

Toward Discovering an Architectural Typology Based on the Theory of Affordance

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Abstract : This paper revolves around the concept of affordance. It aims to discover and develop an architectural typology based on the ecological concept of affordance. In order to achieve this aim, an analytical study is conducted and two sources were taken into account: 1- Gibson's definition of the concept of affordance and 2- The researches that are concerned on the affordance categorisation. As a result, this paper concluded 16 typologies of affordances, including the possibilities of mixing them based on both sources. To clarify these typologies and provide further understanding, a wide range of architectural examples are presented and proposed in the paper. To prove this vocabulary's capability to diagnose and evaluate the affordance of different environments, an experimental study with two processes have been adapted: 1. Diagnostic process: the interpretation of the environments with regards to its affordance by using the new vocabulary (the developed typologies). 2. Evaluating process: the evaluation of the environments that have been interpreted and classified with regards to their affordances. By using the measures of emotional experience (the positive affect 'PA' and the negative affect 'NA') and the architectural evaluation criteria (beauty, economy and function). The experimental study proves that the typologies are capable of reading the affordance within different environments. Additionally, it explains how these different typologies reflect different interactions based on the previous processes. The data which are concluded from the evaluation of measures explain how different typologies of affordance that have already reflected different environments had different evaluations. In fact, some of them are recommended while the others are not. In other words, the paper draws a roadmap for designers to diagnose, evaluate and analyse the affordance into different architectural environments. After that, it guides them through adapting the best interaction (affordance category), which they intend to adapt into their proposed designs.

Keywords : Affordance theory, Affordance categories, Architectural environments, Architectural Evaluation Criteria (AEC), emotional experience (PA, NA)

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