Guest lecture at the University of Osaka, September 30, 2016.

**Bridge Aesthetics and Structural Honesty**,  
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**Abstract**

In bridges the overall form must be chosen with due respect to the transmission of loads if an efficient structure shall be achieved. The design must therefore be governed by experienced structural engineers - often in cooperation with aesthetic advisers on specific issues.

A bridge might be regarded simply as a part of a road alignment or a railway line. It will then fulfil its function if built to the same standards as the adjoining roads (or railway lines), i.e. that it has the same widths and number of lanes or tracks and fulfils the same specifications regarding gradient, vertical and horizontal curvatures, etc.

The bridge can also be regarded as a monument, an object in the visual environment or even a sculpture, but in most cases the bridge must be regarded as a **structure** designed to carry efficiently the loads acting upon it without showing excessive deformations or vibrations. If this is achieved at the same time as the bridge is aesthetically pleasing and fits well into the land- or townscape an optimum solution has been arrived at.

In contrast to a structure forming a part of a building or a large roof where the structure is more or less covered by walls, floors, roofing and other non-strucrual elements, the structure of a bridge is generally visible in its entirety. So mistakes in composing the bridge structure will be clearly exhibited.

Some basic requirements decisive for choosing the correct form of beams, frames, trusses, arches and cable supported systems are outlined in the lecture where also a number of bridges designed without giving priority to structural efficiency are shown.