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Bridges in Urban Planning and Architectural Culture

Marek Salamak^{a,*}, Klaudiusz Fross^b

^a *Silesian University of Technology, Faculty of Civil Engineering, ul. Akademicka 5, 44-100 Gliwice, Poland*

^b *Silesian University of Technology, Faculty of Architecture, ul. Akademicka 7, 44-100 Gliwice, Poland*

Abstract

Bridges obviously serve multiple functions but the primary purpose is to traverse a terrain obstacle to get goods and/or people across to the other side. Bridges are often viewed as an indicator of progress in technical capability, engineering skills as well as a symbol of economic potential of a particular city, region or a country. Often, this is the reason why many urban bridges become the most important infrastructure in some cities. This paper discusses several examples of bridges which have made a significant impact on the perception of a city and resulted in substantial changes to landscape configuration. The following available research methods of evaluation were used: analysis of literature, observational in-situ studies of objects and own research. Analysis were performed on dozens of bridges constructed over the centuries. The example selection was directed to the well-known objects, the spectacular new implementations or icons of bridge architecture. The study involved both contemporary and historical objects.

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1. Introduction

The primary function of a bridge is obviously to traverse an obstacle to get across to the other side. Over time, overcoming longer span distances became possible due to gains in technical capabilities and application of increasingly more innovative designs. Therefore, bridges are often viewed as an indicator of progress in technical innovation and engineering skills as well as imply economic potential of the particular region. At times, they attract tourists and become characteristic elements of the urban landscape (even icons) by which those cities are easily recognized.

* Corresponding author. Tel.: +48 502 359 037.

E-mail address: marek.salamak@polsl.pl

A typical urban bridge, in comparison to a highway bridge, also serves pedestrian traffic and therefore must satisfy additional safety and comfort conditions. There are four main functions of an urban bridge: 1) transport link between separated urban areas; 2) creation of an attractive exterior; 3) demonstration of modern technical capabilities; 4) construction of user-friendly structure. Apart from this, a bridge may also have a metaphoric connotation. It is a structure which links two different or distant groups or communities from each other. There are also examples of bridges which, as a result of being located on cultural or ethnic borders, have often served as a role of a symbolic link. Such examples, according to the authors of this report, will contend and confirm the above-mentioned thesis about the multi-functionality of urban bridges in societies.

2. Influence of bridges on urban planning

It can be noted that almost all major metropolitan areas are often separated in some way by a water obstacle of a certain size. It should however be remembered that even though nowadays these cities are developed on both sides of the divide, the initial settlement would have started on one side only. Construction of the bridge across the river would have opened new areas for further development and settlement. Smooth and orderly functioning of growing urban municipalities necessitated the construction of new bridges and associated thoroughfares, which often determined the entire urban layout of the city. Such was the story of the development in many cities around the world.

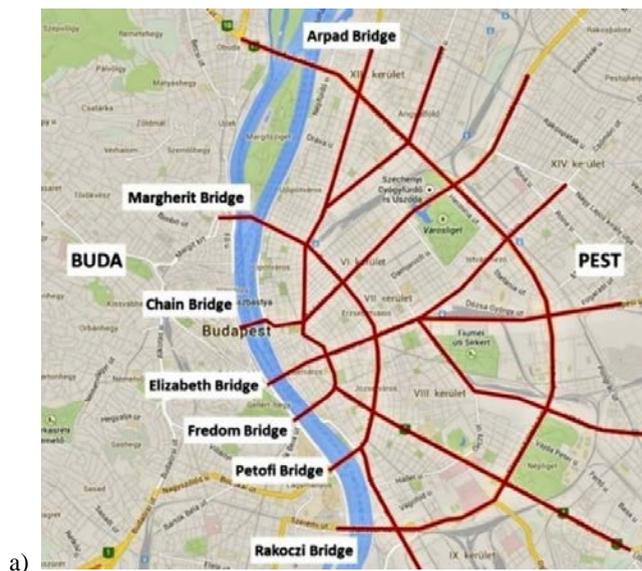


Fig. 1. (a) Budapest urban layout with bridges; (b) the oldest Chain Bridge in Budapest.

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