

Concept of flexibility in architecture



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1. 0 Introduction

An Overview Of The Terminology And The Conceptual Framework

This chapter aims to define the meaning of the term ‘ flexibility’, “ Adaptability’ and ‘ typological variety’ are the other concepts that related to ‘ flexibility’. Both N. John Habraken (2008) and Tatjana Schneider and Jeremy Till (2007) mention that flexibility and adaptability have overlapping meanings, but the colloquial and the technical meaning can provide a departure point for their clarification and the conceptual framework of the study. The meaning of the typological variety is more obvious, it points to freedom of choice (Duygu Albostan, 2009)

The English colloquial usage of the word “ flexibility” is :

1. capabilities of being bent, pliancy.
2. Susceptibility of modification or alteration; capacity for readily adaptation to various purposes or conditions; freedom from stiffness or rigidity.

(Oxford English Dictionary Online, 2009)

It is important to refer professional or researchers who point out the technical meanings of the concept of flexibility , according to their changing senses over time.

Andrew Rabeneck, David Sheppard and Peter Townpublished two articles related to flexibility and adaptability. The articulated entitled “ Housing Flexibility” (1973) and “ Housing Flexibility/Adaptability?” (1974)

“ Flexibility” is proposed against “ tight-fit functionalism” (p. 698)

They introduced the term “ tight-fit functionalism” that refers to the unhealthy situation of mass housing in the twentieth century of Europe. They explain it as miniaturized living areas with the cell types rooms which do not allow any changes(1973, p. 698)

The unsuccessful attempts in flexibility are criticized for they may lead to what they call the ‘ fallacy of freedom through control’.(1973, p. 701)

Flexibility housing should be capable of offering “ choice” and “ personalization”. (1973, p. 701)

Rabeneck, Sheppard and Town involve the scope of flexibility in housing project. They see flexibility as a tool to make the minimal housing environments capable of offering for ‘ choice’ and ‘ personalization’. They criticize flexibility can lead to too technical or complicated housing projects.

The adaptability approach, in contrast to the flexible, emphasizes planning and layout rather than constructional technique and services distribution. It is based on carefully considered variations in room sizes, relationship between rooms, slightly generous openings between spaces and little overt expression of room function.(Rabeneck, Sheppard & Town, 1974, p. 86)

Rabeneck, Sheppard and Town claim that flexibility relates to design decisions about the permanent and fixed parts of the building: the structural system and service spaces, whilst adaptability related to consideration about the architectural layouts of the remaining spaces such as the organization of

the rooms, their dimensions, the relation between the rooms and their functions.

The concept of flexibility deals with the ‘ constructional technique and services distribution’. (1974, p. 86)

As previous, they claim the flexibility related to structural system and services spaces, in “ Housing Flexibility/Adaptability?” (1974) they again emphasize on the construction technique and the position of service spaces. They also compare the flexibility with adaptability. They claim that adaptability more towards the architectural layout.

Herman Hertzberger emphasized the importance of the concept of flexibility in architectural design in his book entitled Lessons for Students in Architecture (1991).

According to Hertzberger flexibility suggest and open-ended solution, which refers to what is called ‘ rhetotic value’ of flexibility that defines by Schneider and Till (2005).

Flexibility signifies-since there is no single solution that is preferable to all others-the absolute denial of a fixed, clearcut standpoint. The flexible plan starts out from the certainty that correct solution does not exist... Although a flexible set-up admittedly adapts itself to each change as it presents itself, it can never be the best and most suitable to any one problem; it can at any given moment provide any solution but most appropriate one. (1991, p. 146)

From Hertzberger’s perspective, flexibility refers to the caple of proposing different solutions for diverse users with no certain single solution but most

appropriate one. He discussed flexibility in a different perspective by introducing the term ' polyvalence' which means a characteristic of a static form, a form that can be put into different users without having undergo changes itself, so that a minimal flexibility can still produce an optimal solution. (1991, p. 147)

Steven Groák discussed the difference between flexibility between flexibility and adaptability from a different perspective in his book entitled *The Idea Of Building: Thought and Action in the Design and Production of Buildings* (1992).

The spatial organization and internal environment may be suitable for only a limited array of uses. Here we should distinguish between ' adaptability', taken to mean " capable of different social uses", and " flexibility", taken to mean " capability of different physical arrangement". The building's capacity for accommodating changed uses will depend on the extent to which it is adaptable and/or flexible. (Groák, 1992, p. 15-17)

Groák tries to explain the the adaptability related to the use of space whilst flexibility refers to different physical arrangement. He emphasize that flexibility is valid not only for interior but also for the exterior adjustments. In this respect, it can be inferred that Groák agrees with the definition of Rabeneck, Sheppard and Town.

Gerard Maccreanore explained the relation between the concepts of flexibility and adaptability by emphasizing the flexibility includes adaptability as well. (1998)

Flexibility is a “ designed idea that leads to the collapse of the traditional layout”. (1998, p. 40)

Adaptability is a different way of viewing flexibility. The adaptable building is both transfunctional and multifunctional and must be allow the possibility of changing use; living into working, working into leisure or as a container of several uses simultaneously. Adaptability is not primarily concerned with a designed idea of flexibility based on the collapse of the traditional layout. An apparent robust identity and enduring presence within an urban context is required that allows the building to cope with future needs and changing conditions. (Maccreanor, 1998, p. 40)

Flexibility has for a long time been a subject of interest for architects. In the years to follow this resulted in many buildings with open, changeable planning around fixed service cores.... One conclusion is that flexibility doesn't simply imply the necessity of endless change and breakdown of accepted formula. On the contrary, the buildings that have proven to be the most adaptable, were those not originally planned for flexibility.

(Maccreanor, 1998, p. 40)

Maccreanor points out flexibility is neither a characteristic of indeterminate space that allows “ endless change”, nor is it a characteristic of detrminate space with too much technical equipments. In other words, if architects leave thir buildings open for infinitely different solutions for the users; they lead to “ open-endedness ” (Schneider & Till, 2005, p. 158) and “ uncertainty” (Hertzberger, 1991, p. 117). By the same token, if architects put more emphasis on flexibility through building with movable partition, they will

create “ false neutrality” as a result of too much technical or strictly defined spaces (Schneider & Till, Theory, 2005, p. 158). They are the two controversial approaches to flexibility in architectural design that belong rather to “ the rhetoric of flexibility” by Schneider & Till (2007, p. 5)

Gerard Maccreanor has a different view about flexibility. He said that flexibility does not imply ‘ an endless change’. He also asserted that the building which are not originally design for flexibility, can be the most adaptable one.

Adrian Forty (2000)deals with flexibility as an issue that requires long-term thinking in architectural design.

The incorporation of “ flexibility” into the design allowed architects the illusion of projecting their control over the building into the future, beyond the period of their actual responsibility for it. (Forty, 2000, p. 143)

The confusion in meaning of “ flexibility” is based on two contradictory roles: “ it has served to extend functionalism and so make it variable” and “ it has been employed to resist functionalism. (200, p. 148)