Innovation and Global Cooperation for Sustainability
12-14 March, 2024

Situated Architectural Knowledge

DAAD

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1. Reimagining the Blueprint

Architectural education programs often assume that present conditions will remain unchanged in the future. This includes the needs for buildings, how they are designed and built, and how they will be used. However, design studios, which are a common part of architectural education, focus on how these designs could be built in reality, without considering what parts of the architectural reality are left out. Therefore, there is a need for a reflection on architectural practices and education at a larger scale. As the world faces uncertain challenges such as global warming, social and economic changes, and geopolitics, it is essential to bring back situated experimentation to the drawing board.

Experimental spaces are simultaneously spaces of possibility, experience, and action. In them, openness prevails and boundaries, substances, and processes are constantly re-negotiated and realigned with changing goals. How is knowledge generated, increased, stored and propagated in architecture? How does action derive from this knowledge?

This poster presents the outcomes of a research project that has been conducted over the past four years as part of a transnational cooperation between the RWTH Aachen University's Department of Architectural Theory and the IIT Roorkee's Department of Architecture and Planning.

2. Seeing, Witnessing, Documenting

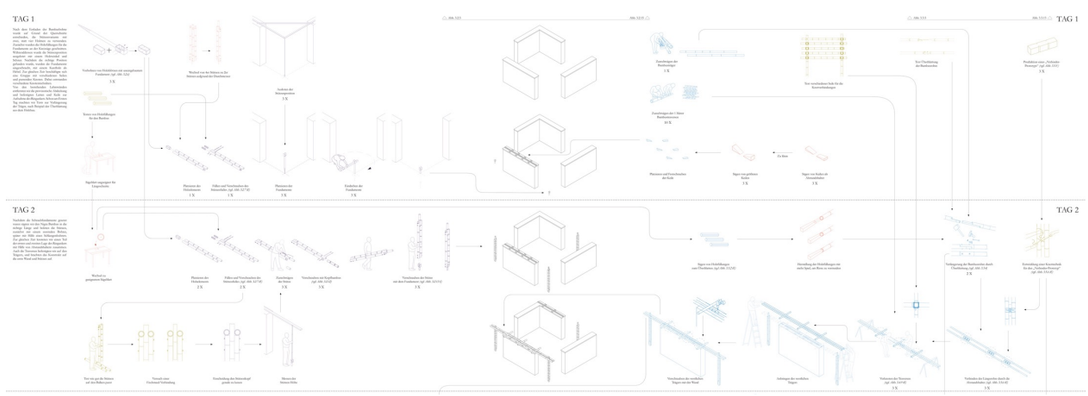
Teams from India and Germany systematically studied traditional and contemporary buildings, utilising alternative construction methods. They delved into historical texts and architectural examples to establish a dialogue between vernacular traditions and modern ecological practices. The research extended to identifying challenges in urban development and incorporating circular economy principles by Indian builders. This extensive documentation of the built environment laid the groundwork for formulating research questions and developing new theoretical architectural frameworks.

The collected data and insights were consolidated into an online digital inventory focused on experimental architecture and material culture. This platform facilitates knowledge exchange and is a foundation for future sustainable architectural research.

4. Designing-Building

The educational approach of combining design instruction with hands-on construction projects, known as design-build, was exemplified through a workshop at Hoogcruts Abbey. This site was a live laboratory where students and partners designed and built rammed earth walls and a bamboo structure. The projects emphasised adaptability and learning through material constraints, showcasing the educational value of working with non-standardized materials like clay, earth, and bamboo.

5. Reflecting

The project's outcomes were compiled in a special *Candide – Journal for Architectural Knowledge* issue. It features contributions reflecting sustainability, resource management, and international collaboration. The publication includes a photo essay by Gernot Minke, essays on stone and earth architecture, and travel reports from study trips to Europe and India.

The design-build project's documentation was innovatively presented in a Leporello, capturing the process's conceptual and material aspects so that bodily movements and skilful gestures could be shown along with key points of the construction.