Chapter

2

Personal Statements by Members of IABSE WG9 Construction History: What is Construction History and Why is It Significant for Structural Engineers?

Eberhard Pelke

In 1995, my administration sent me to the "Deutsches Straßenmuseum" (German Road Museum). I was to help as a "bridge builder" in setting up the "Bridge and Structural Engineering" part of the exhibition. There, I met the great engineer Klaus Stiglat. He took my by the hand and taught me, as a practicing engineer, to see not just the here and now of the technical rules and standards but also the past work of the engineers on whose shoulder we rest. Together we developed the "History of Bridges – the Age of the Engineers" section of the exhibition. Sixteen large-sized boards displayed the development of bridge building starting in ancient times using the four basic bridge types—girder, arch, suspension and cable-stayed bridge. The task was to elaborate and personify the milestones of bridge building. What was the critical development step, who was the key engineer in defining the structure—indeed, a question of stance—informing a society critical of technology about the work of construction engineers *via* their work and personality. That was the beginning, purely practical without scientific superstructure and the call for creating discipline. I am very grateful to Klaus Stiglat, not only for an introduction to construction history but also for the questioning of and applying the same in everyday engineering. Even today, to me construction history is not an academic exercise that documents and archives the past, brought to a scientific community with a presentation at an international congress, but rather a tool for everyday engineering with which to understand structures, to evaluate and protect them, and to improve them in accordance with their load-bearing behavior. Or, to detect defects that may result in demolition. Yes, that is the run of things.

A structure and the personality of the engineer are mutually dependent. Engineers do not necessarily arrive at the same optimum. Designing trusses is a process of rational physical criteria and the subjective perception of the engineer. He brought construction critique, a topic in construction history, back into the limelight. He taught me about that too. And above all, it is important to him to retrieve the lifework of great engineers from the anonymity of the information society. His many interviews as Chief Editor of the magazine "Beton- und Stahlbetonbau" (Concrete and Reinforced Concrete Construction) and his book "Bauingenieure und ihr Werk" (Construction Engineers and Their Works) document construction history brought to life as a primary source. Together with Karl-Eugen Kurrer, we recalled the lifework of Helmut Homberg (1909–1990) to the memory of younger construction engineers. Just in time, before

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