

Editorial

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Architectural and urban sciences, along with professional practice, currently face fundamental challenges driven by the climate crisis, evolving social needs, and technological advancements. The quest for solutions naturally shapes the priorities of contemporary research. The first among these is sustainability across all its dimensions: environmental, social, economic, and cultural.

In environmental research, the discourse is dominated by urban climate adaptation through the strategic implementation of green infrastructure, along with reducing the carbon footprint in both building operations and urban transformation. Currently, social sustainability themes focus on fostering inclusive environments, supporting local communities, and addressing housing affordability.

These pressing global issues are deeply reflected in the contributions featured in this issue of the scientific journal Architecture Papers of the Faculty of Architecture and Design STU.

The critical intersection of sustainability and urban development is addressed by Necmettin Gür and Özgür Kahraman. Their research assesses the transformation of post-industrial coastal areas in the Port of Izmir through the lens of urban landscape design. The authors critically evaluate current practice—which heavily relies on qualitative and subjective principles—and propose quantitative, transparent, and multi-criteria models to evaluate various territorial transformation scenarios. To achieve this, they employ a two-stage methodology integrating SWOT analysis with the Analytic Hierarchy Process (AHP).

The cultural and historical dimension of architectural tradition—specifically the principles of interwar Czechoslovak functionalism and its international dissemination—is explored by Daniele Abreu e Lima. Her article examines the publishing and pedagogical legacy of the architect Max Rosenfeld in New Zealand. The study highlights Rosenfeld's pivotal role as a cultural mediator and populariser of modernist ideas, illustrating his impact on the social, economic, and practical aspects of New Zealand's housing construction.

Shifting the focus to spatial planning, Tomáš Pozdech investigates the landscape as a defining factor in urban development. Using a case study of Nitra, Slovakia, the paper reveals the limitations of current spatial planning systems in leveraging the landscape as an active urban element. Applying a qualitative 'Research by Design' methodology, the author compares the existing spatial plan with new planning legislation tools and a novel, landscape-orientated concept. Ultimately, the study underscores the indispensable role of landscape architecture in climate-adaptive planning processes.

Finally, the technical and structural dimensions of architectural sustainability are examined in a comprehensive review by Seyedeh-Sara Yazdi-Bahri, Mahya Mousavi Sadr and Seyed Morteza Hosseini. Their paper analyses various double-skin façade (DSF) configurations, evaluating their thermal, energy, and ventilation performance in different climate zones and building types based on published literature since 2019. Through this meta-analysis, the authors identify key performance factors and highlight current optimisation trends aimed at maximising building energy efficiency.