

“What if a house had the built-in capacity to evolve? What if it could grow or shrink, or the rooms could be reconfigured, without hiring contractors and tearing out walls?”¹

In the past decades, authors like Monique Eleb and Atelier Kempe Thill, have been talking about the changes in society. With new groups of people with needs that change in short periods of time, housing which adapts to satisfy these needs is also necessary.

According to Schneider and Till in *Flexible Housing*, it means “housing that can adjust to changing needs and patterns, both social and technological.” They divide flexibility in 2 main types:

SOFT Flexibility: “Refers to tactics which allow a certain indeterminacy. (...) Allows the user to adapt the plan according to their needs, the designer effectively working in the background.” And, **HARD Flexibility:** “Refers to elements that more specifically determine the way that the design may be used. (...) The designer works in the foreground, determining how spaces can be used over time”.

The Greenwich Millennium Village, is a soft use building; it allows the division of the space according to the needs of the user. The same space could become a bedroom, a study room or a bigger living room.



Proctor and Matthews Architects | Britain | 2001

The word flexible is derived from the Latin word “flectere” which means bend, curve or bow.

Flexibility is described by the Princeton University WordNet database as the “capacity of being changed, the ability to adjust readily to different conditions.”

The Webster Dictionary describes it as the “capability to adapt to new, different or changing requirements.”

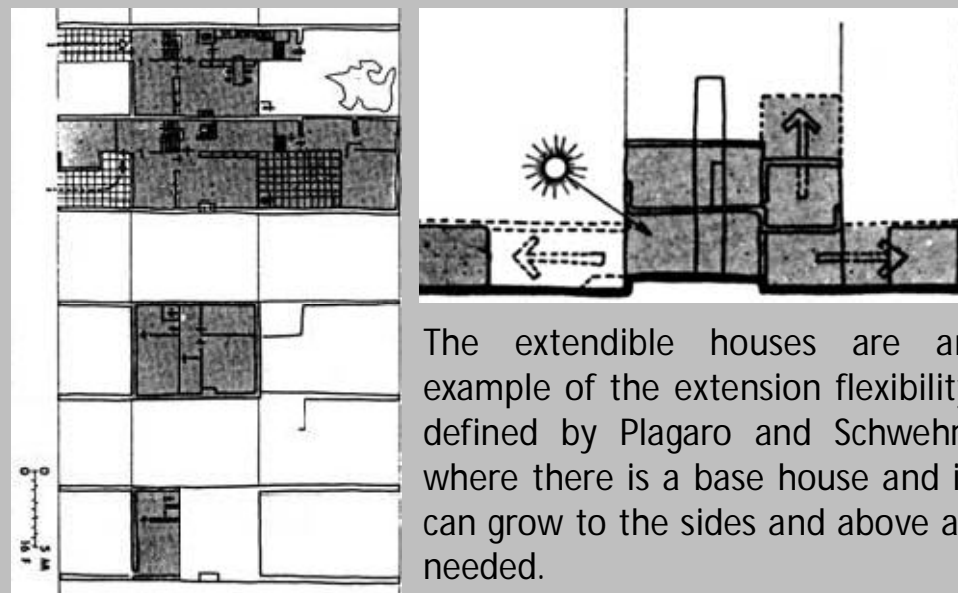
A different classification of flexibility buildings was made by Natalie Plagaro and Dr. Peter Schwehr² in their essay *Are our buildings “fit” to resist incommensurable evolution?*, they identified four main types :

“EXTENSION FLEXIBILITY: refers to extension and retrofit in architecture; analyzing and classifying the positioning and structural properties of extensions and retrofit systems.

INTERNAL FLEXIBILITY: the adaptability of a building: In which degree are modifications within an existing structure possible.

USE FLEXIBILITY: analyses building flexibility in relation to how it reacts to change of use.

PLANNING FLEXIBILITY: refers to characteristics which determine whether and how a building reacts during the entire planning and construction phase



The extendible houses are an example of the extension flexibility defined by Plagaro and Schwehr; where there is a base house and it can grow to the sides and above as needed.

J.H. van den Broek, J.B. Bakema | The Netherlands | 1963

Flexibility in architecture means to consider the built environment, like John Habraken said, as “the product of an ongoing, never ending design process”, instead of considering it a finish work when built.

The idea of an unfinished building, means that it could and would change with time, and makes it easier to consider user’s further needs and how the building may change to satisfy these needs.

ADVANTAGES

FINANCIAL ARGUMENTS

“Whether flexibility is more expensive is difficult to measure.” But it eliminates old house’s maintenance for selling and new house’s buying.

DEMOGRAPHICS

“Treating housing as a static commodity with fixed design parameters, face problems because it arrives into a world of changing demographics.”

INTERNAL DYNAMICS

“Housing has to be flexible enough to deal with two conditions: the changing needs of individuals as they grow old or less physically able; and the changing constitution of a family as it grows and then contracts.”

OBSOLESCENCE

If housing is not able to respond to change, it becomes at best unsatisfactory, at worst, obsolescent.

USER

“The user acquires the ability to customize, the designs become adaptable, the flexible design enables users to make adjustments on their own terms..”

SUSTAINABILITY

“By acknowledging change as an underlying parameter but accepting the level and extent of change as unknown, flexible housing is inherently sustainable.”

DISADVANTAGES

SENSE OF BELONGING

“The awareness that a house can be transformed overnight may be disorienting. It requires that dwellers change the way they think about their homes and the way that architects and builders think about their jobs.”¹

UNNECESSARY FLEXIBILITY

Spend unnecessary money that will never be used.

IMPOSSIBILITY OF ANTICIPATION

Nearly impossible to anticipate the user’s changes.

¹Rebecca Tuhus-Dubrow, *The incredible, flexible, movable house*, The New York Times Company

² from the Competence Centre for Typology & Foresight Planning in Architecture (CTP) Lucerne University of Applied Sciences and Arts / Switzerland

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