

Housing is the Fabric of the City

by Kazi Khaleed Ashraf

Housing is a matter too vast to be left with architects and planners, and too sensitive to be left alone with statisticians and politicians. Investment is a very fine idea, profit-making is also fine, but let us not lose sight of the quality of life in housing. The life of the city depends upon it.

THE recent government decision to invite foreign capital for building affordable housing is welcome news for one primary reason, that we have failed miserably in addressing the housing needs of a vast majority, the limited income groups. Our housing institutions, and the platoon of housing experts have not been able to provide any notable model of how we should live as a group in new urban conditions.

A Daily Star editorial (January 7) lauded the government decision as significant and sensible. The same editorial also sounded fair and reasonable warnings. The Daily Star pointed out that the low-cost flats must not be sub-standard, that the ownership and transfer rules must be regularised, that areas and facilities for common use must be properly managed, that there must be a code for living in "flats", and that the housing complexes need to be well connected with the greater urban facilities.

Housing is a key issue in any developmental context. As the Aga Khan, a leader in some major architectural and development initiatives, noted, "The lack, and deterioration of human habitations, as economies grow, urbanisation accelerates and demographics explode, pose some of the greatest practical and ethical problems that developing countries face..."

The architecture of housing does not imply "looks" as architecture, unfortunately, has come to mean, but how spaces (rooms) within the units of the housing, and spaces that make up the public domain are knit together in a harmonious fabric. And, eventually, how this well-knit fabric is linked with the larger urban structure, to its streets, its various institutions and resources.

There is a reciprocal relationship between housing complexes and the city. On the one hand, a city is made up of the aggregation of housings. On the other hand, the web of spaces in a housing reflects a miniature city. How we define and frame housing is how we see our cities, and vice versa.

It does not need an Amartya Sen to tell us how the situation is, and, by the way, he is absolutely right in not recommending anyone to live in Dhaka, including Gulshan or Banani. The situation, by any standard, is pretty grim.

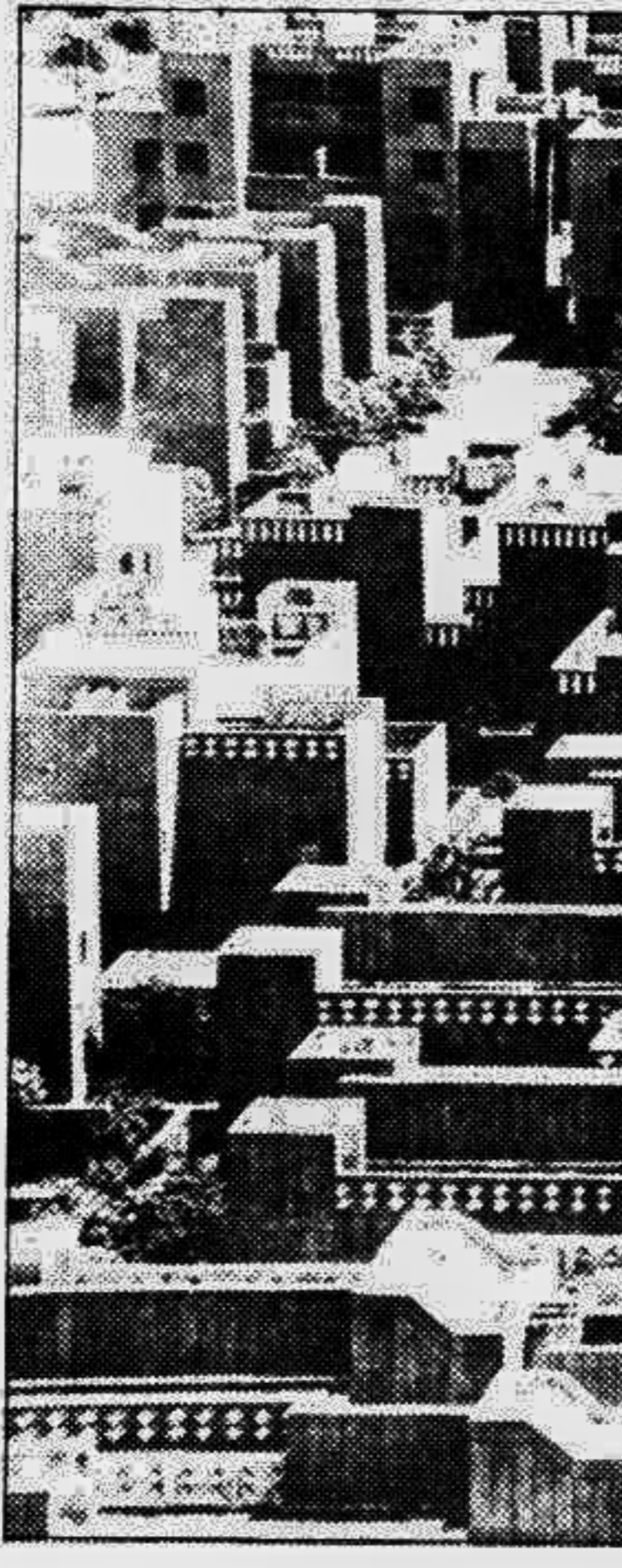
We would then like to add a sixth, in fact, a vital item to The Daily Star list of concerns: housing must be conceived as enhancing the quality of life, both the life of immediate dwellers and the life of the city. The housing issue is two-fold: numerical and environmental. Numerical implies a statistical concern, something which is fact-based, and understood by most of us immediately. It includes issues like housing backlog, how many people are migrating to the city each year, and how many dwelling units are available through various mechanisms — public, private, or corporate.

The key concern is: How can the physical and spatial fabric of the housing enable the cultural and collective life of the inhabitants? This is often a vague matter, but it is the most essential aspect of housing. There are innumerable examples from all over the world of well-intentioned housing complexes that were vandalized, abandoned, or altered because it came in conflict with the societal and cultural values of the inhabitants.

ited income groups), is one where the physical fabric amplifies, and not inhibits, the social fabric, that is, the collective and community life. Numbers do not make housing, eventually it is people and their life that matters.



Sheikh Sarai Housing, New Delhi, 1970 (Architect: Raj Rewal)



Asian Games Village, New Delhi, 1980 (Architect: Raj Rewal)

(1) the necessity of open-to-sky spaces in tropical conditions, a necessity arising out of a social, pragmatic, psychological, and even, spiritual reason, and (2) the intricate, and often invisible, chain that is formed from the inner sanctum of a house to the public, community space.

Almost every community makes a chain stretching from the innermost private space to that gathering space that could be the tree in the chowk, or the court of a mosque. A variety of open and semi-open spaces form the rest of the chain.

The most important decision, however, is the selection of the building type. It is not at all useful to jump to the "flat" type; the "flat" is just one of a kind among many dwelling types, including rowhouses, semi-detached houses, or even independent houses.

There are a number of strategies here. In most cases, the primary success of a housing lies in the selection of dwelling types, and how the dwellings are arranged to create a social and spatial fabric for a particular group. The task of the architect and the planner is to make that crucial selection.

It should be acknowledged honestly that we have done poorly in the area of large-scale housing, public or affordable. The low and limited income groups have been completely ignored in our housing visions, whatever there is. Even the public sector housing, catering to government and corporation employees has no exemplary models, despite the undeniable fact that quite a large number of housing complexes have been built all over Bangladesh in the last twenty-five years.

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of wasteland. They are characterized by a run-of-the-mill plan where flats are stacked like pigeon-holes, and buildings are placed in barrack-like formation with no or little articulation of public spaces. Such models have been proven to be quite inadequate and unimaginative, yet are still touted by some of our planners, as can be seen in such reincarnations as the T&T Colony (and all such colonies), the so-called "Bailey Dump" housing, and many others.

It might be profitable for the government to set up a commission to study different housing fabrics, to see what kind of spatial and social matrix, population density, growth potential, common facilities, traditional situations, etc. The result of the study then could be recommended to the decision-makers, and to the investment and building groups.

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Housing in the Coastal and Flood-prone Areas: Affordable Technologies

by Md Asadullah Khan

INTERNATIONAL housing experts at a recent (early February) seminar on "Affordable Village Building Technologies: From Research to Realisation" discussed ways to devise low cost, better and safer housing for the rural poor.

Analyzing the peculiar situation of Bangladesh that has made it vulnerable to natural hazards that kill people and destroy houses, international experts talked the ways and means to extend the longevity of existing rural and coastal houses and make them more resistant to flood, cyclone and earthquake.

In recent times, natural disasters have been causing enormous loss of lives and property, resulting in colossal damage to the economy. In earlier times, the terms "natural hazard" and "natural disaster" were used almost synonymously. But during the last few years a clear distinction has gradually emerged between the two.

More than any other places in the world, the housing situation in Bangladesh presents a bleak picture. According to the 1991 housing census, the backlog in housing was 3.1 million units with 2.15 million units in rural areas and 0.95 million units in urban areas. By the year 2000, the housing shortage is likely to exceed five million mark.

Thus each disaster reduces a family's capital and increases its vulnerability to future hazards. Increasing the resistance capability of housing could help stem or reverse the trend. Poor quality bamboo framing is liable to be associated with walls made of bamboo-mat or jute stick panels which not only have poor durability but also limited protection against monsoon rains. Bamboo has other shortcomings, it is vulnerable to borer attack and has poor resistance to rotting.

earthquake has hit this country during the last 78 years. But the last major earthquake that hit Srimongal in Sylhet with its epicentre in Bangladesh caused extensive damage to houses far up to Kishoreganj. A review of the damage statistics of the great Indian earthquake in 1897 shows that most of the brick masonry buildings in Dhaka collapsed or sustained major damage.

Natural hazards in Bangladesh Bangladesh, one of the most disaster-prone countries in the world is subjected to hazards like tornadoes/thunderstorms or tropical cyclones accompanied by storm surges, river floods, river erosion and earthquakes. Precisely known to all by now, that buildings which are designed as well as supervised by competent engineers and termed as "engineered buildings" are governed by building codes which specify the loads and the design methodology and the details to be followed to enable the structure to resist the onslaught of natural hazards.

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construction provides an excellent opportunity for introducing improvements in housing technology. Following the 1985 typhoon in Tonga, few thousand houses were built by using the help of BRE, UK. Happily, these constructions resulted in a dramatic improvement in building practices in the island.

Experts suggest that the obvious measure which may be adopted for flood-prone areas like Bangladesh is to raise the floor level above the level of floodwater. This may be achieved by either raising the level of ground on which the building rests or by building structure on stilts or constructing floating houses with floor level rising along with the flood water. However, raising the whole village above the flood level by earth filling may not appear feasible under the prevailing socio-economic conditions, but buildings on stilts are quite common in the coastal areas as well as along the river banks. It may be mentioned that "permanent" emergency shelter-cum-roofing unit, particularly designed as disaster preparedness hardware for use in the cyclone high risk areas by AIDECOM with the approval of the Government of Bangladesh appear to be ideal for disaster preparedness because of long life and effective use in all situations. It offers a good value for money (Tk 14,000 for ten persons with 10 different uses).

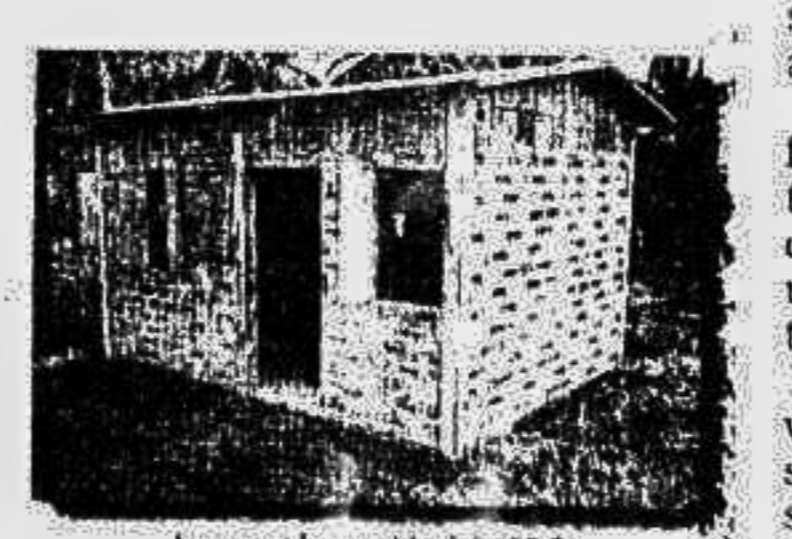
In the choice for materials used in low cost housing in rural areas of Bangladesh bamboo features most prominently, because it is the cheapest and most easily transported material. Houses made of bamboo can be extended easily when more money is available later and as such it is the choice of those on the lowest incomes. Bamboo price in recent times has shot up because of diminishing supply mostly exacerbated by rising demand as well as due to natural hazards like flood and unusual monsoon rains and population boom causing depletion of the resource. Precisely known to all, bamboo can't grow on waterlogged land and needs a well-drained site. Despite the fact that structural forms practised earlier represent generations of experience of living in Bangladesh's hazard prone environment, the coping mechanisms of previous generations are not so effective now since the pressure on the production potential of the land has caused the price of basic materials to rise faster than other prices.

Diagram showing a bamboo post being treated with bitumen for protection against rotting. The text includes Bengali and English instructions: 'পাতাল থেকে নিচ থেকে উপরে তিন ফুট অবধি পর্যন্ত প্রস্তুত করুন' (PREPARE THE LOWER 3'-0" OF THE BAMBOO POST BY...), 'নিচের অংশ পুড়িয়ে কয়লায় রূপ করুন' (BURNING TILL IT IS BLACK), 'সেটে তেল দিয়ে প্রলেপ দিন' (THEN... COVER IT WITH OLD SUMP/MOTOR OIL), 'পচনিবাবক জেলা বা আমনকাছারা দিয়ে ২৪ ঘণ্টার জন্য ডুকিয়ে রাখুন' (OR... BY SOAKING IT IN BITUMEN FOR 24 HOURS), and 'THAT'S MUCH BETTER!!'.

Figure: Inexpensive treatment method for bamboo post base. (Ahmed, 1994, adapted from Chisholm 1979)



Fixing slab plates with beam side plates



Low cost bamboo Mod. 10C

Thus each disaster reduces a family's capital and increases its vulnerability to future hazards. Increasing the resistance capability of housing could help stem or reverse the trend. Poor quality bamboo framing is liable to be associated with walls made of bamboo-mat or jute stick panels which not only have poor durability but also limited protection against monsoon rains. Bamboo has other shortcomings, it is vulnerable to borer attack and has poor resistance to rotting.

Experts addressing the seminar referred to improvements in the rural housing. The proposed improvements in frame suggested by the experts call for treatment of bamboo against borer attack, treatment of poles against rotting in the ground, better anchoring of poles into the ground, inclusion of cross-bracing and substituting galvanised wire binding for jute rope.

