

Cracow 11.01.2021

Tadeusz Kościuszko Cracow University of Technology
Faculty of Architecture

Doctoral dissertation entitled

Contemporary Observation Towers and Platforms

Author: mgr inż. Stanisław Czernik

Supervisor: prof. dr hab. inż. arch. Janusz Rębielak

Abstract

The subject of this dissertation are contemporary observation towers and platforms. At present, there is an observable tendency to build such structures and a clear rise in their popularity among society leads to the matter being relevant, and interest in it is increasing and features rising trends. In association with this, I analysed the architectural and engineering determinants for currently built observation towers and platforms which are often located in areas of particular landscape value and become local attractions that attract tourist traffic.

The primary objective of the study is to comprehensively analyse contemporary structural forms and functional applications of observation towers and platforms that are adapted to tourist traffic along with an assessment of how they comply with functional requirements for such buildings, specifically in terms of their use by persons with limited mobility and persons with children. In addition, I formulated principles of designing the architectural forms of observation towers and treetop walkways in protected wildlife areas, combined with a list of recommended footing systems for such structures.

I formulated the theses of the dissertation with these research goals in mind. The theses describe the dependency between the architectural form and shape of the load-bearing structure of the buildings in relation to site-specific cultural and landscape determinants as well as construction tradition. The theses also refer to the potential for adapting the buildings to the needs of persons with limited mobility and families with small children, which carries over into stimulating tourist traffic and thus enables the protection of the natural environment.

The main research methods included analyses of the literature, comparative analyses and participative site visits to the observation towers and platforms selected for study, and which are currently recognised as tourist attractions within their relevant regions.

The study was performed on selected cases of completed observation towers and platforms located in areas of outstanding landscape value and in large cities where towers that form complex functional layouts are built. The dissertation also refers to the history of the development, transformation and adaptation processes of the towers, whose architectural form has been adapted to current needs and technical capabilities of a given period over the course of history. Despite observable changes and evolution in the architectural forms of the towers, their defining parameter—height—remains unchanged and has always distinguished this group of buildings as landmarks within the landscape.

Conclusions formulated over the course of the study and its analyses confirm the correctness of the goals formulated and validate the theses of the dissertation.