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Field Report

ARCHITECTURE WITHIN THE FOLK TRADITION: A REPRESENTATION FROM BANGLADESH

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The roots of traditional Bangladeshi architecture are dug deep into the psyche of the common people. In a land where poetry and philosophy are inherent in every person, comprehension of this architecture cannot be complete with only a partial analysis or a formal viewpoint. The social dimension of the architecture and the user's perspective are very important in this regard. In the case of the traditional Bangladeshi built environment, the user is also the designer, builder, landscape specialist, artist and craftsman. However, he or she is not the concept-giver. To grasp the reasons for design decisions, a participatory methodology opens up new avenues of exploration. This article presents such a view. Its analysis of the Bangladeshi vernacular archetype from a lay perspective adapts the work of Bangladeshi architect Rabiul Hussain.

The comprehension and explication of any architecture possibly involve the simultaneous understanding of two things: the nature of the architectural artifacts themselves and the many forces that lie behind their production.

For Bangladeshi folk architecture both kinds of studies exist. The first, concerned with morphology, considers the rural dwelling in isolation and focuses on how its elements determine factors of identity. This discussion has led to a widespread belief in the bent roof shape as one of the most important identifying characteristics of Bangladeshi architecture.[1] The approach toward the second factor is anthropological. With tools developed from Amos Rapoport, the spaces and activities of the house are studied, and differences appear among spaces in functional, social, and religious terms.

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Such studies have led to the introverted courtyard being considered the essential characteristic of Bangladeshi architecture.[1] Although the inferences derived from these two approaches are praiseworthy, they leave many issues unresolved.

THE BANGLADESHI HOUSE: REFERENCES IN HISTORY

Among scholars of architecture, Bangladesh is known as the place of origin of the "bungalow" type of residential building. As Anthony King explains, ". . . bungalow is a corruption of the word now internationally known in the form of Bangla Desh."[3] For outsiders, the distinctive form of this structure has had a particular impact, manifest in its numerous replications in many forms all over the world.[4] The bungalow is possibly the only dwelling type that can be found both in form and in name on every continent.[5] In fact, the word "bungalow" has been incorporated into more than seventeen major languages.

An indigenous *bunggolo* is actually the common rectangular dwelling of the Bangladeshi peasant. It has a peculiar curving roof that one observer has said resembles "an upturned boat."[6] Perhaps due to the characteristics of bamboo, the material from which it is constructed, both its roof and ridge are curved. Andreas Volwahsen remarks ". . . [it was] a type of roof which gave the impression that all its planes were curved. The ridge and the eaves were upturned; also the bamboo rafters placed perpendicular to the ridge were curved."[7]

Early references to this unusual roof form were seen in mosques built in Bengal during the independent Sultanate period, from the mid-fourteenth to the mid-sixteenth century (FIG. 1).[8] Later on, reproductions appeared in the Hindu architecture of the region. The Mughals were also influenced by this provocative bent form, and imported it to their capitals, where they incorporated it into their imperial architecture. The form was also reproduced in many other parts of India, and vivid images and descriptions of these houses made their way into the work of British writers, artists, and photographers in the nineteenth century.[9] It was through the English that the structure spread overseas. Such portentous prevalence is but an indication of the symbolic value the structure holds for the people of Bangladesh.

In Bengal the *bunggolo* remained in its original form in the rural areas, mostly ignored and unstudied by local professionals, for whom Westernization became the sign of progress. The little research that was undertaken took a socio-anthropological approach, and was related to the layout of the house.

FIGURE 1. *Khetna Mosque. This brick structure of the Sultanate period has a bent cornice.*

But recently the success of the Grameen Bank housing scheme can possibly be taken as an indicator of the continuing strength of the attachment of the Bangladeshi people to their houses. The Aga Khan Award served to reiterate the idea that the Bangladeshi "house" is a powerful sign and stimulus in the society. In a certain way, this award exposed the associative qualities of an architecture which lies dormant in the landscape of Bangladesh — and possibly in a remote corner of the mind.

MAN AND DWELLING

Writing about architectural forms has long neglected the importance of the experience of common people. The researcher needs to bring himself to their plane of mind and understand concepts in their terms.

The study of social relationships as a methodology in architectural investigation was probably first demonstrated by Gottfried Semper.[10] In his search into underlying similarities and relationships, he hoped to uncover some synthetic unity in architecture. He started from what Rosemarie Haag Bletter calls a communal prerequisite — the hearth.[11] To Semper, the fire represented a social nucleus, a gathering point for the family and, hence, the "germ of civilization."[12] From this angle Semper arrived at very different assumptions than were entertained in architectural thinking at the time, and the acceptance of his theories gave credibility to his methodology. In his manner of investigation, the beginning is a non-spatial, social-significance-bestowing component, from which architectural elements stem logically.

The theory of Semper also established fundamental notions of architecture from ideas about the basic hut. These ideas were further developed to include the concept of symbols and meanings which could not be ignored or willfully altered without loss of context. His source was a realistic instance

provided by ethnology. From this, concepts of higher architecture were evolved.

Semper's notion of architectural beginnings was not far removed from that of another important architectural theoretician, a contemporary of his, Eugene Viollet-Le-Duc. At the end of a fascinating book dealing exclusively with dwellings, Viollet-Le-Duc writes: "The time has come for us to say to humanity: 'investigate thy beginnings: thou wilt thus learn thy aptitudes, and wilt be able to pursue that path of true progress to which thy destiny calls thee. . . .'"[13]

From this point of view, the approach of architect Rabiul Hussain toward Bangladeshi architecture is both unique and praiseworthy. In his 1987 article "Bangladesher Lokoj Stapatya o Grihanirman," in *Bangladesher Sthapatya Sanskriti (Architectural Tradition of Bangladesh)*, he adopts a participatory attitude and presents a picture of extraordinary magnitude. He looks at vernacular architecture with emotion — not as a detached spectator or academic researcher, but as an active participant charged with pride and love of the indigenous. His descriptions are passionate and tend toward the poetic. He effortlessly shifts his attitude from that of the architect to that of the sensitive individual. His vivid descriptions of folk architecture provide an important view long missing from the small stock of literature available on Bangladeshi architecture. Such an attitude is a combination anthropological investigation and the poetic approach of Gaston Bachelard.[14] His stance is extremely relevant when discussing the architecture of what the famous philosopher-writer Rabindranath Tagore has called the emotional and the deeply philosophical citizens of Bangladesh.[15]

VERNACULAR ARCHITECTURE

Before turning to a description of the Bangladeshi rural architectural archetype, several general observations on the nature of vernacular architecture and folk traditions are warranted.

The term "vernacular" is much misunderstood. In reference to language, it explicitly defines "[that] which is spoken or written naturally at a particular period."[16] In architecture, however, use of the word becomes difficult. What it normally refers to is an indigenous type of building that is largely untutored in the conventional sense, but which is thought to be of considerable virtue. To distinguish this from "high" architecture, Bernard Rudofsky coined the term "non-pedigreed" architecture.[17] His proposed synonyms were such words as vernacular, anonymous, indigenous, and rural. Amos Rapoport further classified vernacular as part of the folk tradition:

> *The folk tradition, on the one hand, is the direct . . . translation into physical form of a culture, its needs and values — as well as the desires dreams and passions. . . . It is the world view writ small, the "ideal" environment of a people expressed in buildings and settlements. . . . The folk tradition is much more closely related to the culture of the majority and life as it is really lived. . . .*[18]

Rural vernacular tradition has no academic stylistic aspirations. For lay people, the word suggests something countrified, homemade, traditional — i.e., the small-town dwelling or the dwelling of the farmer or craftsman. Current definitions suggest that the vernacular dwelling is usually designed by a craftsman and not an architect, and that it is built with local techniques, local materials, and with the local environment in mind. J.B. Jackson writes:

> *Such a dwelling does not pretend to stylistic sophistication. It is loyal to local forms and rarely accepts innovations from outside the region. It . . . is little influenced by history in its wider sense. That is why the word timeless is much used in descriptions of vernacular buildings.*[19]

Although Jackson admits that this concept has been refuted in consideration of the European vernacular,[20] it may still find validity in the context of Bangladesh. This is precisely where the ideas of Hussain become relevant. In Bangladeshi villages life has always been slow, broken only by changes of season, celebrations of the life cycle, or calamities. Major political upheavals have mostly occurred at a distance. Even if the villager has the desire for improved commodities in life, these are mostly thwarted by the neglect of formal institutions of society.

In the view of Christian Norberg-Schulz, architecture brings into presence the immediate meanings of the local earth and sky. In his words, it matches the "*Genius Loci*" of the place.[21] Despite being functionally circumstantial, architecture expresses the fundamental inner identity of a people. Thus, vernacular tradition usually has only a few models, which are constantly being adjusted and readjusted. It is through such variation that individual houses gain their uniqueness.

In vernacular architecture the expressive power of aesthetics and of correct formalization are very important. There is always a "right" and a "not right" way of doing things. Therefore, architecture follows a theory. As outsiders, we may only become aware of these distinctions when they become part of a grand religious tradition, as in Hinduism, or when they are published in a conventional manner. But they also exist orally in folk culture. Examples of such building theories may be found, among other places, in Yemen, Sri Lanka, Malaysia, Java and Bali. They may be related to work on the unconscious by Carl

Jung.[22] The existence of such a theory of architecture in the Bangladeshi unconscious is a central theme of Hussain.

Recent research by the author shows that there has been very little change in this inner theory in more than a hundred years.[23] The images, too, have remained remarkably constant (FIG. 2). Without doubt, Bangladeshi architecture has experienced a number of transformations and the importation of outside concepts, yet certain attitudes deep within the psyche of the people have remained unchanged. New elements of experience, knowledge, value, will and behavior have simply been absorbed into the individual subconscious within the constraints of collective conditions. Hussain aims not only to study this identity, but to understand its formalization through architectural elements.

THE VILLAGE

Bangladesh is made up of many villages, and one characteristic of the rural people is their attitude of self-dependence. For most necessities, especially everyday items such as food, clothing, shelter, education, and health care, people depend on local resources. Since prehistoric times villages have been created from necessity. They evolve spontaneously and cannot be created artificially (FIG. 3).

The folk architecture of Bangladesh is primarily embodied in village homesteads. These express characteristic ways of life, practical and spiritual needs, and tastes. Traditional village building techniques have gradually evolved into a unique system of architecture. Although this system is not used in contemporary urban-based architectural practice, its application in rural areas continues unabated.

Bangladeshi villages are generally situated on slightly raised ground,[24] and maintain a horizontal relationship with adjacent fields. Usually a river, lake, or swamp is nearby. A village may follow the serpentine path of a river as an equally continuous flow of green. Land, trees and water are the elementary ingredients of the village, and from these have evolved the main themes of rural architecture. Practical considerations such as climate, rain, solar incidence, and patterns of light and shadow also determine the design of the village and the dwelling. The main intention of this architecture is ease of use and comfort. An old saying (*Khaner bachan*[25]) goes like this:

> *South facing is king of rooms,*
> *East is its vassal,*
> *West meets the wretched ones,*
> *North is belittle.*[26]

FIGURE 2. (TOP) *Bangladeshi rural hut. Century-old descriptions are still valid today.*

FIGURE 3. (BOTTOM) *Villages are a natural extension of the landscape.*

Another old saying is "Ducks in the east, bamboo in the west." This implies a pond in the east and bamboo groves in the west. The reasoning is quite rational: wind from the south and southeast will be cooled by the water, and will then cool the house, while bamboo groves in the west protect the house from intense solar radiation. These are instances of correct climatic planning incorporated into folk building practice. With this essence, rural architecture has remained unchanged for centuries, showing genuine sensitivity to nature and its elements.

Families living in villages are joint in nature.[27] The age-old picture is of "a storehouse full of rice, a pond full of fish, and a house full of relatives." A simple approach to life, agriculture-based comparable production capability, religious consciousness, and a peace-loving nature — these qualities of people's lives have remained unchanged, leading to a specific type of architectural layout. In brief, the "place"[28] formation of the courtyard-centered layout and its related architectural theory is only possible from this point of view.

When a homestead is constructed, ponds are excavated first and a mound raised with the soil obtained. A family starts

living on the site in a simple hut, but gradually their requirements increase and their hut becomes insufficient. More structures are then added, keeping a courtyard, or *uthan*, in the center. The owner of the house, usually the farmer or his eldest son, is given the best location beside the *uthan*. This is usually the northern structure, which faces south. According to age and position in the family, each person is assigned other huts. If there is need for more than four structures, a larger courtyard is created, with two huts on either side.

Under the open sky, every bit of the *uthan* is usable space. The quadrant has many purposes: it is a place to dry clothes or crops, a play area for children, a location for elders to converse, an arena for story-telling or musical events, and a site for ceremonies marking birth, marriage or death (**FIG. 4**). It is also the ring where petty family quarrels occur and where their solution is arbitrated. During the monsoon, when water is everywhere, the courtyard may become a pool, and residents may throw a line from their door and wait patiently for a bite. It is also here that the children may float banana leaf rafts or get their first lessons in swimming. These are perhaps some of the reasons why courtyards prevail in the architecture of all countries with warm climates, be they dry or humid. The central courtyard is the element which successfully establishes and enriches human relationships.

When houses are complete on the four sides of the *uthan*, a kitchen structure is constructed on the northeastern corner. All around the area are planted coconut and betelnut trees, and demarcation is completed by a jute straw, bamboo, or bean-vine fence, which also ensures the privacy of women. Inside is the *dheki*.[29] looking like a huge wooden crocodile on two legs (**FIG. 5**). At the northwest corner of the *uthan* is located a women's privy and well, and similar features for men can be found in a nearby dense growth of cane. Beyond the kitchen is a small pond, a well, or a tubewell. Near the kitchen is a small structure which is used when necessary as a place for giving birth. In Hindu homes there is also a hut for the deity nearby.

When the sun sets, the women go bathing, either in the gh*ats* of the pond or the river. Privacy is needed here, too, and the coconut-trunk steps that go down to the water are screened on both sides by bamboo fencing. Just beside this *ghat* is a huge hog-plum or tamarind tree, the fruit being a special delicacy for expectant mothers. All these elements — water, trees, huts and courtyard — are the necessary constituents of a rural home.

Just at the entrance of the homestead is a large hut in an open area, called the *katchari ghar* (**FIG. 6**). In the Western sense it is a reception structure, and it is sparsely furnished with a few benches, one or two chairs, and possibly a wooden *chowki*.[30] A small room in the corner is used either as a guest accommodation or as a study for children. The cattle shed is nearby, and between it and *katchari ghar* is a series of earthen jars set in

FIGURE 4. (TOP LEFT) *Courtyard of an ordinary rural homestead.*
FIGURE 5. (TOP RIGHT) *The* dekhi *is a husking instrument.*
FIGURE 6. (BOTTOM RIGHT) *A* katchari ghar *seen behind a scaffold for Indian spinach.*

bamboo frames to store fodder. There is also a bamboo-framed structure supporting an earthen container or a huge pail, big enough so that two or three cows can drink together from it.

Goats and their kids may be found anywhere, even under the bench of the *katchari ghar*. In front of this hut is a low bamboo fence, and within it a flower garden with enchanting smells and lovely colors. Some typical flowers are marigold, rose, tube rose, china rose, red china rose, jasmine, cockscomb, and glory of Japan. A sweet plum or perhaps a guava tree, heavy with fruit, is at one side, and at the extreme south is a margosa tree. A southern wind flowing through this last comes as a comfort to the homestead. Other trees that create a green entry are the woodapple, coconut, betelnut, and grapefruit. There are also aloe and *basak* (*Adhatoda basica*) plants. The aloe's thick leaf is soothing to the temple and scalp in hot weather, while the juice of *basak* leaves mixed with honey is a remedy for coughs and colds in winter. Likewise, margosa twigs are used to clean teeth; mottled ebony gives color to fishing nets; *jika* (*Lannea grandis*) gives glue; and schoolchildren use the flat ends of the silk cotton tree's thorns to make play stamps.

Nearby are bamboo groves, which bring a pleasant murmur to the ears when the wind blows, while the fallen bamboo leaves make a soft blanket over the mud. Perhaps there are also orchards filled with mango, Indian blackberry, litchi, and jackfruit trees, and a vegetable garden with eggplant, chilies, cauliflower, and papaya, and sometimes a scaffold for Indian spinach or cucumber. In the branches of the fruit trees is a noisemaker to scare birds, with a long rope reaching to the *katchari ghar*. Scarecrows made with sawdust and straw perch in the vegetable garden dressed in old clothes, their painted faces rivaling the work of any urban artist. Beyond lie the fields, dry and cracked in the summer, waterlogged and soft during the monsoon.

The final element of the compound is the family graveyard, lying just beyond the garden. The different elements needed progressively in a lifetime can be all be found in folk architecture in an astonishingly simple manner. Today's institutionalized architecture does not strive to fulfill all these needs or be so deeply connected to man. Folk architecture is created for all the needs of life — from birth to death. Life and architecture are completely united.

THE STRUCTURES

The plinths on which dwellings rest are high so that structures are not flooded during the monsoon, or that snakes, frogs, or other undesirable creatures do not come inside at night. The front of each hut contains a full-length or partial verandah. To reach the door, one has to climb mud steps and cross it. At one side of the verandah is a bamboo platform supported by a mud mound or bamboo stilts. This provides a place for guests to sit, for family members to sleep on hot nights, or to store paddy or jute in heaps.

Inside the house there is generally one large space that serves many purposes; there are few or no partition walls and no separate rooms. To one side the bed platform is raised high on bamboo posts, level with the window so that breezes will cool those sleeping there at night. Below it are stored onions, potatoes, chilies, and other small necessities (**FIG. 7**). On the other side of the room is a high platform, on which are kept seeds prepared from the previous year for planting in the coming season. Sometimes there are also lines of earthen jars filled with molasses.

Around the walls are bamboo shelves, and below these are hung such items as mirrors, combs, and lamps (**FIG. 8**). There is also a small closet, a table, and a chair — perhaps of yellowish jackfruit wood. From diagonal bamboo bracing may hang a cane or reed swing. In its center may be a colorful paper flower or a rattle — something brought from the market for a young child. A sickle, a *hookah*, or perhaps an old colored picture may be tucked in on the exterior side of the woven bamboo walls, and leaning on another side may be two or three

FIGURE 7. (LEFT) *Interior view of a rural hut.*

(FACING PAGE) FIGURE 8. (LEFT) *Bamboo shelves are hung from the walls. Interior of a mud hut kitchen.*

FIGURE 9. (TOP RIGHT) *After building to a certain height, the mud walls are dried for a day or two.*

FIGURE 10. (BOTTOM RIGHT) *A two-story mud house.*

plows of Acacia timber. Sometimes the house may contain an extra, portable stove, perhaps in a broken pail, for use during winter or the monsoons. The stove is also used on special occasions, such as at birth or at a time of illness, when it is necessary to heat water or milk.

Rural architecture never contains unnecessary or unused spaces. Construction is simple, efficient and economical. It is not possible to create a low-cost structure using high-cost materials, even by reducing floor area. Bangladeshi village architecture is created using the most readily available building materials, and most elements are produced by the resident.

The hut is of rectangular shape. According to the capability of the householder, its walls are made with jute straw, mud, bamboo, wood, or plain or corrugated iron sheet; its floor with bricks or mud; its roof with straw, hemp, *golpata*, or metal sheets. People generally build their own houses with assistance from family members and the spontaneous help of friends and neighbors.

Typically, wood or bamboo posts are inserted in the ground at a spacing of about three meters. To prevent decay, their ends are either burned or painted with bitumen. On top of the posts are placed triangular wooden or bamboo trusses (**REFER TO FIG. 7**). These trusses are joined by bamboo purlins of smaller section, and the whole structure is covered over by layers of straw. The pitched roof may have two, four, or even

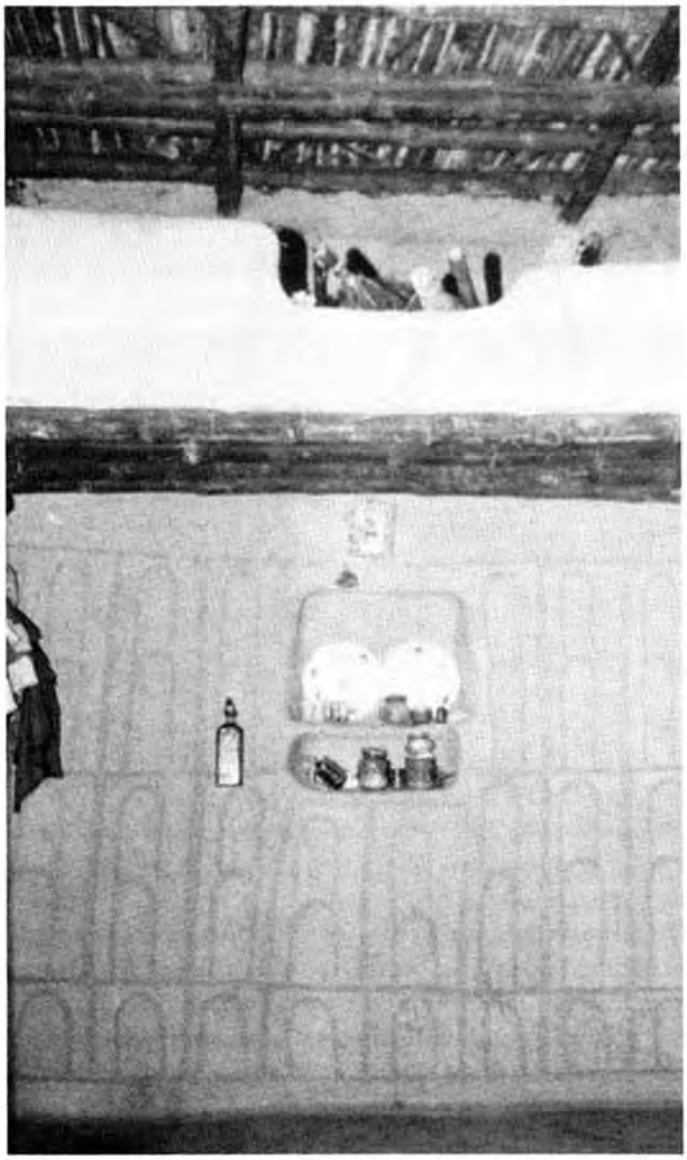
eight planes so that water runs off easily. Roof members are tied to one another with coconut fiber, jute rope, or metal wires. Sometimes cane may also be used. The knots are neat and skillful, developed by experience and extremely strong. Since the roof is pitched, a false ceiling is sometimes made inside. This too is done with bamboo or wood, and the resulting attic is used for storage.

Sometimes mud walls are used instead of posts. Such walls are often very thick. In some cases cow dung, chopped straw, or other materials is mixed with the earth to make the walls stronger. Sometimes the stabilized mud is formed into brick-like or square blocks, which can be laid up into a wall. In this process, after building to a certain height, the earth is allowed to dry for a day or two before construction continues (**FIG. 9**). The roof truss with all its covering material is placed directly on top of a mud wall. To produce two-story structures, wooden or bamboo platforms may added (**FIG. 10**). In some areas an alternative to all-mud walls are thin strips of bamboo woven together, placed upright, and covered with mud-straw mixture.

To protect the house from strong winds, a piece of bamboo is inclined against the bamboo posts as a brace. Thick wires may also be used for this purpose, tied to wedges buried in the ground. Windows are generally kept in the south, east, and north sides of the dwelling. Window panels are mostly of bamboo or wood, and are hung from the top, and doors are made of the same materials. Eaves usually project far

outside the wall line to protect the walls from sun and rain. The pitched roof structure, with its many angled planes, resembles a series of little pyramids.

The finishing step in house building is to spread a mixture of mud and cow dung over the mud walls and floor. A rag or jute fiber is used to apply the mixture. It is dipped into the slush, and a distinct design of semicircular arches appears, made to the diameter of the human hand (REFER TO FIG. 8).[11] Because of its fibrous properties, cow dung acts as a sealant that helps keep the premises clean. Sometimes borders are made around the doors and windows, and niches are used to keep lanterns and other household items (FIG. 11). These borders and niches are decorated with flowers, birds, butterflies, and other designs using a white paste made from *atap* rice (FIG. 12).



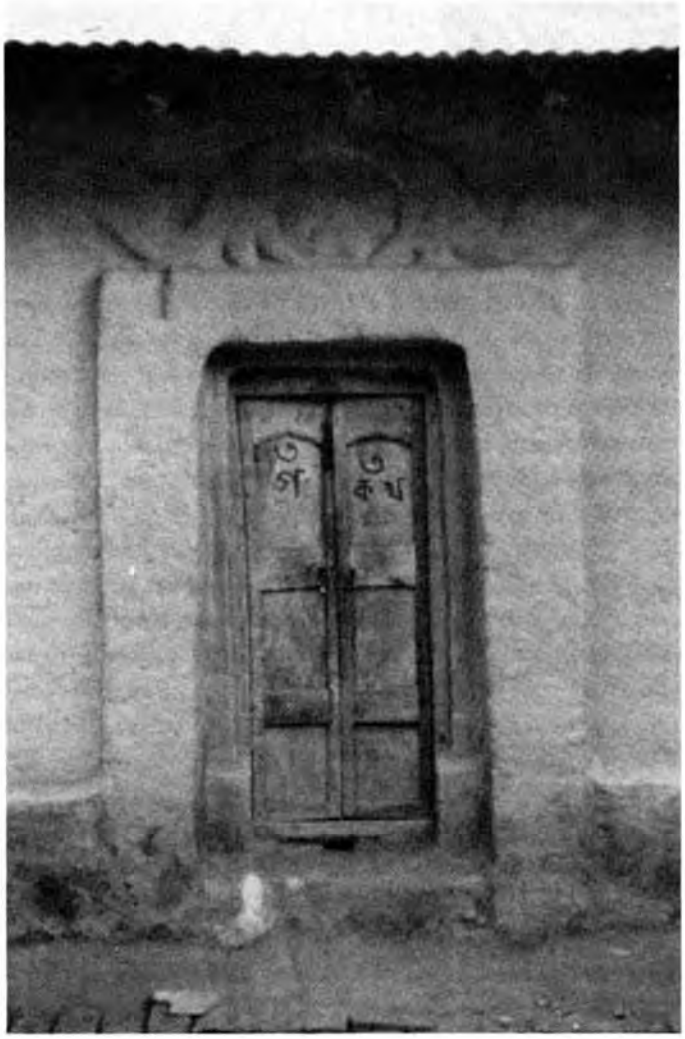


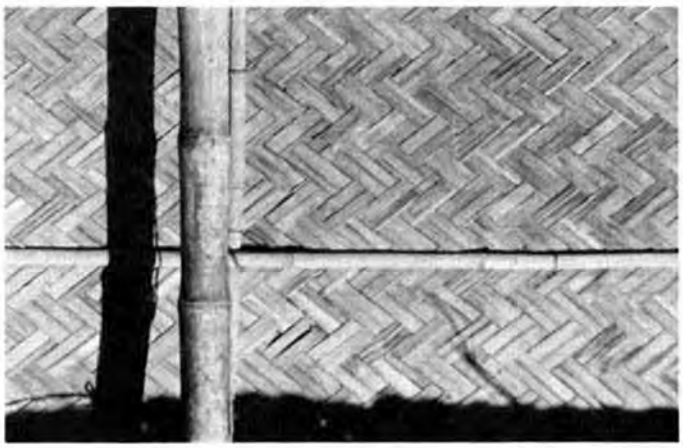
FIGURE 11. (LEFT) *Niche in the thick mud wall. Patterns are done with fingers when the wall is still wet.*

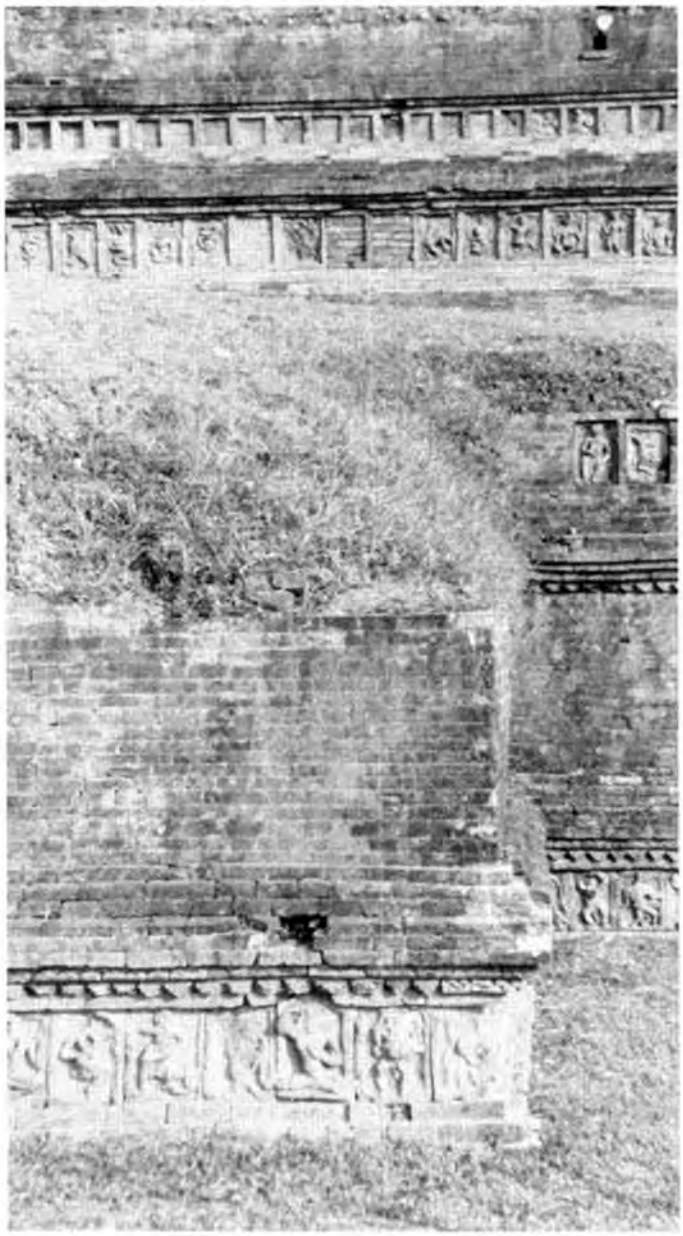
FIGURE 12. (ABOVE) *Designs are also done in relief on the mud walls.*

Calligraphy also records poetry or thoughts from Bangla philosophy. Variety is sometimes achieved by adding red, brown and green colors, made from different kinds of earth and foliage.

Into this traditional scene, corrugated iron sheets were the first intrusion of a foreign material. They were introduced by English traders and were generally used to replace straw. Today they may be seen on the timber structure of the relatively well-off farmer. But straw and bamboo remain the main building materials of villages. The bridge across the canal is of bamboo; so are the goal posts on football fields. Schools, village and market shops, and all other types of structures are derived from the same architectural principles as the residential huts (FIG. 13). Simplicity in materials and design, lack of pretension in presentation, horizontality in expression — these are the essential qualities (FIG. 14).

FIGURE 13. (LEFT) *Morning scene in a rural market-place. The structures resemble the residential huts.*
FIGURE 14. (BOTTOM LEFT) *Detail of a bamboo wall.*
FIGURE 15. (BELOW) *Terra-cotta work on the Buddhist monastery at Paharpur in North Bangladesh.*





Technically, village structures require only a basic knowledge of post and lintel. Their real beauty comes from accumulated wisdom. Nothing is imposed in the landscape created in the village. The planning procedure is natural, related with the rural way of life. Appropriate use of materials is the main theme of folk architecture. The philosophy is harmoniously related with the people's life-style.

Villages may today be ignored by urban dwellers. But villages were their birthplace, and their cultural roots lie there. Today folk practices are hampered by poverty and by the imposition of unsympathetic architectural styles. However, at one time folk construction techniques were so advanced that the smoothness of a mud wall was put to test using ants. If the ants could climb the wall easily after it was built, the work was only of common quality. If they could not, it was of a very high standard. Similarly, after the straw of a roof was done, the excess materials burnt off, and the roof made neat and smooth, a silver coin was tossed onto it. If the coin came down easily, the work was considered exceptional; otherwise, not.

NEGLECT OF TRADITION

Today in Bangladesh lack of practice and patronage have allowed these techniques to be neglected. To create an identity for the region, however, a search for the folk heritage is vital. The material for such a revival is in evidence all across the country. Even today the peasant homes of North Bengal are almost entirely built with earth. Walls, floors, and stairs are all made of this material. Decorations in the walls and around the openings represent beliefs and life-style.

The terra-cotta work in Kantaji temple is an extraordinary sample of this tradition. Similar work is also seen in numerous edifices of the country (FIG. 15). From the north, as one gradually approaches southwest, terra cotta roofing tiles are used more widely in place of straw or corrugated sheets. And as the mud walls of the north are replaced by bamboo and wooden structures, engraved patterns of flowers, vines and buds are also seen in wooden walls, doors and windows. In certain areas, especially in the south, a pitched roof of *golpata* also appears. The change of availability of building materials is the main reason for this variation. Construction systems depend on available materials, ease of procurement, and traditional techniques.

In the ideal village of yesteryear the division of labor was such that there were experts in education, health, religion, festivals, and other topics. Potters and carpenters worked with the owner on specialized tasks of house building in exchange for crops or coins. When the house was finished, a creeper of squash or pumpkin planted by the eldest member, perhaps the grandmother, was allowed to climb to the roof and cover it with green leaves and white fruit. Later, this fruit or vegetable could be used to make a single- or a double-stringed instrument for a family member. Nothing in the village was wasted; everything was for man — for life. Such was the structure of the village ideal.

Villagers in former times also had zamindars — a class specifically created by industrialized Europe primarily for the collection of revenue. But *zamindars* were also used to keep industrialization from the Indian subcontinent, and so make it a convenient market for European commodities. To walk in front of the *zamindar's* palace with shoes on, an umbrella in the rain, or even dressed in a shirt was considered a serious crime. Any peasant who dared do so was immediately subject to harsh punishment. There was also a law related to building. No one was allowed to build a house with bricks, because the "god-like" *zamindar's* palace was made of this material. If anyone still cared to do so, he or she had to receive permission from the lord. In a curious way this regulation contributed to the preservation of indigenous architectural traditions.

The natural state of rural architecture, that which existed before the colonial period, however, is not seen today. One reason is that joint families no longer exist. Poverty, village politics, petty squabbles, and economic depression have all combined to destroy the Platonic ideal of living together. The colonial education system also had a hand in the destruction of the joint family. Imagine a father who took his plow every dawn and walked with his two buffaloes through the mist to the fields. Imagine also a son, laden with books on his way to school, still finding time to deliver his father's lunch. Such domestic interdependence existed at one time; but now, as soon as the son grows up and becomes educated, he gets a job and leaves the village. Marrying an urban girl, he enters urban life and leaves behind his village, parents, brothers and neighbors. Stories such as these abound. Whenever a brother or sister gets married, immediately a new house, new utensils, a new stove, and newly divided land appear. But the eternal layout of four huts around a courtyard does not appear. Two huts — one for living and one for cooking — and an associated yard are the only architectural elements the new family creates. This new code is apathetic and lacks spontaneity. It is an artificial construct, devoid of meaning because it stems from an act which negates tradition. Nevertheless, the contemporary rural family and its related architecture lies dormant in every urban dweller as a common heritage.

Tradition, heritage, and other such elements of pride in Bangladesh originate from the villages. The activities of the people are very much entwined with nature and life. This finds expression in many curious ways. One is the serial naming adjacent villages. Near Bikrampur of Dhaka are four separate, adjacent villages called Taka nai, Paisa nai, Ratbhor, and Kandunisaipride. Together these sound as *taka nai, paisa nai, ratbhor, kandunisar*. In Bengali this means "No notes, no coins, futile tears all night long."

To these village-based, river-nourished, humble people a prevailing and popular philosophy has been carried down from ancient times. It has developed from poverty, social injustice, and insecurity in life. Life is like the riverbank dwellings that are once there, once gone — everything is temporary. This philosophy is perhaps a way of obliterating poverty, pain and injustice. Earth, river, water and landscape have taught man from the beginning, and today the result is seen in the writings of philosopher poets such as Lalon and Hason Raja. "What house shall I make in the middle of

naught?" These words can only be uttered by someone who is truly a descendant of nature. Similarly, "Everywhere is my home, yet I perish in search." Such philosophy incorporating a deep sense of unity with nature is quite rare. But in a land where poetry and philosophy are inherent in every person it is not only natural, but effortless and spontaneous. In the villages everyone does their own work and is self-sufficient. Since they make their houses with their hands and live in harmony with nature, it is hardly surprising to encounter such philosophical apothegms.

The search for tradition, culture, architecture and art in newly independent and once-colonized countries is a continuing struggle. In architecture this task is extremely perplexing, especially when there exists in a country a contemporary trend of modernism which blindly follows Western models. In the evolution of architecture once-flourishing folk models are on the verge of decay. This trend continues perhaps due to the lack of interest and patronage, perhaps because of poverty. But it is extremely important to learn from the traditional heritage and gain from the accumulated wisdom of the ancestors. If the residual thin stream is nurtured, a new and powerful chapter may be added in the question of overall identity. The spread of interest in these matters is vital to the task of retaining traditions and distinct ways of existence. In today's context, it is not unreasonable to be undeterred in such an effort.

FINAL REMARKS

The premise of this article has been to look at only one aspect of an all-encompassing study. In this regard, one cannot conclude, but only observe and possibly infer.

What can be understood from the foregoing discussion is that nature and man were once in harmony. This relationship not only concerned dwelling construction, but it pervaded much more deeply into the psyche of the rural people. Speaking about popular rural songs of Bengal, Tagore has said:

> ***Their religious emotions had its spring in the depth of a philosophy that deals with fundamental questions — with the ultimate meaning of existence. That may not be remarkable in itself; but when we find that these songs are not specially meant for some exclusive pundits' gathering but that they were sung in villages and listened to by men and women who were illiterate, we realize how philosophy has permeated the life of the people in India, how it has sunk deep into the subconscious mind of the country.***[32]

The other factor of significance is social cohesiveness. This plays a major role in the building process, which in turn influences social balance. Such observations are enough to draw attention to the insufficiencies of partially concluded theories. Social, anthropological, political, formal, material, technical, and other such issues need simultaneous deliberation. Hopefully, in that direction lies proper comprehension of Bangladeshi architecture and the formation of an applicable theory.

REFERENCE NOTES

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2. I.M. Khan, "Alternative Approach to the Redevelopment of Old Dacca" (Ph.D. diss., Faculty of Applied Sciences, Katholieke Universiteit, Leuven, 1982); and D.M. Hasan, "A Study of Traditional House Forms in Bangladesh" (M.Arch. thesis, Department of Architecture, Bangladesh University of Engineering and Technology, Dacca, 1985) both refer to this idea.
3. King, "The Bungalow," Part I.
4. For a detailed account, see A.D. King, The Bungalow: The *Production of a Global Culture* (London: Routledge and Kegan Paul, 1984).
5. *Ibid.*, p.2.
6. Quote by Francis Buchanan in King, *The Bungalow*.
7. A. Volwahsen, *Living Architecture: Islamic Indian* (London: MacDonald & Co., Ltd., 1970), pp.178—79.
8. See P. Hasan, "Sultanate Mosque-types of Bangladesh: Origins and Development" (Ph.D. diss., Fine Arts and Middle Eastern Studies, Harvard University, 1984).
9. See, for example, G. Michell, ed., *The Islamic Heritage of Bengal* (Paris: UNESCO, 1984); and *Brick Temples of Bengal* (Princeton: Princeton University Press, 1983). Also, G. Colesworthy, *Rural Life in Bengal* (reprinted from the 1864 edition; Micrographic edition, Calcutta, 1984). All these books have excellent visual materials.
10. See G. Semper, *The Four Elements of Architecture and other Writings* (Cambridge: Cambridge University Press, 1989).
11. R.H. Bletter, "On Martin Frohlich's Gottfried Semper," *Oppositions 4* (1975), p.147.
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13. E. Viollet-le-Duc, *The Habitations of Man in all Ages*, Benjamin Bucknall, trans. (New York: Benjamin Blom, 1971).
14. G. Bachelard, *The Poetics of Space* (Boston: Beacon Paperback, 1969).
15. R. Tagore, "The philosophy of our People,"

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16. See *Webster's Third International Dictionary*.
17. B. Rudofsky, *Architecture Without Architects: A Short Introduction to Non-Pedigreed Architecture* (New York: Museum of Modern Art, 1964).
18. A. Rapoport, *House Form and Culture* (New Jersey: Prentice Hall, 1969), p.2.
19. See J.B. Jackson, *Discovering the Vernacular Landscape* (New Haven: Yale University, 1984).
20. *Ibid.*
21. The term is used to denote a certain abstraction from the flux of phenomena in direct recognition of stable relationships. It is an emotional quality which, perhaps in a poetic manner, imparts a sense of belonging. See C. Norberg-Shulz, *Genius Loci: Towards a Phenomenology of Architecture* (New York: Rizzolli Publications, 1980).
22. See C.G. Jung, *Man and His Symbols* (Garden City, NY: Doubleday, 1964).
23. See A.D. King, "The Bengali Peasant Hut: Some Nineteenth Century Accounts," in D. Jones and G. Michell, eds., AARP, (December 1977).
24. M.A. Muktadir and D.M. Hasan, "Traditional house-form in Rural Bangladesh: A case study for Regionalism in Architecture," in I.M. Khan et al., eds., "Participants' paper, proceedings of seminar on Architecture and the role of architects in Southern Asia," Dhaka, 1985.
25. Khana was an astrologer woman of traditional fame in rural Bengal.
26. Translation by author.
27. The most important concept about the Bangladeshi joint family is that of a common cooking pot. Here food is prepared together for the whole family.
28. The concept of "place" in the sense described by Norberg-Shulz is not specifically stated by Hussain. However, this is introduced here because it is closest to the idea of the author.
29. A *dheki* is a husking paddle operated in a seesaw manner.
30. A *chowki* is a four-legged wooden cot.
31. Patterns reflect both human endeavor and the love of creation. Patterns, designs, etc. are characteristic of the folk tradition in Bangladesh and can be seen in many other spheres of daily life. Noteworthy among them are embroidered quilts and rice cakes.
32. Tagore, "The philosophy of our People."

All photographs by author.