World Academy of Science, Engineering and Technology International Journal of Structural and Construction Engineering Vol:17, No:08, 2023

Evaluation and Preservation of Post-War Concrete Architecture: The Case of Lithuania

Authors: Aušra Černauskienė

Abstract: The heritage of modern architecture is closely related to the materiality and technology used to implement the buildings. Concrete is one of the most ubiquitous post-war building materials with enormous aesthetic and structural potential that architects have creatively used for everyday buildings and exceptional architectural objects that have survived. Concrete's material, structural, and architectural development over the post-war years has produced a remarkably rich and diverse typology of buildings, for implementation of which unique handicraft skills and industrialized novelties were used. Nonetheless, in the opinion of the public, concrete architecture is often treated as ugly and obsolete, and in Lithuania, it also has negative associations with the scarcity of the Soviet era. Moreover, aesthetic non-appreciation is not the only challenge that concrete architecture meets. It also no longer meets the needs of contemporary requirements: buildings are of poor energy class, have little potential for transformation, and have an obsolete surrounding environment. Thus, as a young heritage, concrete architecture is not yet sufficiently appreciated by society and heritage specialists, as it takes a short time to rethink what they mean from a historical perspective. However, concrete architecture is considered ambiguous but has its character and specificity that needs to be carefully studied in terms of cultural heritage to avoid the risk of poor renovation or even demolition, which has increasingly risen in recent decades in Lithuania. For example, several valuable pieces of post-war concrete architecture, such as the Banga restaurant and the Summer Stage in Palanga, were demolished without understanding their cultural value. Many unique concrete structures and raw concrete surfaces were painted or plastered, paying little attention to the appearance of authentic material. Furthermore, it raises a discussion on how to preserve buildings of different typologies: for example, innovative public buildings in their aesthetic, spatial solutions, and mass housing areas built using precast concrete panels. It is evident that the most traditional preservation strategy, conservation, is not the only option for preserving post-war concrete architecture, and more options should be considered. The first step in choosing the right strategy in each case is an appropriate assessment of the cultural significance. For this reason, an evaluation matrix for post-war concrete architecture is proposed. In one direction, an analysis of different typological groups of buildings is suggested, with the designation of ownership rights; in the other direction - the analysis of traditional value aspects such as aesthetic, technological, and relevant for modern architecture such as social, economic, and sustainability factors. By examining these parameters together, three relevant scenarios for preserving post-war concrete architecture were distinguished: conservation, renovation, and reuse, and they are revealed using examples of concrete architecture in Lithuania.

Keywords: modern heritage, value aspects, typology, conservation, upgrade, reuse

Conference Title: ICCRRP 2023: International Conference on Concrete Restoration, Repair and Protection

Conference Location : Istanbul, Türkiye **Conference Dates :** August 17-18, 2023