Ulrich Glotzbach

## Abstract

## The Importance of Seeing What is Not There

Enrolling the Concept of Gestalt in Engineering Constructivism

From science and technology studies (STS) we know that engineers don't actually do what they think they do. While engineers think they were just solving problems in the field of technology, the things designed by them are actually deeply impregnated by social construction and unquestioned routines; the things would carry scripts, for example, and therefore exert in use some kind of hidden force, and so on. The design process itself is considered not to be taking place in the realm of engineering, because there is no such realm but a multi-linked pluriverse. Ultimately inscrutable for engineers, the very distinction between subject and object is put on trial.

Of course, this description of the state of affairs suffers from what Latour calls the naïve assumption of the naïveté of the others. I like to make the point that problem solving in engineering is not very much based on the deplorable subject/object dichotomy and that, therefore, in turning to the lifeworld praxis of engineering, concepts can be found which serve to bridge the existing gulf between engineering experience and the culture of STS-studies.

What does it mean "to have an idea"? In engineering, the phenomenal incident of "having an idea" is obscured by a common sense disciplinary rhetoric of function and principle. That rhetoric is a work of purification, done to a lifeworld phenomenon maybe in order to make it better fit the more classical concept of *idea* as it is in idealism. Indeed, having an "idea" of how to solve a technical problem is more like encountering a dizzy complex of, however, some unity which immediately imposes a conviction of necessity: "this way!" It is precisely the perceived unity of a nonetheless fuzzy complex that turns an "idea" into a solution candidate. That is to say, an upcoming "idea" is less *idea* than *gestalt*.

Contrary to the notion of *idea* the concept of *gestalt* is wide enough to take in a bulk of valuable findings from STS, for example the agency of non-humans and the founding role of the human body. On the other side, *gestalt* is a very understandable concept in any poietic field of activity, and so it is in engineering, because it captures shaping beyond rendering just form. The intuitive understanding of *gestalt* lives from an embodied view of the relatedness of things. That is why I think *gestalt* is a "bridge-concept" engulfing both engineering practice and STS-studies which are much concerned with unhiding relations.

From a realist point of view gestalts are not there. "Gestalt you don't find in the universe", as Goethe had it. However, it is exactly seeing-what-is-not-there in the perception of gestalts upon which I like to model engineering for now. Accompanied by another bridge-concept, that is *technological style*, the notion of *solution-gestalt* might enlight engineering practice in engineering praxis. The concept of *technological style* accounts for all specifically "social" relatedness, whereas *solution-gestalt* takes serious that, after all, we still experience something like a Self. The hinge between both concepts might be network theory.