Comparative Analysis of Traditional and Modern Courtyards in Bengal

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Abstract
Human settlements are not only built forms, but also a reflection of domestic and regional cultural orientations. The courtyard style is the most ancient and common form of planning on the Indian subcontinent. Indigenous culture and climate demand this open space. Whatever happens in society has a visible impact on courtyards. This research aims to classify the different courtyards and show that, in most contemporary courtyards, basic traits are missing. Showing the modern courtyard concept is more of a shared space than a courtyard is one of the major concerns of this study. Collecting data and information and making a guideline for an ideal courtyard formed the basis of this research. This study gave an output that shows how the impression of the indigenous courtyard, and the social statement has waned gradually from the vernacular settlement to modern housing.

Keywords: Courtyard, domestic psychology, domestic space, spatial heritage, urban life, Bengal Delta settlement

1. Introduction
Human behavior generated diverse forms in its spatial representation, which eventually converted indigenous public spaces like courtyards into an effective workstation (Nilufer, 2004). Since the dawn of human history, climate and culture have played a significant role in shaping human settlements. According to the characteristics and sizes, settlements can be classified into two categories: urban settlements and rural settlements. The growth of the most rural settlements in Bangladesh can be characterized as ‘natural’, and not ‘planned’ (Rashid, 2022a). These were developed without any formal professional planning input. This implies that in most cases settlements evolved here mostly according to possibilities offered and constraints imposed by topography, climate, natural features, and availability of available materials. There has been a continuous development of courtyard-based settlements in the Bengal Delta (Rashid, 2022b) because of this phenomenon. Location, land shape, landscape, type of agriculture, and other factors affect the use of the courtyard. A courtyard is very close to the heart of rural people because it is their first world when they grow up. For a bride in Bengali culture, this is a separate world where they create memories and dreams. Children use this place as their first playground, which introduces them to the real world (Figure 1). From a certain angle, the courtyard is a part of their consecrated intuition. That is why common people are very sensitive about their courtyard and they keep it neat and clean all the time. Many poets, writers, artists, and singers have created a lot of art inspired by courtyard activities. The courtyard reflects

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DOI: https://doi.org/10.4038/bhumi.v11i1.121
Bengali society. Time has changed and modernization has manipulated the social and ethical use of architecture through urbanization. As a result, the courtyard is losing its indigenous style of essence and use.

2. Materials and methods

2.1. Research questions.

a) Which features create the impression of a contextual courtyard?

2.2. The objectives

a) Find out the natural impression of the courtyard through a field survey in a rural context.
b) Domestic psychology about courtyards in Bangladesh.
c) Create comparative scenarios of activities among courtyard-based houses and housing, in both rural and urban areas.

2.3. Methodology

The study took several steps to find out the core of a courtyard. The sampling method helped to figure out the principles at the initial stage. The field survey incorporated 250 people who are living in a contextual courtyard-based house in a rural area. The data collectors are directly from rural contexts and had a great observation of rural settings and they consciously observed the courtyard activities of the selected people while surveying. After collecting all the necessary data, the proper guideline was created to select the elements of an ideal courtyard. In this survey, 70 people were up to 50 years old and were considered as the primary sample to illustrate a perfect image of a contextual courtyard. Because they are the real witness of the rapid alteration of contextual architecture. The research prioritized the rural context because of its authenticity and rationality. The study found the morphological variations of courtyards by collecting secondary data through a desktop survey, and some primary data by online survey. Several versions of courtyards were selected from the survey and the study assessed the information through fieldwork which justified the online survey. Finally, the practical format of a contextual courtyard directed it to a conclusion. The methodology followed some steps, and they are (Figure 2).

![Methodology Flow chart](image)

Figure 2: Methodology Flow chart.

3. Literature review

A lot of empirical research has been done on the vernacular courtyard, modern courtyard, its concept, environmental aspects, architectural features, philosophy, its types, and so on. Most of the research is
very concerned with architecture and the climate. Moreover, the passion of common people and their domestic connection with the courtyard have not been perceived in depth in their research. Most importantly, the courtyard concept is very trendy in the field of modern architecture. Nowadays, this concept has been introduced to the new housing projects in Bangladesh (The Daily Star, 2020). This open space is very aesthetic and effective for the climate. Nevertheless, every concept has a deep meaning and assertion. From the perspective of the Bengal courtyard, the space also has a narration. There are some tangible and intangible features, which are obvious to make the concept meaningful. The question is, how contextual or successful are the modern courtyard-based housings are. There is not a large number of research on it, which can make a comparative narration.

4. History

The origin of traditional Indian courtyards can be traced back to the Indus Valley civilization. Climate and culture have always influenced the construction of different kinds of buildings over the passage of time (Figure 3). Buildings with internal courtyards are considered to be the most appropriate in warm regions. Courtyard architecture originated as far back as 3000 BC in Egypt, Iran, and China (Arvind, 2012). The first courtyard houses, according to historical evidence, appeared to have originated in India probably around 6500-6000 BC (Arvind, 2012). When different cultures are meticulously assessed, it can be understood that the courtyard buildings were an integral part of the Chinese, Japanese, and Spanish societies. However, a typical morphological feature of the Bengali rural homestead is the arrangement of a number of closely spaced single-storied (or occasionally double-storied) one to two-roomed rectangular buildings around a square or rectangular open courtyard (Rashid, 2013).
Figure 6 is an imaginary architectural plan, especially from the township context. All functions are compact and intimated indoors, which contributes less impact on the outdoors and the courtyard. Because the layout is self-sufficient without a courtyard. On the other hand, the layout from Figure 5 depends on the courtyard for its functional placement. Most functions are separate from each other making a courtyard the heart of a homestead. It enhances the possibilities of interaction and creates feasibility (Figure 4).

6. Courtyard as an amphitheater of Bengal society

Courtyards reflect the society of the time and control the character and atmosphere within the house. Courtyards exercise an authoritative or dominating influence over the environment inside the house. Courtyards are generally enclosed spaces surrounded by rooms (enclosure) but are open to the sky (Reynolds, 2002). The introduction of courtyards in houses may have originated for practical reasons, but it has integrated into people’s lives as a way of living. In the Bengal Delta, life is vibrant, colorful, and poetic. As people from different religions and tribes live together, they have a lot of seasonal, cultural, and social solemnity. There is a proverb that is widely familiar among the Hindu community.

‘‘বার মাসে তের পার্বর্গ’’
‘‘Thirteen festivals in twelve months.’’

Metaphorically, it means they have a huge number of festivals to celebrate all year round. Each ritual has a profound impact on a household, especially on the courtyard. They prepare the courtyard for various occasions by using different styles of art forms, for instance, Alpana, colorful paper cutting, making a stage for a performance, wall painting, gate designing, and so on. The courtyard is also reconfigured and rearranged according to the season and the ever-changing nature of life. These social and cultural factors incline the space toward becoming a courtyard.

The marriage ceremony (Figure 7) is one of the most colorful, vibrant, and widely practiced social rituals. People garnish their courtyard for gathering and dining. Constructing a new home (Figure 8) in the village is also a celebration. Neighbour participates in cooking for everyone and helps them with the installation.

About 20 years ago, Lathi Khela (Figure 9) was a very popular form of celebration across the country. The colorful dress, music and its strength made it unique and powerful practice to express the strength of Bengal. The Muharram dining (Figure 10) is also a widely practiced religious form of culture among the Muslim community requires big courtyard.
Figure 10: Performing Beyer Giit (Song of marriage) Source: YouTube (2022)

Figure 11: Poush Shongkranti

Beyer Giit (performing dance and song in marriage ceremony; Figure 11) is one of the most popular cultures across the northern part of Bangladesh and Poush Shongranti (Figure 12) is widely practiced ritual mostly among the Hindu community.

7. Functional aspects, those defines the identity of a courtyard

7.1 Seasonal Food processing

Due to being in the transitional zone between Southwest and Southeast Asia, the Bengal Delta has a lot of commonalities of settlement and other traits of Southeast Asia. A significant character is raised settlements amidst vast green paddy fields (Rashid, 2020). There is a very common maxim in Bengali.

“খ্যাত কইরো উল্লে, খেষি কইরো দূরে”

“Fields have to be made close and relatives have to be made far away”

The maxim anticipates that improvable cornfields should be adjoined to settlements and kinship should be at a distance from home. The first line of the maxim reveals a mystic cohesion between farmland and settlement. The climate of the Bengal delta and the processing of rice demand this spatial arrangement (Figure 13).

Figure 12: Spatial arrangement of land and settlement

Figure 13: Flailing rice, Bangladesh Source: Roy, 1970

Figure 14: Drying up mustard thatch

Figure 15: Relation between cornfield and homestead

The courtyard comprises the whole process after cutting the ripe paddy. This procedure needs intensive sunlight and dry and clean ground. Therefore, farmers make sure of an open courtyard and no big trees at their workplace (Figure 14). Not only rice but also Bangladeshi farmers grow various types of seasonal crops, for instance, wheat, jute, mustard (Figure 15), lentil, vetch, potato, sugarcane, chili, and so on.
However, 73.94% of grown crops are rice and only subsistence for the maximum number of farmers (Banglapedia, 2021). As a result, the courtyard mainly served as their sphere of activities (Figure 16), especially for women. That strictly dominates the behavior of the courtyard.

### 7.2 Germinating the concept of enormity and socialization.

The environment always welcomes babies to explore according to their imaginary world (Figure 17). Human psychology always seeks a free space to give a comfortable shape through their idiosyncrasy (Herrington and Lesmeister, 2006). In the context of Bangladesh, a courtyard-like space is indispensable for the mental growth of children.

![Figure 16: Curious child on courtyard](image)

**Figure 16: Curious child on courtyard**

![Figure 17: Playing in the courtyard](image)

**Figure 17: Playing in the courtyard**

*Source: Junaid, 2021*

A huge number of researchers prescribe spaces that are more natural for children. Unfortunately, in an urban context, more artificial and indoor children's playing zones are being introduced at housing and public functions, like shopping malls, parks, restaurants, schools, and so on. The most alarming thing is people are biased toward unnatural environments. Imagining should be left to the children. There was no discernible relationship between themes created by manufacturers or designers and children’s imaginative play (Herrington and Lesmeister, 2006). Open space gives a child a descend opportunity to be introduced to surroundings, making one more courageous and bolder. In rural areas, a courtyard is always open for others which makes children more social and friendly (Figure 18).

### 7.3 Craft practice

Making art and crafts is a phylogenetic trait of Bengali people, especially women (Figure 19). They love to make art and crafts and ordain themselves and their houses. They highlight the artworks and demonstrate them as their social zest, where the courtyard is used as an exhibition area (Figure 20). Men are also a part of this tradition, for instance making scoop nets, lattices, yarn processing, wooden utensils, and so on. All these courtyard activities are highly related to their subsistence. Instinctually a courtyard becomes an integral part of their existence.

![Figure 18: Women drying up pottery, Dhaka](image)

**Figure 18: Women drying up pottery, Dhaka**

*Source: Perveg, 2009*

![Figure 19: Women busy at Alpana (Design)](image)

**Figure 19: Women busy at Alpana (Design)**

*Source: Mandal, 2020*
• **Cultural activities**

Culture is one of the most powerful factors, which is guiding the evolutionary pattern of households (Rashid, 2013). In the Bengali context, cultural practices are more public and open, where participation is an important issue. Maximum cultural events for instance, *Pala gaan, and Baul gaan* (a traditional form of song) demand a courtyard for public gatherings (Figure 21 & 22). Moreover, having a big courtyard is a matter of prestige in rural areas. Social trial courts are usually performed in big courtyards which also hold landowner’s prestige (Figure 23). That is why maximum wealthy people, foremen, and lairds try to keep their courtyards big and welcoming. This social conviction has instigated the architectonic feature for a long time.

Until now borrowing someone’s courtyard for rice processing or cultural activities like marriage is very common in rural areas.

8. **Domestic perspective**

The courtyard is not just a part of a plan, it is a part of domestic life. In a rural context, the maximum ancillary work of a family is done in the courtyard. Activities and movement in the courtyard are very reiless. The spatial arrangement of functions around a court is an operative reason for the huge activities on it. Village people have to prepare maximum utensils by hand, for instance, food processing, wood processing for cooking, rope twisting, making quilts, and so on. This type of work demands a courtyard-like space. These courtyard activities became a foraging of art for a huge number of artists in Bengal. Joynul Abedin, SM Sultan, and Quamrul Hassan are mostly known for them. A rooted bond has emerged through their artworks. Especially women and their psychoanalyzing bonding with domestic life is a very prominent source of ideas for art in Bengal (Figure 24).

9. **Psychological demonstration:**

The people of Bengal are so passionate about domestic life and homesteads (Figure 25). Art and making handmade equipages are their Phylogenetic quality. They
consider their home as a place where they can invest their love and affection to make it more inhabitable. They love to initiate a new life forever. Being stable at one location is a part of their life. There is a mystic cohesion between Bengali people and homestead, called belonging sense.

Belonging sense refers to love, emotion, attachment, identity, and other psychological sentiments of residence for their own territory and people, such as the position of the courtyard, its size, decorated outlook, etc. A sense of pride and ownership always drives them to be more attached to their homestead. The research on environmental psychology indicates that if there is clear identifiability in the space of a residential environment, the residents will tend to generate a strong sense of identity for the space and realize the mental and psychological attachment relation of them to the residential environment, leading to the formation of a belonging sense to the residential space (Cui and He, 2015). In the same way, this research finds that human behavior, body posture, and dressing choice strongly indicate belongingness with homestead (Figures 26 and 27). In the village areas, works are done all over the courtyard when the center of the courtyard is occupied for social work and celebrations. The tendency to use maximum space for every work, even for seating, is a common trait of belongingness. It indicates comfort and ownership. Figures 26 and 27 are an illustration of the difference of behavior according to belongingness. The hypothesis might vary from person to person according to their lifestyle. However, the degree of comfort is strongly visible in people’s behavior, dress choices, and way of communication in the courtyard.

10. Synthesis

10.1 Figure out the fundamental attributes of a vernacular courtyard by the sampling method:

10.1.1 Analyze the online survey

A set of Questions was made for an online survey through Google Forms. After receiving several responses, an informative summary was done by the AI system and overall fancies about the courtyard arrived.

Most of the participants were students with an average age of 25 who has been staying at their home for approximately 20 years. Ownership is very important for the pattern of activities and 81.5% of participants are the owners of their courtyard.

Common activities: Rice processing, drying clothes, gossiping, playing, and occasionally rituals and festivals. The maximum number of participants spend more than 2 hours in their courtyards and their neighbor visits them occasionally and share the space for entertainment purposes. There is no restriction to entering the courtyard, which means all the public programs and rituals are open to all. The courtyard has more than two public accesses and they are very caring about
their courtyard. Maximum courtyards are unpaved and open.

- **Architectural analysis**

In Bangladesh, housing is classified into four categories according to structure type and the materials used, for instance, Jhuprie, kutcha, semi-pucca, and pucca (Islam, 1990). Regardless of material and construction type, from an architectural perspective, three major types of courtyards are apparent in both rural and township contexts. The alignment is developed on the construction material of ground and cloistering manner. The online survey has been done to presume the impression of courtyards in the Bengal Delta. The maximum participants are from Dhaka, Rangpur, Rajshahi, and Potuakhali. The aggregated output pointed out the integrality of courtyards from three different perspectives.

- Open courtyard (Figure 29)
- Enclosed courtyard (Figure 30)
- Paved courtyard (Figure 31). The survey revealed a statistical pie chart anticipating 76.9% courtyard is open in a certain manner, 23.1% is enclosed, 42.3% is completely unpaved, and 15.4% is completely paved (Figure 28).

The study used the word as a psychoanalyzing term, which narrates the wholeness of a place. It can be classified in different ways in different numbers, for instance, a Square-shaped courtyard (Figure 32), rectangular-shaped courtyard, interlocking courtyard (Haque et al, 2020), and continuous courtyard (Sayed, 2019). Depending on the number of houses and land configuration, an open courtyard might have one, two, or more public entrances. Moreover, it can be open from one, two, or three sides as well. Most of the time the layout of the homestead with the
long sides of the buildings flanking the courtyard creates small gaps or passages between the buildings linking the courtyard to the outside. Some of these passages are used as entries into the homestead and act as a filtering mechanism to allow entry of only familiar or approved men; gaps not used for circulation are veiled with vegetation and screens to block the outside view (Ahmed, 2006). There should not be any common walls or columns between two residences (Gutierrez et al, 2018). This type of courtyard is more down to earth and contextual from the perspective of classical Bengal society.

- **Enclosed courtyard**

Normally, an above 5-feet enclosure defines a strong ambit, which is visually very prominent from the outside and inside (Figure 30). Therefore, the impact of position, or the number of houses is very flimsy and always gives an enclosed, personal, and unwelcoming approach. Nevertheless, there might be more than one entrance. The fencing material is a prominent indicator for society about the approach of the house. People use GI sheets as fencing (Figure 33) material, who do not live in a pucca house. This type of enclosure is not as prominent as a pucca wall. A pucca wall always creates a strong and prominent ambience. In Figure 34, the wall height, gate, and material make the environment more secure and unwelcoming. It is a salient trait of the homesteads, creating a detaching approach from society. Approximately, for the recent decades, people have been using brick as building material in rural areas (Rashid, 2017). On the other hand, the approach of the enclosure in the figure, 33, is more open and welcoming, which is socially connected and has a vernacular approach. In some cases, the house itself is organized in such a way as to enclose the periphery of the entire homestead. In such cases, a boundary wall is absent around the homestead. Houses are organized along the property line of a homestead and can create
the sense of a boundary wall. Generally, a homestead with a single or two houses cannot make such an introverted organization.

- **Paved courtyard.**

Generally, in this typology, Houses are adjacent, and the size of the domestic courtyard is not much bigger (Figure 31). The survey revealed that this type of courtyard is common in the Hindu community and other religious places, regardless of the religion. There might be an amalgamation between an open courtyard and a paved courtyard, an enclosed courtyard, and a paved courtyard. Nevertheless, other types of combinations are very rare.

### 11. Fieldwork

Location: Tangail district is located in the center of Bangladesh, well known for its traditional crafts and history. The survey location is very close to the main city (Figure 35), surrounded by a huge amount of cropland and water sources. The name of the location is Porabari. Maximum people are depending on farming and live in vernacular houses (Figure 36). Agriculture mainly shapes their life and house patterns. For this reason, settlements are perfect for studying. The courtyard is the most prominent architectural feature that defines their house.

![Figure 34: Location in map](image)

![Figure 35: Traditional homestead of research area](image)

![Figure 36: Attributes of an ideal Bengali courtyard](image)

<table>
<thead>
<tr>
<th>Content</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability of living</td>
<td>Average 31 years</td>
</tr>
<tr>
<td>Ownership</td>
<td>100%</td>
</tr>
<tr>
<td>Activities</td>
<td>Maximum domestic works, for instance, rice processing, cooking, gossiping, drying cloths, animal husbandry, rituals, etc.</td>
</tr>
<tr>
<td>Spending time in a courtyard a day</td>
<td>9.43 hours (average)</td>
</tr>
<tr>
<td>Visiting neighbors’ home</td>
<td>100% (every day)</td>
</tr>
<tr>
<td>Permission for entrance</td>
<td>No (99.6%)</td>
</tr>
<tr>
<td>Cultural activities</td>
<td>Religious and marriage ceremony (100%) Others 28% (including marriage ceremony) No cultural activities 14.29% (except marriage ceremony)</td>
</tr>
<tr>
<td>Public access</td>
<td>One 71.43% Two 28.57%</td>
</tr>
<tr>
<td>Amount of hard surface</td>
<td>No hard surface 100%</td>
</tr>
<tr>
<td>Types of courtyards</td>
<td>Enclosed 85.71% Open 14.29%</td>
</tr>
<tr>
<td>Openness</td>
<td>Open to free movement 100%</td>
</tr>
</tbody>
</table>

Table 1: Summary of field survey
12. Courtyard typologies

After long research, a hypothetical typology chart was created based on different aspects of a rural context. The rural homesteads are the leading assessor of this study because every concept has a mother form and basic content. Courtyards of pure rural areas retain the basic traits of this concept (Figure 37). On the other hand, there are many examples of houses and housing in the township context, which have a courtyard with proper use of it. Context does not make a prominent difference indeed, but social ambiance and zest do. The difference is influenced by tangible and intangible facts, for instance, material, religion, occupation, landscape, and so on. The chart can help Architects to build traditional architecture, make policy, and arrange functions. According to the chart, there are two types of courtyards, and an ideal Bengal courtyard holds six basic elements.

- Active courtyard
  - Mother courtyard
  - Apposite courtyard
  - Connective courtyard
  - Positive courtyard
  - Distinct courtyard

- Passive courtyard
  - Shared space

The typology chart is a hypothesis of a field survey and observation of village people (Figure 38). The mother courtyard comprises six different core elements. As the chart goes upward, the elements and their intensity subside gradually. It means the practice of each element is subsiding and growing pale by losing cultural vibrancy, participation, and necessity. From the mother courtyard to the distinct courtyard, all of them are different states of a courtyard where the minimal elements work, for instance, domestic interaction and affection. However, at present time in the township context homestead is a commercial term where there are no elements, work properly, not even affection to the house. Due to changing rented apartments and having social restrictions, affection does not grow in the sense of ownership. On the other hand, there are many references to the active courtyards in modern housing in the township context. It depends on social perspective, policy, architectural planning, elements, and so on.

Figure 37: Courtyard typology chart
Table 2: Description of six core elements categorize a courtyard.

<table>
<thead>
<tr>
<th>No.</th>
<th>Elements of courtyard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Economic activities</td>
<td>In the Bengal Delta, contributing to the economy was one of the strong characteristics of the courtyard. Maximum economic production depended on workforce and land. Courtyard worked as a processing unit of the whole production. That is why economy is the basic and first element of a contextual courtyard, developed in Bengal.</td>
</tr>
<tr>
<td>2</td>
<td>Food processing</td>
<td>In this land, different types of professions were developed, for instance, farming, dapping, making potteries, smithery, and so on. However, farming outreached most of them making this land a fertile valley. The crops and other food processing systems demand an open courtyard-like space. Therefore, it is also a crucial element of the courtyard.</td>
</tr>
<tr>
<td>3</td>
<td>Social interaction</td>
<td>Society is a claimant of a very special part of a courtyard. Society makes this space more rational, bold, and stable.</td>
</tr>
<tr>
<td>4</td>
<td>Culture and entertainments</td>
<td>Cultural diversity always makes the homesteads vibrant and lively. The courtyard is used as an amphitheater for performing every moment of life which connects us with this space.</td>
</tr>
<tr>
<td>5</td>
<td>Domestic interaction</td>
<td>Here, domestic interaction reveals domestic influences. People own a space by works, which morphed a space into a place. Without daily interaction, space cannot be a place. Therefore, it is an inseparable element of a courtyard.</td>
</tr>
<tr>
<td>6</td>
<td>Affection</td>
<td>Affection is also important but does not make a strong point. Human psychology easily makes anything close to the heart and habitable. However, true belongingness with the homestead can make the strongest element of a courtyard. Because a courtyard builds most of the domestic memories in the culture of Bengal.</td>
</tr>
</tbody>
</table>

At the end of this research, the manuscript will be a manual guideline for the future infrastructure in Bangladesh to understand the impact and impression of a cultural feature on architecture, architects can assess a courtyard-based house and housing and categorize it.

13. Discussion

However, the courtyard concept flourished in rural areas. However, nowadays there is a huge number of passive courtyards found in villages. The impact of urbanization and their advertisements are the most possible reasons for it. As a result, the traditional homesteads are changing in an irrelevant way.

Figure 38: Linear apposite courtyard

Figure 39: Linear passive courtyard

Figure 39 and 40, both are from a similar location. However, one is an active courtyard (Figure 39), and the other is a passive courtyard (Figure 40). Applying the courtyard typology chart, it is very easy to find out the category of these two courtyards.

Table 3: Implementation of the ‘Courtyard Chart Test’ on the courtyard in Figure 38.

<table>
<thead>
<tr>
<th>No.</th>
<th>Elements of courtyard</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity for subsistence</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>Food processing</td>
<td>YES</td>
</tr>
<tr>
<td>3</td>
<td>Social interaction</td>
<td>YES</td>
</tr>
<tr>
<td>4</td>
<td>Culture and entertainments</td>
<td>YES</td>
</tr>
<tr>
<td>5</td>
<td>Domestic interactions</td>
<td>YES</td>
</tr>
<tr>
<td>6</td>
<td>Affection</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Result: Active</td>
<td>Type: Apposite courtyard</td>
</tr>
</tbody>
</table>
Table 4: Implementation of the “Courtyard Typology Test” on the courtyard in Figure 39.

<table>
<thead>
<tr>
<th>No.</th>
<th>Elements of courtyard</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity for subsistence</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>Food processing</td>
<td>NO</td>
</tr>
<tr>
<td>3</td>
<td>Social interaction</td>
<td>NO</td>
</tr>
<tr>
<td>4</td>
<td>Culture and entertainments</td>
<td>NO</td>
</tr>
<tr>
<td>5</td>
<td>Domestic interactions</td>
<td>NO</td>
</tr>
<tr>
<td>6</td>
<td>Affection</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Result: Passive</td>
<td>Type: Shared space</td>
</tr>
</tbody>
</table>

Source: Author

People of this homestead (Figure 40) often stay somewhere else for a better life. They have every utensil at this home, but they do not feel comfortable with rural life. They shifted their occupation a long time ago. Now the earning members are working in foreign countries. Nowadays not involving agriculture or any farming is a matter of prestige and luxury. As a result, the house pattern is shifting randomly in this Bengal region and this special type of architectonic feature is disappearing.

Figure 40: Sanjaynagar- slum-homes, India  
Source: ArchDaily (2022)

Table 5: Implementation of the “Courtyard Typology Test” on the courtyard in Figure 40.

<table>
<thead>
<tr>
<th>No.</th>
<th>Elements of courtyard</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity for subsistence</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>Food processing</td>
<td>NO</td>
</tr>
<tr>
<td>3</td>
<td>Social interaction</td>
<td>YES</td>
</tr>
<tr>
<td>4</td>
<td>Culture and entertainments</td>
<td>YES</td>
</tr>
<tr>
<td>5</td>
<td>Domestic interactions</td>
<td>YES</td>
</tr>
<tr>
<td>6</td>
<td>Affection</td>
<td>YES *</td>
</tr>
<tr>
<td></td>
<td>Result: Active</td>
<td>Type: Connective courtyard</td>
</tr>
</tbody>
</table>

The project authority believes that addressing housing inequality is more than building individual units (Figure 41). It is about building communities; creating a balance of safe, healthy private and communal spaces that enhance inherent social bonds and enable human flourishing.

Table 6: Implementation of the “Courtyard Typology Test” on the courtyard in Figure 41.

<table>
<thead>
<tr>
<th>No.</th>
<th>Elements of courtyard</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity for subsistence</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>Food processing</td>
<td>NO</td>
</tr>
<tr>
<td>3</td>
<td>Social interaction</td>
<td>NO</td>
</tr>
<tr>
<td>4</td>
<td>Culture and entertainments</td>
<td>NO</td>
</tr>
<tr>
<td>5</td>
<td>Domestic interactions</td>
<td>NO</td>
</tr>
<tr>
<td>6</td>
<td>Affection</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Result: Passive</td>
<td>Type: Shared space</td>
</tr>
</tbody>
</table>
14. Conclusion

In this Bengal Delta, the homestead is the name of emotion. Climate, crops, rituals, culture, and so on shaped the architecture and made it one of the most sustainable and organic lifestyles around the globe. The courtyard is the most prominent element of the special architectural style. It controls the climate and the domestic environment. Social behavior and agriculture made it more rational and indispensable. Tradition, cultural practices, rituals, domestic attachment, and so on made it vibrant and morphed the space into a place. However, due to rapid urbanization, this very special architectural feature is losing its identity and purpose. Nowadays, people from villages also require all the facilities of a homestead in a single zone. As a result, separate house concepts are losing their form and turning it into a wider house than the previous one with all the facilities under a single shade (reference 4). In Bangladesh in the name of tradition, many architects are introducing the courtyard concept into modern houses and housing projects. In their presentation, they present lucrative illustrations, research, and references. However, reality shows different situations. Social structures, Education, community behavior, and so on are simultaneously responsible for it. This research offers modern Architects the fundamental elements to make a courtyard more contextual. The world is trying to return to a sustainable and green life. Traditional architecture is the indisputable way of thinking about building areas and the research will guide them to be more traditional and rational. Therefore, sometimes should say ‘NO’ to irrelevant architecture instead of imposing traditional terms on it. In the time of globalization, practicing the traditional way of architecture is very important to make identity as a nation. Introducing the proper courtyard concept can be a highly effective and powerful architectonic solution to make a strong and sustainable society in every context of Bangladesh.

15. References

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