

Reviving Interactive Environment through Courtyard Culture

Gauri S. Zaveri¹, Rashmin Kour Arora², Garvita Singh Kushwaha³

^{1,2,3}Student, Department of Architecture, SDPS College Of Architecture, Indore, India

Abstract— The term “Courtyard Culture” is the culture that allows a degree of openness and at the same time respects traditional values. Anticipation of such culture allows design to take decisions at current condition by looking into prior and possible future conditions of interaction. This paper focuses on the interaction which can be revived by reviving courtyard culture. In the present study, successful observation of courtyard culture is done demonstrating its cultural, social and climatical affects and how it lays positive impact as an interactive spaces on humans. Also this study concentrates on the change in courtyard culture thereby guiding us to revive courtyards which will cater us in better interactive environment.

Index Terms— Interaction, courtyard culture, courtyards, interactive space.

I. INTRODUCTION

A courtyard is generally an open to sky space usually enclosed by buildings on all four sides, these were known as the source of positive energy and vibrations in the center of house. With time these courtyards changed from clustered to private in nature. Traditional courtyards were designed in accordance with community values (social, cultural, and religious), with the urban design principles which shaped urbanization in harmony with those values. Today the pattern of values which favored communal life and community living has changed to that of greater individualization.

II. INVOLVEMENT

A. Social Involvement

1. The pre-eminent sense of enclosure and privacy of the residents.
2. Usually, all the rooms face the courtyard, creating a direct interaction between them.
3. It functions as the heart of the house, where different activities could take place during the day.
4. Courtyards acts as the main organizer of space with all functions centered towards it.
5. This arrangement encourages family members to use the courtyard as a group leading a better interactive environment.

B. Cultural Involvement

1. More than one courtyard are usually given to separate the public and private spaces within the house.

2. The public courtyard is mainly for the guests and is mainly used by the male
3. The inner court enjoyed by the female members of the house.
4. Courtyard house demonstrates how architecture can be used as a key to create a barrier between genders and also, how gender bias has been pervasive in architecture design too.

C. Religious and Symbolic Involvement

1. The courtyard is both symbolically and religiously significant.
2. Courtyards have been accepted as a secular form in almost all the religions around the globe.
3. The most religious use of the open courtyard is for congregation for religious festivals.
4. Hindu courtyards are known for Tulsi (basil) plant in aangan, which is watered and worshipped whereas Islam considers it for segregation and the importance of house privacy.
5. According to Vastu Shastra, the Brahmasthan is the main centre of any plot.

D. Climatic Involvement

1. Courtyards have been referred for its ability of microclimate modifier.
2. Courtyards are least affected by the annual, seasonal and diurnal weather changes.
3. It has the ability of self-shading and reduces heat gain in courtyard houses.

E. Interactive spaces

Interactive Architecture investigates the unique ways of navigating and occupying space by adopting the time based nature. “Interactive Environments enable people to engage with space not as passive creatures existing in a static set of conditions but as individual’s affecting the space that they inhabit”. They are changeable and thus responsive to transient needs of multitudes. Interactive environments are dynamic in that they behave in response to interactions. The prodigy of living of rapidly growing seeks new design vocabularies for courtyard based spatial adaptations. However, current design of habitable interactive spaces are criticized by many for insensitivity towards traditional “architectural thinking” of spatiality and its conceptual, aesthetic and functional aspects.

For such aspects courtyard could also be contemporarily as an extended dining space and/or entertaining zone with a swimming pool and relaxation sittings. Also it can be used as 'aangan'- place of activity for religious practices and gatherings, encouraging interactive ness, psychological and physical comfort through natural light and ventilation. Interactive spaces generally have

1. Triangulation- external stimulus prompting humans to interact.
2. Enclosure- enclosure from context.
3. A central nucleus- place must have center of interest.
4. Interactive ness and uniqueness- making a place stand out and be legible.

III. OBJECTIVES

The objectives of the study are:

1. Study the parameters that define courtyard culture in architecture
2. Study and analysis the factors which lay positive impact of interactive spaces on humans.
3. Study the change in courtyard typology as we are growing vertically.

IV. METHODOLOGY

To achieve the objectives of the study the Following methodology is proposed:

1. Detailed literature review related to courtyard culture is carried out.
2. Detailed case studies related to courtyard culture and interactive space is carried out.
3. The need and requirement of architectural features (courtyard, interactive spaces) in high rise buildings is studied.
4. Design and interventions will be provided as per the requirement.

V. REASONS FOR CHANGE AND DISAPPEARANCE OF COURTYARD

The reasons for the disappearance of the courtyard house are summarized:

1. The Housing has changed to small plots, making the courtyard space a difficult task.
2. The individualization of rooms has disrupted the life of the entire family.
3. It's difficult to incorporate courtyards on each level/flat because the land development has shifted from horizontal to vertical.
4. The reorientation of the house to the street has created a social need to expose the inhabitants' social status to the wider world. Urban planning regulations have encouraged this effect.

VI. PROVISIONS

A. Atrium Courtyard

Atria, a common feature in ancient dwellings were also broach to the open to sky enclosed spaces. However, nowadays atrium courtyards are roofed and open from one side. The function of both is similar- to allow for natural elements like light, wind to engage with the spaces within. This kind of courtyards can be used as a common courtyard for multiple flats in a building and can be repeated after alternate floors which will allow a couple of flat members to interact and built a healthy environment.

B. Bridge Courtyard

Semi covered bridge courtyards can be catered in a multi storied building between two or more towers in order to have an interaction between the people and also as a transitional place, this may also act a multipurpose activity area where people of every age group may come and interact. Along with this traditional 'otla' systems in courtyard may be evolved to fancy seating so that people may enjoy the feel of the high garden courtyard.

C. Contemporary Courtyard

When you are given small or medium spaces that you can use as courtyard some would even create rooftop gardens just to add a touch of nature to their homes. Having a courtyard is common for homes nowadays. They are also designed with the current modern and contemporary trends like extended dining space or entertaining zone with a swimming pool and relaxation. Such courtyards encourage interactive ness and creates better environment.

VII. CONCLUSION

It may be concluded that, it is not a compulsion to imitate the indigenous system in similar manner as were used in past. The essence of these courtyards system could be used with changing needs of life style, social structure. Instead of being a simple symmetry and the closed form, the traditional house courtyard could become a dynamic, asymmetrical balance of interacting walls and spaces suited for a more contemporary living. As we are growing vertically and interactive ness is becoming low atrium courtyards, bridge courtyards etc... can be introduced in order to maintain the interactions between the multitudes. These interventions may help us, and may be used as cultural transformation and technological advancement thereby encouraging interactive environment through courtyard culture.

REFERENCES

- [1] Revival of indigenous courtyard system in the works of contemporary indian Gaurav Gangwar,Prabhjot Kaur architects .
- [2] Understanding the change in character of courtyard, shuchi mishra.
- [3] A review of courtyard house: history evolution forms, and functions, Fatma Abass, LokmanHakim Ismail and Mohmed Solla.
- [4] Evolution and transformation of courtyards through space and time: a case of indian courtyards, pallavi ajit, srinivas daketi.
- [5] <https://www.world-architects.com/en/amateur-architecture-studio-hangzhou/project/vertical-courtyard-apartments>