

## FLEXIBILITY AND SPACE STANDARDS

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### Need for Flexibility

Change is the law of nature. The relative importance of each aspect of life changes with time even within the same society. The pattern of these changes cannot possibly be predicted with absolute accuracy. "... every description of nature contains some essential and irremovable uncertainty. For example, the more accurately we try to measure the position of a fundamental particle of an electron, say, the less certain will be of its precise position. Therefore we can never predict the future of the particle with complete certainty; because, as a matter of fact we cannot be completely certain of its present. If we want to predict its future sensibly, then we must allow it to have some uncertainty; some range of alternatives, some slack—what the engineers call tolerance. . . . Once we have any uncertainty in prediction, in however small and distant corner of the world, then the future is essentially uncertain—although it may remain overwhelmingly probable".<sup>1</sup>

In view of the changes and the element of uncertainty in their accurate prediction, it is better to take a dialectic rather than positivist approach. In housing, such an approach is demanded by the changing family needs affected by various factors, varying requirements of different families and individuals and their expectations. A need for flexibility has been amply demonstrated by Boudon in his analysis of Le Corbusier's housing project at Pessac.<sup>2</sup> The project generated considerable controversy at the time when it was built, and was almost universally

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rejected by the people who were obliged to live there. Boudon made a study of the housing in the early sixties and found that the original scheme had been altered almost beyond recognition. Houses had been modified to conform to the individual family needs and aspirations.

### Flexible Approach towards Space Standards

Space standards for dwellings in the early days mostly in the European countries were prescribed as mandatory minimum. They were spelt out in the form of number of rooms according to their functions, their sizes, minimum useful floor spaces and so on. With the change in circumstances and a growing awareness about the importance of other aspects of housing new types of standards are being formulated.

One of the important examples in Britain is the Parker-Morris Committee report on housing and space standards.<sup>3</sup> The committee reacted strongly against the rather rigid approaches towards standards and was in favour of attaining more flexibility which, the committee maintained, could be achieved if the idea of minimum room sizes was replaced by overall minimum space standards for the activities which are performed in the house. Emphasis on room sizes resulted in giving more attention on working out a pattern of room areas rather than catering to the user requirements properly. Labelling of rooms for specific uses tended to assume a conventional arrangement of the dwelling and the particular way the room was to be used. It inhibited the flexibility of both design and subsequent use of dwelling.

The Parker-Morris Committee report suggested to look at the user needs in their totality and then set minimum sizes for the dwelling as a whole as implied by the needs. The designer is thus given considerable freedom in determining how best to arrange space and equipment to meet the varying requirements of different household types.

Space standards in Denmark are also not precisely laid out. The designer is given maximum freedom to arrange the dwelling spaces best suited to the individual household needs within a given range of useful floor spaces. The designer, of course, has to indicate the arrangement of furniture on the plan to facilitate the approving authority to see at a glance whether the rooms are of right size and shape for the functions to be performed.<sup>4</sup>

The American Public Health Association Committee on the Hygiene of Housing emphasized on the concept that housing requirements stem from the needs of the occupants and maintained that it provides a sounder approach to the attainment of adequate dwelling space. It also observed that establishing minimum floor area for individual rooms based on specific functions leads to the overlooking of the less obvious needs for the space. It has been suggested by the committee that the dwelling as a whole should incorporate the space necessary for all the family activities, and more flexibility in room size be permitted by overall space allowance.<sup>5</sup>

A recent study by Alexander and others for a housing competition in Peru calls for the formulation of certain 'patterns' for the design of housing.<sup>6</sup> Here specific space requirements for different activities have been found out from socio-cultural as well as functional points of view. Some general design principles have been formulated based on the socio-cultural attitude of

the people, their economic capability, family living patterns and technological aspects which the designers call 'patterns'. For example, based on the fact that street watching from an upper-story window is a favourite pastime of a young Peruvian girl, a 'pattern' has been devised to fulfill the requirement. These patterns, which are in fact translations of various user requirements, when combined together, generate a satisfactory living environment for whom they have been devised. Since they can be combined in a different number of ways to suit the various individual and family needs for the present and future, these patterns can generate an almost infinitely rich variety.

It will not be irrelevant in this context to look at the squatter settlements where no 'space standards' in the conventional sense of the term have been imposed. Flexibility in this case, is stretched almost to its limit. The most important thing for a squatter is to get a plot and a security of tenure. He then goes on to build in stages according to his priorities and budget. The important advantage of the squatter's procedure is that the spaces as well as structures are adaptable to the changing family needs and living patterns. Turner, writing about the Lima 'barriadas',<sup>7</sup> observes that a typical 'barriada' house is a shack or a group of shacks when it is first started, but it ends up as a two or even three-storied house after a period of time. The house is often subdivided into separate dwellings to be occupied by the children or rented out to provide the owners with an added income in their old age. The 'barriada' dweller has thus got complete freedom and flexibility to manipulate his own living space.

### Relevance of the Different approaches to Bangladesh Situation

In Bangladesh, and for that matter in most of the tropical countries, majority of the household activities require no specific space for their pursuit.<sup>8</sup> The same space may accommodate different activities at different hours of the day and in different seasons of the year. As such, the idea of prescribing overall space requirements instead of making specific space recommendations for different rooms according to their functions may be adopted in principle to Bangladesh situation. The method for formulation of the space standards and their magnitude will of course be different.

The different activities performed in a Bangladesh house have to go considered in the context of socio-cultural attitude, prevailing climatic conditions and some other relevant factors. The resultant living environment may prove to be unsatisfactory if the space requirements are determined by putting emphasis only on the functional aspect. The method adopted by Alexander et al goes a long way in meeting this demand by considering the socio-cultural and functional needs simultaneously.

The 'barriada' experience may serve as a fruitful example to meet the needs of those families who cannot afford any 'floor space' because of limited cash. Such a family may be provided with a plot to start with, and be allowed to build a dwelling to a standard lower than what is considered socio-culturally and functionally acceptable; the dwelling can be raised to the the acceptable standards with the improvement of the economic condition of the family. The user may also be allowed to choose from a range of different construction standards satisfying minimum health and safety requirements. It will thus provide the user with the freedom to budget his own resources, cater the space requirements at various stages of family life-cycle and a degree of freedom to shape his own environment.

### References

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