

## Urban Morphology and Urban Design Competitions in Serbia: Between Substantial and Procedural Aspects

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### **Abstract**

*This research aims to open up a discussion about morphological perspective in the procedural and substantial aspects of urban design competitions, with the specific focus on Serbian context. The research builds on the previous findings concerning treatment of heritage in design competitions, presented on the 2020 ECTP-CEU Young planners' workshop. Research starts from the hypothesis that competitions offer the possibility of obtaining unique solutions, provide a platform for the presentation of new ideas, but also new views on the good, thus reducing the pressures of globalization, neoliberalism, and multiplication of identical and generalized patterns and forms. On the one side, research will offer understanding of the (1) procedural aspect (initiation, submission, evaluation, and implementation of urban design competitions) and (2) substantial aspect (competition brief content, design perspective, evaluation criteria structure) of urban design competitions. On the other side, the research will reflect on authors personal experience, both from the position of a jury member and a competition participant. Analysis of the above-stated elements could provide comprehensive insights into understanding the way how urban morphology can be used both as a method and theory in design process, and as a valuable element in evaluation process. This paper will argue for the need to strengthen the bond between urban morphology and urban design competitions, especially having in mind current urban development in post-socialist countries that are faced with various social and political pressures.*

**Keyword:** urban design competitions, urban morphology, design process

### **Introduction**

Within the contemporary cities' development and transformation imposed by a series of challenges and influential factors, urban design is positioned as a kaleidoscope for generating complex patterns. Within this postulation, urban culture has been looking for new practices - from deterministic to flexible, unified to contextualized. In line with the mentioned dichotomies, the process of urban design has to be enhanced with new approaches, hence introducing (a) greater scientific rigor in terms of general strategy and basic commitments, but also (b) greater flexibility regarding design solution to be applied in the implementation phase. In this problem-based context, it is more important than ever to interpret and overlap the substantial and procedural aspects that shape the urban design process – to understand operational mechanisms and regulatory factors and their procedural nature, but also design strategy and conceptual principles and their substantial nature. Achieving consensus between these two natures is a special challenge for researchers, practitioners, and policymakers, especially when it comes to the idea of *design by competition*.

Urban design competition (UDC) represents a special form of urban practice seen as a form of design method (Banerjee and Loukaitou-Sideris, 1990). Throughout history, UDCs have been recognized as operational and socially oriented mechanisms in which the profession has the task of providing solutions and developing original concepts on set criteria and in line with the competition brief (Đorđević et al., 2020). Due to its procedural nature, which includes several phases in the implementation of UDC, the research of this type of urban practice includes numerous perspectives that, in addition to architecture, urban design, and urban planning and development, very often include management, political issues, and economic development. Contemporary UDC practice is becoming increasingly market-oriented using the UDC procedure itself as a veil for selecting a particular design solution where the substantial framework becomes completely neglected or interpreted through a competition brief.

In order to demystify the relationship between procedural and substantial in the practice of UDC, this paper will use the method of multiple case study analysis to decode the position of urban morphology in a comprehensive UDC process - from defining a competition brief to evaluating design proposals. The first part of the paper presents the state-of-the-art of UDCs with a particular focus on decoding regulations for DCs. The second part explains the methodology and research steps with an explanation of selected case studies for analysis. Finally, the discussion is built in accordance with the results of three conducted analyses - content analysis of six UDC briefs, quantitative comparative analysis in relation to the evaluation criteria matrix, and critical analysis from UM perspective.

### **State-of-the-art of UDCs**

There is a series of studies that critically analyse design competitions (DC); however, they are usually limited to architectural design competitions (ADC) (Newton and Backhouse, 2013; Menon and Vanderburgh, 2014) and are based on biographical histories of individual cases (Banerjee and Loukaitou-Sideris, 1990; Lipstadt, 2006; Cimen, 2010). Although there are certain similarities in-between ADC and UDC, especially when it comes to the procedural aspect, these two types of DCs differ significantly when it comes to substantial aspects. In this sense, a gap is identified in contemporary research when it comes to the substantial aspect of UDC. Through decoding political agendas in the context of DCs, Sagalyn (2006) singles out several key differences between ADC and UDC: (a) *problem solving* within UDC requires importing skills and knowledge from IMT framework, (b) difference in the *content* within UDC focusing on the relationships among tangible and intangible elements, (c) difference in the *context* within UDC which is multi-scale oriented in order to establish a relationship with the wider and immediate environment, and (d) complex combination of *public and private interests* occurs within the UDCs, as opposed to ADCs which are usually implemented for the level of a single plot. Although there are numerous definitions of DC, that most of them focus on a key aspect of the analysis, while as a consensus definition it can be pointed out that DCs (a) provide a democratic basis of design (Banerjee and Loukaitou-Sideris, 1990) through citizen participation (Garde, 2014), (b) respond to

the same problem according to a set of rules (Nasar, 1999) and to the point where it realistically prefigures a realizable building (Lipstadt, 2006), (c) provide a system to assure spatial qualities in cities, and finally (d) generate “platform where different discursive formations, with their objects, enunciative modalities, concepts and strategies, are exercised and practiced by human subject” (Cimen, 2010: v). Although previous perspectives significantly contribute to understanding the complexity of DCs, only Menon and Vanderburgh (2014) challenged the various critical elements (both human and non-human) of a competition based on experiential research. They propose a “total competition” model and derived six principal elements (the organisers/jury, the programme, the competition rules, the modes of representation, the competition entries, and the competing teams) especially pointing out the importance of their interaction at all levels and phases of DCs implementation (Menon and Vanderburgh, 2014).

### Regulations for DCs

In order to open a discussion on the relation of procedural and substantial in DC practice, it is necessary to understand and critically consider the regulatory framework for DCs. The General Conference of UNESCO adopted *Standard Regulations for International Competitions in Architecture and Town Planning* in 1956 (revised in 1978) and directed the International Union of Architects (UIA) to supervise their application and assist clients (International Union of Architects, International Competitions Commission, 2017). The mentioned Standard - thanks to the value framework focused on the production of the architecture of distinction and uphold the highest cultural and artistic values – provides the backbone for the implementation of DCs in the contemporary practice of architectural and urban design. However, these standards apply only to the procedural nature of DCs, but they don’t consider the value framework (criteria matrix) for the selection of solutions, nor define initial criteria and aspects within the competition brief.

**Table 1. Evaluation competition matrix (ECM) according to Architects’ Council of Europe (2010)**

Urban criteria	Architectural criteria	Functional criteria	Ecological criteria	Economic criteria
Urban fabric	Beauty	Development system exterior and interior	Energy consumption	Economic evaluation of the submission, by building cost and maintenance costs
Design of exterior spaces	Design approach	Zoning of interior areas, through ways, connections	Area / volume factor	Constructive system, engineering factors
Quality of landscape planning	Idea of the design	Functionality of the solution	Façade areas	Life cycle costs
Traffic solution	Structure	Traffic solution external and internal	Use of building material	
	Architectural quality of spaces, appearance		Maintenance	
			Sustainability	
			Grey energy	

A step closer to regulating the substantial aspect of DCs has been achieved through the Policy Position by Architects 'Council of Europe (2010). Although this document regulates the issue of ADCs, the point concerning the *Scale* defines the implementation of town planning projects / urban design projects, which means that this document has a multiscale approach and DCs is viewed in a broader framework of a strictly architectural scale (level of building with the associated plot).

## **Methodology**

Having in mind that the research starts from the assumption that adequately defined UM-oriented criteria in competition brief affirmatively influence the production of design proposals, the methodological framework is based on case study analysis of competition brief both as conceptual and regulatory input for competitors. The primary framework for conducting a critical analysis of competition briefs is the evaluation competition matrix (ECM) established by ACE as the umbrella matrix of criteria at the European level (Table 1).

From previous research insights of both ADC and UDC as the most important approach stands out experiential - research from the perspective of competition participants. The research in the case also engaged an experiential approach that, in addition to the author's position (participant in the competition), includes the position of evaluator (member of the competition jury). In this sense, the basic subject of research consists of six UDC case studies in which the authors of this paper were either participant in the competition or a member of the jury. An additional criterion for the selection of case studies included the competition level with the intention to conduct a multilevel analysis in relation to the established ECM at the European level - Regional with International participation, National with international participation, and National without international participation (Table 2).


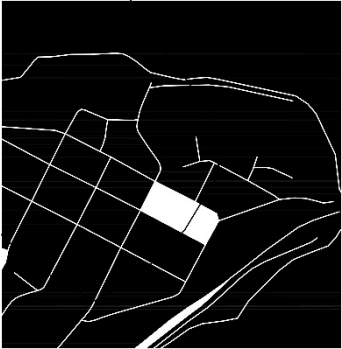

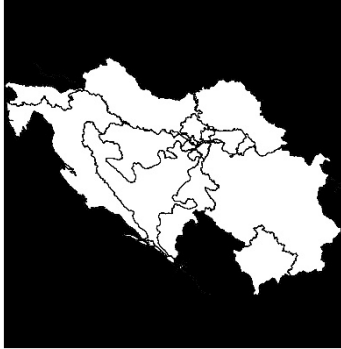


The research included three steps as follows:

(1) *Content analysis* of six UDC briefs – three where one of the authors of this paper participated as an author of the competition design proposal, and three where one of the authors of this paper participated as a jury member. A special focus in this analysis was given to the identification of evaluation criteria, and to their relation and compliance with the recommendations and design guidelines.

(2) Based on the identified criteria in all six UDC briefs, a *quantitative comparative analysis* was performed in relation to the ECM. For each case study, criteria that matched the ECM criteria were identified and as well as additional criteria that differed from the ECM.

(3) In final step, *critical analysis* from UM perspective was performed in order to identify the presence of specific UM aspects within competition brief based on design perspectives provided within competition proposals envisioned from experiential position.

**Table 2. Selected UDC case studies in relation to the authors role and competition level**

	Regional with International participation	National with international participation	National without international participation
Participant as an author	<p>Competition for development of the conceptual urban-architectural solution of the central pedestrian zone in Banja Luka</p>  <p>(BANJALUKA)</p>	<p>Competition for developing an urban-architectural solution of the city center of Kursumlija with the city park</p>  <p>(KURSUMLIJA)</p>	<p>Urban - architectural competition for the conceptual design of old city complex in settlement Tulbe in Vranje</p>  <p>(VRANJE)</p>
Participant as jury member	<p>Competition with secured anonymity</p>  <p>(ANONYMUS)</p>	<p>Urban and Architectural Design for Golotočkih Žrtava Square in Podgorica</p>  <p>(PODGORICA)</p>	<p>Urban and Architectural Competition for the square of Kosovo Heroes in Kruševac</p>  <p>(KRUSEVAC)</p>

## Results and Discussions

Content analysis of six UDC briefs indicates that there is mismatching between evaluation criteria and the recommendations and design guidelines within the competition brief. Quantitative analysis reveals that, when looking at the individual competitions, their correspondence to ECM is as follows: Anonymous (10/23, 43%), Podgorica (7/23, 30%), Kruševac (9/23, 39,1%), Banjaluka (11/23, 47%), Kuršumlija (3/23, 13%), and

Vranje (9/23, 39,1%). This shows that competitions with a higher level of internationality are more in compliance with the ECM. Looking at different criteria (urban, architectural, functional, ecological, and economic), the analysis reports that the average coverage of each aspect is as follows: 0.83/4 regarding urban criteria, 2/5 regarding architectural criteria, 1.67/4 regarding functional criteria, and 1.83/7 for ecological and 1.83/3 for economic aspect. This shows that urban criteria are the least represented, and as such require additional emphasis.

**Table 3. Quantitative comparative analysis of case UDC briefs – Relation to the ECM**

<b>Competition</b>	<b>Urban criteria (UC)</b>	<b>Architectural criteria (AC)</b>	<b>Functional criteria (FC)</b>	<b>Ecological criteria (EC)</b>	<b>Economic criteria (ENC)</b>
Anonymous	2/4 + UC2 and UC3	2/5 + AC2	2/4	3/7 + EC2	1/3
Podgorica	0/4+ UC2	2/5 + AC1, AC2, AC3	1/4	2/7 + EC1	2/3 + ECC1
Kruševac	0/4 + UC1	2/5 + AC1	3/4	1/7 + EC1	3/3 + ECC1
Banjaluca	2/4 + UC3	2/5 + AC1	2/4	3/7	2/3
Kuršumljija	0/4 + UC4	2/5 + AC2	0/4	0/7	1/3
Vranje	1/4 + UC3, UC5	2/5	2/4	2/7	2/3 + ECC1

Within Urban Criteria, conducted analysis reveals the tendency of adding several new criteria such as Integration into the cultural-historical ambient and surrounding public space (UC1), Attractiveness of urban design solution and recognizability of the space (UC2), New solutions, adapted to local climate, culture, and challenges (UC3), Relation to the protection, preservation, and improvement of Cultural and Historical Heritage and Space continuity (UC4), Possibility of the design implantation regarding planning framework (UC5). When talking about Architectural criteria most of the competition briefs highlighted the criteria on part and whole relationship (AC1), originality, Innovative aspect (AC2), Relation of Architectural values (AC3). There were no additionally recognized functional criteria while within ecology, the aspects of the use of renewable energy sources (EC1) and Energy management (EC2) were recognized. The economic criteria are predominantly corresponding to the EU criteria, except the project feasibility, which was included.

Additional criteria that were highlighted in two of the competitions were concerned with Clarity of communication through the presentation of the innovative architectural solution, and as such needs to be taken into account.



The analysis reveals that the highest gap can be observed within Urban criteria, which is often left to the author's point of view and employed design perspective and is rarely formalized within evaluation criteria. When we take into account personal experience and theoretical ground that derives from the field of urban morphology, it is possible to emphasize various criteria that can be further discussed: 1) from the Historico – geographical approach: a) systematic description and explanation of the urban landscape (Oliveira, 2021, p5), b) introduction of typo-morphological zoning as proposed by Samuels and Kropf (ibid), c) sensitivity and historical layering (Whitehand, 2021), d) conservation of the physiognomic identities of urban areas and their constituent parts (Conzen 1975 in Whitehand, 2021), e) preservation of human scale, f) conservation control of street spaces (ibid), g) Creating a hierarchy of urban elements (Banjaluka), h) Centralization of planning composition through urban acupuncture (Kuršumljija), transmission and preservation of cultural forms and patterns over time (Vranje), 2) process-typological approach: a) classification of common buildings and organization of types in logical sequences (Maffei in Oliveira, 2021), b) Design following the traditional relationship between street and building, and plot and building (Corsini 2009 in Oliveria, 2021), c) contemporary reinterpretation of traditional types and elements (Vranje), d) design following traditional physiognomy of urban spaces and squares at the local context (Anonymous, Podgorica) and (3) Space morphology: a) the analysis of pedestrian activity patterns and the conception of a pedestrian movement (Oliveira, 2021), b) space syntax concept of cones of vision, c) space syntax for connectivity analysis (especially for long distance and unapproachable areas), e) relationship of protective elements with the overall design concept (Krusevac).



**Figure 1.** a) Banjaluka Competition Entry. Verica Krstić, Jelena Ristić Trajković, Aleksandra Milovanović, Marko Dedić, Katarina Dimitrijević b) Kuršumljija competition entry by Aleksandra Milovanović, Katarina Škrbić, Aleksandra Bašić, Aleksandra Mitković, Tamara Ilić, Ana Miletić, Marija Pantović, c) Vranje competition entry. Authors: Kostić Miloš, Djordjević Aleksandra, Zorić Ana, Basta Jelena, Arsić Nikola, Bugarski Jovana

## Conclusions

The conclusions can be drawn on two levels: (1) the interrelation of local to the global/EU criteria, and (2) the importance of urban morphology regarding Urban criteria. Within the first, it is noted that evaluation criteria are more aspect-based and not scale-based. It was also noted that competition briefs usually emphasize various morphological aspects, but that they are not usually included in evaluation criteria, which often stay very generalized. The second level presents the ways how personal experience based on specific morphological aspects, theories, tools, and technics can become a principle that guides both the author and jury decision process.

In overall background, it is recognized that UDCs offer the possibility of obtaining unique solutions and generating of new ideas, but in order to render the UDCs role in reducing the pressures of globalization, neoliberalism, and multiplication of identical and generalized patterns and forms, evaluation criteria have the primary role in ensuring the quality of designs. The basic principle of this paper thus refers to the further perspective of strengthening the role of EMC as a quality control system, and not as a veil for the implementation of procedural aspects. In this sense, the challenge for future research is to review the existing evaluation matrices of criteria towards the possibilities of their (a) contextualization in line with the locally specific values and (b) flexibility in relation to different scales.

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