

Abstract for the 11th IAS-STIS Annual Conference - "Critical Issues in Science and Technology Studies". Theme: Energy and Climate

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A sustainable future *in the making*. How students bring sustainability into the architectural design process

Worldwide, 30-40% of all primary energy is used by buildings. Consequently, a substantial reduction of buildings' energy consumption becomes a key issue, in order to meet the challenges of global warming and climate change. As it is mainly architects, who will be entrusted with the task to design buildings with low CO₂ emissions, it literally becomes a practical matter to gain their knowledge on sustainability and, by doing so, to transform them as well as their profession from 'architects/architecture' to '*sustainable architects/architecture*'.

This is where the presentation comes in. It presents findings of a research project, which investigated learning practices in '*sustainable architecture*'. Based on a video ethnography, the presentation sheds light on the heterogeneous but intertwined knowledge-practices through which first-year Master's students in '*Sustainable Architecture*' apply abstract knowledge about passive heating and cooling strategies to their own design project. The interplay of the different practices will be analyzed as a *situated activity system* (Goodwin 1997), which finally ends up in two sections of the planned building, representing its energy concept. By unfolding their knowledge-practices, the presentation shows how the students develop and apply 'Professional Vision' (Goodwin 1994) and a diverse range of Professional Skills through which "the objects of knowledge that become the insignia of a profession's craft" (Goodwin 1994: 606) are being shaped. Accordingly, the analysis gives a snapshot of the process of becoming a competent member of the relevant community of sustainable architects and offers a practice-based reflection of this emerging profession.

Literature

Goodwin, Charles (1997), The Blackness of Black: Color Categories as Situated Practice. In: Lauren B. Resnick, Roger Säljö, Clotilde Pontecorvo & Barbara Burge (Eds.), *Discourse, Tools and Reasoning: Essays on Situated Cognition*. Berlin, Heidelberg, New York: Springer, p. 111-140

Goodwin, Charles (1994), Professional Vision. In: *American Anthropologist* 96 (3), p. 606-633.

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