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Between Imagined, Realized, and Lived Space**

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Towards a Methodology for Rethinking Modernity: Between Imagined, Realized, and Lived Space

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The subject of this paper is twofold (1) towards review and revision of extra-curricular learning model in the form of a student workshop as an extended environment and a reflective arena, and (2) towards generating workshop content aimed at examining modernity in contemporary conditions of urban transformation. The paper is structured in three parts. The first part introduces the concept of an architectural workshop with a discussion of general methodological perspectives that shape this approach that takes place through three continuous stages during which students develop the process of analytical thinking, architectural programming and architectural design. The second part of the paper contextually and conceptually position the content of the workshop aimed at examining modernity in contemporary conditions of urban transformation between imagined, realized, and lived space. The third section introduces the content of two student workshops as an illustrative example of the implementation of methodology with specified assignments and substance..



There is a global aspiration for continuous improvement of teaching curriculums and models in the field of architectural design, especially in response to the changing context and challenges of architectural education. The transcending disciplinary boundaries in architectural practice, shift from technical, engineering and technological to an equal social, humanistic and artistic perspective requires research and testing of new education models and explorative strategies which can be adapted to different topics, spaces and environments. New research areas and thematic frameworks within it, such as social transformation, climate change, globalization, urbanization and housing issues, are being continuously re-introduced and becoming more process and problem-oriented in order to rise the horizon within the context of architectural education and build the capacities for transferable learning of students.

Contemporary urban and cultural landscape has its own meaning, its own layered complexity, that cannot be studied only in the formal curriculums and methodological approaches. 21st century generation read those spaces quite differently then we used to. Therefore, we need enhanced teaching methods and tools, even different environments as it is definitely of high importance for students to appropriate it in their own way. Traditional teaching approaches and established programs thus require (1) the development of extended forms of the teaching process and learning that empowers students to develop their competencies and skills further and (2) the creation of specific contents and tasks in line with contemporary trends and topics that are tested in the local context.

A studio-based model of learning is the specificity of almost all architecture schools. The teaching process that takes place within the design studio model is characterized by a high level of interaction between all participants (students, teachers and external associates) and allows for equally critical and creative thinking of students. From a general perspective, the studio is an arena for the practical application of theoretical knowledge and methodological skills that students acquire through other types of courses and curricula such as compulsory courses that provide a basis for engaging in the architectural profession to thematic electives that are closely related to a particular research framework. In this order, there is the general aspiration to achieve a symbiosis between experiential and transferable knowledge through the studio-based model of teaching, as well as the integral application of design methods, techniques in

the design process. However, these goals have not yet been consistently implemented in the design studio curriculum structure. For these reasons, the thematic framework for improving the design studio curriculum has become a challenge for many educators and researchers in the field of architecture such as (1) bridging the inherent differences between study level and design studio culture (Gamble, Dagenhart and Jarrett, 2002), (2) the issue of hidden curriculum which refers to unstated values, attitudes, and norms which stem tacitly from the social relations of the school and classroom as well as the content of the course (Dutton, 1987; Dutton, 1991), (3) critical thinking and decision making in studio pedagogy and addressing cognitive styles in studio pedagogy (Salama and Wilkinson, 2007), and (4) the opportunities for technological enhancement of design studio (Crowther, 2013).

In this sense, we need a new agenda to establish a program that requires the critical thinking of students in positioning architecture in their own and overall cultural milieu. In order to address the issue and support the climate and trends within architectural design education, an extra-curricular learning model, based on the form of a workshop whose timeline allows rounded cycle of the design process in line with the regular timeline and general structure of study programs, was proposed within the curriculum at the University of Belgrade — Faculty of Architecture (UB-FA).

According to Schenkman (1955), the initial form of the workshop in education process was created in the function of exchanging information, options and experiences of participants, organized through group work, which is an essential feature of this form of learning. Bearing in mind that a workshop is an organizational form that stimulates the learning process and represents a short-term model that develops brainstorming and sharing ideas productively, the potential of a flexible and transformable learning environment within such a model is recognized. In that order, the general goal of the workshop is to empower students for the intense and effective development and application of scientific, professional and artistic achievements in the field of architecture, urban planning, architectural technologies and architectural engineering. The tendency is to make the future generation of professionals aware of an integral architect profile who has the capabilities of problem-based approach, professional involvement and action in a wide range of architectural and urban practice through (1) the inclusion of heterogeneous student profiles in relation to their study module and program level, and (2) the involvement of teachers and tutors from different departments of school.

The basic study program at the University of Belgrade — Faculty of Architecture (UB-FA) covers various curriculums and aspects that are autonomously examined from the architectural, urban and technological level. Especially, the teaching curricula for studies of modernity, that is a thematic focus of the paper, are established within different study programs and levels of study, which very often disables logical chronology of learning and an integral consideration of the phenomenology of modernity. Therefore, it is evident that a need to learn about modernity is there, different frameworks are established, but unfortunately, they are scattered all over the curricula lacking an amalgam that will unite all aspects.

UB-FA strives to create the continuous workshop program in order to enhance Design Studio Curriculum. The teaching and learning process at Design Workshops is structured around Design Studio Culture with the aim to improve methodology of design process and achieve synergy between experiential and transferable knowledge. It is important to point out that these workshops are realized in cooperation with other internationally recognised researchers, educators, schools and research networks. Thanks to its success and acceptance primarily by students, the number and thematic frameworks of workshops, as well as their complexity and variety, increases yearly. Some of this workshop realized in the last few years are: “Walkscape New Belgrade” (2015, with TU Munich), “Beograd Unbuilt — Project for Public Landscape” (2018, with ETH Zurich), “Unforeseen Impulses of Modernism: The Case of New Belgrade” (2018, with HS OWL: Detmold School of Architecture and Interior Architecture and the University of Antwerp, Belgium, with the support of the Reuse of Modernist project Buildings (RMB), DOCOMOMO Germany and Erasmus +), “Rural Shower” (2019, with Architectural Research Network ARENA), and “Among Scales” (2019, with Architectural Research Network ARENA).

The learning model which involved students from various study programs (architectural design, interior design, architectural technologies, architectural engineering, urban planning, urban design, integral urban development, sustainable development) and students from different levels of study (bachelor, master, integrated, doctoral) enabled the opening of cross-exchange of knowledge and skills and the development of an integral approach to research and design that is not present in any other position within the school, which is due to the dominant independence of the curriculum in line to school departments — Architecture, Urbanism and Architectural technologies. Furthermore, tutors, teachers and critics who

participated in the realization of the workshops were representatives of different departments, which contributes to the development of a comprehensive methodology that addresses a wide range of scales and aspects. In this sense, the proposed workshop model enabled transfer of ideas, knowledge and access through peer learning within a heterogeneous study program and an elastic thematic framework.

At the conceptual level, the model is based on a student workshop that takes place through three continuous stages during which students develop the process of analytical thinking, architectural programming and architectural design:

- 1 understanding the imaginary framework — implies a complex urban study of the planned spatial framework, retrospective of the urban morphogenesis and the development of the urban structure of the subject spatial framework through analytical architectural tools and methods,
- 2 mapping of realized patterns — identification of spatial-programmatic relations with the environment, user behaviours and lifestyles through architectural programming as a method for identifying and positioning a problem that becomes the subject of further research through design, and
- 3 recognition of lived space impulses — means the creation of spatial solutions in order to improve the quality of living and lived space through architectural design or the establishment of design principles and strategies.

Each of these phases contains a series of research inputs, while the produced outputs become inputs for the next phase, up to the final phase within which the design synthesis is established.



Fig. 1: Workshop Structure: Extended learning model. Workshop as Hidden School. Source: Authors.

The central approach of workshop is based on the design as a research methodology in order to understand complex relations between society and environment, and building creative capacity and critical ability towards strengthening social and ecological innovation through design. In this regard, several methodological perspectives can be distinguished:

(1) Dialogical — conversations at an appropriate level and changing communication modes: one-to-one, one-to-many, many to one, many-to-many, (2) Teamwork — focuses especially on collaborative practice generating ‘think back’ approach, (3) Knowing in action — reflective activity from different perspectives descriptive, interactive, critical, creative etc. (Schön, 1991), (4) Problem-oriented — defining the set of problems through the analytical process and solving them through the design process (Pena and Fock, 1969), (5) Inquiry-based — developing a design process as cyclical in character, so it includes a range of alternatives through research and experimental design questions (Zeisel, 1981), (6) Social Narrative — understanding the complex problems of contemporary society and the urban environment, and their narrative implementation in the conceptual framework of architectural design (Silverstein and Jacobson, 1978). This systematic approach allows generating creative values as an interface between context, framing and narrative.

The described methodology of the workshop was practically developed within a student interdisciplinary workshop “Unforeseen Impulses of Modernism: The Case of New Belgrade Blocks”, organized in November 2018 at the University of Belgrade — Faculty of Architecture in the framework of ongoing PhD research of Anica Dragutinovic¹. One of the most important contributions of the workshop was its integrally developed methodology which proved to be adaptable to other topics and spatial frameworks. Therefore, the same model was applied in the second workshop organized in April 2019 at the same faculty “Among Scales — Programming the Landscape Ecology: Toward the New Modernity of Belgrade” in the framework of ongoing PhD research of Aleksandra Milovanovic².

1 The first workshop, “Unforeseen Impulses of Modernism: The Case of New Belgrade” was authored and supervised by Anica Dragutinovic, M.Arch. Her PhD research is focusing on the evaluation and transformation of modernist housing blocks in New Belgrade, and the workshop is part of her PhD research.

2 The second workshop, “Among Scales — Programming the Landscape Ecology: Toward the New Modernity of Belgrade” was authored and supervised by Aleksandra Milovanovic, M. Arch. Her PhD research is focusing on reviewing and developing architectural programming methodology.

RETHINKING MODERNITY: BASIS FOR THE CONTENT OF THE WORKSHOP

A perspective for the modern urbanization of Belgrade is enabled in the first WWII period through (1) foundation of the institutional arena — the establishment of the first Urban Institute in 1945, (2) development of the planning arena — development of the new Master Plan in 1949–1950, and (3) development of a professional arena — the preparation of studies for the construction of future Belgrade, the consideration of new contours and physiognomy of urban morphology (Milovanovic, 2018). Based on parallel analysis of the planned, institutional and research framework and questioning modernity in line with rurality, industrialization and sociology of housing, with the basic aim of housing manifestation as a humanistic and material assumption of a socialist self-governing society, three developmental periods can be defined from the perspective of modernity:

- 1 the impulses of modernity: the period of establishing modern urban design principles and functional planning based on the 1950 Master Plan (Blagojevic, 2007),
- 2 the development of modernity: the period of development of the methodological apparatus for planning, programming and designing of housing settlements based on the General Development Report of 1966 in accordance with the dynamic, coordinated and planned development through five-year plans that enable the verification of what was conceived, planned and realized (Nikezic, et.al., 2019), and
- 3 the high modernity: the period of shaping the physiognomy of a housing landscape in line with the concept of the “archipelago of a settlement in the sea of greenery” based on the 1972 Master Plan (Djordjevic, 1972).

The described time point in the urban development of Belgrade is taken as a reference point in relation to which the development of a housing landscape is considered, and also its variability and conditionality in line to the spatial-morphological and content-functional system of the city. Defined periods of the landscape housing development, the paradigmatic changes in the principles, methods and techniques applied in the planning and design process of housing settlements from the level of the comprehensive territory of the city to the level of the single housing unit, or from the sociological level of the collectivization to individualization of housing space form the basis for studies of modernity in the territory of Belgrade at the present moment.

The spatial framework given students for research through the workshop is Belgrade city territory and it's focused on housing typology. Why housing typology in a thematic context of modernity? The territory of the Belgrade has dynamically started to develop on the basis of the very important Master Plan of 1950, which was under the influence of demographic growth, industrialization and the establishment of an institutional framework for planning which for a first time provide methodology for urban planning and design in line with modern principles and such circumstances enabled the re-examination of modernity, and also the relation of modernity with rurality. The new territory appeared: the empty-flat-land on the other side of the river Sava, opposite the historical Belgrade — New Belgrade (Dragutinovic, et.al., 2018). It was the main polygon for new concepts, the biggest construction field for providing housing for tens of thousands of inhabitants. New Belgrade was a housing laboratory with an experimental character at first, becoming a norm for the whole country in the end (Dragutinovic, et.al., 2019). Moreover, the largest part of the territory of the whole city planned and realized in that period was the housing typology that can be analysed through a multi-scale approach from comprehensive city territory to the single housing unit.

In classical curricula, learning about modernity, particularly about modern housing and specifically those social housing concepts imagined and built after the WWII is in three ways: (1) through history and theory of contemporary architecture with the aim of contextualization, identification and descriptive of social identities, architecture and urbanism, the relationship between practice and theory, the relationship between the visual arts and architecture, the relationship between art and science, the cultural aspects of architecture and urbanism, (2) through housing typologies in order to understand the complexity of the housing as technology of everyday life, to identify factors that determine the types and levels of housing in contemporary urban landscape and to study various morphological and structural manifestations of housing in space, and (3) through urban and social politics in order to study and position architecture as an integral part of the production, exchange and consumption of knowledge in society and ideological construction of identity.

These perspectives are here and there scattered all around the architectural agenda popping up whenever we need it. Reuse and sustainability of inherited housing stocks from the second half of the XX century is forgotten and pushed aside. However, a number of contemporary and challenging topics such as reuse, regeneration, sustainability, values and legacy and critical thinking on these topics is omitted. On the other side, how to incorporate new perspectives into formal curricula

that develop analytical thinking and systematization that are almost completely left out? How to develop a problem-oriented perspective on the topics of re-use and sustainability of modernist housing? These are just some of the issues that require thinking about specific assignments and environments for solving them. Abductive thinking is unimaginable — we value only those pieces of knowledge that were valued ones and believe we have read everything we need to know about those abandoned places. In that order, academia recognizes its historical, but not its contemporary values.

In the thematic sense, the realized workshops were focusing on contemporary trends, tensions and issues of architectural and urban practice through the relations of urban — rural, modern — post-modern, durable-ephemeral, compact-fragmented, public-private, individual-collective, towards the establishment of a new modernity. Therefore, the expanded agenda of the proposed model of the workshop is reflected in the challenges that have been established through the thematic framework and opens up possibilities for experimental research, model options and writing scenarios for future action.

CONTENT OF WORKSHOP 1: UNFORESEEN IMPULSES OF MODERNISM — THE CASE OF NEW BELGRADE

The Assignment

The main objective of “Unforeseen Impulses of Modernism: The Case of New Belgrade” workshop was aimed at generating and sharing knowledge around the topic of reuse of modernist buildings. The students were focused on (1) identifications and mappings of unforeseen impulses of Modernism, (2) reactions on space and interventions in space that were generated during the time, (3) understanding the needs and potentials; and at the end (4) suggestions of possible future interventions according to the identified elements, principles and impulses of modernism in the contemporary context of New Belgrade Blocks. The focus-scale of the research and design was on a level of the neighbourhood (a block). The thematic focus was directed on dialogue which emerges between private and public, open and closed, and articulation of the dialogue as materialized added value for the housing. The aim was to understand the contemporary context and the current condition of the New Belgrade blocks in order to identify the potentials for their improvement through introducing re-use as a method, and asking the questions such as: What could the impulses of modernism that we can read in space tell about the future interventions? And how to translate these impulses into the reuse tactics?

Substance

The search for possible answers to the set assignment was conducted through a series of methodological steps. Within the first step which is conceptualized as a photo-walk through a site visit, each group of students identified the phenomenon, or what is their focus in a process of searching for unforeseen impulses of modernism. They were mapping and framing the key relations (dialogues and impulses) in space using photography as a document, followed by a map. In the next step, students were visually reinterpreting the mapped phenomenon which become the subject of solving through design. The aim of future interventions was not transformation of the modernist morphology of space, but rather careful identification of important elements and “urban acupuncture” that would increase the functionality of block and support the community. Below are the results of the three groups that have studied the case of Block 23 in New Belgrade:

- 1 The first group was focusing on the landscape between the residential buildings — both on the micro level and landscape as a whole. Creating an imaginary grid from the in-between spaces of buildings and existing micro points in the landscape.

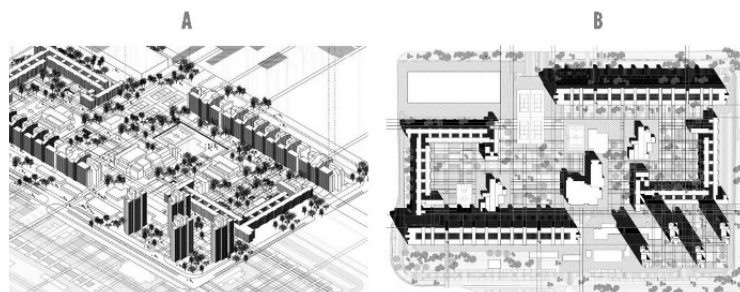


Fig. 2: (A) Axonometric view: Common Landscape, (B) Block Layout: Imaginary grid_in-between spaces. Source: Results of Workshop 1 — Students: A. Maksimović, N. Đurić, K. Dimitrijević, M. Božović.

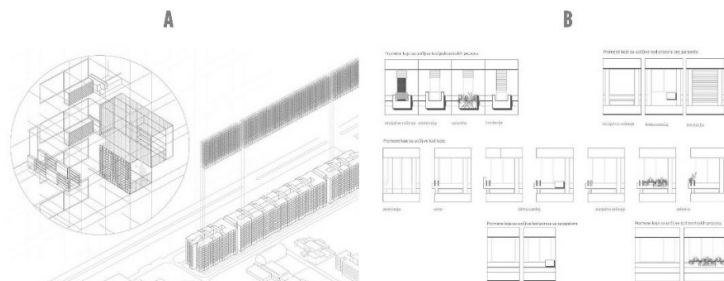


Fig. 3: (A) Axonometric view: Add-on structure, (B) Façade elements: Users' interventions / new needs. Source: Results of Workshop 1 — Students: Z. Stanojević, A. Stojanović, N. Lalić, O. Mišković.

- 2 The second group was focusing on the façade of the linear building, aiming to develop an add on structure that would integrate new functions. The user's interventions on the existing façades were mapped and classified — and therefore new needs were identified that were then integrated in the new structure.
- 3 The third group was focusing on the atriums — typical spatial element that emerged between the two residential tracts. It is an important element for the quality of dwellings, and the students were focusing on improvement of atriums for outside — as public space. The proposed structure integrated into the void was transforming ambient characteristics of the atrium using light and reflection, therefore improving quality both of private and public space and increasing its usability.

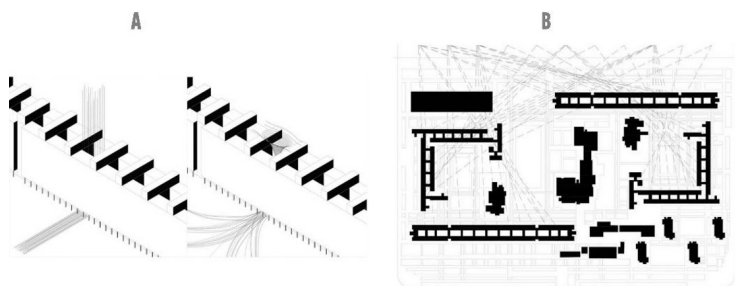


Fig. 4: (A) Axonometric view: Reuse of atriums, (B) Block Layout: Different types.
Source: Results of Workshop 1 — Students: T. Čirić, M. Ristić, J. Ristić, J. Korolja

CONTENT OF WORKSHOP 2: AMONG SCALES — PROGRAMMING THE NEW MODERNITY OF BELGRADE

The Assignment

The main objective of „Among Scales: Programming the New Modernity of Belgrade“ workshop was to look at current relational flows and gaps between urban and rural, architecture and nature, global flows and everyday life at the relevant spatial levels, from a geographical scale to the level of a single housing unit. In line with the spatial, administrative and sociological framework, five relevant scales of research have been defined:

scale XXL: territory — drawing an urban gradient, (2) *scale XL: morphology* — mapping morphological character, (3) *scale L: typology* — typological classification of housing patterns, (4) *scale M: program* — programming of architectural structure, and (5) *scale S: ambience* — collage sequences.

The case study-based research covers 9 different large-scale housing settlements that were planned and implemented over different time periods. This means that each of these settlements has different design principles and a programming framework, which requires students to recognize the phenomena of modernity and rurality at assigned spatial levels and accordingly develop methods for their systematization through drawing. First step was to recognize aspects and phenomena of modernity and then to illustrate them in recognized scales. In the second phase, students were expected to develop their own methodologies and approaches for research of the relationship between housing patterns and landscape. Research was approached primarily from the aspect of social and economic changes within society, and the way those aspects affect development of city's morphology, and also transformations of natural conditions.

Substance

The result of the workshop is recognized on two levels — the first is a systematic chronological review of the residential settlements developed in Belgrade in the period 1945–1978 with the identification of the planning framework and the principal spatial-morphological and functional-conceptual concepts, while the second part of the contribution is reflected in the created “identity cards” of individual residential settlements through the identification of recognized phenomena at the analysed spatial levels. In this sense, question of modernity was opened through three leading relations (1) modernity — rurality, (2) industrialization — sociology of housing, and (3) harmonization of urban planning — social and economic problems of housing, with the basic aim of housing manifestation as a humanistic and material assumption from the level of the comprehensive territory of the city to the level of the single housing unit, or from the sociological level of the collectivization to individualization of housing space. The results of the synthesis can be traced to three axes (1) a chronological line, that is, timeline of housing development, (2) a thematic line through which the development and changes in the relationship between housing patterns and ecological processes are monitored, and (3) a scale line through which the distribution of design principles from XXL to S scale.

- 1 First group research was approached primarily from the aspect of social and economic changes within society, and the way those aspects affect development of city's morphology, and also transformations of natural conditions as

a response to the assignment which implies identification of relations urban-rural, artificial-natural, within the case study of urban neighbourhood Banjica, in Belgrade. As a method of research on this case, students applied comparative analysis between urban plans and existing state, of the Banjica area, but also of the entire Belgrade. The balance and the way natural landscape and built structure compliment, and in a way, in-frame each other, as a recognized impulse within this case study, could become a pattern for living in the cities of the future.



Fig. 5: Topic of research: Morphology of nature, Case study: Urban neighbourhood Banjica, Belgrade (planned in 1970, competition design in 1971). Source: Results of Workshop 2 — Students: N. Askovic, M. Stojkovic, S. Todorovic.

- 2 The phenomenon of fortification was highlighted as a starting point for further research of the second group. Guided by this idea, students analysed the movement around and within the block, putting emphasis on recognizing flows and meeting points, which is clearly read through the parterre solution of the neighbourhood. Due to the phenomenon of fortress and movement within established structures on a wider and more narrow level, they observed plans, courses, zones, shaping, materialization, the ratio of full and empty both on the horizontal level of the parterre and the apartment, as well as on the vertical level of the facade.

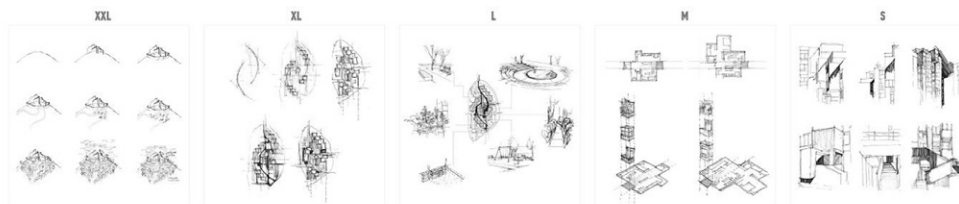


Fig. 6: Topic of research: Autonomy of nature, Case study: Urban neighbourhood Julino Brdo, Belgrade (realized in 1967-1970). Source: Results of Workshop 2 — Students: A. Andric, J. Baba-Milkic, K. Bankovic, M. Božovic.

- 3 The relations between the built environment and nature are depicted in maps through elements of nature. Students

recognized the impact of three social levels: society — group — individual and different map scales are determined by these three levels including: the formation of the greenery network on the morphology level, the scale of the territory of the city, connecting the greenery of the narrow part of the city with the greenery of its hinterland, the scale of typology focusing on the relation between the urban neighbourhood and the vegetation neighbourhood, the scale of micro substance, the ambient scale in line with the typology of the prefixes and the scale of the micro environment in line with the typology of the terraces.



Fig. 7: Topic of research: Vegetative neighbourhood, Case study: Urban neighbourhood Cerak Vinogradi, Belgrade (competition in 1977 realized in 1979–1988). Source: Results of Workshop 2 — Students: A. Andjelkovic, M. Milosevic.

CONCLUDING REMARKS

Workshop revision

The successful applicability of the teaching model of the workshop illustrated in this paper is recognized by several indicators that were evaluated after the workshops were completed:

- 1 Reason for participation in the workshop — All interested students are surveyed to express their intention and motivation to participate when applying for participation in the workshop. Based on the analysis, the need for students to further refine their design skills (methods, techniques and tools), as well as broaden the thematic research framework in order to strengthen the capacity to work on a studio-based projects and other courses is recognized.
- 2 Number of participants — The growing trend of students' interest in participating in workshops is recognized — 55 students participated in the workshop “Unforeseen Impulses of Modernism: The Case of New Belgrade”, organized in 15 teams, 67 students participated in the workshop „Among Scales: Programming the New Modernity of Belgrade“ organized in 18 teams.

- 3 Type of participants — Participants in both workshops were students of all study programs at UB-FA (Bachelor, Integrated (5-Cycle Year) and Master Academic Studies — Module Architecture, Module Urbanism, Module Architectural Technology, Module Architectural Engineering) which allowed for a high level of student interaction horizontally and vertically, as well as sharing knowledge, competences and skills.
- 4 Type of critic / tutor — Tutors, teachers and critics who participated in the realization of the workshops were representatives of different departments of school (Architecture, Urbanism and Architectural Technology), which contributes to the development of a comprehensive methodology that addresses a wide range of scales and aspects.
- 5 Influence of acquired knowledge from workshops to work in the studio-based learning — Strengthening of students' capacity to understand urban transformation between imagined, realized, and lived space has been recognized through critical thinking, problem and process-based focus in designing more complex project tasks and programs.

The workshop model as a reflective arena, which is illustrated in this paper as an environment for learning and interaction between students and tutors, enables the transfer of ideas, knowledge and access through peer learning within a heterogeneous study program and an elastic thematic framework. Furthermore, tutors, teachers and critics who participated in the realization of the workshops were representatives of different departments, which contributes to the development of a comprehensive methodology that addresses a wide range of scales and aspects. The workshop is also a space for vertical integration of students in the school, so that the students of the bachelor level are empowered and encouraged in the work of master students who have a more advanced level of design skills and architectural knowledge. On the other hand, the workshop allows for a change of context compared to a studio-based model that has a very focused environment during the semester. By introducing the workshop as a compulsory part, that is, one phase, of the process of working in a design studio, students adapt to new challenges, new actors to discuss and test ideas, and new critics evaluating design solutions. Therefore, the expanded agenda of the proposed model of the workshop is reflected in the challenges that have been established through the thematic framework and opens up possibilities for experimental research, model options and writing scenarios for future action.

Towards upgrading a content within existing curriculums

The transformation of the cultural landscape and urban morphology, which is intensively taking place at all spatial levels and time horizons, challenges architecture schools and teachers to confront contemporary urban problems and to include them as a subject of solving through design. Learning through design is as important as teaching through design, which means that the position of students and teachers in recreating content to rethink the future of urban space is equally important. Through the content of the workshops, it is clear that a broad thematic framework like modernity can have more focus such as (1) scale, (2) research questions and (3) expected outcomes. Each thematic focus set up in a similar way allows for flexible application in different learning environments and models. In this regard, the following outcomes for future development and testing of content frameworks can be highlighted: (1) understanding the multi-layeredness of urban space, (2) knowledge of different aspects, methods and techniques of analysing urban space and their synthesis in the formation of architectural principles, and (3) understanding of different urban needs and knowledge of specific relationships and processes in space towards establishment of an innovative approach to the issue of architectural design and urban planning that absorbs understanding of the needs of a contemporary society. By researching increasingly complex architectural and urban assignments, there is a need to foster integral thinking through practical and theoretical students' response to the complexity of the urban environment and the dynamics of social changes that have a reflection on the physiognomy of the city.

Author Contributions

Conceptualization and realization of the research: A.D., A.M., A.N., and J.R.T.; Writing the paper and editing: A.M., A.D., J.R.T. and A.N.

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