How does sustainability certification affect the design process? Mapping final design projects at an architectural office

The context of the study is the very strict regulation of energy consumption for operating buildings in Denmark. It is difficult to meet the requirements by system optimisation in the final design phase, so recent research has focused on ways of meeting the target by adapting the whole design process and informing the industry of them. This has led to optimised design processes such as Integrated Energy Design, in which many decisions related to energy consumption and indoor climate are made in the early design stages. The current tendency is to use an expanded notion of sustainability, derived from the sustainability certification system itself, and to apply it even in the early design process. This perspective emphasises all phases of the life cycle of a building. The goal of the present study was to map how a Danish architectural office approached sustainability in the projects they undertook in the course of a year. All the projects concerned were intended to conform to the German Sustainability Certification System DGNB. We developed a mapping tool to document these case projects and found that different sets of certification criteria were used in each project. This demonstrates the complexity of using them as design parameters in practice, but also that it was successfully achieved.

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