

Brief considerations on the Accademia Bridge in Venice

Umberto BARBISAN

Associated profesor at the Faculty of Architecture of Venice IUAV.

umbeba@iuav.it

He is an active member of the graduate seminar on the Art of Building that has produced over 150 theses. His researches have touched many areas of history of building, and started - in the eighties - with the analysis of historical building techniques in seismic areas.

He is currently involved in a research on the history of wood construction, which are expected to end with a first insight into a number of construction techniques and a possible history of Venetian bridges.

Marko POGACNIK

Research profesor at the Faculty of Architecture of Venice IUAV.

pogacnik@iuav.it

Born in 1958, obtained his PhD in 1994 with a thesis on K.F. Schinkel. He is a research professor Venice University IUAV and was a visiting professor and lecturer in many european universities: FH-Potsdam, Universität Dortmund, Accademia di Architettura di Mendrisio, ILEK Stuttgart, Universität Innsbruck.

The subjects of his researches and publications are the architectures of Schinkel, Ledoux, Semper, Behrens, Mies, Loos, Le Corbusier, Libera, Scarpa.

Luka SKANSI

Teaching assitant at the Faculty of Architecture of Venice IUAV.

luka@iuav.it

Luka Skansi (1973) graduated at the Faculty of Architecture of Venice IUAV, where he obtained his Ph.D degree in 2006. He is currently Teaching Assistant in History of Architecture at IUAV. His researches deal with architecture of the XXth century in Italy, ex-Jugoslavia and Russia.

Summary

The hundreds of bridges, built in the centuries and most of them still service, make Venice, probably, the city in the world with the higher presence of these structures.

And surely the city in which the culture of bridges is closely linked to the culture of the town.

It's interesting to investigate on the engineering aspects of the Venetian Bridges and on the problems that the Venetian artisans, artists, engineers and architects have encountered and overcame during the centuries of bridge engineering in Venice.

This paper, together with its companion paper on the Scalzi bridge, wants to illustrate the engineering and structural aspects of one of the most interesting wooden structure built in the XXth century in Venice: the Accademia Bridge.

Keywords: arch bridges; wooden bridges; construction history.

1. Introduction

1.1 Neville's First Accademia Bridge

Between 1852 and 1854 Alfred Neville completed the new Accademia bridge (Fig.1), a reticular iron structure very similar to the Railway station bridge (Ponte degli Scalzi), which was concluded just a few months later, right after the first bridge proved its stability.

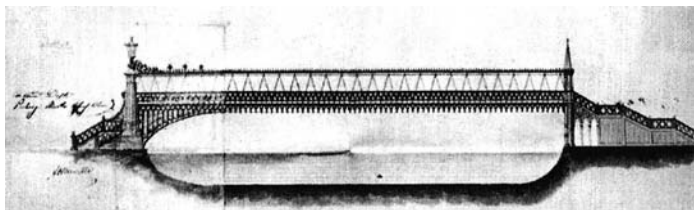


Fig 1. Neville's Accademia Bridge.

The structure was formed by reticular iron beams, assembled following a scheme that would later be known as the "Neville beam": a structure of great relevance, but at the same time with low static efficiency, especially for the compressed beams, their evident undersizing and the