

FLEXIBILITY

Flexsus House 22 Takenaka Corporation Japan, 2000

According to T. Schneider and J. Till in *Flexible Housing, flexible housing*:

- is housing that can adjust to changing needs and patterns, both social and technological. These changing needs may be personal (say an expanding family), practical (i.e. the onset of old age) or technological (i.e. the updating of old services). The changing patterns might be demographic, economic or environmental.
- allows housing providers to adapt the mix of units, to change internal layouts, and also upgrade their properties in an economic manner.
- is housing that can respond to the volatility of dwelling.

Two main types of flexibility:

- Soft refers to tactics which allow certain indeterminacy. Soft use allows the user to adapt the plan according to the needs, the designer effectively working in the background. Soft use generally demands more space, even some redundancy, and is based on a relaxed approach to both planning and technology.
- Hard refers to elements that more specifically determine the way that the design may be used. Hard use is generally employed where space is at a premium. With hard use, the designer works in the foreground, determining how spaces can be used over time.

Architects should build buildings that are flexible enough to accommodate new demands on the built environment such as changing demographics, aging users and changing working patterns.

"Demographics describe the external environment for housing: (...) consideration of how one might accommodate it generally starts at the scale of the building rather than through the design of the individual unit.

Housing also need to respond to the internal changes during the lifetime of its occupants. These internal micro changes arise at the level of the individual house or unit. If it cannot adapt then the users will have to move on, which is both socially and financially disruptive. Housing here has to be flexible enough to deal with two conditions. The first is the need to adapt to the changing needs of individuals as they grow old or less physically able. The second is housing that can respond to the changing constitution of a family as it grows and then contracts."

T.Schneider and J. Till, *Flexible Housing, 2007*

Monique Eieb states in *Modos de vida emergentes y híbrida*:

"There is no general life style or clear social pattern anymore. Houses must be flexible so that they become attractive for different groups."

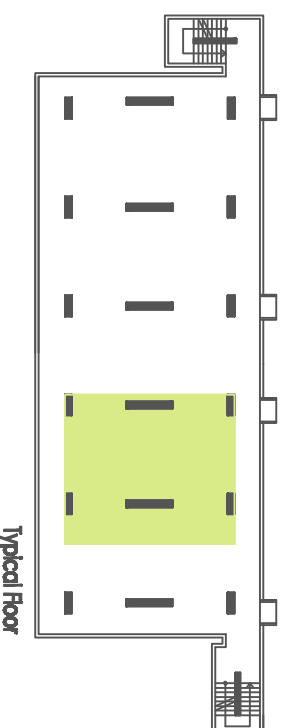
"Building in the future must be flexible in two ways:

On the one hand, flexible during the design process (one always faces a new economic situation during the process and the design should be able to react to it), on the other hand, flexible over the years of use."

"The question for the future is to create **flexible**, neutral structures that can resist and allow continuous changes."

Flexsus 22 is a project in the Japanese use of open building as means of achieving flexibility in housing. It is a classic support and infill project within the "House Architecturally, it is divided into a structural framework, the 'skeleton' (supplied by Takenaka Corporation), and the 'infill' (Takenaka Corporation and five other companies), which consists of the interior and exterior enclosure, together with prefabricated service elements. The three-storey building near Seito-City in the Aichi Prefecture is composed of floor slabs with large columns slightly offset from the outer perimeter in order to form a gallery which can be used either for access to the individual units or for balconies. The actual area within which the residential units are designed is divided into five bays, each 7.2 by 11.6 meters. Each housing unit can also be adapted internally and party walls can be moved at a later stage to enlarge or contract units.

The space was designed as a flexible and neutral structure that can respond to the possible changing needs of the dwellers.



The Transformable Apartment

Mark Guard Architects
Britain, 1996

The transformable apartment is a contemporary exploration of the theme of foldable beds and sliding doors in order to maximise available space through flexibility of use. The apartment is flexible enough to accommodate new demands (for example aging of users or changes in working patterns). By its design, this housing can adjust to these kinds of changes.

Here, a 90 m² unit is accessed slightly off-centre along one of the long sides of the floor plan. The entire wall opposite the entrance is occupied by a built-in cupboard-wall which contains the kitchen, kitchen storage, drying cupboards, and wardrobes. The doors to the kitchen can be slid back to expose three work areas, a washing up area, a cooking area and a coffee/drinks bar. Three freestanding modules, to the left of the entrance contain the elements through which the otherwise undivided space can be transformed from one open plan live / work unit into a unit with up to two bedrooms. One module contains WC and a set of doors to enclose a bathroom area. The other two contain fold down beds and sliding doors that can be pulled out to create one or two bedrooms.

