperative need in times like these.

3. Proposal design of Aanganwadi

Concept: The design is gleaned from biophilic design and low-cost construction. Low-cost construction is important in community spaces as the techniques make construction more economical, the energy consumption, and be beneficial in the long run. Biophilia is not just a philosophy—biophilic design supports cognitive function, physical health, and psychological well-being. Biophilic design must be incorporated in maximum spaces to encourage the connection between humans and nature, as well as promote staff wellness and productivity.

The standards mentioned by Mahatma Gandhi national rural employment guarantee act (Mahatma Gandhi NREGA 2005) are a pucca building, to serve the objective of preschool, semi-formal public health units, to create durable assets in the rural areas, and improve infrastructure the village level. Design specifications as indicated by the ministry of women and child development are that the design must be children-friendly, a separate kitchen must be provided, children friendly washrooms.

These are the basic specifications that must be incorporated by the designer, adding the concepts of low-cost construction and biophilic design would certainly enhance the peculiarity of the space ultimately benefiting the user group.

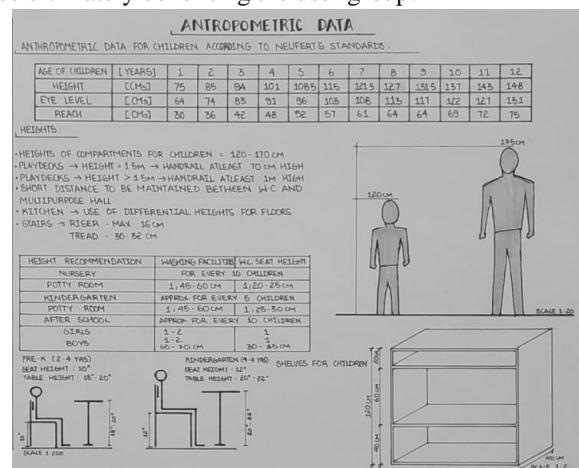


Figure 1: Picture depicting anthropometric data

Measuring the dimensions and capabilities of the human body allows architects to adapt buildings to fit people rather than requiring people to adapt to buildings.

Design proposal

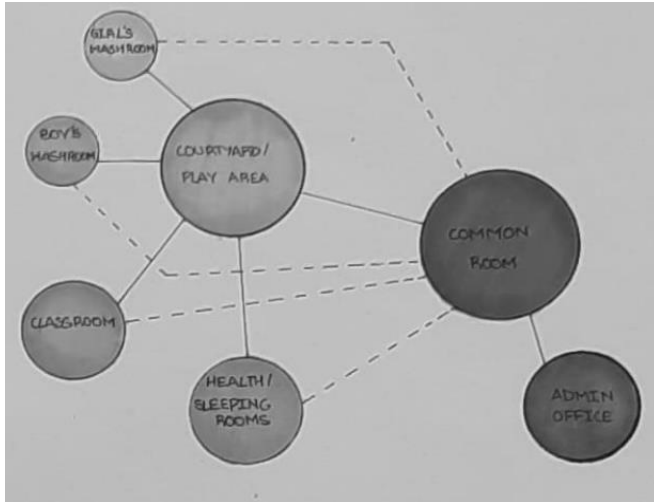


Figure 2: Picture depicting spaces in Anganwadi

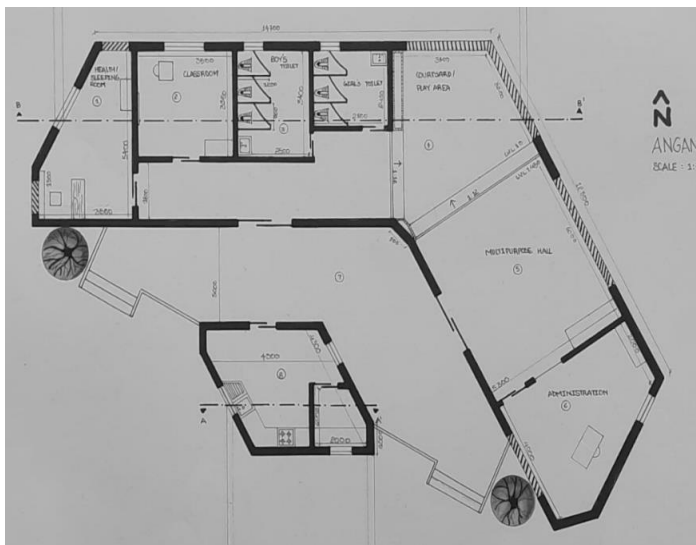


Figure 3: Picture showing the detailed plan of Anganwadi

Planning

Two building blocks are proposed, the smaller one has a kitchen and store. This space can be utilized by Anganwadi workers to store and cook food for the kids and workers. The other building block has (starting from the extreme left), a health/sleeping room, the space utilized for the vaccination of kids, a health check of pregnant ladies, and a sleeping room for kids after teaching hours. Connected to this room is the classroom, to be used for formal teaching. Adjacent to the classroom is the washrooms for boys and girls. All these spaces are connected via a corridor. Moving to the next space which is the courtyard or play area. The play area is two steps below the previous areas mentioned. The play area/ courtyard has jaali work on its walls. The multipurpose hall is connected to the courtyard/ play area. Multi multi-purpose halls can be

utilized for extracurricular activities. The multi multi-purpose hall is further connected to the administration department room, where records can be maintained and the person in charge can sit.

There is a transition space between the two blocks, which is a kind of semi-open space for the kids to sit/ work or play.

Details

Filler slabs are used for cost reduction. Due to the replacement of nonfunctional cement concrete with lighter filler materials, the dead load of the slab is reduced considerably. And this helps in reducing the foundation size, and steel required in structural members. The reduction in weight by as much as 20 to 30%

Rat trap bonds are used as this requires approximately 25% fewer bricks and 40% less mortar than traditional masonry. Reduced material requirement results in considerable cost savings. The strength of the wall is not compromised, it remains the same as traditional masonry walls.

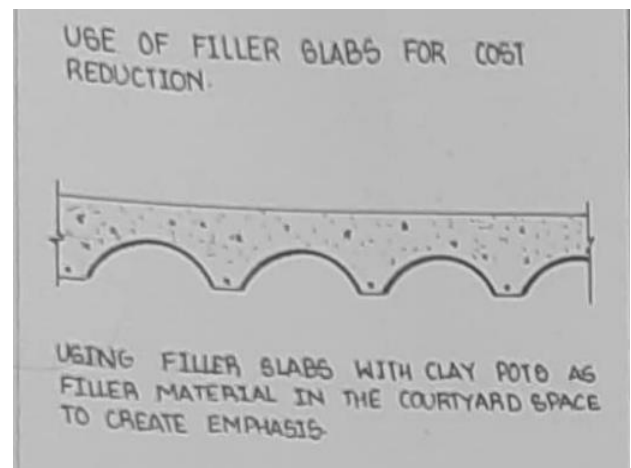


Figure 4: Picture showing the section of filler slab

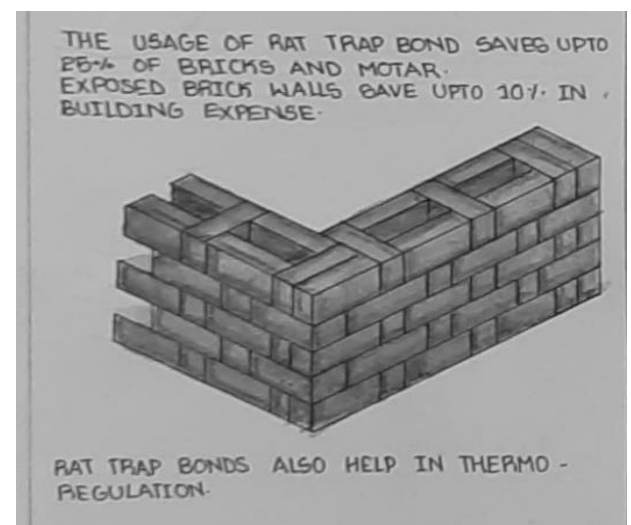


Figure 5: Picture showing the isometric view of rat trap bond

Jaali walls are used to increase ventilation. Also, it fosters the direct experience of nature.



Figure 6: Picture showing Jaali work, a low-cost construction initiative which enhances the direct experience with nature.

CONCLUSION

Incorporating a few basic design changes in rural community spaces can foster positive attributes for the designer and user group. Direct and indirect experience of nature by inculcating Jaali work, plantscape, and transition spaces can enhance the well-being of the user group. Simultaneously, a few low-cost construction techniques like Jaali work, usage of filler slab, and rat trap bond can effectively reduce the cost of the project. Unequivocally, benefitting the people in any possible way.