ARCHITECTS’ AND NON-ARCHITECTS’ PERCEPTION OF EXPOSED CONCRETE AS A BUILDING MATERIAL

Imela Benz, TU Dresden/Germany, Institute of Psychology & Rikke Rambow, BTU Cottbus/Germany, LS Theory of Architecture

Background

The perceived quality of the built environment is directly related to feelings of comfort and well-being as well as aesthetic satisfaction. It has often been shown that perception and evaluation of the built environment is the product of judgments regarding both the materials and the products – on the one hand, and those who use it – ‘hypothyes’ – on the other (Rainbow, 2002). It is assumed that perception correlates with difference determinants of the perceived perspective, such as the quality and quantity of individual ‘image banks’ (Drewing, 1992) or the meaning being associated with buildings and architectural details (Hardberger, 1998; Mathes & Sörensen, 1999), resulting from the differing orientation of architects and laypersons (Wilson, 1994).

Two studies take a close look at perspective differences between architects and laypersons with respect to a specific architectural material: exposed concrete. A multitude of anecdotal evidence highlights the controversial perception and appraisal of exposed concrete by architects and non-architects. The material has been of highest significance in architecture ever since the late 1950s, but never seemed to be accepted by the wider public. Since systematic research is lacking, little is known about the psychological reasons behind this perspective gap.

Study 1: Laypersons’ perception of two examples of Exposed Concrete (EC) architecture

Method: Exploratory field study. Structured interviews with passers-by in front of either of two prominent examples of exposed concrete architecture in the governmental district of Berlin. N = 50 persons answered the general questions of part 1, N = 43 the specific questions of part 2. (N = 26 with respect to Building 1, N = 29 with respect to Building 2).

Results

5.1 General semantic associations with the material Exposed Concrete

The image of the material among laypersons is rather negative. The lack of warmth and colour play a central role. The material is imagined as practical, modern, and rational, but not as creative or as a

5.2 Hypothyes’ perception and evaluation of specific built examples of EC architecture

While both buildings are experienced as modern, massive, and competitive, only Building 1 is perceived as more lively and meritless. The two buildings are perceived as the ‘natural’ colour of concrete and is associated with the prototypical qualities of the material like durability, selfishness and a certain brutality. The broken concrete of Building 2 differs markedly from this prototypical image. A result that is underscored by the observation that almost half of the participants did not identify the material of Building 2 as concrete in the first place.

Study 2 – A systematic comparison between the perceptions of experts and laypersons


Participants: Laypersons: Persons with an academic degree, who have no professional relation to either architecture, art, or design. N = 75, 52% male, 48% female. Age: 25–62 years (M = 40.7, SD = 9).

Experts: Professional architects with a professional degree and at least one year of professional experience, 64.5%, 52% male, 38% female. Age: 25–62 years (M = 40.1, SD = 8).

Research Questions:

What commonalities and differences between the perspectives of experts and laypersons can be found with respect to:

1. Semantic connotations of Exposed Concrete?

Hypothesis A: The connotative meaning of exposed concrete differs systematically between experts and laypersons.

2. Perceived advantages and disadvantages related to the use of Exposed Concrete in architecture?

Results

5.1 Semantic connotations of Exposed Concrete

In accordance with hypothesis A, connotations vary systematically dependent on expertise (r [23,120] = 0.60, p < 0.001; r [56,640] = 0.56).

5.2 Arguments for and against the use of Exposed Concrete in architecture: Aesthetics vs. Economy

The relation of produced pros and cons arguments differ depending on expertise. (r [23,120] = 0.42, p < 0.001).

Experts produce more pros than cons, while laypersons produce as many pros as cons. In terms of content of the pros arguments, the experts’ main pros produce aesthetic arguments while laypersons produce mainly economical arguments. In the case of the cons, the relation is the other way round.

5.3 Arguments for and against the use of Exposed Concrete in architecture: Differences in content

There are some distinct ‘expert’ and ‘lay’ arguments, who almost exclusively are used by the group. Laypersons tend to underline the cost and the technical difficulties in the production of EC. Experts value the diversity, the sculpturability, the authenticity, the preparedness to pattern, and the conceptual flexibility and richness of the material. Experts see the difficulties of execution and the weak public image as cons arguments, while laypersons focus on practical, p. difficult to plug and atmospheric (flat, underdamped) effects on the user and the ‘inhuman’ visual character of EC.

Discussion

Discernments in perception and evaluation of Exposed Concrete are based on experiences of the architect made during professional education and practice, which are not accessible for the layperson. A large pool of examples in the personal ‘image bank’, knowledge about technical difficulties and design possibilities and a ‘memorial’ approach to the ‘language’ of the material rooted in the professional discourse of the 20th century, highlighting concepts like authenticity or ‘novelty’ of the material. The two studies show that the material actually stands synonymous for the enduring conflict between experts and laypersons: in architecture, the laypersons’ perception of EC is strongly determined by material, colour and type of building, while experts’ perception of EC is conditioned by the context of use. Laypersons have a materialistic conception of building materials, i.e., presentational and cognitive components. Communication measures to overcome the perception gap between experts and laypersons need to allow the differences and to focus on misconception stemming from over-generalisation to open the eyes for qualities whose perception is depending on precise knowledge and interpretation.

References


