

Pyramidal circularity against the background of individualized standardization

In architecture and building construction, a planning task is defined by multi-criteria requirements that are not necessarily directly linked to each other and therefore lead to increased complexity during the planning process. In order to simplify the overall workflow during the different phases, students should be provided with measures and tools to cope with the complexity of parameters within the entire architectural task. This is achieved by linking a system concept with a cycle-oriented approach for the construction and reversibility of buildings. Methodologically, the strategy of “Individualized Standardization” is used, which requires a balanced implementation of standardization and individualization for the development of future-proof constructions. The research results in the transition towards a new principle of circularity - a “Pyramidal Circularity”. New interfaces are identified that ensure a distinct relationship between the system and adaptation planning based on digitalization and automation. A strategy for a circular construction process is provided based on six innovative interfaces. As a result, a workflow for future architectural education is proposed.

Kirsten E. Hollmann-Schröter
Technical University of Dortmund

