

JOUSTAVAN ASUNNON TILALLISET LOGIIKAT

Erlaisiin käyttöihin mukautumiskykyisen asunnon tilallisista lähtökohdista ja suunnitteluperiaatteista

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ABSTRACT

This research maps spatial solutions and spatial thinking that generate flexibility to dwellings. Flexibility is defined here as the ability to adapt to various uses. The research questions are a) what kind of spatial solutions and interrelated principles of flexible space organization can be distinguished, b) what kind of relation or interdependency is there between these spatial principles and dwelling flexibility, and c) which issues should the architect specifically focus on when designing dwellings following these principles.

The research approaches flexible dwelling space and spatial thinking behind it in two different ways. The first approach takes a look at various classifications and conceptualizations of flexible dwellings made by housing researchers in Europe since the early 1960's. The second approach looks directly at a variety of flexible dwellings. Comparing and analyzing floor plans this approach builds knowledge and understanding on various spatial features that create flexibility.

These two approaches are treated in a comparative way. This means that the conceptualizations are used in grouping exemplary floor plans and floor plan groups are used to analyse contents and meanings of the conceptualizations. Through this double exposure a new theory, a theory of *various spatial logics of dwelling flexibility*, is formulated. Spatial logic, a term and concept adopted in this research, is defined as a principle or understanding that guides the organization, provision and arrangement of the built space. The concept unites tangible space and human thinking.

In this research seven distinct spatial logics of dwelling flexibility are formulated. These logics are based on transformability or multifunctionality. Alongside the logics these two basic approaches to flexible space are widely discussed.

Every logic opens up a specific view to flexibility. This means that it has certain potential but also various limitations. None of the logics is able to provide all inclusive flexibility. However, a space or a set of spaces that constitute a dwelling does not need to follow only one single logic but several logics can be combined.

The logics guide design and building. They materialize as buildings' long-lasting properties. The choice of a logic that architect consciously or unconsciously makes is a vitally important strategic decision that essentially affects the sustainability of the built environment.

The theory produced in this research contains new terminology and a set of concepts focusing on the thematic of flexibility in Finnish. It is useful for both design and research on housing as well as for education. The theory challenges some common design practices in housing, especially the dominant 20th-century discourse emphasizing tight-fit functionality.

Keywords: architecture, housing, architectural theory, design theory, spatial theory, flexibility, transformability, multifunctionality.