A Typology System to Diagnose and Evaluate Environmental Affordances

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Abstract : This paper is a research report of an experimental study on a proposed typology system to diagnose and evaluate the affordances of varying architectural environments. The study focused on architectural environments which have been developed with a shift in their use of adaptive reuse. The novelty in the newly developed environments was tested in terms of human responsiveness and interaction using a variety of selected cases. The study is a follow-up on previous research by the same authors, in which a typology of 16 categories of environmental affordances was developed and introduced. The current study introduced other new categories, which together with the previous ones establish what could be considered a basic language of affordance typology. The experiment was conducted on ten architectural environments while adopting two processes: 1. Diagnostic process, in which the environments were interpreted in terms of their affordances using the previously developed affordance typology, 2. The evaluation process, in which the diagnosed environments were evaluated using measures of emotional experience and architectural evaluation criteria of beauty, economy and function. The experimental study demonstrated that the typology system was capable of diagnosing different environments in terms of their affordances. It also introduced new categories of human interaction: "multiple affordances," "conflict affordances," and "mix affordances." The different possible combinations and mixtures of categories demonstrated to be capable of producing huge numbers of other newly developed categories. This research is an attempt to draw a roadmap for designers to diagnose and evaluate the affordances within different architectural environments. It is hoped to provide future guidance for developing the best possible adaptive reuse according to the best affordance category within their proposed designs.