

COMBINING ART AND ENGINEERING – WARSAW’S OLDEST ROAD VIADUCT

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SUMMARY

The present paper analyses the engineering and architectural features of the early twentieth-century urban viaduct forming part of Karowa Street. It is a unique example of structural-architectural art that combines engineering solutions with an aesthetic architectural design. The structure was commissioned in 1904 and remained intact for more than 100 years. It survived two world wars, including the disastrous Warsaw Uprising of 1944, and is still used today. The road, leading up the steep Vistula slope, was designed in the shape of a spiral by Kajetan Mościcki, Warsaw’s chief engineer at the time. The viaduct itself was engineered by Arnold Bronikowski, who pioneered the use of the Monier’s patent in reinforced concrete bridges. The viaduct’s architectural features were designed by Stefan Szyller, one of Warsaw’s leading architects, and its elaborate sculptures, which transformed it from a utilitarian structure into a work of art, were crafted by Jan Woydyga.

Keywords: *Road Viaduct, Reinforced Concrete, Architecture, Sculpture, Art Nouveau.*

1. INTRODUCTION

Following the defeat of Napoleon Bonaparte, Emperor of the French, in line with the conclusions of the Congress of Vienna in 1815, the Kingdom of Poland was incorporated into the powerful Russian Empire. There, following two failed bids for independence, the uprisings in November 1830 and January 1864, the Polish society was deprived of its right to autonomy and self-government. A ring of fortresses with a contingent of Russian soldiers encircled the Kingdom’s former capital, Warsaw. The city was managed by Russian officials and all important economic decisions that concerned it were taken by the imperial authorities in Saint Petersburg. Yet popular awareness and social conditions of the people were shaped by the Polish elites, descendants of wealthy burghers and noblemen, educated at the best European universities. At the turn of the 20th century, when Europe’s economy was booming, Warsaw experienced a period of spatial development not seen for centuries, coupled with improvements to the living standards of its inhabitants. New streets, bridges, waterworks and sewage systems were being built as well as monumental edifices and public buildings that – unless they were destroyed in the course of the two world wars – still influence Polish culture, science and economy. One of the structures built at that time is the viaduct on Karowa Street.

2. KAROWA VIADUCT IN WARSAW

The viaduct on Karowa Street was built in the early 20th century. After a decade of use, it was named after Stanisław Markiewicz (1839–1911), doctor, social activist and hygienist, founder of the Summer Camp Society for the Poor and Frail Children of Warsaw. As a structure with surviving original form and substance, the viaduct is of particular importance for the Polish capital, which lost most of its historical architecture as a result of military activities and the post-war, ideologically motivated reconstruction programme. The history of the Karowa Street viaduct has not been thoroughly researched yet. Documents