

DESIGN CRITERIA FOR MASS HOUSING

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Today mass housing has become synonymous with low cost housing and the entire national effort in this field has been diverted to producing cheaper houses. Yet the numbers involved are of such magnitude that no cost reduction exercises can provide the solution for housing everybody.

Traditionally the individual who has built his own house has been intricately involved in the whole process. This made it possible for his identity to be established in his environment. Today the pace of development has taken away this close tie between the individual and the creation of his environment. Large numbers of people are “designed for” by centralised agencies. This can cause further alienation unless the centralised agency concentrates on understanding the new demands on the housing activity, and makes the process responsive once again to the individual needs. The task is, therefore, to evolve design strategies which allow the individual to participate once again in the building process.

The fundamental requirements of shelter are the same for rich and poor. Everyone needs light, ventilation, healthy and clean surroundings, access to facilities, etc. Whatever be the solutions to reduce cost, we have to find means to strengthen individual identity within the collective, and to provide

the minimum environmental necessities.

The checklist given below is an attempt to set out the criteria which would simplify the task of the designer of housing systems. In this we are grateful to M/S. A&P Smithson who in 1957 had proposed a set of criteria for mass housing applicable to the European scene.

Family Interaction-Social Criteria

- Can the family adapt the house to various ways of living, or is it just a box?
- Are there specific spaces provided in the house which are moulded to fit a purpose, or are they the result of a structural system ?
- Is there an open space which is private to the house where it is possible to dry clothes, put away charpais, sleep in the open, dry, and grind spices?
- Is there a place where you can clean or wash things without making a mess in the house?
- Is there enough place for storage? Is that space related to the belongings peculiar to the class or occupation of the persons living there?
- Is there a space within the house where children of 3-5 years can play and the mother watch them while she is working?

- Can the family members add their identity to the house or are they being regarded as goods to be packaged?
- Is it possible for the family to take pride in its house?
- Is the house easy to maintain?
- Does the method of construction make it possible for the family to participate in the building of the house?
- Can the house be grouped with other similar houses in some meaningful way?

Group Interaction—Social Criteria

- Are there open spaces where groups can meet? Are these arranged so they can be maintained by the inhabitants themselves ?
- Is there a suitable place, adjacent to the house, where 5-11 year olds can play?
- Can children play ball games or ‘Gulli-Danda’ anywhere near the houses ?
- Is there some place where old people can sit and watch the world go by?
- Is there a suitable place for scooters and cycles to be kept?

The pace of development has taken away the close tie between the individual and his environment

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| <ul style="list-style-type: none"> <input type="checkbox"/> Is there a specific place for planting trees and shrubs which can be easily maintained? <input type="checkbox"/> Has the relationship of neighbouring houses and their means of access been chosen for some good reason? <input type="checkbox"/> Is there something worth looking at out of every dwelling or does one merely look at another dwelling opposite? <input type="checkbox"/> Has the location of the nursery school been considered as an integral part of the grouping of houses? <input type="checkbox"/> Can the barrow/bicycle vendor carry on his trade without getting in the way of the routine activity of the houses? <input type="checkbox"/> Can 'Holi' be celebrated somewhere? Is there place for puja, Diwali, Dussehra and weddings? Can festivities take place without disrupting other functions? | <ul style="list-style-type: none"> <input type="checkbox"/> Is the kind and size of shopping related to the actual needs of the community? Where will the 'panwala' go? Is there place for a dhobi and a milk-booth? <input type="checkbox"/> Does the location of the community facilities develop out of a significant relationship between the houses in the layout or are they just put in some left over open spaces? <input type="checkbox"/> Has the occupation pattern of the community been considered in the layout of the houses or is the layout borrowed from an earlier pattern? <input type="checkbox"/> Are the routes provided in the layout related to the direction in which the inhabitants are likely to want to go for work and recreation ? <input type="checkbox"/> Is emergency access for vehicles provided ? <input type="checkbox"/> Is it safe for children and women to walk upto their houses after dark? | <ul style="list-style-type: none"> Are the larger open spaces located at natural pressure points in the layout so that their maintenance can easily be organised by the community? <input type="checkbox"/> Has enough study been done on the particular cultural demands of the community? <input type="checkbox"/> Has the location of the vehicular routes serving the community been considered for safety-only vehicles at high speed need be completely segregated from pedestrian routes. In case the vehicular routes have to go through the housing layout, has enough thought been given to reducing the speed of the vehicle so that it is no danger to children, etc.? <input type="checkbox"/> Has the changeover from vehicular to pedestrian route been fully considered? This changeover happens at car parks and public transport stops. Are their locations close enough the houses? |
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The Neighbourhood—Social Criteria

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| <ul style="list-style-type: none"> <input type="checkbox"/> Is the scale of the house related to the size of the community? Is the size of the community related to a comfortable walking distance? <input type="checkbox"/> Can the number of houses provided support shops at natural pressure points in the layout? | <ul style="list-style-type: none"> <input type="checkbox"/> Is the scale of the roads and open spaces sympathetic to the scale of the house and the way of life of that particular community? <input type="checkbox"/> Does the layout ensure that the community is not fragmented by thoroughfares passing through it? |
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Water, Waste, Energy: Environmental Criteria

- Has the ecological impact of scheme on the neighbouring areas been considered ?
- Is the method of disposal of solid and liquid wastes chosen only as an extension of the existing patterns or has adequate thought

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been given to the particular needs of the community and the area, including the possibilities of recycling the wastes?

- Can the inhabitants easily dispose of the garbage themselves? Are the means of disposal of this garbage easy from the collection points?
- Is the long term quality and quantity of the water supply ensured to meet applicable standards?
- Are means available for proper disposal of night - soil, and is the waste removal system chosen to be in accordance with the habits and standards of living of the inhabitants?
- Have locally available energy resources been considered to meet the requirements of cooking, lighting and cooling etc?

**Micro-Climate :
Environmental Criteria**

- Is there adequate protection from the weather in the open spaces, and the house?
- Are the houses orientated to gain maximum benefit of the sun, breeze and rain or does the house merely exclude the weather?
- Have the construction materials been chosen only for protection

from one extreme of climate, or does the choice consider their specific performance with regard to the di-urnal as well as seasonal thermal variations?

- Has the amount and direction of solar radiation off the walls, and off the ground etc. been considered? Has the texture and colour of the materials been considered ?
- Has the windflow through the individual house, as well as a cluster of houses, been designed for maximum comfort?
- Is the plantation design just a decorative element or has it been worked out to modify the climate and create a comfortable environment?

Finance and Management

- Type of land tenure/ownership of house is a critical factor in determining the involvement in the housing process of the individual families as well as the agency sponsoring the development. Has this been fully considered in setting up a development philosophy which can generate a self maintaining housing system ?
- How is the housing area connected to the work centres of the inhabitants? Especially in low-income communities the proximity

of the house to areas having employment potential is of prime importance.

- Has the financial burden on the inhabitants been calculated so it is within their paying capacity?
- Are there financial resources available to give a complete house with optimum finishes? If not, what methods are proposed to reduce the initial financial outlay?
- Is the cost being reduced only by downgrading specifications or can other methods be proposed such as (a) componentised building systems which permit covered area increments to a basic unit without disrupting the functioning of the house; (b) continuous upgrading of specifications without making any original finishes redundant?
- What is the basis of allocation to individuals, of houses within the scheme? Is it the social/ community associations of the proposed inhabitants or is it simply first come first served?
- In the case of rehousing settlements has a provision been made in the budget for community development efforts and facilities like crèches, nursery school, elementary health care, etc.?