

# Participatory design

## Housing in the 21 century



*Marita Weiss*

### 1 Factors Shaping Urban Shelter Design

#### The significance of housing

Over time, architects and sociologists have repeatedly addressed the issue of housing. One of them is the Dutch architect, theorist and author N.J.Habraken. In his book "Supports – an alternative to mass housing" he discusses the matter of housing in general and criticises today's mass housing. Furthermore he provides alternative housing solutions for the 21<sup>st</sup> Century. According to him housing is and has always been an important expression of human civilisation. In the way of living, people can illustrate their position in life.

Housing is also a relationship between people and their environment. This relationship is based on action - the action of building, decorating, furnishing and renewing. In this way one creates his own environment. By forming the environment people give their personal note on it and in this way identify themselves with their environment. This identification is connected with the urge to possess, thus by creating a building man takes possession. (Habraken, 1972)

## 2 Design of Sustainable Shelter and Neighbourhoods

### Mass housing

The natural relationship between people and their environment was common in former days when people were involved in the building process. They could identify themselves with their environment and – as written above – take possession. Nowadays, with the increase of mass housing, this relationship does often not exist anymore. In mass housing people do not house themselves, they are housed - the individual is negated. The modern dweller is moving from place to place without taking part in forming the environment he is living in. In this way he can not take possession, he can only adapt to what is offered to him.

(Habraken, 1972)

Another problem related to mass housing is the uniformity of its appearance. Huge building blocks are constructed with a series of identical dwellings. This is due to the fact that the individual is not taking part in the building process. Thus uniformity comes with the non-action of the individual man. (Habraken, 1972)

One example that demonstrates this uniformity is the Smokey Mountains housing area in Manila, Philippines. On a 21.2 hectare former dumping site 21 five-storey buildings are meant to be built. Nine of these buildings are already constructed, accommodating 2,520 families. Each of these building blocks contains 280 identical units with a size of 32 m<sup>2</sup>. A huge lack of housing exists in the Philippines. Therefore mass housing can be seen as an emergency measure that is useful for sheltering a large amount of people within a short amount of time - the original conception of mass housing. (Habraken, 1972) As the Smokey Mountains is meant to be a permanent housing area, it has to be looked at in a different light. You can find an area with great uniformity, where every building block, every floor and every single unit has the same appearance. This problem is often found in mass housing projects. Inhabitants do not only have trouble to orientate themselves in the area, they are also not able to take possession of their environment. Hence no identification of the individual with its surroundings is possible.



*Smokey mountains, Manila*

Another problem of mass housing is the fact that there is no space left for spontaneity, everything has to be foreseen and is fixed in the project. A town that is built by mass housing projects is a very inflexible system. The towns we have built in former times are liable to movement, there is a restless process of building, changing and rebuilding. It is the same kind of process you can find in nature, the town is changing due to everyday life - that makes the beauty of old towns. In comparison mass housing can be seen as an artificial way of building. There is no possibility for growing organically by changing small parts in the big scheme. (Habraken, 1972)

These facts lead to the question of how modern cities should be built in order to create a flexible system and to allow spontaneity in the growing process of a city.

### 3 The Role of Architects

#### Participatory design

One of the possibilities to reduce uniformity and create variety in housing areas is the reintroduction of the individual into the housing process. Different architects tried to achieve that at different stages - within just a housing block or even within a total housing area. One of these designs is “*Kronsbergkarree N41- Wohnen im 21. Jahrhundert*” (*housing in the 21<sup>st</sup> century*) in Hannover, Germany, designed by *Fink + Jocher Architekten*. This five-storey housing block contains 87 units and was built 1999 for the EXPO 2000 in Hannover. The design provides a basic module comprising two dwellings. Within this module the kitchen and bathroom core can be set according to individual needs. Between the two dwellings one room exists that can be added to one of the dwellings. The dwellings can be complemented with lightweight walls, creating one to four-room apartments. In this way apartments for every kind of living situation are possible. Due to lightweight walls the arrangement of the dwelling can be easily changed. Consequently the inhabitant can identify with his own dwelling, while the housing block still has a uniform appearance.



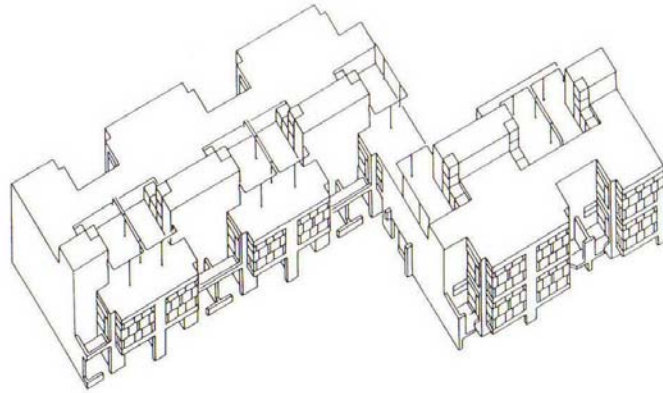


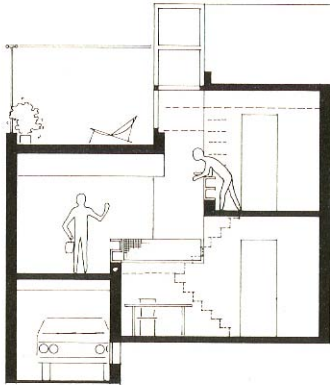
Kronsbergkarre N41

Source: <http://www.fink-jocher.de>

In 1976 another project based on community participation, the *Diagoon Housing*, was developed in Delft, Netherlands. The architect *Hermann Hertzberger* designed eight prototypes for row houses which - to a certain extent are indefinite in their floor plans, so that the occupants themselves are able to decide how to divide the space. The house consists basically of two permanent cores with several different half-storey-high levels forming the living units. These units can accommodate various functions like living, sleeping, studying, playing, dining etc. On every level parts can be separated to create rooms. Thus each member of the family has his own room as part of the large communal living space. If the family compilation changes the house can be adjusted and to a certain extent enlarged.

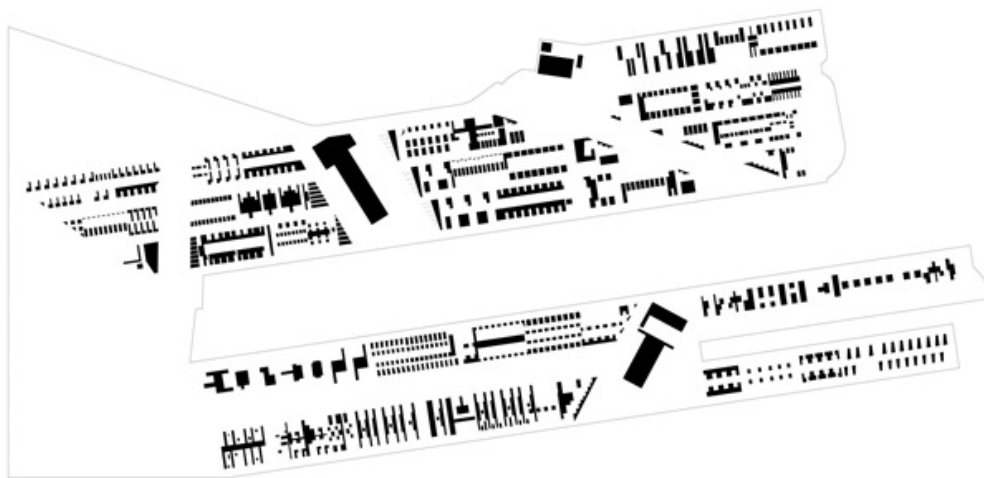
*“This plan represents an attempt to get away from a number of persistent stereotypes which still dominate housing today.” (Hermann Hertzberger)*



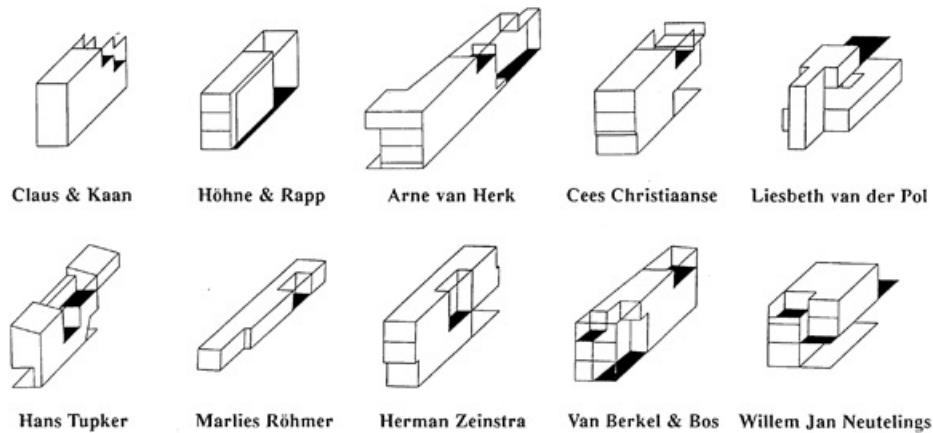


*Diagoon Housing, Delft*  
 Source: <http://www.ahh.nl>

Another attempt for participatory design is the urban plan for the *Borneo Sporenburg* residential area in the Eastern docklands of Amsterdam, Netherlands. The architectural firm *West 8* designed a masterplan composed of distinctive individual houses and apartment blocks that work as a unified whole. Between 1996 and 2000, the two peninsulas were transformed into a high-density housing area filled with 2500 low-rise dwelling units with a density of 100 units per hectare. Over 100 local and international architects were involved in the design of the housing units for a new interpretation of the traditional Dutch canal house. Due to the fact that in some parts of the area every canal house was designed by a different architect, involving the inhabitants in the design process, an architectural variation was created with a focus on the individual. Even though the area consists of a repetition of the same type of row house, every street and public place has its own atmosphere. This helps the inhabitants to orientate in their neighborhood as well as to identify with their environment.







Borneo-Sporenburg, Amsterdam

Source: <http://www.west8.nl>

N.J. Habraken describes another possibility to connect people with their environment in his book *“Supports - an alternative to mass housing”*. He introduces the principle of the support structure. In the contrary to the idea of mass housing where building blocks consist of a repetition of identical dwellings, the support structure provides a skeleton that can be filled in by the occupants, according to their individual needs.

*“We must make constructions which are not in themselves dwellings or even buildings, but are capable of lifting dwellings above the ground.” (Habraken)*

In his sense support structures are meant to be building plots up in the air, being of the same nature as streets in the familiar town. They are horizontal planes forming streets combined with vertical towers housing circulation, installations, etc.

Mass housing is a relatively inflexible system, whereas the support structure includes the spontaneity and creativity of life. In mass housing moving apartments is often the only way of changing one’s living conditions. In the support structure people can change their dwelling according to their changing conditions. Dwellings can be built, altered and taken down, independently of the others. Like this an endless variety can be created, dwellings no longer need to be uniform. Each inhabitant can define the quality of his unit according to his requirements.

## Conclusion

When people regain the responsibility for their city or neighborhood the town will again be representative for its inhabitants. A lively and flexible city results with neighborhoods showing different characters and atmosphere. People could once again identify with their environment and would therefore take care for maintaining their surroundings.

*“The support town will never contain slums; no redevelopment will be necessary; no part of it need ever be obsolete. The dwellings may show differences in quality and finish according to their price range, one dwelling may be larger and more luxurious than another, but the age of the dwellings can be the same for all population group.”(Habracken)*

## References

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