A Pedestrian Arch Bridge with a Span of 230 m

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Summary

In the border triangle in the southwest of Germany, a new pedestrian bridge across the river Rhine near Basel was opened by March, 2007. The bridge will improve the infrastructure of the region and cross-community relations.

The paper deals with following items:

- Basic design concepts and constructional implementation of a great number of complex construction details
- Extracts of load cases “wind” and “traffic on half span” considering geometric nonlinearity, camber and construction stages
- Assembly: The entire main bridge with a length of 248 m was pre-assembled at a pre-construction site a few 100 m to the north of the final location, then shifted on pontoons and floated.

Keywords: asymmetric arch, fixed rotation, fixed / free longitudinal displacements, wind loads, traffic on half span, geometric nonlinearity, camber, construction stages.

1 General

In July 2001 the City of Weil am Rhein and the Communaute de Communes des Trois Frontieres announced a competition to construct a pedestrian and cyclist bridge across the River Rhine.
Planning associates Leonhardt, Andrä und Partner, Berlin / Feichtinger Architectes, Paris were the winners of this competition in 2004 and were commissioned to complete further planning. The bridge was opened in March 2007.

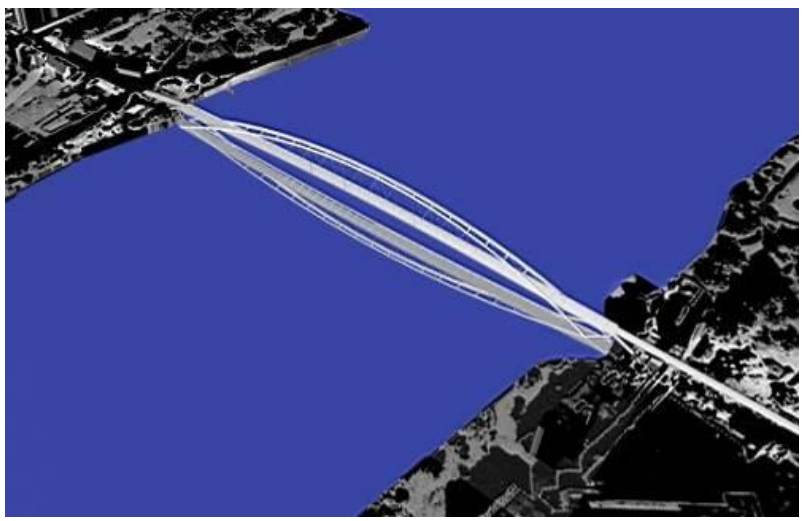

Fig. 1 *Design Competition 2001 - Visualisation*

https://doi.org/10.2749/222137807796119672