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# TRACING THE ROOTS OF URBAN MORPHOLOGY THROUGH ACADEMIC ENGAGEMENT IN THE FIELD OF ARCHITECTURE IN SERBIA

## ABSTRACT

Even though the Serbian Network of Urban Morphology (SNUM) is one of the youngest networks within the International Seminar on Urban Form (ISUF), it is believed that each of the networks is grounded and developed on the knowledge coming from the synthesis of science, practice, and education. This research aims to trace the origins of urban morphology in the context of Serbia by assessing the academic engagement of key scholars over time. The research builds on previous findings concerning the origins and genesis of teaching urban morphology in Serbia and a review of academic and practical thoughts and actions in Belgrade. Using data collection, content analysis of annual Faculty books and programs, retrospective faculty books, internal documents, accreditation documents, lecture notes, books, and editions in the subject field and by diagramming and visualization, research tends to establish a broad and detailed framework for creating timelines and identifying clusters. Periodization identifies four different periods that are metaphorically named according to plant growth - formation of Fertile ground, Suitable climate, Sprouts, and Shoots while the clustering enables the detection of the continuity of urban morphology in three scientific fields in the faculty – architecture, urbanism, and history. The metaphor with plant growth is significant for underlining that the roots of any field of study are of immense importance, both for understanding its origin, starting ground, and intellectual heritage, and for its proper growth.

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## KEY WORDS

SNUM  
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## INTRODUCTION

The Serbian Network of Urban Morphology (SNUM) was established in 2016, within the framework of regional networks of the International Seminar on Urban Form (ISUF). The main points of interest of SNUM include the evolution of urban form in Serbia, the relationship between research and practice, and the teaching of urban form. Over the last five years, SNUM aimed at demystifying the origins of the teaching of urban form and urban morphology in Serbia (within the ISUF Italy conference<sup>1</sup>), conducting a review of academic and practical thought (ISUF 2022 Conference<sup>2</sup>), and tracing changes in urban tissues both in specific case studies<sup>3</sup> and in comparison to other post-socialist countries (ISUF small grant and cooperation with Polish and UK scholars<sup>4</sup>). These activities had immense importance for the researchers, regarding networking, personal and professional development, and greater engagement within ISUF.

These activities have also initiated thinking and understanding of the position within the current research environment and in relation to different schools of urban morphology. The paper aims at approaching the study of knowledge on urban form from the standpoint of its evolutionary genesis in Serbia, directed toward understanding the roots of studying urban form through academic engagement, identifying both forefathers and role models, and detecting points, nodes, and networks/contacts where study began, arose, or was derived.

The endeavor to introduce and develop morphological studies at the University of Belgrade – Faculty of Architecture (UBFA) actively lasts for more than three decades, but its roots can be traced long before. These endeavors can be detected through four stages which are metaphorically named: (1) Formation of fertile ground, (2) Suitable climate, (3) Sprouts, and (4) Shoots. The metaphor of plant cultivation – from fertile soil and planting seeds to the first sprouts and shoots, insinuates an approach that reveals how a certain idea, in this case, the idea of the study of urban form, has been “rooted” in the education of architects in Serbia over a long period of time. This process is conditioned by changes in the social context, shaped by influences of the scientific and professional training of key figures, and groomed during Faculty educational reforms that opened up possibilities for teaching urban morphology at different study levels. The stages are described to gain insight into personalities and their academic engagement revealing individual contributions to the development of interest in morphological studies within the education of architects and the culture of design and planning.

## METHODOLOGY

The initial assumption of the paper is based on the idea of the existence of a strong connection between the academic engagement of individuals and the development of a specific field of research in a certain region. The main elements of academic engagement are seen through education, establishing

courses, and modules, and publishing books, textbooks, and lectures. The research addresses the period from 1846 to 2022. Taking into consideration that the selected time frame predominantly covers the period before the digital era, this research gives more weight to the published and printed material and original lecture notes.

The study aims to identify the key figures who transferred knowledge, courses, and terms through the identification of inflows and influences, and to establish a connection with already established and commonly known schools of thought within the field of urban morphology. The research was performed in four phases: (1) data collection, (2) content analysis, (3) diagramming and visualization, and (4) periodization and clustering. The first phase implied the collection of documents and material from the library of the University of Belgrade, Faculty of Architecture, Archive material of the Department of postgraduate and doctoral studies, office libraries, and personal archives. In the second phase, content analysis was conducted for the following research materials (a) annual course books and study programs: 1971-72, 1972-73, 1978, 1985, 1998, 2000/2001, 2003/2004, and 2006<sup>5</sup>, b) retrospective course books: books of courses and memorial books with unpublished manuscripts from 1948-1995, c) internal documents: postgraduate study program from 1960/61 until 1990/1991, 2003 d) accreditation documents: Ph.D. study programs from 2005, 2014 and 2021, e) Ranko Radović lecture notes, f) books and editions in the subject field: *Urban forms* (1998), and *Agora* editions. In the third phase, data visualization and diagramming were performed through two different methods: 1) establishing relations among key figures with a particular focus on understanding their academic background and engagement (both at home and abroad), to trace the routes and relations (detected through mentoring work, collaboration, and influences), and 2) mapping courses at different study levels, generated didactic material as well as additional academic engagement. In the fourth phase, periodization and detection of the presence of urban morphology in different scientific fields within the school (architecture, urbanism, history) were performed to detect specific periods and trace the continuity of the study of urban form.

## “FERTILE GROUND”: THE END OF 19<sup>TH</sup> AND BEGINNING OF 20<sup>TH</sup> CENTURY- PROGENITORS OF URBAN THOUGHT AND PRACTICE OF EUROPEAN URBANISM

Relying on the knowledge and experience gained during his studies in Austria-Hungary where he completed Philosophy, Natural Sciences and the Polytechnic, Emilijan Josimović had a significant role in the introduction of urbanism in higher education and settlement organization practice in Serbia following the example of European cities. While teaching architecture and practical geometry at the Great School, founded in 1846, Josimović sought to transfer knowledge gained through the practical experience of drafting and implementing plans in Serbia in the second half of the 19th century. In addition

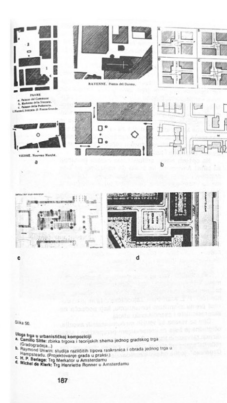
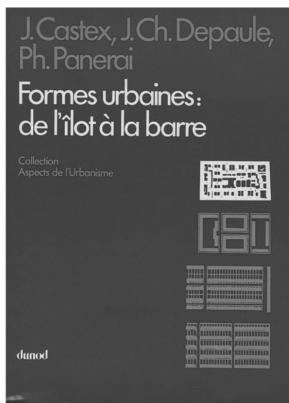
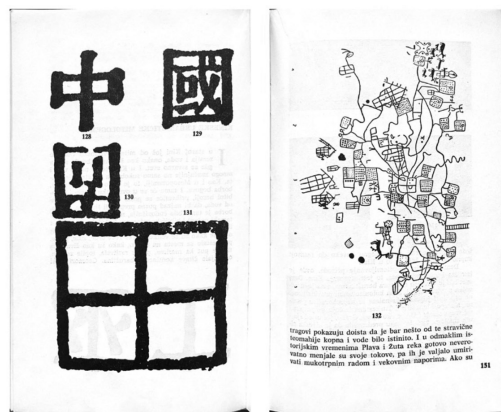
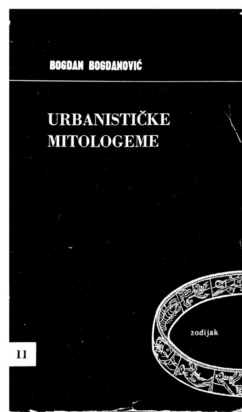
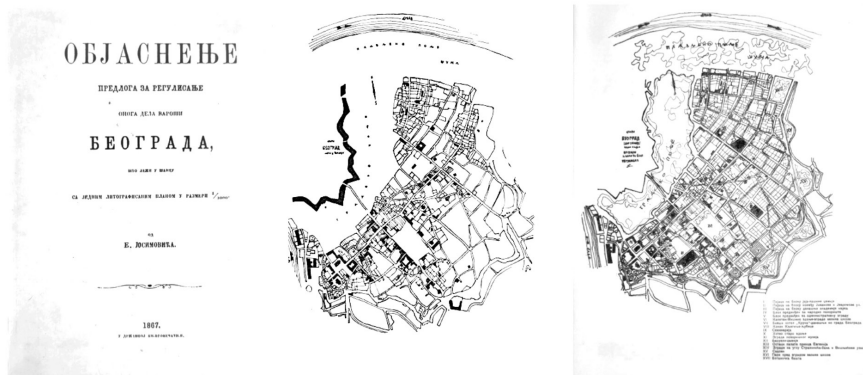


to the *Plan for the development of Belgrade with Proposal justification* (1867, Figure 1), Josimović also prepared the textbook *Civil Architecture and Road Construction* (1860), in which he provided an elaboration of urban characteristics of residential buildings<sup>6</sup>.

During the first decade of the 20th century, significant experience from establishing new and reconstructing the old towns in Serbia was gained and prerequisites were developed for the creation of the Department of Architecture at the Technical Faculty and accordingly for the development of teaching in the field of urban planning. Branko Tanazević brought his personal experience of studying architecture at Munich and organized the course *Town Planning*, for which he prepared a collection of lectures in 1909. Based on this collection, it is possible to trace his references to German examples of town planning - Stübben's work *Der Stadtebau* (edition 1907), which enabled students of the architecture department to get acquainted with the current approach in town planning and garden squares (parks) as well as to compare it with Camillo Sitte's approach<sup>7</sup>. Based on Josimović's works and the content of Tanezević's lectures along with their specializations in Vienna and Munich, it can be concluded that during the second half of the 19th century and the beginning of the 20th century, town planning in Serbia followed principles of the Austro-Hungarian and German school of town planning. The works of Josimović and Tanazević represent the foundation of urbanist thought and practice, which can be metaphorically presented as a fertile ground for the education of urbanists taking European schools as role models.

#### “SUITABLE CLIMATE”: PERIOD AFTER WORLD WAR I - UNITY OF ARCHITECTURAL AND URBAN THOUGHT AND CREATIVITY IN THE RECONSTRUCTION AND PLANNING OF NEW TOWNS

After World War I, Mihajlo Radovanović made a significant contribution to the development of education in the field of urbanism. Radovanović incorporated experience from his specialization studies at the Urban Institute of the Sorbonne (1926-1928) into the teaching process at the Technical Faculty in Belgrade and modernized the program and methodology within the *Town Planning* course. Immediately after World War II, Nikola Dobrović (who studied architecture in Prague, Czech Republic), Branko Maksimović (who finished doctoral studies in Ljubljana, Slovenia) and Branislav Kojić (who finished the course in Nice and studies in Paris, France) made a special contribution to the study of the history of urbanism, towns in the Balkan region and the practice of urban planning perceivable through a large number of courses and textbooks in the domain of history, application of typology and urban planning techniques.<sup>8</sup> At that time, courses on *Town Planning*, *arrangement of villages*, and *Garden Architecture* were held at the Faculty. Nikola Dobrović published the textbooks *Urbanism Through the centuries - Yugoslavia* (1950), *Urbanism of the old age* (1951), and *Technique of Urbanism - urban traffic 1a. elements* (1954) and *1b.*



UP: Fig. 1. Proposal rationale for the urban regulation of the part of Belgrade inside the moat (1867)

MIDDLE: Fig. 2. Urban mythologems by Bogdan Bogdanović (1966)

DOWN: Fig. 3. Urban forms, original- French edition (1977), serbian edition (1989), UK editions (2003)

*patterns* (1957); Branko Maksimović introduced the history of urbanism into the teaching and prepared the textbook *Urbanism - the basics of town planning* (1957). Banislav Kojić was responsible for the study of villages (rural studies, further continued within UBFA by Milorad Ribar and Aleksandar Videnović) and the typology of squares, which he published in 1970 in the book *Towns in Serbia from XIX Century*.

The teaching of the history of urbanism was developed according to the ideas of new teaching staff focused on the technical aspects of urbanism (Branislav Mirković taught the *Basics of Urbanism* and edited the textbooks *Basics of Urbanism Ia* and *Ia* (1964) and *Ib* and *Ib* (1968)), spatial and programmatic aspects of settlement organization (Oliver Minić taught the course *Social Centers*) and the history of the city (Bogdan Bogdanović taught *Settlement Development* and published *Small Urbanism* (1958) and *Urban Mythologems* (1966, Figure 2)).<sup>9</sup>

The need for professional training and engagement of architects in the urban practice of reconstruction and planning of new settlements is common for each of the post-war periods. Accordingly, this state created a suitable climate for the more intensive and integral development of architecture and urbanism studies at the Technical Faculty. The need for professional staff in the field of urban planning is evidenced by a document sent by the Association of Yugoslav Engineers and Architects to the Technical Faculty in Belgrade in 1933, where it is noted that more attention should be paid to the course of town planning,<sup>10</sup> and this standpoint is also confirmed through the establishment of the Institute of Town Planning immediately after, led by M. Radovanović.

Thus, in 1947, the founding of the Republic Institute of Urban Planning, the launching of the competition for the master plan of New Belgrade, and the establishment of new mining and industrial settlements conditioned the active engagement of a greater number of experts and caused the need for better education and training. With the increase in the number of students, the need for new teaching staff in the field of planning and design was also growing. This is a significant time for the development of the subject matter not only at the undergraduate but also at a postgraduate level (master's and doctoral). This period is marked by the reconstruction of the country within a specific socio-economic context and it is represented as a period of a "suitable climate" for the development of specific approaches in urban planning, but also as a period of the emergence of personalities who inspired generations of architectural students to explore the city.

#### "SPROUTS": INSPIRERS - ELEMENTS OF URBAN MORPHOLOGY IN TEACHING AT THE UNDERGRADUATE LEVEL

In accordance with the protests that marked the year 1968 all over the world, and the idea of liberalizing the system, teaching at the Faculty of Architecture in Belgrade was reviewed and reformed by the dean Bogdan Bogdanović

(under the influence of his study visit to the USA and France). The New School brought a series of innovations, of which the introduction of several new courses led by the protagonists of the New School is significant for this research: 1) *Urbanology and Urban Environment* (led by Bogdan Bogdanović) and 2) *Architectural Analysis* (led by Branislav Milenković)<sup>11</sup>(Andjelković, 1972; Andjelkovic, 1973). Later on, their successors, Dimitrije Mladenović, Ranko Radović, and Zoran Nikezić, introduced elements of urban form and urban morphology in their courses, providing a starting point for the study of urban morphology and typology.<sup>12</sup> The influence of the French school is present through the professional training of Bogdan Bogdanović and the scientific verification of Ranko Radović (doctorate at the Sorbonne).

The study program that has been implemented since 1985 is significant for this research since it contains courses with elements of urban morphology: *Urban Technique* (led by Dimitrije Mladenović), *Urban Reconstruction and remodulation* (led by Sima Miljković) and *History of the City* (led by Bogdan Bogdanović).<sup>13</sup> An additional study program of interest is the one implemented in 1993, where elements of urban morphology were integrated to a large extent into various courses: *Urban Environment and Urbanization* (led by Zoran Nikezić) and *Urban Technique and Composition* (led by Mladenović Dimitrije and Petar Arsić).<sup>14</sup> In the Urban Reconstruction module, the following elective courses were established: *Urban Structure*, *Urban Reconstruction*, *Urban Technique and Composition II*, and *Development of Architecture*. It is possible to highlight the course *Public Spaces of the City* (led by Nada Lazarevic Bajec) which had a specific thematic unit devoted to functional and morphological analysis (urban life and urban form).<sup>15</sup> The reference to the French school of thought can be traced through the way courses were named in the context of UBFA. Namely, in the French context Frederick Gibberd's book *Town Design* was translated as *Urban composition* (fr. *Composition urbaine*), while the origin of the term Urbanistic techniques (fr. *Les techniques de l'urbanisme*) can be found in numerous editions published by Presses Universitaires De France (with the first edition published in 1953).

Moreover, the French influence can be also traced through the activity of the local editorial office *Agora* within the publisher *Gradjevinska knjiga*, where Ranko Radović had an important and active role over time. The Book *Formes Urbaines - De l'ilot à la barre* written by Jean Castex, Jean-Charles Depaule, and Philippe Pannerai was translated into Serbian and published in 1989 (Figure 3). The book is characterized as a morphological study based on historical examples: architectural, at the scales of urban tissue, that permits the social as well<sup>16</sup>. By trying to trace back the influence of the French approach to the study of urban form, Darin has marked the links of the School of Architecture at Versailles with the Italian Typomorphological School of urban analysis<sup>17</sup>, while Samuels additionally highlights the links to German traditions of morphological study<sup>18</sup>. It is worth mentioning that the book has been translated into Serbo-Croat in line with translations into Italian, Spanish,

Dutch, and German, while the English translation appeared 25 years after the publication.<sup>19</sup> This knowledge gives us reason to think that, at that time, architectural education at UBFA was on the trail of current approaches to urban form and was able to follow the intellectual pace within the field.

It is worth mentioning that the editorial board for the book edition consisted of Ranko Radović, Aleksandar Laslo (Croatian architecture critic and theorist), and Aleš Vodopivec (Slovenian architect), while the translation was handled by architects Mirjana Mihajlović – Ristivojević and Gradimir Bosnic, and professionally edited by architect Živojin Kara-Pešić. For him, this book is important due to the fact that it was published along with such “fundamental classics” as: Ebenezer Howard’s *Garden Cities of Tomorrow*, followed both by fundamental American works such as Kevin Lynch’s *The Image of the City*, Christopher Alexander’s *Notes on the Synthesis of Form* and Robert Venturi’s *Complexity and Contradiction in Architecture*. He also underlines the French approach to expression and appreciation of the reciprocity of the social and spatial in the city, admiring the author’s urbo-morphological approach to the well-known case studies for which this kind of analysis was not performed to that date. This book has been perceived as an indispensable part of the bibliography within previously mentioned courses.

#### “SHOOTS” - PROTAGONISTS OF URBAN MORPHOLOGY AT POST-GRADUATE AND UNDERGRADUATE LEVEL OF ARCHITECTURAL STUDIES IN BELGRADE

Postgraduate studies at the Faculty of Architecture have been organized since 1961, mainly in three scientific fields: urbanism, architecture, and history (development of architecture and settlements). Morphological studies were gradually introduced into scientific research within all three areas, first through individual courses and then as a specific module. Ranko Radović taught *Principles of Formation and Typology of Urban Spaces* from 1983 within the module Contemporary Architecture and Urbanism (within the field of history - development of architecture and settlements).<sup>20</sup> The importance of Ranko Radović for urban morphology is particularly confirmed by his published books *Physical Structure of the City* and *Urban Form: Basics, Theory, and Practice* (Figure 4), as well as a series of thematic lectures as part of the open to the public course of urban design that he gave at the Kolarac National University. Additionally, after leaving UBFA in 1992 through his academic engagement in Japan, and Finland after establishing the Architectural studies department at the Technical Faculty of Novi Sad. During this series of three hour lectures delivered from January to May 1998, Radović covered topics of (1) *L’art urbain – hope or illusion*, (2) *Forces and challenges of the art of town planning*, (3) *About urban morphology, but truthfully*, (4) *Urban design / a bridge between planning and architecture* (5) *A brief and critical history*



of urban design (6) *Principles and methods of urban design*, (7) *Typology of urban spaces*, (8) *Anatomy and structure of urban planning*, (9) *Postmodern culture and urban design today*, (10) *Urban design and its language*, (11) *Urban design, and social context*, (12) *Urban design and urban equipment*, (13) *Urban design case studies*, and (14) prospects of urban design.<sup>21</sup> Here, we can trace the importance given both to urban morphology and typology in the study of urban form. According to Radović, typology in architecture and urban morphology is important not only for the form but much more for the substantial, social, and functional.

In the third lecture concerned with urban morphology, Radovic states that urban morphology and urban form have become the consequences of economic, social, and all other sectoral studies and goals. In this lecture, Radović highlights his personal endeavor to give urban morphology a more significant place in the context of planning: (1) within the subsection on physical structures included in the General Urban Plan of Belgrade 1969/1971, and (2) within a symposium organized by the Urban Planning Institute in 1976 where he tried to present urban morphology as an integral part of planning (in addition to traffic and land use), but this manuscript was never published. Even then, Radović states that with the so-called resistance to physical determinism in working with the city and in the city, practically the entire physical aspect of planning was secluded from urbanism, along with elements of urban morphology (verification and control of the concept – program parameters in relation to quantity, quality, and typology). Thus, according to the author, “visual representation of physical structure” became just a euphemistic name for superficial simulation.”<sup>22</sup>

The period of the 1990s, when the courses led by Dimitrije Mladenovic (field Urbanism), Branislav Milenković (field Architectural organization of space), and Miloš Bobić (Architectural organization of space) were accredited, is of importance for the development of urban morphology at the postgraduate level in architectural education in Serbia. The greater representation of morphological research at this level of study is confirmed through a series of courses: (a) *Typological and morphological conclusions* - a course realized within the Urban Renewal / Reconstruction course; (b) *Topology, typology, morphology* (D. Mladenović) - a course realized in the module Architectural organization of space; (c) *Morphology and typology of the residential environment* (M. Bobić) - a course realized in the Housing module; and (d) *Morphology of the city* (M. Bobić, D. Mladenović, R. Radović, and Nada Lazarević Bajec) - the course was implemented in the module Urban and Spatial Planning and Urban Design as an elective subject in the field of Urban Design.<sup>23</sup> In the continuation of her academic career, Lazarevic Bajec devoted herself to innovate teaching and subject matter in the field of urban planning and perform and inspire valuable scientific research in this field.

In 1991, Bobić started the *Morphology of Organized Space and Time* module at the postgraduate level, which stands out as a unique case in which teaching of urban morphology grew to an entire study program at the postgraduate level.<sup>24</sup>

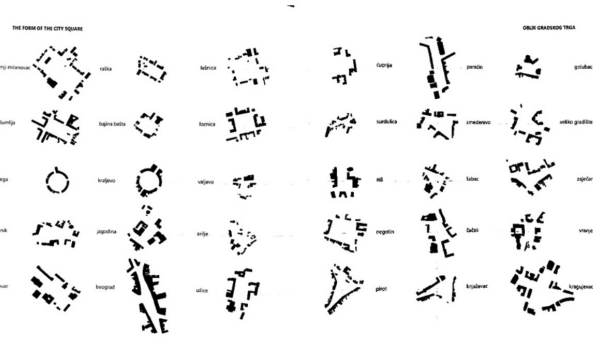
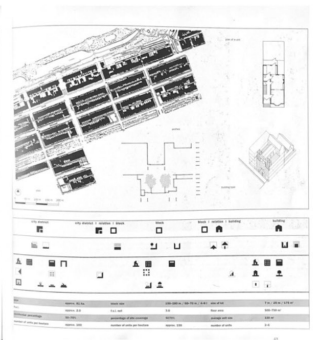
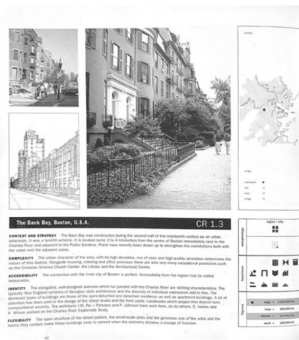
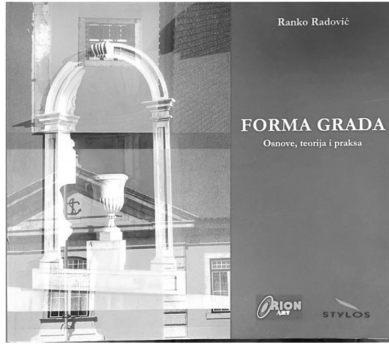
His importance for research in this area and outside the school framework is further confirmed by his activities in editing the magazine *Komunikacije* and through published works in English: (1) *The Role of Time Function in City Spatial Structures: Past and Present* (1990); (2) *A Pattern Image: A Typological Tool for Quality in Urban Planning* (1994, Figure 5) and (3) *Between the Edges: Street-building Transition as Urbanity Interface* (2004).

The first book aims to “establish the historical complexity, meaning and role of the time function in constituting city space through an analysis of morphological patterns and the social context, and to establish critical points in the time-space relation in the process of the genesis and utilization of the modern, planned city”.<sup>25</sup> The second book provides “broad range of built environments suitable for future urban planning and studies the structures necessary to determine their visual success” and it is intended as a manual for specialists as well as a reference for ordinary users.<sup>26</sup> The third book deals with the interaction between public and private domains and can be perceived as “attempt to make a breakthrough in understanding contemporary city conditions that are under the influence of three combined forces: free housing market, excessive state control, and professional inertia”.<sup>27</sup> The book is structured into five parts, of which the fourth deals with Interface Morphology, where various transition configurations are considered to be used as criteria for the classification of the basic types of interfaces, while the fifth deals with Interface Typology defining seven types.

In mentoring and pedagogical work, Zoran Nikezić provided a broad base for morphological research of the city on the subject of *Urban environment and urbanization* and with the preparation of the textbook *Built Environment and architecture*. In addition, during this period, in their final years of study (VII-IX semesters), students were introduced to eleven programs, one of which is relevant to the study of urban morphology: the Urban Reconstruction and Urban Composition program. Within this module, the courses are organized: *Urban Reconstruction, Urban Composition, Cartography and Urban Infrastructure, and Styles and Urban Forms*.<sup>28</sup>

The UBAF study program dating from 1993 was implemented until the education reform in accordance with the Bologna Declaration and studies according to European standards (2006). Since 2003, the choice of courses has been expanded, and urban morphology was studied within the elective group of courses: (1) *Protection and Revitalization of historical urban entities*, on the course: *Development and Typology of urban spaces*. In the elective group of subjects Urban Reconstruction, the following subjects are organized: *Urban Morphology* (Vladan Djokić), *Urban Reconstruction* (Eva Vaništa Lazarević), *Urban Composition 2* (D. Mladenović), *Development of Architecture and Settlement 2*.<sup>29</sup>

The continuity of urban morphology in postgraduate studies since 2003 was continued by Vladan Djokić (master’s degree in the USA) and Aleksandra Đukić with elective subjects in the postgraduate program Urban planning, design and management: *Morphology and typology of urban spaces* (V. Djokić)



UP: Fig. 4. Urban form: basics, theory and practice (2003), Ranko Radović

MIDDLE: Fig. 5. A pattern image – a typological tool for quality in urban planning (1994), Bobić Miloš

DOWN: Fig. 6. Urban Typology: City Square in Serbia (2009), Djokić Vladan



and, *Morphological patterns of microenvironments* (A. Djukić)<sup>30</sup>. Since 2005, As part of Doctoral studies, the following courses have been organized: *Morphology and Typology of the City* as a part of the research project, from 2014 as a part of the research seminar within the module Urbanism, and elective subject *Urban patterns* (A. Đukić). From 2021, the course *Urban Morphology and typology* is a part of Research Lab 1-U: Typomorphological Studies in Architecture and Urbanism: Morphology and Typology. In the study program accredited by RIBA since 2014, the course *Urban Morphology* (V. Djokić) has been included as a compulsory course in the first year of bachelor and integrated academic studies in Architecture given to 304 students per year, enabling all students to get acquainted with a fundamental knowledge of urban morphology. With the introduction of the mandatory subject *Urban Morphology* in the Bachelor and Integrated Studies of Architecture course, textbooks were prepared in Serbian and English, *Urban Morphology – City and City Square* (2004)<sup>31</sup> and *Urban Typology: City Square in Serbia* (2009, Figure 6)<sup>32</sup>, as well as by establishing the Serbian network of Urban morphology (SNUM) in 2016 and the establishment of a research unit MorphoLab: a Laboratory for urban morphology and typology in 2021, Vladan Djokić joins Ranko Radović and Miloš Bobić in contributing to learning and studying urban morphology architecture studies in Belgrade.

In his books, Djokić connects the historical - morphogenetic approach and typology, linking relevant research from the field of urban morphology from the UK, USA, and Italy but also highlighting key figures from the local context who devoted the majority or part of their research to urban morphology.

## SYNTHESIS

Based on the content analysis and data visualization in the form of a diagram, developed to map key figures chronologically and establish relationships among them (Figure 7), it is recognized that the original thought on urban form dates from the mid-19th century and it is related to the action of Josimovic E. who brought his practical experience into the academic environment. Together with the work of Tanezevic B., the connection with schools of thought from Germany and Austria-Hungary are evident. The thought is further transmitted to the period of the beginning of the twentieth century, within which Radovanovic's activities stand out, specifically his endeavor to strengthen the role of urbanism in technical faculties.

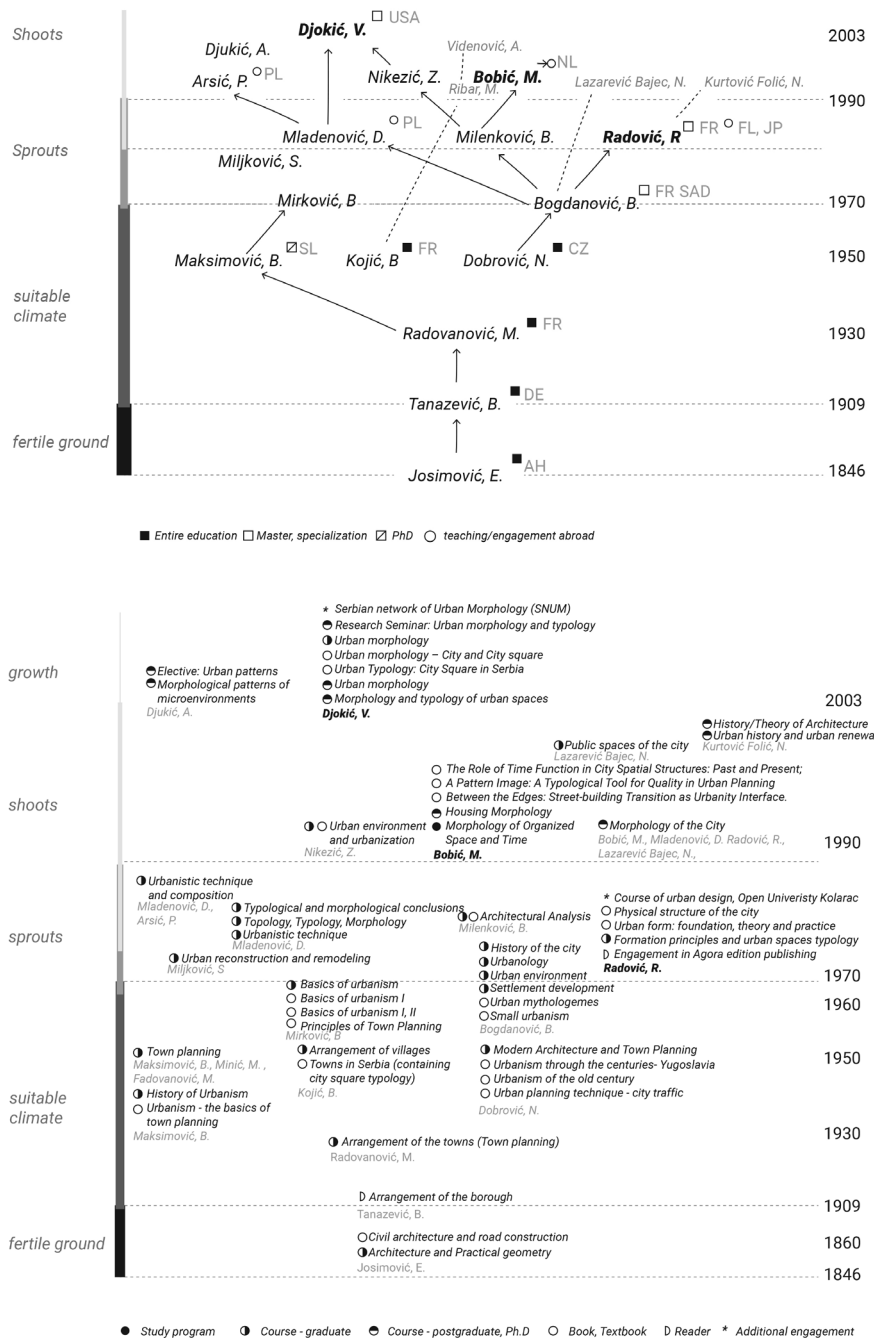
In the middle of the 20th century, the tree becomes more complex and several personalities became significant for the study of urban form, whose contribution is based equally on practical and academic arenas. On the transition from fertile soil to sprouts, the reforming spirit of Bogdan Bogdanovic and the importance of thinking about the city stands out, while the first sprouts appear with the work of Ranko Radovic (with a strong influence of the French school),

Milenkovic, B., and Mladenovic, D. (who developed strong ties with the Polish approach and school of thought). In addition to the distinct importance of Nikezić, Z. in the mentoring and academic sense, the achievement of Bobić, M. stands out, who, in addition to individual courses, conceptualized the first postgraduate course on urban morphology and had active publishing, practical and academic engagement, first in Serbia and then in the Netherlands. Finally, in the 21st century, Djokic, V. stands out as an academic who introduced and implemented courses of urban morphology both as a compulsory subject in the first year of the bachelor and single cycle-studies and elective courses and design studios at Master 's and Ph.D. level, and formed the research lab thus completing the cycle of learning and studying the topic of urban morphology.

Looking at the aspects of courses (Figure 8), didactic material, and additional engagement, it is recognized that thought is dominantly developed through the complexity of study programs and course profiles with the parallel support of a didactic framework made up of books and textbooks. Although continuity is recognized in the development of thought and action, as well as in publishing activity, it is also recognized that studies on urban form are present as an indirect object of research in the research and practice of urbanism, town arrangement, and planning (both from a historical and technical point of view), while the articulation of urban morphology and typology appeared in the 1970s, the use of the term was intensified from the 1990s onwards. When combining academic engagement and additional involvement– e.g. through the course of urban design (Radović, R.), a rich publishing activity (Bobić, M.), and the founding of SNUM (Djokić, V.), it is possible to highlight the importance of these three figures in the context of Serbia.

## CONCLUSION

Looking at the overall development, it can be concluded that in different periods of time, within the framework of numerous study programs, significant strides were made in the communication of urban morphology in all three teaching areas and at all study levels in architecture (Figure 9): history (Nikola Dobrović – Bogdan Bogdanović – Ranko Radović), architecture (Branislav Kojić – Branislav Milenković – Miloš Bobić) and urban planning (Mihajlo Radovanović – Bogdan Bogdanović – Dimitrije Mladenović – Zoran Nikezić – Vladan Đokić). Prominent achievements in transferring knowledge and inspiring new generations for urban morphology, these scholars, working in different periods together, achieved continuity in the study of urban morphology in architecture studies in Belgrade. We could state that it is no coincidence that three decades of development of urban morphology at the Faculty of Architecture coincide with 30 years of ISUF which confirms the efforts of individuals to enable the school to keep pace with the world.



UP: Fig. 7. Relations among key figures - mapping of academic background and academic engagement

DOWN: Fig. 8. Academic engagement map - courses within different study levels, produced didactic material and other engagement

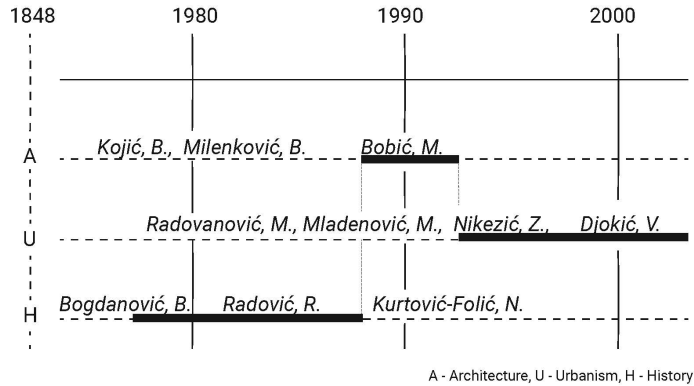


Fig. 9. Spatial distribution of conference papers based on the location of case studies

#### NOTES

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- za akreditaciju studijskog programa (Beograd: UBFA2014); Anon, *Study program structure (Struktura nastavnog programa)* (Beograd: UBFA, 2021).
6. Milan Rakočević, *Architectural higher education in Serbia (serb. Visokoškolska nastava arhitekture u Srbiji 1846-1971)* (Belgrade: Arhitektonski Fakultet Univerziteta u Beogradu, 1996a).
  7. Ibid.
  8. Ibid.
  9. Ibid.
  10. Ibid.
  11. Borivoj Andjelković, *Faculty of Architecture Belgrade School book 1972-73 [serb. Arhitektonski fakultet Beograd Školska knjiga]* (Belgrade: UBFA, 1972); Borivoj Andjelković, *Faculty of Architecture Belgrade School book 1973-74 [serb.. Arhitektonski fakultet Beograd Školska knjiga]* (Belgrade:UBFA, 1973).
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