

Summary of approved PhD theses

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HISTORY OF THE BRATISLAVA CASTLE RESTORATION

Ing. arch. Anna Gondová, PhD.

The Bratislava Castle is tangible evidence of the city's history and the biggest architectural icon in its structural image. It stands for a landmark in terms of the typology of fortification structures and palace buildings in the cultural history of Slovakia. Approximately since the mid-1950s, it has undergone a systematic restoration implemented in several stages. The first major comprehensive stage, practically completed in 1968, resulted in the restoration of the castle palace in its Baroque form. The emphasis was on the tectonics of the medieval fortress character the building used to have before its reconstruction in the second half of the 18th century. This form was known to the public until 2008, when another major restoration stage of the Bratislava Castle began. It uses the restoration method of stylistic period reconstruction of the last historical development stage (Theresian redevelopment) while presenting all the values preserved from older phases. The thesis focuses on the so far unmapped history of the restoration of Bratislava Castle and the Castle Hill during the 20th century up to the present. In order to better understand the context including the issues of all restoration phases, the thesis also includes a brief summarization of the Castle's construction history. The emphasis is put on the loss of its original function and subsequent fire destruction of the monument in 1811. The history of the Castle's complex restoration in the 20th century focuses on the events that initiated its rescue in the 1950s, the implementation of the first general restoration and ongoing second general restoration of the Castle complex. However, given the numerous resources, the emphasis is on the interventions from the 2nd half of the 20th century (architecture and urbanism, interiors, art works, methodological approaches, etc.). The research deals with the subject of the Bratislava Castle restoration not only from the architectural point of view, but also in terms of the cultural-societal and historical setting. The aim of the dissertation thesis is to help enhance the subject of the Bratislava Castle restoration by providing a systematic evaluation, which is almost absent within the current professional and societal discourse. The two-stage evaluation of the conservationist intervention builds on a comparative analysis of the monument's comprehensive restorations. These are characterized by the individual architectural and urban interventions, methodological approaches and methods of monument restoration identified within every restoration stage.

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RURAL PUBLIC SPACES IN SUBURBAN HINTERLAND OF BRATISLAVA

Ing. arch. Ivana Bradová, PhD.

In this dissertation thesis, we focus on the analysis of contemporary knowledge and on deepening the current state of knowledge of original public spaces and new public spaces in rural and suburban settlements strongly affected by suburbanization. The aim is to evaluate the current state of public spaces and articulate the principles and recommendations for their sustainable development. The paper contributes to

the theory of architecture, urbanism, pedagogy, and the praxis in terms of formulating the functional classification and specific approach and method used by the author to evaluate the general situation of public spaces. Authors' purpose is to provide a proper instrument usable in urban planning for interpretation of public spaces' variables of rural settlements in the urban and ecology spheres. Rural settlements influenced by suburbanization are typically situated in the so called "transitive area" that involves both rural and urban features. These kinds of areas are typical for their extensive development with its clear negative influence on the state, renovation, revitalization, and creation of public spaces. Insufficient quality of public spaces, lack or often even their complete absence negatively impacts social relationships in the relevant areas and encourages frequent migration of inhabitants (even on weekends or holidays), usually to the closest town or city. Inappropriate pressure on the transportation capacity or infrastructure and inadequate congestion in the centre of agglomeration are consequences of this situation. In the Slovak Republic, this particular problem is typical for the Bratislava's agglomeration as the country's quickest developing area, and hence the authors conducted a detailed analysis and evaluation of public spaces in the selected settlements in this region using their own method. We focus our interest on the Žitný ostrov – Danube development axis as the most dynamically growing area from among all development axes in the Bratislava self-governing region both related to its multiple growth of population and residential development. The results of evaluation of this model region are then compared to the other evaluated urban areas: Bratislava – Záhorská Bystrica City District and the nearby Austrian borderline rural settlement Kittsee. Our findings resulting from this comparison have become the groundwork to create recommendations for selected suburban public spaces. These recommendations contain a collection of visions and rules for the creation, renovation, and revitalization of public spaces in the hinterland of Bratislava on the residential and the zonal levels, also with their theoretical impact on rural and suburban public spaces across Slovakia in general. Finally, the document also summarizes the percentage share of active and inactive public spaces from among all the public spaces in the area of our interest.

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FRIENDLY ARCHITECTURE

Ing. arch. Lucia Oberfrancová, PhD.

The dissertation explores the relationship between architecture and the quality of life of its users, and the possibilities of evaluating the socio-cultural sustainability of buildings. Sustainability and quality of life are currently among the main goals of global development. Today, energy-efficient architecture alone is no longer enough. In addition to the energy efficiency strategy, other sustainability strategies are increasingly coming to the fore: strategies of sufficiency and consistency. Digitalisation, too, is a prominent subject of talks regarding current and future global developments as a possible tool to achieve the above objectives. Friendly architecture, as understood in the dissertation, emphasizes user satisfaction and the quality of architectural expression while maintaining environmental friendliness. On the one hand, solutions need to be sought to improve people's quality of life and maintain their culture and traditions, and on the other hand, people need to be motivated to a healthy and sustainable lifestyle. Both approaches are taken into account in answering the question of how to evaluate friendly architecture, how to measure qualities that are often associated with subjective perceptions of individuals, and what aspects and elements of architecture lead to comfort, satisfaction, and a healthy and sustainable lifestyle. The dissertation consists of an introductory, theoretical, analytical, evaluation, and concluding part. The introductory part provides information about the background and relevance of the topic, and the motivation to choose the topic based on the author's previous research experience. The theoretical part (state of the art in science and technology) is followed by the analytical part which elaborates on the investigation of social sustainability and architectural design quality in existing standards, guidelines, tools, and certification systems as the basis to design a resulting scheme or system to plan and evaluate socio-cultural quality of buildings during their entire lifecycle. The investigation and comparison of selected case stud-

ies, according to the proposed method called 'Friendly Architecture Life Cycle Analysis' (FA-LCA), are introduced in the evaluation part, followed by a summary of results, which comprises testing or verification of research questions. The conclusion and discussion are presented in the concluding part. As a final point, a Slovak résumé and a list of references, tables, figures, abbreviations, and appendices are presented, the latter also including a detailed analysis of sustainable building assessments regarding the sociocultural sustainability and a detailed evaluation of considered case studies.

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SKETCHING AS A TOOL OF VISUAL IDEATION FROM THE DESIGN PERSPECTIVE

Michal Jelínek, MA, ArtD.

This manuscript examines and explains the role of sketching as part of the creative design process, especially during its concept phase, when a new idea or solution is formed. The main focus of the study is on the visual form of ideation, known as "sketching." The thesis also presents examples of practical ideation sketching techniques, analyses them, proposes the scientific explanation of mental mechanics behind these techniques, and provides the perspective of cognitive psychology. Initial research includes an overview of the current understanding and positioning of ideation sketching, of the literature that covers the given subject, and validates these findings by an online survey, followed by interviews with twenty experienced professionals in the field of car and entertainment design. Research is intended primarily for students and creative practitioners of disciplines such as design or architecture; however, the content can likely be beneficial in a broader context, despite the resources and examples typical for these disciplines. Last but not least, the work concludes with a critical evaluation of research results, addressing the lack of shared understanding and terminology, and proposes a systematic approach to ideation sketching at the level of practical exercises and formal education.

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