
TITLE

Concreteness and Carcass in Architecture and Education

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ABSTRACT

A most effective way of learning is to intrinsically motivate students by challenging concrete tasks; this paper describes as a case study the seminar *Concreteness*, in which students work with concrete as a material. We deliberately chose this material as the central subject of our seven-year research project in the seminar *Concreteness*, part of the master's programme at the School of Architecture at Eindhoven University of Technology. The use of concrete in post-war architecture has had a lasting impact on the urban landscape of the city. Concrete buildings and structures have become iconic symbols of the city's history and culture. It is essential that all architects, designers and engineers have a good understanding of the inherent properties of the materials they use. This understanding must go beyond simply appreciating the aesthetic qualities of the materials and include a thorough understanding of their physical and structural properties. Furthermore, it is essential that these professionals develop a nuanced understanding of the production processes and systems used when working with the selected materials. This understanding must go beyond a theoretical basis rooted in quantitative data

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and visual examples and extend to the practical handling of the materials, including tactile experience, operational observation and reflection on the results of physical tests.

Our mission was to unravel the power of a distinct concrete structure as the foundation for the architectural identity of a building. Each year, we focused on a specific city and visited projects by architects who were at the forefront of the local architectural debate and recorded this in interviews. The seminar places great emphasis on the meticulous study of existing buildings and design principles, while also using a wide range of exploratory, investigative and technical techniques. The seminar is not only theoretical; it also includes an extensive practical component in which students get to know the material intensively in various hands-on workshops.

Western architecture is perpetuated through the medium of education, wherein knowledge and skills coalesce. Architects' narratives and words are transmitted to successive generations; this process is an enduring facet of our cultural heritage.