

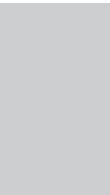
NOVO! — NOVO
SARAJEVO
NOVI!
URBANI
PROTO — KOL

NEW! (MUNICIPALITY)
NEW SARAJEVO
NEW! URBAN PROTOCOL

NERMINA ZAGORA : ANDREA PAVLOVIĆ : NASIHA POZDER
AIDA IDRIZBEGOVIĆ ZGONIĆ : ISRA TATLIĆ : VEDAD ISLAMBEGOVIĆ
SENKA IBRIŠIMBEGOVIĆ : NEDIM MUTEVELIĆ
LEJLA KREŠEVLJAKOVIĆ : MLADEN BURAZOR

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Acta Architectonica et Urbanistica
University of Sarajevo - Faculty of Architecture



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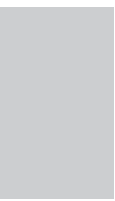
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Sarajevo, 2024.

AUTORI AUTHORS

Nermina Zagora
Andrea Pavlović
Nasiha Pozder
Aida Idrizbegović Zgonić
Isra Tatlić
Vedad Islambegović
Senka Ibrišimbegović
Nedim Mutevelić
Lejla Kreševljaković
Mladen Burazor

UREDNIKA EDITOR

Nermina Zagora

OSTALI UČESNICI U PROJEKTU OTHER PARTICIPANTS IN THE PROJECT

Erdin Salihović, Amira Salihbegović, Lejla Kahrović Handžić, El-Gazija Bajramović, Armin Kešo

STRUČNI SARADNIK NA PROJEKTU, OBLIKOVANJE I PRELOM PUBLIKACIJE

ASSOCIATE PROJECT ASSISTANT, PUBLICATION LAYOUT

Edib Pašić

DIZAJN NASLOVNE STRANICE I VIZUALNOG IDENTITETA PROJEKTA

COVER PAGE DESIGN AND PROJECT VISUAL IDENTITY DESIGN

Nedim Mutevelić
Nermina Zagora
Edib Pašić

RECENZENTICE REVIEWERS

Ema Alihodžić Jašarović
Ružica Bogdanović

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University of Sarajevo - Faculty of Architecture, Sarajevo, Bosnia and Herzegovina

ZA IZDAVAČA FOR THE PUBLISHER

Erdin Salihović

PARTNERI PROJEKTA PROJECT PARTNERS

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PARTNER PROJEKTA

Univerzitet u Sarajevu Arhitektonski fakultet

U skladu sa strategijom kontinuiranog razvoja nastavnog procesa, naučno-istraživačkog i stručnog rada, te globalnom dinamikom razvoja arhitektonske profesije s jedne strane, i u odgovoru na stvarne potrebe našeg društva s druge strane, Arhitektonski fakultet Univerziteta u Sarajevu svake godine ostvaruje i jača saradnju sa internacionalnim i lokalnim partnerima iz akademskog, javnog i privatnog sektora. Prepoznajući važnost uzajamnog jačanja kapaciteta i udruživanja u cilju promoviranja održivog razvoja naše urbane sredine, u protekle dvije godine, u okviru Sporazuma o međusobnoj saradnji sa Općinom Novo Sarajevo, ostvaren je niz aktivnosti i projekata u oblasti arhitekture, urbanizma i prostornog planiranja, kao i stručnih i naučnih mišljenja, ekspertiza i revizija.

U protekloj godini uspješno smo realizirali naučno-istraživački projekat pod nazivom "NOVO! Novo Sarajevo - novi urbani protokol", u okviru kojeg su održane panel diskusije sa stanovništvom, organizovana preliminarne prezentacija istraživanja, izložba studentskih radova i niz radnih sastanaka sa predstavnicima Općine i Fakulteta. Važno je istaći da je ovaj projekat realiziran u okviru nastavnog procesa na 8 izbornih studija tokom tri semestra studijske 2022/23 i 2023/24 godine, zahvaljujući saradnji nastavnika i saradnika sa tri katedre Arhitektonskog fakulteta, uz značajnu podršku stranih i domaćih eksperata koji su održali gostujuća predavanja. Ovo je također prvi u nizu domaćih naučno-istraživačkih projekata koji su dobili podršku Ministarstva za nauku, visoko obrazovanje i mlade Kantona u 2022. godini, a danas se na Arhitektonskom fakultetu realizuju još četiri domaća istraživačka projekta.

Knjiga pod nazivom "NOVO! Novo Sarajevo: Novi urbani protokol" predstavlja rezultat istraživanja i angažmana naših nastavnika, istraživača i studenata na Arhitektonskom fakultetu Univerziteta u Sarajevu, sa ciljem predlaganja inovativnog metodološkog okvira kojim se nastoje unaprijediti funkcionalnost, pristupačnost i održivost javnih prostora, uz poštovanje arhitektonskih i ambijentalnih vrijednosti naslijeđa. Neka ova knjiga bude podsticaj za nastavak uspješne saradnje sa Općinom Novo Sarajevo i stvaranje predispozicija za bolji kvalitet života u našem okruženju.

prof. dr. Erdin Salihović, dipl. ing. arh.

Dekan Univerziteta u Sarajevu - Arhitektonskog fakulteta

PROJECT PARTNER

University of Sarajevo Faculty of Architecture

In line with the strategy of continuous development of the educational process, scientific research, and professional work, as well as the global dynamics of architectural profession development on one hand, and in response to the real needs of our society on the other hand, the Faculty of Architecture at the University of Sarajevo establishes and strengthens cooperation with international and local partners from academic, public, and private sectors every year. Recognizing the importance of mutual capacity building and collaboration to promote sustainable development of our urban environment, over the past two years, within the Agreement on Mutual Cooperation with the Municipality of Novo Sarajevo, a series of activities and projects in the field of architecture, urbanism, spatial planning, as well as expertises and project reviews have been realized.

In the past year, we successfully implemented a scientific research project entitled "NEW! New Sarajevo - New Urban Protocol," which included panel discussions with the local community, preliminary research presentations, an exhibition of student works, and a series of working meetings with representatives of the Municipality and the Faculty. It is important to note that this project was implemented as part of the educational process in 8 elective studios and courses over three semesters of the academic years 2022/23 and 2023/24, thanks to the collaboration between professors and teaching assistants from three departments of the Faculty of Architecture, with significant support from international and local experts who held guest lectures. This is also the first in a series of domestic scientific research projects supported by the Ministry of Science, Higher Education, and Youth of the Canton in 2022, and as of 2023, four more domestic research projects are being implemented at the Faculty of Architecture.

The book titled "NEW! New Sarajevo: New Urban Protocol" represents the result of research and engagement of our teachers, researchers, and students at the Faculty of Architecture, University of Sarajevo, with the aim of proposing an innovative methodological framework to improve the functionality, accessibility, and sustainability of public spaces, while respecting the architectural and environmental heritage values. May this book serve as an encouragement for the continuation of successful cooperation with the Municipality of Novo Sarajevo and the creation of prerequisites for a better quality of life in our environment.

prof. Erdin Salihović, PhD

Dean of the University of Sarajevo - Faculty of Architecture

PARTNER PROJEKTA

Općina Novo Sarajevo

Vodeći se našom vizijom o održivom razvoju i strateškom urbanom planiranju, već dvije godine uspješno sarađujemo sa Arhitektonskim fakultetom, što smo ozvaničili i potpisanim Sporazumom o međusobnoj saradnji. Potreba za stručnom saradnjom sa ovom značajnom akademskom institucijom ukazala se zbog potrebe za lakšim planskim upravljanjem u oblasti prostornog planiranja kao jednog od ključnih razvojnih resursa Općine. Sa velikim zadovoljstvom možemo istaći da je urađeno jako mnogo na stvaranju predispozicija za unapređenje kvalitetnijih sadržaja i prostornih mogućnosti u Novom Sarajevu.

Zajedničko djelovanje Općine i Arhitektonskog fakulteta obuhvata širok spektar saradnje, uključujući razmjenu znanja i informacija, razvoj i implementaciju obrazovnih programa, istraživanje i analizu relevantnih podataka, kao i organizaciju radionica, izložbi i slično. Posebno nas raduje da su u naše aktivnosti direktno uključeni i studenti ovog fakulteta kroz više predmetnih oblasti u kojima se suočavaju sa konkretnim izazovima i potencijalnim problemima, ali i vrlo interesantnim zadacima.

Do sada je sa studentima urađeno više idejnih arhitektonskih i urbanističkih projekata, a u narednom periodu planiramo nastaviti saradnju sa Arhitektonskim fakultetom, gdje će studenti moći nastaviti sa radom na određenim projektima i upoznati se sa kompletnim procesom „od ideje - do realizacije“.

Kao načelnika jedne urbane lokalne zajednice raduje me činjenica da smo već za ove dvije godine, koliko traje saradnja sa Arhitektonskim fakultetom, uradili niz konkretnih aktivnosti koje će jako brzo biti vidljive i na terenu. Stručna mišljenja o urbanom planiranju bit će nam prioritet i u budućnosti, jer samo na taj način možemo uspješno doprinijeti stručnom i naučnom razvoju Općine, što će rezultirati lokalnim i širim društvenim razvojem u cjelini.

dr. Hasan Tanović

Načelnik Općine Novo Sarajevo

PROJECT PARTNER

Novo Sarajevo Municipality

Guided by our vision of sustainable development and strategic urban planning, we have been successfully collaborating with the Faculty of Architecture for two years now, which we have formalized with a signed Agreement on Mutual Cooperation. The need for professional cooperation with this significant academic institution arose due to the necessity for easier planning management in the field of spatial planning as one of the key developmental resources of the Municipality. We are pleased to highlight that a lot has been done to create prerequisites for improving the quality of content and spatial possibilities in Novo Sarajevo.

The joint efforts of the Municipality and the Faculty of Architecture encompass a wide range of cooperation, including the exchange of knowledge and information, the development and implementation of educational programs, research and analysis of relevant data, as well as the organization of workshops, exhibitions, and similar activities. We are particularly pleased that students of this Faculty are directly involved in our activities through various subject areas where they encounter specific challenges, potential problems, but also very interesting tasks.

So far, several conceptual architectural and urban projects have been completed with students, and in the future, we plan to continue our collaboration with the Faculty of Architecture, where students will be able to continue working on specific projects and become acquainted with the entire process "from idea to realization."

As the mayor of an urban local community, I am delighted that in just two years of collaboration with the Faculty of Architecture, we have undertaken a series of concrete activities that will soon be visible on the ground. Expert opinions on urban planning will remain a priority for us in the future because only in this way can we successfully contribute to the professional and scientific development of the Municipality, resulting in local and broader social development as a whole.

dr. Hasan Tanović

Municipal Mayor of Novo Sarajevo Municipality

PREDGOVOR

Knjiga “NOVO! Novo Sarajevo: NOVI urbani protokol” na sveobuhvatan i sistematičan način prezentira rezultate naučno-istraživačkog projekta „Novi urbani protokol: primjena interaktivnih i digitalnih alata u održivoj i inkluzivnoj urbanoj transformaciji javnih prostora“ kojeg je 2021. godine inicirao Univerzitet u Sarajevu – Arhitektonski fakultet u saradnji s Općinom Novo Sarajevo. Ovim projektom se nastoje istražiti mogućnosti za inoviranje metodologije u urbanističkom planiranju i arhitektonskom projektiranju, kroz uvođenje *novog urbanog protokola* s fokusom na uređenje javnih prostora. Predložena metodologija proizilazi iz teoretskih i terenskih istraživanja iz oblasti urbanizma, arhitektonskog projektovanja i graditeljskog naslijeđa, kao kritički odgovor na neusklađenost postojećeg, institucionalnog pristupa *top-down* planiranja s tehnološkom i društvenom dinamikom digitalnog doba, kao i stvarnim potrebama lokalne zajednice. S ciljem simuliranja i testiranja predložene metodologije, istraživanje je provedeno u okviru nastavnog procesa na izbornim predmetima i studijima Arhitektonskog fakulteta u Sarajevu na odabranom prostornom obuhvatu u Općini Novo Sarajevo, kroz povezivanje svih katedri Fakulteta. Pored interkatedarskog umrežavanja na Arhitektonskom fakultetu, istraživanje je realizovano u saradnji sa stručnim službama Općine Novo Sarajevo, iz oblasti relevantnih za tematiku projekta. Projektni ciljevi i zadaci su realizovani na konkretnim podlogama dostavljenim iz Općine Novo Sarajevo, uz razmatranje svih *inputa*, realnih problema i relevantnih tema. Nadalje, provedena su brojna terenska istraživanja kroz direktnu interakciju sa stanovnicima Općine

PREFACE

The book “NEW! New Sarajevo: NEW Urban Protocol” comprehensively and systematically presents the results of the scientific research project “New Urban Protocol: Application of Interactive and Digital Tools in Sustainable and Inclusive Urban Transformation of Public Spaces,” initiated in 2021 by the University of Sarajevo - Faculty of Architecture in collaboration with the Municipality of Novo Sarajevo. This project seeks to explore possibilities for innovating methodologies in urban planning and architectural design by introducing a *new urban protocol* focusing on the development of public spaces. The proposed methodology stems from theoretical and field research in the fields of urbanism, architectural design, and building heritage as a critical response to the discrepancy between the existing top-down institutional approach to planning and the technological and social dynamics of the digital age, as well as the real needs of the local community. To simulate and test the proposed methodology, the research was conducted within the framework of the teaching process in elective subjects and studios at the Faculty of Architecture in Sarajevo, focusing on selected spatial areas in the Municipality of Novo Sarajevo through the collaboration of all faculty departments. In addition to inter-departmental networking at the Faculty of Architecture, the research was conducted in collaboration with the teams of experts of the Municipality of Novo Sarajevo. Project objectives and tasks were implemented based on specific data from the Municipality of Novo Sarajevo, considering all inputs, real problems, and relevant topics. Furthermore, numerous field surveys were conducted

Novo Sarajevo, a podaci dobiveni putem anketa i panel diskusija su, po principima ko-kreacije, korišteni za izradu koncepata i simulacija prostornih intervencija.

Metodologija *novi urbani protokol* spaja *top-down* i *bottom-up* pristupe planiranju gradova, balansirajući između kolektivnih i individualnih interesa, javne i privatne sfere, s primjenom u aktiviranju javnih prostora i šire urbane regeneracije stambenih naselja iz perioda socijalističkog modernizma. Prostorni obuhvat stambenih naselja Grbavica II, Čengić Vila, Hrasno i Dolac Malta na području Općine Novo Sarajevo je predstavljao svojevrsni laboratorij za demonstriranje metodologije *novog urbanog protokola*, koji je podrazumijevao terensko istraživanje, mapiranje, digitalizaciju javnih prostora, a zatim i strateško oživljavanje urbanih praznina kroz strategiju *urbane akupunkture* (De Solà-Morales, 2008), na nivou urbanističkog i arhitektonskog projektovanja, uz aktivno učešće i ko-kreaciju lokalne zajednice.

Istraživanje i publikacija predstavljaju odgovor na negativne pojave u urbanim sredinama koje ukazuju na nedovoljno učešće akademske i profesionalne zajednice, izostanak opće strategije i neučinkovitu komunikaciju u implementaciji projekata. Stoga predložena metodologija podrazumijeva iniciranje procesa kritičkog sagledavanja problematike javnih prostora od strane akademske zajednice, koja će imati ulogu medijatora procesa saradnje s ostalim ravnopravnim akterima koji odlučuju o perspektivi zajedničkog prostora, uz prepoznavanje svih objektivnih ekonomskih, socijalnih i političkih faktora.

through direct interaction with residents of the Municipality of Novo Sarajevo, and data obtained through surveys and panel discussions were used, following the principles of co-creation, for the development of concepts and spatial intervention simulations.

The *new urban protocol* methodology combines top-down and bottom-up approaches to city planning, balancing collective and individual interests, public and private spheres, with application in activating public spaces and broader urban regeneration of residential areas from socialist modernism. The spatial area of residential quarters of Grbavica II, Čengić Vila, Hrasno, and Dolac Malta in the Municipality of Novo Sarajevo was regarded as a kind of laboratory for demonstrating the methodology of the new urban protocol, which involved field research, mapping, digitalization of public spaces, and then strategic revitalization of urban voids by applying the strategy of *urban acupuncture* (De Solà-Morales, 2008), at the level of urban planning and architectural design, with active participation and co-creation of the local community.

The research and publication represent a response to negative phenomena in the urban environment that indicate insufficient academic and professional community participation, lack of general strategies, and ineffective communication in project implementation. Therefore, the proposed methodology involves initiating a process of critically examining the issues of public spaces by the academic community, which can act as a mediator in the collaboration process with other stakeholders who participate in the decision-making on the perspective of shared space while recognizing all objective economic, social, and political factors.

v. prof. dr. Nermina Zagora, dipl. ing. arh.

glavna urednica izdanja i voditeljica projekta
"Novo! Novo Sarajevo - Novi urbani protokol"
Univerzitet u Sarajevu - Arhitektonski fakultet

assoc. prof. Nermina Zagora, PhD

editor in chief and the project coordinator
"New! Novo Sarajevo - New urban protocol"
University of Sarajevo - Faculty of Architecture

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UVOD

NOVI! urbani protokol za NOVO! Novo Sarajevo

Status i identitet javnih prostora u kontekstu urbanog razvoja i društvene realnosti grada Sarajeva su determinisani brojnim globalnim izazovima kao što su ubrzana digitalizacija i tehnološki napredak, društveno otuđenje i učestali ekološki problemi. Međutim, za razliku od mnogih drugih evropskih i globalnih urbanih sredina, grad Sarajevo se suočava sa specifičnim lokalnim problemima političke i ekonomske tranzicije bosanskohercegovačkog društva, uzrokovanim smjenom socijalističkog uređenja kapitalističkim sistemom, koja je praćena ratnom destrukcijom 90-tih godina 20. stoljeća. Tri dekade poslije, potrebno je sistematično i kritički sagledati kako su se ove radikalne promjene, kao i kasniji valovi post-ratne rekonstrukcije i nove izgradnje manifestirali u urbanoj strukturi i društvenoj dinamici Sarajeva, sa fokusom na javne prostore i kvalitetu urbanog života.

Recentni (post-)tranzicijski period urbane transformacije Sarajeva karakterišu dvije paralelne pojave: formalna izgradnja dominantno komercijalnih tipologija i novih stambenih naselja u kotlini uzduž glavne osovine u pravcu zapada, i kontinuirana neformalna izgradnja stambenih naselja na sjevernim i južnim padinama grada. Promjena društveno-ekonomskog sistema je uzrokovala disbalans između javne i privatne sfere i dovela do zapuštanja, propadanja i privatnog prisvajanja javnih prostora u mnogim stambenim naseljima grada Sarajeva iz perioda socijalističkog modernizma. Uslijed dominacije privatnih interesa, te nedostatka strateškog pristupa zaštite općeg, kolektivnog interesa, izgradnja novih naselja sarajevskim gradskim općinama je u nedovoljnoj mjeri uključivala uređenje javnih prostora – parkova, igrališta, pješačkih ulica, trgova itd. Kao posljedica nereguliranih procesa izgradnje u recentnom tranzicijskom periodu Sarajevu su nastali prostorni nus-produkti, zapušteni „džepovi“ urbanog prostora bez identiteta i jasne funkcije, u teoriji urbanizma poznati kao „urbane praznine“ (de Solà Morales, 2003). Tako su u

INTRODUCTION

NEW! Urban Protocol for NEW! Novo Sarajevo

The status and identity of public spaces in the context of urban development and social reality in Sarajevo are determined by numerous global challenges, such as accelerated digitization and technological advancement, social alienation, and frequent environmental issues. However, unlike many other European and global urban environments, the city of Sarajevo faces specific local problems of political and economic transition in Bosnian-Herzegovinian society, caused by the shift from socialist to capitalist systems, accompanied by the wartime destruction of the 1990s. Three decades later, it is necessary to systematically and critically examine how these radical changes, as well as subsequent waves of post-war reconstruction and new construction, have manifested in Sarajevo's urban structure and social dynamics, with a focus on public spaces and the quality of urban life. The recent (post-)transitional period of urban transformation in Sarajevo is characterized by two parallel phenomena: the formal construction of predominantly commercial typologies and new residential neighborhoods in the valley along the main axis towards the west and the continuous informal construction of residential neighborhoods on the northern and southern slopes of the city. The change in the socio-economic system has led to an imbalance between the public and private spheres. It has resulted in neglect, decay, and private appropriation of public spaces in many residential neighborhoods of Sarajevo from the socialist modernist period. Due to the dominance of private interests and the lack of a strategic approach to protecting the common, collective interest, the construction of new neighborhoods in Sarajevo's municipal districts has not adequately included the development of public spaces - parks, playgrounds, pedestrian streets, squares, etc. As a result of unregulated construction processes in the recent transitional period, spatial by-products have emerged in Sarajevo, neglected "pockets" of urban space without identity and clear function, known in urban theory as "urban voids" (de Solà Morales, 2003). Thus, during the transition process,

procesu tranzicije mnogi zajednički prostori postali ničiji prostori (Zheltnina, 2013). Nadalje, neadekvatan odnos prema javnim prostorima, praćen rastućom digitalizacijom uzrokovao je otuđenje (Sennett, 2002), te odsustvo kohezije u lokalnim zajednicama, ali i odgovornosti pojedinaca prema zajedničkom dobru, prostoru i javnoj sferi uopće.

Stambene četvrti Grbavica II, Čengić Vila, Hrasno i Dolac Malta na području Općine Novo Sarajevo nisu izuzetak kada su u pitanju urbanistički i društveni problemi koji su se akumulirali u periodu tranzicije u širem području grada. Obzirom da se radi o planski izgrađenim naseljima čija je realizacija započela neposredno nakon Drugog svjetskog rata i nastavila etapni razvoj tokom nadolazećih dekada druge polovine 20. stoljeća, ova naselja su u cjelini zadržala svoj izvorni identitet, obzirom na ograničenost razmjera novije gradnje, te su bile moguće transformacije u malom mjerilu unutar postojeće urbane strukture. Nadalje, ove stambene četvrti svjedoče o periodu socijalističkog modernizma, čije arhitektonsko-urbanističke, historijske i kulturološke atribute je potrebno kritički analizirati i valorizirati u cilju provođenja cjelovite održive urbane regeneracije (Roberts & Sykes, 2000). Arhitektonske i kulturološke vrijednosti naslijeđa se mogu posmatrati kao potencijalna obilježja duha mjesta (Norberg-Schulz, 1991(1979)), i memorije koja ovim naseljima daje autentičnost (Lynch, 1960). Istovremeno, naselja na području Općine Novo Sarajevo nisu bila predmetom cjelovite i održive adaptacije i obnove od svoje izgradnje, pa su u toku i nakon procesa privatizacije imovine, stambeni objekti pretrpjeli brojne izmjene, a javni prostori su izgubili prvobitne vrijednosti.

Nakon detekcije problema, a na temelju prikupljenih podataka, analize i valorizacije postojećeg stanja, potrebno je utvrditi predušlove za kreiranje novog pristupa rješavanju problema. Agenda 2030 Ujedinjenih Nacija o održivom razvoju adresira održive gradove i zajednice, ističe značaj ulaganja u javne prostore sa sljedećim atributima: sigurni, pristupačni, održivi i inkluzivni za sve kategorije populacije (The 2030 Agenda for Sustainable Development). U tom smislu, bosanskohercegovački gradovi i općine trebaju prepoznati potencijal javnih prostora u domenu marketinške i turističke promocije, ali isključivo

many shared spaces became nobody's spaces (Zheltnina, 2013). Furthermore, inadequate treatment of public spaces, accompanied by growing digitalization, has caused alienation (Sennett, 2002), a lack of cohesion in local communities, as well as lack of individual responsibility towards the common good, space, and the public sphere in general.

Residential neighborhoods of Grbavica II, Čengić Vila, Hrasno, and Dolac Malta in the area of the Municipality of Novo Sarajevo are not exceptions regarding the urban and social problems that have accumulated during the transition period in the wider area of the city. Since these are planned residential areas whose implementation began immediately after the Second World War and continued in phases over the following decades of the second half of the 20th century, these neighborhoods have largely retained their original identity, given the limited scale of recent construction, and have transformed on a small scale within the existing urban structure. Furthermore, these residential neighborhoods bear witness to the period of socialist modernism, whose architectural-urbanistic, historical, and cultural attributes must be critically analyzed and valued to carry out comprehensive sustainable urban regeneration (Roberts & Sykes, 2000). The architectural and cultural values of heritage can be seen as potential place markers (Norberg-Schulz, 1991(1979)) and memories that give authenticity to these neighborhoods (Lynch, 1960). At the same time, the neighborhoods in the Municipality of Novo Sarajevo have not been the subject of comprehensive and sustainable adaptation and renewal since their construction, so during and after the process of property privatization, residential buildings have undergone numerous changes, and public spaces have lost their original values.

After identifying the problems and based on the collected data, analysis, and valorization of the current situation, it is necessary to establish the prerequisites for creating a new approach to addressing the problems. The United Nations 2030 Agenda for Sustainable Development addresses sustainable cities and communities, emphasizing the importance of investing in public spaces with the following attributes: safe, accessible, sustainable, and inclusive for all categories of the population (The 2030 Agenda for Sustainable Development, n.d.). In

kroz implementaciju projekata razvoja zdrave, održive sredine, poželjne za život, kao i ulogu javnih prostora kao generatora budućeg promišljenog i odgovornog razvoja.

Za razliku od drugih projektantskih disciplina, specifičnost uređenja javnih prostora se ogleda u imperativu učešća, medijacije i balansiranja interesa više različitih aktera, počevši od javnog, privatnog sektora do planera, projekatana, istraživača i građana. Postojeća praksa lokalnih nivoa vlasti u općinama Kantona Sarajevo i drugih bosanskohercegovačkih gradova u ovoj oblasti je isključivala ovaj vid participativnog pristupa. Kao odgovor na identificirane probleme, ovim projektom se predlaže uvođenje *novog urbanog protokola*, odnosno metodološkog postupka koji se sastoji iz sljedećih ključnih koraka: mapiranje i umrežavanje podataka u GIS bazi javnih prostora, ko-kreaciju ili kolaborativni pristup koji podrazumijeva saradnju svih aktera u procesima uređenja javnih prostora, digitalizaciju analitičkih podataka, te korištenje inovativnih alata vizualizacije za testiranje scenarija urbane transformacije u participativnom procesu.

S ciljem simuliranja i testiranja predložene metodologije, istraživanje „Novi urbani protokol: primjena interaktivnih i digitalnih alata u održivoj i inkluzivnoj urbanoj transformaciji javnih prostora“ je realizirano u okviru nastavnog procesa na izbornim predmetima i studijima Univerziteta u Sarajevu - Arhitektonskog fakulteta. Odabrana je prostorna zona u Općini Novo Sarajevo, površine 127,16 ha, koja obuhvata naselja Grbavica II, Čengić Vila, Hrasno i Dolac Malta. U pomenutom istraživanju, u periodu od oktobra 2022. do januara 2024.

this sense, Bosnian-Herzegovinian cities and municipalities need to recognize the potential of public spaces in the domain of marketing and tourism promotion, but solely through the implementation of projects for the development of a healthy, sustainable environment, desirable for living, as well as the role of public spaces as generators of future thoughtful and responsible development.

Unlike other design disciplines, the specificity of designing public spaces lies in the imperative of participation, mediation, and balancing the interests of multiple stakeholders, from the public and private sectors to planners, designers, researchers, and citizens. The existing practice of local government levels in the municipalities of Sarajevo Canton and other Bosnian-Herzegovinian cities in this area has excluded this type of participatory approach. In response to the identified problems, this project proposes the introduction of a *new urban protocol*, i.e., a methodological procedure consisting of the following key steps: mapping and networking data in a GIS database of public spaces, co-creation or collaborative approach involving the collaboration of all stakeholders in the processes of public space development, digitalization of analytical data, and the use of innovative visualization tools for testing scenarios of urban transformation in a participatory process.

To simulate and test the proposed methodology, the research “New Urban Protocol: Application of Interactive and Digital Tools in Sustainable and Inclusive Urban Transformation of Public Spaces” was conducted as part of the teaching process in elective subjects and courses at the

1

Mapiranje i razvoj GIS baze javnih prostora u odabranom obuhvatu Općine Novo Sarajevo

Mapping and development of GIS database of public spaces located in selected project area of the Municipality of Novo Sarajevo

2

Digitalizacija, detaljno snimanje, modeliranje, analiza podataka za odabrane mikrolokacije

Digitalization, detailed inspection, modelling and data analysis of chosen micro-locations

godine, učestvovalo je 15 nastavnika i saradnika te 138 studenata Arhitektonskog fakulteta.

Prvi dio knjige, pod naslovom „Mapiranje i analiza“, čine poglavlja u kojima su predstavljeni rezultati urbanističkih analiza, mapiranja javnih prostora i kreiranja GIS baze podataka, historijske analize i valorizacije graditeljskog naslijeđa na odabranom lokalitetu, te mapiranja potreba stanara i korisnika prostora s ciljem adekvatnog odgovora putem prostorne intervencije. U drugom dijelu knjige, pod nazivom „Urbana akupunktura“, kreirane su projektantske smjernice i simulacije urbanističkih i arhitektonskih interevencija na mikrolokacijama Grbavica II, Strojorad, Tržnica Hrasno i Vilsonovo šetalište, kroz tačkasto uvođenje novih javnih sadržaja iz oblasti kulture i održivog turizma i ugostiteljstva, oživljavanje javnih prostora za rekreaciju i slobodno vrijeme, te kreiranje društvenih sadržaja poput centra zajednice, čime se nastoje generirati pozitivne promjene u širem prostornom kontekstu.

University of Sarajevo - Faculty of Architecture. The selected research area is located in the Municipality of Novo Sarajevo, covers 127.16 hectares, and incorporates the neighborhoods Grbavica II, Čengić Vila, Hrasno, and Dolac Malta. From October 2022 to January 2024, 15 professors and teaching assistants, as well as 138 students of the Faculty of Architecture participated in the forementioned research process.

The first part of the book, entitled “Mapping and Analysis,” consists of chapters presenting the results of urban analyses, mapping of public spaces, and creation of a GIS database, historical analysis and valorization of architectural heritage at the selected research area, as well as mapping the needs of residents and users of the space in order to adequately respond through spatial intervention. In the second part of the book, titled “Urban Acupuncture,” design guidelines and simulations of urban and architectural interventions were created at micro-locations Grbavica II, Strojorad, Hrasno Market, and Vilsonovo šetalište through the introduction of new public facilities in the fields of culture, sustainable tourism and hospitality, revitalization of public spaces for recreation and leisure, as well as the creation of social facilities such as community centers, in order to generate positive changes in the wider spatial context.

3

Panel diskusije i interaktivne radionice na odabranim mikrolokacijama

Panel discussions and interactive studio workshops on chosen micro-locations

4

Razvoj i interaktivno testiranje scenarija urbanih transformacija javnih prostora (3D vizualizacije, modeli)

Development and interactive testing of scenarios of urban transformations of public spaces (3d visualisations and models)



NOVA! GRBAVICA II
NEW! GRBAVICA II

NOVI! PROSTORI ZA REKREACIJU
NEW! RECREATIONAL SPACES

NOVI! HEROJI TRGA
NEW! HEROES OF THE SQUARE

NOVI! GRADSKI HOTEL STROJORAD
NEW! STROJORAD CITY HOTEL

NOVA! TRŽNICA HRASNO
NEW! HRASNO MARKET



NOVO! VILSONOVO
NEW! WILSON'S PROMENADE

NOVA! BAZA PODATAKA
NEW! DATABASE

NOVE! SIMULACIJE
NEW! SIMULATIONS

Novo! Novo Sarajevo
CIJELI OBUHVAT = 127,16 ha

Novo! Novo Sarajevo
PROJECT AREA = 127,16 ha

MAPIRANJE I ANALIZA
MAPPING AND ANALYSIS

NOVI! **NEW**
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MAPIRANJE PIM

ANA - I ANALIZA

Mapiranje, analiza, i simulacija

NOVA!

BAZA PODATAKA I SIMULACIJE

ass. Andrea Pavlović

asistentica, Univerzitet u Sarajevu - Arhitektonski fakultet

teaching assistant, University of Sarajevo - Faculty of Architecture

doc. dr. Nasiha Pozder

docentica, Univerzitet u Sarajevu - Arhitektonski fakultet

assistant professor, University of Sarajevo - Faculty of Architecture

Fragmentiran pristup u planiranju i odsustvo građanske participacije, doveli su do pojave nefunkcionalnih, nezdravih gradova i prouzrokovali otuđenje njegovih stanovnika/ica od prostora u kojem žive. Ovakva praksa se javlja(la) nerijetko i neovisno o postojanju planske dokumentacije, koja se posmatra kao osnova planerske kompozicije prostora, jer se učestalo mijenjanje postojećeg strukturnog fonda, te nemogućnost praćenja dinamike potreba razvoja u okviru statičnosti planskog dokumenta, nepomirljivo sukobljavaju i dovode do problema u korištenju prostora. Novo Sarajevo, kao jedna od najkompleksnijih gradskih cjelina, sa brojnim funkcijama, koje pariraju dominantno stambenoj funkciji na adekvatnom nivou, oduvijek je tražila posebnu pažnju stručne i naučne javnosti. Kao jedno od najvećih gradskih prostora, sa lokalnom samoupravom, Novo Sarajevo je od početka svog razvoja sredinom 40-ih godina 20.stoljeća, težilo ostvariti slojevit i prilagođen funkcionalni sklop za novo stanovništvo grada, koje je upravo na ovom području počelo ubrzano da se naseljava, ali i urbanizira.

Prvi Generalni plan razvoja grada je usvojen 1964. godine, čime započinje period rapidnog širenja urbanih dijelova niz Sarajevsku kotlinu, te zauzimanje do tada neizgrađenih ili nedovoljno izgrađenih prostora novim naseljima. Osim pojedinačnih objekata, ovo je period u kojem se grade nove gradske četvrti, prema planskim dokumentima, s manje ili više uspjeha. U prvim desetljećima 20. stoljeća, prostorni razvoj grada se realizuje uglavnom na već ranije formiranim urbaniziranim dijelovima, i to kroz interpolaciju tamo gdje je ona bila moguća,

Mapping, analysis, and simulation

NEW!

DATABASE AND SIMULATIONS

A fragmented approach to planning and the absence of citizen participation led to the emergence of dysfunctional, unhealthy cities and alienated their inhabitants from the space in which they live. This kind of practice often occurs independently of the existence of planning documentation, which is seen as the basis of the planning composition of the space, because the frequent changes in the existing structural fund, and the inability to monitor the dynamics of development needs within the static framework of the planning document, irreconcilably conflict and lead to problems in the use of space. Novo Sarajevo, as one of the most complex urban units with numerous functions that rival the dominant residential function at an adequate level, has always demanded special attention from the professional and scientific public. As one of the largest city areas with local self-government, Novo Sarajevo, from the beginning of its development in the mid-40s of the 20th century, strove to achieve a layered and adapted functional structure for the new population of the city, which began to settle and urbanize in this area rapidly.

The first General Plan for the development of the city was adopted in 1964, which marked the beginning of the period of rapid expansion of urban areas down the Sarajevo basin, and the occupation of previously undeveloped or insufficiently developed areas by new settlements. Apart from individual buildings, this is the period in which new city districts are built, according to planning documents, with more or less success. In the first decades of the 20th century, the spatial development of



Ilustracija 1. Priručni plan grada Sarajeva, 1949. godina. Izvor: Istarski arhiv BiH, vlastita zbirka.

Figure 1. Manual plan of the city of Sarajevo, 1949. Source: Historical Archive of Bosnia and Herzegovina, own collection.

a od 1950-ih godina se usmjerava stambena izgradnja na lijevu obalu rijeke Miljacke, gdje niču nova stambena naselja (dr. Aganović).

Upravo je u ovom periodu gradska matrica dodatno poprimila longitudinalnu formu, koja je i danas dominantna. U periodu od kraja 1940-ih, do kraja 1960-ih godina, nastala su naselja Grbavica I, Grbavica II (Ivić), Koševo, Čengić Vila I, Švrakino Selo, Čengić Vila I. Sva ova naselja nastala su kao rezultat zajedničkog rada i stručnih snaga, a iskustva sa jednog dovršenog naselja, prenošena su na izgradnju i planiranje drugog. Stanovanje je tada predviđeno u novom dijelu grada kroz nova stambena naselja, dok je individualno stanovanje nastavilo da se /uglavnom neplanski/ razvija na padinskim dijelovima grada, a privredu i industriju se smještalo na krajnjem zapadu Sarajevske kotline (dr. Aganović).

Sve navedeno pratio je razvoj vodovodne, saobraćajne, elektroenergetske mreže, kako bi se zadovoljile narastuće potrebe sve većeg broja stanovnika grada Sarajeva. Dostignut je određen standard i kvalitet stanovanja i zadovoljenja društvenih potreba, a ostvarena je gustina

the city was realized mainly on already formed urbanized parts, through interpolation where it was possible, and since the 1950s, residential construction has been directed to the left bank of the Miljacka river, where new residential areas arise (dr Aganović).

During this period, the city matrix additionally took on a longitudinal form, which is still dominant today. In the period from the end of the 1940s to the end of the 1960s, the settlements of Grbavica I, Grbavica II (Ivić), Koševo, Čengić Vila I, Švrakino Selo, Čengić Vila I were created. All these settlements were created due to joint work and experts, and experiences from one completed settlement were transferred to the construction and planning of another. Housing was planned in the new part of the city through new residential areas. At the same time, individual housing continued to develop /mostly unplanned/ on the city's slopes, and the economy and industry were located in the extreme west of the Sarajevo basin. (dr Aganović).

All of the above was accompanied by the development of the water supply, traffic, and electric power networks to meet the needs of the growing number of inhabitants of Sarajevo. A certain standard and quality of housing and satisfaction of social needs has been achieved, with a population density of 450 st/ha. From the end of the sixties and the seventies and



Ilustracija 2. Izgradnja Novog Sarajeva 1950-ih godina. Izvor: <http://fotogalerija.com>.

Figure 2. Construction of New Sarajevo in the 1950s. Source: <http://fotogalerija.com>.

naseljenosti od 450 st/ha. Od kraja šezdesetih i tokom sedamdesetih i osamdesetih godina 20. stoljeća, u arhitekturi grada je preovladao pluralistički pristup i paviljonski način gradnje, posebno kod stambenih objekata. Kod javnih građevina vidljivi su utjecaji različitih savremenih arhitektonskih stilova i pravaca.

Grad se mijenja, širi i popunjava, ali novi val arhitekture i urbanizma, koji ide u korak sa drugim promjenama u društvu i kulturi, umjetnosti i nauci, ostavlja određene dijelove novih naselja nedorečenim, nedovršenim ili, često, nedefinisanim. Sarajevo je sve do kraja socijalističke ere uglavnom ostalo dominantno longitudinalno razvijen grad, u kojem su se nizale funkcije, a na čijem je istočnom polu razvoja nalazila tek 1970-ih godina aktivirana i revitalizirana stara jezgra grada, a na zapadnom polu, razvijena teška industrija i privreda. Sve između, a veliki dio toga danas prepoznajemo kao Novo Sarajevo, trebalo je da podupire rezidencijalne, obrazovne, socijalne, poslovne, kulturne, sportske i druge potrebe velikog broja stanovnika, kojih je do Popisa 1991. godine

eighties of the 20th century, a pluralistic approach and a pavilion construction style prevailed in the city's architecture, especially for residential buildings. The influence of various contemporary architectural styles and directions is visible in public buildings.

The city is constantly changing and expanding, with new architecture and urban development keeping up with shifts in society, culture, art, and science. However, some parts of these new settlements are left incomplete, undefined, or unfinished. The city changes expands and fills up with the new wave of architecture and urbanism, which keeps pace with other changes in society and culture, art, and science, leaves certain parts of the new settlements sketchy, unfinished, or, often, undefined. Until the end of the socialist era, Sarajevo mostly remained a dominantly longitudinally developed city, in which functions were lined up, and on the eastern pole of which the old core of the city was activated and revitalized only in the 1970s, and on the western pole, developed heavy industry and economy. Everything in between, and a large part of it today, we recognize as Novo Sarajevo was supposed to support the residential, educational, social, business, cultural, sports, and other needs of a large number of inhabitants, which by the Census

bilo više od 95 000. Današnja slika najvećih stambenih naselja grada, od kojih je veliki broj upravo na području Novog Sarajeva, nije se umnogome promijenila. Broj stanovnika prema Popisu 2013. godine iznosi gotovo 65 000, značajno manje u odnosu na 20-ak godina ranije, ali funkcije i uloge urbanog prostora još uvijek nije dosegla svoj vrhunac, niti u kvalitativnom, niti kvantitativnom smislu.

Prepoznavajući potencijal Novog Sarajeva, kao fokusne tačke longitudinalnog grada, a čiji polovi razvoja prema zapadu još dugo vremena neće početi jačati u smislu afirmacije novog centra, kroz istraživanje provedeno na Arhitektonskom fakultetu Univerziteta u Sarajevu je ispitivan „genetski kod“ Novog Sarajeva, njegova funkcija u širem kontekstu i uloga u afirmaciji mikro-potreba društva u cjelini.

U cilju jasnijeg praćenja kontinuiteta i omogućavanja rada na zadatku, a vodeći se hronologijom razvoja različitih dijelova Novog Sarajeva, obuhvat je podijeljen na pet /5/ cjelina, od kojih najmanja ima 18 ha, a najveća više od 35 ha površine. Svaka od njih je

Ilustracija 3. Novo Sarajevo u izgradnji. Izvor: J. Čermak, Časopis ARH, broj 2-3, 1963.godina.

Figure 3. Novo Sarajevo under construction. Source: J. Čermak, ARH Journal, number 2-3, 1963.

of 1991 numbered more than 95,000. Today's picture of the city's largest residential areas, a large number of which are precisely in the area of Novo Sarajevo, has not changed much. According to the 2013 Census, the number of inhabitants is almost 65,000, significantly less than 20 years earlier. However, the functions and roles of urban space have yet to reach their peak, neither in qualitative nor quantitative terms.

Recognizing the potential of Novo Sarajevo as the focal point of a longitudinal city, whose poles of development towards the west will not begin to strengthen for a long time in terms of the affirmation of a new center through research conducted at the Faculty of Architecture of the University of Sarajevo, the "genetic code" of Novo Sarajevo, its function in broader context and role in affirming the micro-needs of society as a whole.

In order to more clearly monitor continuity and enable work on the task, and guided by the chronology of the development of different parts of Novo Sarajevo, the scope is divided into five /5/ units, the smallest of which has 18 ha, and the largest more than 35 ha. Each of them is a separate chronological, structural and problematic unit, i.e., they encompass the time of planning and construction of a particular unit of Novo Sarajevo, the physical structures that are located within each of them, but also



zasebna hronološka, strukturalna i problemska jedinica, odnosno, obuhvati korespondiraju sa vremenom planiranja i gradnje pojedine cjeline Novog Sarajeva, fizičkim strukturama koje se smještaju unutar svake od njih, ali i problemima koji se javljaju u eksploataciji i razumijevanju prostora, koje traju sve do danas. Unatoč ovim različitostima, svih pet cjelina čine jedinstven prostor, koji u cjelokupnoj slici grada Sarajeva imaju svoje mjesto i jedinstven otisak.

Zona Grbavica 2 obuhvatila je prostor koji je prema periodu nastanka jedan od najranijih i seže još u 40-te godine prošlog vijeka. Na gotovo 36 ha, smješteni su dominantno objekti stanovanja, ali i pojedinačni objekti društvene infrastrukture, zelene površine, javni prostori i objekti, usluge i servisi, koji čine i najprepoznatljiviji dio Novog Sarajeva. Nastavno na ovu zonu, prema zapadu, smješta se zona Trg Heroja na cca 26 ha, u kojoj se javljaju iste funkcije kao na prostoru Grbavica 2, potpuno su komplementarne, ali imaju odraz vremena planiranja i gradnje koji se javlja 25 godina kasnije, odnosno, ranih 70 -ih godina prošlog vijeka. Objekti visoke gradnje počinju da se javljaju u ovoj zoni, što u najranijem periodu gradnje Novog Sarajeva nije bio slučaj, te se formiraju i manji poslovni centri i kapaciteti koji bi mogli omogućiti diverzifikaciju sadržaja, te odmak od dominantnog stanovanja u Novom Sarajevu do tog vremena.

Potrebe razvoja su diktirale širenje Novog Sarajeva za sve veći broj stanovnika koje je grad prihvatao, pa se postepeno širenje ka zapadu nastavlja u istom ritmu, obrazujući sljedeću Zonu Bihačka, koja sad već prostorno biva više ograničena, usljed meandriranja rijeke Miljacke, ali i dalje pokušava ponuditi potrebne funkcije za brojno stanovništvo. Ovdje se smještaju zdravstvene i obrazovne ustanove, objekti visoke gradnje, tržnice. Ponešto drugačiji tok razvoja se javlja na sjevernom dijelu obuhvata, u zonama Dolac Malta i Stometarka. Naime, sjeverni dio grada, a posebno u Novom Sarajevu, pa i kasnije u Novom Gradu, dominantno je prema planskim opredjeljenjima bio namijenjen razvoju privrede, odnosno, industrije. Najveći privredni kapaciteti su zauzimali ove, i prema prirodnim datostima, neatraktivnije dijelove, te je zoniranje prostora bilo vrlo snažno izraženo. Druge funkcije, poput stanovanja, društvene infrastrukture, zelenila, bile su interpolirane i naslonjene na

the problems that arise in the exploitation and understanding of space, which last up to today. Despite these differences, all five units form a unique space, which have their place and a unique imprint in the overall image of the city of Sarajevo.

Zone Grbavica 2 included an area that, according to the period of its creation, is one of the earliest and goes back to the 40s of the last century. On almost 36 ha, there are predominantly residential buildings, but also individual social infrastructure facilities, green areas, public spaces and facilities, services and services, which make up the most recognizable part of Novo Sarajevo. Next to this zone, towards the west, is the Heroes' Square zone on approx. 26 ha, in which the same functions as in the area of Grbavica 2 occur, they are completely complementary, but have a reflection of the time of planning and construction that occurred 25 years later, that is, early 70s of the last century. High-rise buildings are beginning to appear in this zone, which was not the case in the earliest period of the construction of Novo Sarajevo, and smaller business centers and facilities are being formed that could enable the diversification of contents, and a move away from the dominant housing in Novo Sarajevo until that time.

The needs of development dictated the expansion of Novo Sarajevo for the increasing number of inhabitants that the city accepted, so the gradual expansion towards the west continues in the same rhythm, forming the next Bihačka Zone, which is now spatially more limited due to the meandering of the Miljacka river, but still tries offer the necessary functions for a large population. Health and educational institutions, high-rise buildings, markets are located here. A somewhat different course of development occurs in the northern part of the area, in the Dolac Malta and Stometarka zones. Namely, the northern part of the city, especially in Novo Sarajevo, and later in Novi Grad, was dominantly intended for the development of the economy, that is, industry, according to the planning provisions. The largest economic capacities occupied these, and according to natural conditions, unattractive parts, and the zoning of the space was very strongly expressed. Other functions, such as housing, social infrastructure, greenery, were interpolated and leaned on the industrial zones, which



Ilustracija 4. Obuhvat istraživanja sa zonama. Izvor: Federalna geodetska uprava i vlastita interpretacija.

Figure 4. Scope of research with zones. Source: Federal Geodetic Administration and own interpretation.

industrijske zone, kojim su bile potpora. U obje zone, javljaju se i tipološki potpuno drugačije strukture, blokovska gradnja sa unutrašnjim zelenim površinama, koje su nerijetko ostajale nedovršene i neartikulisane.

Unatoč različitostima pojedinačnih cjelina obuhvata istraživanja, projekat je osmišljen i proveden kao integralan, sa objedinjenim podacima koji ukazuju na postojeće probleme unutar Novog Sarajeva, a koje je u narednom periodu potrebno istraživački artikulirati i na osnovu toga, ponuditi određena rješenja. Istraživačko pitanje na predmetima Katedre za urbanizam i prostorno planiranje, a koji su učestvovali u projektu Novo!Novo Sarajevo, ticalo se hronologije razvoja otvorenih, javnih i zelenih površina unutar ovog dijela Sarajeva, njihove pojavnosti, pozicije, načina korištenja, uloge i doživljaja u specifičnostima koje Novo Sarajevo, kao gradsko područje, iskazuje u širem smislu. Slojevitost urbanih funkcija u obuhvatu je u tolikoj mjeri zastupljeno, da novosarajevsko urbano tkivo predstavlja poligon za istraživanje

supported them. In both zones, typologically completely different structures appear, block construction with internal green areas, which often remained unfinished and unarticulated.

Despite the diversity of the individual parts of the research, the project was designed and implemented as an integral one, with consolidated data that indicate existing problems within Novo Sarajevo, which in the coming period need to be researched and articulated and based on that, offer specific solutions. The research question in the courses of the Department of Urbanism and Spatial Planning, which participated in the Novo!Novo Sarajevo project, concerned the chronology of the development of open, public and green areas within this part of Sarajevo, their appearance, position, method of use, role and experience in specifics which Novo Sarajevo, as a city area, expresses in a broader sense. The layering of urban functions in the scope is represented to such an extent that the urban fabric of Novo Sarajevo is a testing ground for researching very different levels and details of processing. It shows all the attributes of a multi-cathedral and multidisciplinary approach, which made this area an ideal candidate for project activities "NOVO! Novo Sarajevo".

vrlo različitih nivoa i detaljnosti obrade, te pokazuje sve atribute multikatedralnog i multidisciplinarnog pristupa, što je i učinilo ovaj prostor idealnim kandidatom za projektne aktivnosti „NOVO! Novo Sarajevo“.

Cjelokupna dinamika odnosa, gdje je proširenje sarajevske kotline, te odmicanje od padinskog dijela grada na istoku i istorijskih slojeva koji sežu sve do same granice općine, odraz je jednog vremena u kojem je moderni razvoj grada bio u punom zamahu. Urbanizacija kakvu vidimo u Novom Sarajevu, stvorila je za 60-te i 70-te, pa i dijelom 80-te godine prošlog vijeka, tipičan odgovor planera i arhitekata, a kakav se susreće, u nešto većem mjerilu, i u drugim jugoslovenskim gradovima tog vremena. Ovo nisu naselja radničke klase, paviljoni i barake uz industrijske dijelove grada. Ovo su naselja novog vala arhitekture i urbanizma koji se gradio i jačao od vremena prvih modernističkih pojedinačnih objekata, sa kulminacijom upravo u modernim naseljima tog vremena, od kojih su novosarajevska najtipičnija.

Istraživanja u okviru predmeta *Grad za XXI vijek*

Predmet Grad za XXI vijek, a koji se izučava na Katedri za urbanizam i prostorno planiranje, bavi se stavljanjem u funkciju suvremenih alata i metoda u svrhu optimizacije i/ili ozdravljenja i transformacije grada XXI vijeka, i u sociološkim i u tehnološkim aspektima. Ovaj izborni predmet se izučava u zimskom semestru I godine II ciklusa studija (IV godina), pod vodstvom doc. dr.Nasihe Pozder, uz asistiranje ass.Andree Pavlović, a u školskoj 2022/23.godini, pohađalo ga je 15 studenata i studentica.

Upravo je problematika koja se izučava na predmetu bila ključna za odabir metoda i alata kojim će se adresirati istraživačko pitanje. Uspostavljena su tri cilja istraživanja na ovom predmetu:

Cilj 1 – Razumijevanje uzroka i procesa koji dovode do nezdravih i nefunkcionalnih gradova (Putnam & Quinn, 2006),

Cilj 2 – Primjena novih alata i metoda u planiranju, a u cilju utvrđivanja problema unutar prostora,

Cilj 3 – Iznalaženje uzročno-posljedičnih veza problema i priprema za moguća rješenja.

Metodološki, vršeno je ispitivanje stanja na

During a time when the modern development of Sarajevo was in full swing, the city expanded towards the basin and away from the hilly eastern part, which was rich in historical layers that reached the border of the municipality. This overall dynamic of the relationship between the city's expansion and its historical roots is a reflection of the changes that occurred during that period. Urbanization, as we see it in Novo Sarajevo, created a typical response of planners and architects in the 1960s and 1970s and partly in the 1980s, and the kind that can be found, on a slightly larger scale, in other Yugoslav cities of that time. These are not working-class settlements, pavilions, and barracks next to the industrial parts of the city. These are the settlements of the new wave of architecture and urbanism, built and strengthened from the time of the first modernist individual buildings, culminating precisely in the modern settlements of that time, of which the ones in Novo Sarajevo are the most typical.

Research within the subject *City for the 21st Century*

The subject City for the XXI century, which is studied at the Department of Urbanism and Spatial Planning, deals with the implementation of modern tools and methods for the purpose of optimization and/or healing and transformation of the city of the XXI century, both in sociological and technological aspects. This optional subject is studied in the winter semester of the first year of the second cycle of studies (fourth year), under the guidance of assistant professor Nasiha Pozder, with the assistance of assistant professor Andrea Pavlović, and in the 2022/23 school year, it was attended by 15 students.

It was the problem studied in the course that was crucial for the selection of methods and tools that will be used to address the research question. Three research objectives have been established in this subject:

Objective 1 – Understanding the causes and processes that lead to unhealthy and dysfunctional cities (Putnam & Quinn, 2006),

Objective 2 – Application of new tools and methods in planning, with the aim of identifying problems within the space,

Objective 3 – Finding cause-and-effect relationships of problems and preparing for possible solutions.

terenu, kroz više hronoloških presjeka, kako bi se utvrdio razvojni interval otvorenih, zelenih, javnih prostora, a koje u nastavku istraživanja nazivamo „prostori društvene dobrobiti“. Alati kojim su prikupljeni podaci uspostavljeni su na osnovu parametara i pokazatelja stanja u prostoru, a koji su trebali odgovoriti na nekoliko ključnih pitanja:

- Zašto su pozicije sadržaja javnih, slobodnih i zelenih prostora unutar obuhvata takve, odnosno, da li su one nastale ad hoc ili su proizvod planiranja? Da li su se prostori samo „desili“?
- Kakva je protočnost, odnosno, propulzivnost korisnika kroz detektovane prostore i njihova struktura? / anketa na terenu/
- Kakav je vremenski okvir u kojem se korisnici zadržavaju unutar detektovanih prostora?
- Koja je namjena prostora? /kultura, sport, rekreacija, zelenilo/
- Kakav je način korištenja prostora? /aktivan, pasivan, individualan, grupni, posmatrački/
- Kakvi prirodni uslovi vladaju unutar prostora? /osunčanje, vjetrovitost, sjena, vlaga, mirisi i vizure na prirodne strukture u užoj i široj okolini/
- Kakvi su stvoreni uslovi koji vladaju unutar prostora? /atmosfera, ugodnost, sigurnost, osvjetljenost, izloženost, atraktivnost/
- Koja je gustina naseljenosti unutar zona i struktura stanovištva?
- Kakva je geneza nastanka detektovanih prostora u vremenskom okviru od proteklih 60 godina?
- Kad se počinju planirati javni prostori u Novom Sarajevu?

Istraživačka metodologija se temeljila i na prikupljanju informacija (topografske karte, katastarske podloge, satelitski snimci kroz vrijeme, te ažurne geodetske podloge), kroz dostupnu literaturu, što je doprinjelo tome da se napravi presjek stanja jednog vremena ili epohe, te izvrši mapiranje „genetskog koda“ Novog Sarajeva u kontekstu prostora društvene dobrobiti. Prikupljeni podaci na prostoru svih pet zona Novog Sarajeva, a koje su prethodno opisane, detaljno su mapirani u GIS bazama podataka, prema unaprijed utvrđenim obrascima i formama, u cilju uniformisanja podataka, a što će kasnije poslužiti za simulacije i provjere, te stvaranje inputa za daljnje djelovanje. Baza podataka se formira kroz 9 tematskih cjelina, kako je prikazano u Tabeli 1. Na podlogama koje su odražavale 4 epohe razvoja Novog Sarajeva, i to: >1960-ih,

Methodologically, an examination of the situation on the ground was carried out, through several chronological sections, in order to determine the development interval of open, green, public spaces, which in the rest of the research we call “spaces of social welfare”. The tools used to collect data were established on the basis of parameters and indicators of the state of the space, which were supposed to answer several key questions:

- Why are the positions of the content of public, free and green spaces within the scope like that, that is, were they created ad hoc or are they the product of planning? Did the spaces just “happen”?
- What is the flow, that is, the propulsivity of users through the detected spaces and their structure? / field survey/
- What is the time frame in which the users stay inside the detected spaces?
- What is the purpose of the space? /culture, sport, recreation, greenery/
- What is the way of using the space? /active, passive, individual, group, observational/
- What natural conditions prevail within the space? /sunning, windiness, shade, humidity, smells and views of natural structures in the immediate and wider surroundings/
- What were the created conditions that prevail within the space? /atmosphere, comfort, safety, illumination, exposure, attractiveness/
- What is the population density within the zones and population structure?
- What is the genesis of the creation of detected spaces in the time frame of the past 60 years?
- When do you start planning public spaces in Novo Sarajevo?

The research methodology was also based on the collection of information (topographic maps, cadastral records, satellite images over time, and up-to-date geodetic records), through the available literature, which contributed to making a cross-section of the state of one time or epoch, and mapping the “genetic code” “New Sarajevo in the context of the area of social welfare. The collected data in the area of all five zones of Novo Sarajevo, which were previously described, were mapped in detail in GIS databases, according to predetermined patterns and forms, in order to standardize the data, which will later be used for simulations and checks, as well as creating inputs for further action. The database is formed from 9 thematic groups, as is shown in Table 1. On the bases

Tabela 1 - parametri koji su prikupljeni kroz istraživački rad i formiraju GIS baze podataka.

Table 1 - parameters collected through research that form the GIS database.

generalni tip general type	otvoreni javni prostori open public spaces zeleni prostori green spaces
geneza genesis	prostori nastali planskim djelovanjem spaces created by planned interventions prostori nastali neplanskim djelovanjem spaces created by unplanned interventions historijat od nastanka do danas history from inception to present day
kretanje movement	protočnost i propulzivnost korisnika user flow and propulsion zadržavanje ili prolazak korisnika user retention or passage
namjena purpose	kultura culture, sport i rekreacija (aktivno) sports and recreation (active), zelenilo i odmor (pasivno) greenery and relaxation (passive), ugostiteljstvo hospitality, stacionarni saobraćaj - parking stationary traffic - parking, ostalo (opisati) other (provide description)
mikroklima microclimate	osunčanje insolation vjetrovitost windiness sjena shade vlaga humidity mirisi aromas buka noise
vizure sa lokacije / na lokaciju views from / of the location	poželjne-nepoželjne desirable-undesirable
ambijent ambiance	sigurnost security, ugodnost comfort, izloženost exposure, atraktivnost attractiveness, osvjetljenost (noćna atmosfera) illumination (night atmosphere)
stanovništvo population	gustina naseljenosti population density struktura stanovništva - dobna, polna, ekonomska population structure - age, gender, economic
planiranje planning	javni prostori u općini Novo Sarajevo public spaces in the Municipality of Novo Sarajevo

Tabela 2 - rezultati istraživanja prema epohama razvoja. Izvor: Digitalni arhiv Arhitektonskog fakulteta Univerziteta u Sarajevu.

Table 2 - research results according to development epochs. Source: Digital archive - University of Sarajevo - Faculty of Architecture.

HISTORIJSKA KARTA HISTORICAL MAP 1970.		HISTORIJSKA KARTA HISTORICAL MAP 2000.	
BRGP stambenog prostora Gross Building Area for residential use	66502 m2	BRGP stambenog prostora Gross Building Area for residential use	291 433 m2
prosječan broj stanovnika average number of residents	8261 stanovnika residents	prosječan broj stanovnika average number of residents	12 564 stanovnika residents
stepen zelenila po stanovniku degree of green space per resident	2,66 m2	stepen zelenila po stanovniku degree of green space per resident	1,87 m2
broj parking mjesta number of parking spaces	873	broj parking mjesta number of parking spaces	3987
BRGP objekata društvene dobrobiti Gross Building Area for social welfare use	/	BRGP objekata društvene dobrobiti Gross Building Area for social welfare use	1359 m2
HISTORIJSKA KARTA HISTORICAL MAP 1970.		HISTORIJSKA KARTA HISTORICAL MAP 2022.	
BRGP stambenog prostora Gross Building Area for residential use	254 431 m2	BRGP stambenog prostora Gross Building Area for residential use	291 433 m2
prosječan broj stanovnika average number of residents	10 372 stanovnika residents	prosječan broj stanovnika average number of residents	12 564 stanovnika residents
stepen zelenila po stanovniku degree of green space per resident	2,88 m2	stepen zelenila po stanovniku degree of green space per resident	1,41 m2
broj parking mjesta number of parking spaces	3121	broj parking mjesta number of parking spaces	4201
BRGP objekata društvene dobrobiti Gross Building Area for social welfare use	/	BRGP objekata društvene dobrobiti Gross Building Area for social welfare use	1359 m2

>1985, >1995, te današnje doba, utvrđeni su prostorni kvantitativni i kvalitativni pokazatelji urbanističkih parametara i pokazatelja razvoja: broj stanovnika, zelenilo, slobodne površine, prostori kulture, rekreacije pasivnog i aktivnog korištenja, protočnost korisnika, odnosno, fizički doživljaji i elementi prostora, kako je prikazano u Tabeli 2.

Kao hipoteza prvog dijela istraživanja uzeta je pretpostavka da fizički doživljaji i elementi koji koriste stanovnicima u njihovom slobodnom vremenu u toku dana, a posmatrajući ga kroz „formulu“ 8x8x8h, kroz vrijeme su se mijenjali neovisno o potrebama i planerskim i stručnim pozitivnim iskustvima i praksama, odnosno, ispitivano je njihovo postojanje kroz prizmu namjere ili slučaja.

Fizičke strukture prostorne cjeline Novog Sarajeva su pretežno oslonjene na stambenu arhitekturu, odnosno, objekte zajedničkog stanovanja, koji datiraju iz 1950-1980-ih godina, kao najznačajnije pokazatelje urbanog razvoja i arhitektonskog izričaja modernog razvoja grada u prošlom vijeku, a izvan tradicionalne gradske jezgre. Objekti su evidentirani, sa podacima upisanim u GIS baze podataka u nivou detaljnosti koji omogućava razumijevanje i daljnju nadgradnju. Veliki potezi stambenih blokova, sa obavezno interpoliranim pratećim javnim i komercijalnim funkcijama i sadržajima, odlika u svih novosarajevskih naselja, odnosno, vremena u kojem su nastala. Tako unutar 127 ha obuhvata koji se istražuje, nalazi se i veliki broj otvorenih javnih prostora, formacija između objekata koje su u manjoj ili većoj mjeri formulisane i uobličene, sa različitim uspjehom, potom zatvorenih prostora čija je priroda i sadržaj usmjerena ka zadovoljenju potreba zajednice.

Kako je već objašnjeno, jednim zajedničkim nazivnikom ti prostori su u istraživanju nazvani prostorima „društvene dobrobiti“, što se kao motiv ispituje kroz četiri različita aspekta u toku cjelokupnog toka razvoja projekta: mapiranje, analiziranje, simulacija i ideja. Cilj studija je bilo ispitivanje fizičkih i doživljajnih elemenata na zadatom prostornom uzorku, kako bi se shvatila dinamika odnosa prostora „društvene dobrobiti“ u odnosu na druge elemente koji ga okružuju. Svi prostori „društvene dobrobiti“ su evidentirani u GIS bazama podataka, sa visokim nivoom detaljnosti njihovih upotrebnih vrijednosti

that reflected the four epochs of development of Novo Sarajevo, namely: >1960s, >1985, >1995, and the present day, spatial quantitative and qualitative indicators of urban planning parameters and indicators of development were determined: number of inhabitants, greenery, free areas, spaces of culture, recreation of passive and active use, flow of users, that is, physical experiences and elements of space, as is shown in Table 2.

As a hypothesis of the first part of the research, the assumption was made that the physical experiences and elements that benefit residents in their free time during the day, and observing it through the “formula” 8x8x8h, have changed over time independently of needs and planning and professional, positive experiences and practices, that is, their existence was examined through the prism of intention or chance.

The physical structures of the spatial unit of Novo Sarajevo are predominantly based on residential architecture, that is, shared housing facilities, which date from the 1950s-1980s, as the most significant indicators of urban development and the architectural expression of the modern development of the city in the past century, outside the traditional city core. Objects are recorded, with data entered into GIS databases at a level of detail that enables understanding and further development. Large stretches of residential blocks, with necessarily interpolated accompanying public and commercial functions and contents, are a feature of all Novo Sarajevo settlements, that is, of the time they were created. Thus, within the 127-ha scope that is being investigated, there is also a large number of open public spaces, formations between buildings that have been formulated and shaped to a greater or lesser extent, with varying degrees of success, than closed spaces whose nature and content are aimed at meeting the needs of the community.

With one common denominator, these spaces are called “social welfare” spaces in the research, which is examined as a motive through four different aspects during the project development: mapping, analysis, simulation, and ideation. The study aimed to examine the physical and experiential elements of a given spatial pattern to understand the dynamics of the relationship between the space of “social welfare” and other elements surrounding it.



GRBAVICA II GIS MAPA



Ilustracija 5. Izgled GIS mape sa podacima za jedan segment obuhvata. Izvor: studentski rad.

Figure 7. Layout of a GIS map with data on one segment of coverage. Source: student paper.

i prostornih parametara, a što omogućava detaljno razumijevanje i daljnju nadgradnju.

Kroz rad na predmetu Grad za XXI vijek, uspostavljen je detaljan sistem podloga, na kojima su ispitivane relacije i izvođeni zaključci o pogodnosti pojedinačnih lokaliteta za daljnji razvoj u okviru više predmeta koji su sudionici projekta „NOVO! Novo Sarajevo“.

Istraživanja u sklopu predmeta *Ekološke konsekvence urbane organizacije i održivi urbani razvoj*

Predmet Ekološke konsekvence urbane organizacije i održivi urbani razvoj Katedre za urbanizam i prostorno planiranje, bavi se sveobuhvatnim i struktuiranim razumijevanjem i osposobljavanjem za praktičnu primjenu osnovnih elemenata bioklimatskog urbanizma kao multidisciplinarnе djelatnosti koja kao svoj primarni cilj ima oblikovanje prostora kao mjesta harmonije između arhitektonskih volumena i prostornog konteksta u kojem oni nastaju. Ovaj izborni predmet se izučava u ljetnom semestru II godine II ciklusa studija (V godina), pod

All areas of “social welfare” are recorded in GIS databases, with a high level of detail of their use values and spatial parameters, which enables a detailed understanding and further development.

Through the work on the subject City for the XXI century, a detailed system of foundations was established, on which relations were examined and conclusions were drawn about the suitability of individual localities for further development within the framework of several subjects that are participants in the project „NOVO! Novo Sarajevo“.

Research within the subject *Ecological consequences of urban organization and sustainable urban development*

The subject Ecological consequences of urban organization and sustainable urban development of the Department of Urbanism and Spatial Planning deals with a comprehensive and structured understanding and training for the practical application of the basic elements of bioclimatic urbanism as a multidisciplinary activity that has as its primary goal the shaping of space as a place of harmony between architectural volumes and spatial the context in which they arise. This elective course is studied in the summer semester of the second year of the second study cycle (year

vodstvom doc. dr. Nasihe Pozder, uz asistiranje ass. Andree Pavlović, a u školskoj 2022/23. godini, pohađalo ga je 9 studenata i studentica.

Istraživanje je, naslanjajući se na istraživački rad i proces usvajanja znanja i vještina na predmetu Grad za XXI vijek, se nakon formiranja baze podataka usmjerilo ka simulaciji, kao snažnom alatu provjere, u ovom slučaju ekoloških posljedica prostornih odnosa u korelaciji sa prirodnim datostima. Metodološki okvir se temeljio na ispitivanju prostora društvene dobrobiti sa aspekta elemenata bioklimatskog urbanizma, a kroz dostupne alate, odnosno, mjerenja in situ.

Prostor je pod stalnim pritiscima prirodnih i stvornih uslova, čije razumijevanje je ključno za kvalitetan odabir budućih intervencija i njihovu prioritizaciju. Dosadašnji rad na istraživanju prostora Novog Sarajeva, podrazumijevao je prikupljanje podataka koji su sistematski formirali baze, o čemu je prethodno bilo govora (1), a čija stvarna uloga i upotreba je tek vidljiva i primjenjiva u okviru novog predmeta kontinuiranog projekta kao što je bio ovaj. U novom ciklusu istraživanja, na započetim „živim organizmima“ podataka, koji se reprezentuju kroz različite modele, uspostavljeni su ciljevi koje je trebalo postići:

- Korištenje baze podataka za razvoj vlastitih problemskih elemenata predmeta Ekološke konsekvence urbane organizacije i održivai urbani razvoj, tj., fokusa istraživanja, te korištenje novih alata i metoda u planiranju, kroz ispitivanje bioklimatskih karakteristika odabranih lokacija prostora društvene dobrobiti na osnovu mjerenja na terenu,
- Analiza prostora društvene dobrobiti sa aspekta kvalitete prostornih i funkcionalnih osobenosti,
- Utvrđivanje seta preporuka za daljnji rad. Vršene su simulacije različitih scenarija bioklimatskih uslova na datom prostoru, a koji ovise i o prirodnim i stvorenim uslovima, te koji utiču na kvalitet života, mogućnosti daljnjeg razvoja, remedijaciju narušenih prostornih odnosa i posljedica koje takva stanja imaju na cjelokupno posmatran medij prostora/društva/vremena.

Istraživački tim je ispitivao pojavnost bioklimatskih uslova na lokalitetima unutar posmatranog obuhvata, a koji su u prevom dijelu istraživanja u okviru predmeta Grad za

V), under the guidance of assistant professor Nasiha Pozder, with the assistance of assistant professor Andrea Pavlović, and in the 2022/23 school year, it was attended by 9 students.

Research, building upon the investigative work and the process of acquiring knowledge and skills in the subject “City for the 21st Century,” after the formation of the database, shifted towards simulation as a powerful tool of verification, in this case, the ecological consequences of spatial relationships correlated with natural data. The methodological framework was based on examining the space of social well-being from the perspective of bioclimatic urbanism elements, utilizing available tools, namely, in situ measurements.

The area is under constant pressure from natural and artificial conditions, the understanding of which is crucial for the quality selection of future interventions and their prioritization. The previous work on the research of the area of Novo Sarajevo included the collection of data that systematically formed databases, which was previously discussed (1), and whose real role and use is only visible and applicable within the framework of a new subject of a continuous project such as this one.

In the new cycle of research, on the “living organisms” of the data, which are represented through different models, the goals that had to be achieved were established:

- The use of the database for the development of own problem elements of the subject Ecological consequences of urban organization and sustainable urban development, i.e., the focus of research, and the use of new tools and methods in planning, through the examination of bioclimatic characteristics of selected locations of social welfare spaces based on field measurements,
- Analysis of the area of social welfare from the aspect of the quality of spatial and functional features,
- Determination of a set of recommendations for further work.

Simulations of different scenarios of bioclimatic conditions in a given space, which depend on both natural and created conditions, and which affect the quality of life, the possibilities of further development, the remediation of disturbed spatial relations and the consequences that such conditions have on the

XXI vijek, ocijenjeni kao interesantni prostori društvene dobrobiti. Utvrđen je set parametara koji su uz pomoć mjernih uređaja koji su na raspolaganju na Arhitektonskom fakultetu, mogli biti ispitani:

- Nivo zagađujućih čestica u zraku,
- Nivo buke,
- Nivo osvjjetljenja,
- Temperatura na tlu i u zraku,
- Vlažnost zraka,
- Brzina strujanja vjetra.

Za svaki od prostora društvene dobrobiti, dopunjena je GIS baza podataka, čime je ostvaren kontinuitet metodološkog pristupa istraživanju, a u kojem je uspostavljanje baze podataka, koja može biti proširena prema novim saznanjima i informacijama, jedan od ključnih elemenata uspjeha projekta. Posebna pažnja je usmjerena analizi uzroka i posljedica koje prostorno – funkcionalni elementi, u sprezi sa ekološkim osobenostima, imaju na pojedinačni prostorni sistem „društvene dobrobiti“ i intervencije na odabranim lokacijama. S tim u vezi, finalni produkt ovog dijela istraživanja, osim proširene baze podataka i detaljnih prikaza stanja na različitim grafičkim prilogima, bio je i set zaključaka o stvarnom stanju prostora društvene dobrobiti koji su analizirani, čime se odgovorilo na početno pitanje pojavnosti i opravdanosti pozicije prostora društvene dobrobiti unutar prostora Novog Sarajeva.

Prethodno rečeno je podrazumijevalo nastavak rada na formiranom modelu i bazi podataka, kroz izradu scenarija i simulacija stanja, što je projektne aktivnosti i primijenjene metode istraživanja učinilo eksperimentalnim i inovativnim. Na osnovu podataka i istraživanja koja su vršena na predmetu Grad za XXI vijek, gdje su dobivene vrijedne informacije o hronološkom razvoju prostora društvene dobrobiti, kao i trenutnom kontekstu upotrebe i značaja unutar pojedinih zona, te uzimajući u obzir i istraživanja drugih predmeta u okviru projekta Novo! Novo Sarajevo (posebno onih koja su se bavila socijalnim kontekstom i zajednicom), odabrani su lokaliteti koji su prema svemu rečenom, iskazali najveću potrebu za daljnjom provjerom. Na odabranim lokalitetima: Trg Heroja, tipskim igralištima u naselju Grbavica (TH i Fitness centar), te parku Grbavica - fontana, izvršena su detaljna mjerenja mikroklimatskih uslova, a koja su trebala poslužiti za utvrđivanje stanja otvorenih

overall observed medium of space/society/time, were carried out.

The research team investigated the occurrence of bioclimatic conditions in localities within the observed scope, which in the first part of the research within the subject City for the XXI century, were evaluated as interesting areas of social well-being. A set of parameters was determined that could be tested with the help of measuring devices available at the Faculty of Architecture:

- The level of polluting particles in the air,
- Noise level,
- Lighting level,
- Temperature on the ground and in the air,
- Air humidity,
- Wind speed.

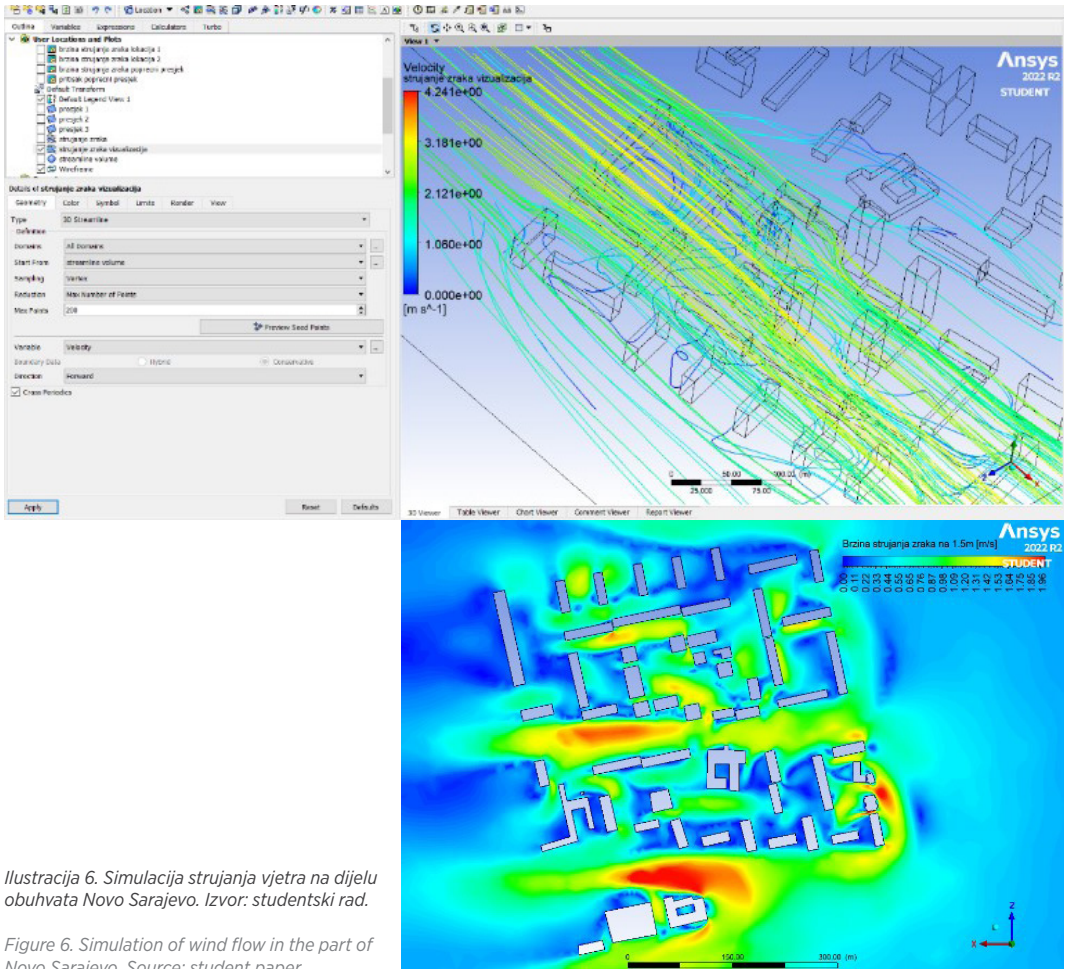
For each of the areas of social welfare, the GIS database was supplemented, which achieved the continuity of the methodological approach to research, and in which the establishment of a database, which can be expanded according to new knowledge and information, is one of the key elements of the project's success. Special attention is focused on the analysis of the causes and consequences that spatial-functional elements, in conjunction with ecological peculiarities, have on the individual spatial system of "social well-being" and interventions in selected locations. In this regard, the final product of this part of the research, in addition to the expanded database and detailed representations of the state on various graphic attachments, was also a set of conclusions about the real state of the space of social welfare that were analyzed, which answered the initial question of the appearance and justification of the position of the space social benefits within the area of Novo Sarajevo.

The aforementioned implied the continuation of work on the formed model and database, through the creation of scenarios and state simulations, which made the project activities and applied research methods experimental and innovative. Based on the data and research carried out on the subject City for the 21st century, where valuable information was obtained on the chronological development of the area of social welfare, as well as the current context of use and significance within individual zones, and taking into account the research of other subjects within the project Novo! Novo

površina, odnosno, prostora „društvene dobrobiti“, i to ne samo u njihovom fizičkom i upotrebnom smislu, već i u kontekstu postojanja istih, odnosno, da li su nastali slučajno ili s namjerom. Uz pomoć mjernih uređaja, istraživanjem su detektovani pritisci u prostoru (buka, zagađenje, temperature, zračna strujanja, osvjetljenje), te je i otvorena mogućnost za modeliranje različitih nivoa uticaja pritiska na postojeće i planirane strukture u prostoru.

Znanja sa drugih predmeta u okviru projekta koji su se izučavali u toku projekta, bila su uzeta u simulaciju, čime se ostvarila potpuna sinergija projekata i zajednički rad na više katedri koje učestvuju u projektu. Zaključeno je da za neke od prostora „društvene dobrobiti“ je izostala adekvatna reakcija kroz sve vrijeme njihove eksploatacije, te se ponašaju kao hibernacijski džepovi.

Sarajevo (especially those that dealt with the social context and the community), the localities were selected which, according to everything that has been said, showed the greatest need for further verification. In the selected localities: Heroes' Square, typical playgrounds in the village of Grbavica (TH and Fitness center), and the park Grbavica - fountain, detailed measurements of microclimatic conditions were carried out, which should have been used to determine the condition of open areas, that is, areas of “social welfare”. , and not only in their physical and useful sense, but also in the context of their existence, that is, whether they were created by accident or with intention. With the help of measuring devices, the research detected the pressures in the space (noise, pollution, temperatures, air currents, lighting), and the possibility was opened for modeling different levels of the influence of pressures on the existing and planned structures in the space.



Ilustracija 6. Simulacija strujanja vjetra na dijelu obuhvata Novo Sarajevo. Izvor: studentski rad.

Figure 6. Simulation of wind flow in the part of Novo Sarajevo. Source: student paper.

Lokacija	Čestice	Buka (dB)	Osvjetljenje (lx)	Temperatura (C)	Vlažnost (%)	Brzina vjetra (m/s)	
1-Trg Heroja (14:55)	0,3 0,5 1 2,5 5 10	10457 3105 517 108 14 5	Min. 48,7 Max. 97,9	10844	29,5	29,5	0-1
2- Tipsko igralište TH (15:23)	0,3 0,5 1 2,5 5 10	10100 2845 512 150 9 5	Min. 51 Max. 62,8	Min. 9853 Max. 16097	30,4	38,1	0-1,1
3- Grbavica = Fitness centar (15:32)	0,3 0,5 1 2,5 5 10	14319 4601 1024 196 32 18	Min. 50,7 Max. 65,8	Min. 12931 Max. 17500	32,4	Min. 28,7 Max. 39,2	0-1 (SI)
4-Grbavica = fontana (15:45)	0,3 0,5 1 2,5 5 10	11622 2865 689 184 20 9	Max. 72,9	Min. 10986 Max. 14672	30,1	Min. 31,0 Max. 32,6	0-1

Napomena: za Lokaciju br.1 dodatne vrijednosti Rh=26,1; Wb=20,9; Dp=10,4; At=31,6 (zabilježeno prvim instrumentom prije blokade u 14:51)

Ilustracija 7. Mjerenja izvršena na odabranim lokacijama u sklopu predmeta Ekološke konsekvence urbane organizacije i održivi urbani razvoj. Izvor: studentski rad.

Figure 7. Measurements performed at selected locations as part of the course Ecological consequences of urban organization and sustainable urban development. Source: student paper.

Zaključak

Kroz rad na ovom dijelu istraživanja, pružila se prilika dopune uspostavljene baze podata u GIS formatu, kroz provjere stanja na terenu, analitičko selektovanje informacija na osnovu potreba fokusiranja na određeni prostorni segment, a što je u konačnici dalo i inpute za daljnje djelovanje i razvoj istraživanja. Stoga je, kao finalni produkt istraživačkog dijela projekta u okviru predmeta koji se bave urbanizmom, napravljena selekcija otvorenih prostora „društvene dobrobiti“, a koji su pokazali da se njihova pojavnost, upotreba, funkcija i opterećenost ekološkim faktorima kosi sa sposobnostima prihvata korisnika, te negativno utiče na opšti doživljaj i mogućnost eksploatacije.

Upravo je rezultat istraživačkog dijela dva predmeta u školskoj 2022/23.godini, poslužio kao osnova za dalje preispitivanje, ne samo prostornih i fizičkih, već i doživljajnih elemenata prostora u okviru predmeta Rekreacija i slobodno vrijeme u studijskoj 2023/24. godini.

Knowledge from other subjects within the project, which were studied during the project, were taken into the simulation, which achieved complete project synergy and joint work at several departments participating in the project. It was concluded that for some of the areas of “social welfare” there was no adequate reaction during the entire period of their exploitation, and they behave like hibernation pockets.

Conclusion

Through the work on this part of the research, an opportunity was provided to supplement the established database in GIS format through checks of the situation on the ground, analytical selection of information based on the need to focus on a particular spatial segment, and which ultimately provided inputs for further action and research development. Therefore, as the final product of the research part of the project within the subjects dealing with urbanism, a selection of open spaces of “social welfare” was made, which showed that their appearance, use, function, and burden of environmental factors contradicts the user’s ability to accept, and negatively affects the general experience and possibility of exploitation.

It was the result of the research part of two subjects in the 2022/23 school year that served as a signal for the reconstruction, not only of spatial and physical, but also of the experiential elements of space within the Recreation and free time course in the 2023/24 study year.

Arhitektonsko naslijeđe socijalističkog modernizma

NOVA!

GRBAVICA II

prof. dr. Aida Idrizbegović Zgonić

*vanredna profesorica, Univerzitet u Sarajevu - Arhitektonski fakultet
associate professor, University of Sarajevo - Faculty of Architecture*

Evaluacija arhitekture modernizma u Sarajevu zahtijeva duboko razumijevanje kako širih društvenih i ekonomskih procesa, tako i specifičnog arhitektonskog i urbanističkog diskursa tog perioda. To razdoblje karakteriziraju univerzalne prostorne manifestacije u socijalističkim zemljama, a u Bosni i Hercegovini postoje i regionalističke posebnosti, naročito u ranom periodu. Proučavanje stambenih naselja, posebno naselja Grbavica II, u tom kontekstu ukazuje na važnost korištenja pojma 'ostavština' (eng. *legacy*) umjesto tradicionalnog 'graditeljskog naslijeđa'. Razlog leži u potrebi za obuhvatanjem kako materijalnih i funkcionalnih vrijednosti arhitektonskih i urbanističkih rješenja, tako i nematerijalnih aspekata poput socijalne kohezije i kvalitete života, koji su rezultat planiranja i izgradnje u skladu s principima socijalističke ideologije, često realizirane s ograničenim resursima (Allan, 2021).

Internacionalni pregled kriterija za evaluaciju arhitekture 20. vijeka prepoznaje širok spektar vrijednosti, uključujući historijsku, estetsku, kulturnu, socijalnu, arhitektonsku, naučnu, umjetničku, tehnološku, ekonomsku vrijednost, kao i značaj mjesta ili urbanog pejzaža. Ovi kriteriji, koji proizlaze kako iz međunarodnih, tako i iz regionalnih zakonodavnih okvira, ukazuju na složenost pristupa evaluaciji. Posebno se u Bosni i Hercegovini ističu elementi poput proporcija, oblika, volumena, arhitektonskih detalji pod uticajem regionalističkog stila koji odražava specifičnosti lokalnog konteksta, vidljive u urbanom tkivu i načinu života. Ovakav holistički pristup evaluaciji arhitektonske baštine 20. vijeka u Bosni i Hercegovini omogućava integraciju međunarodnih i regionalnih kriterija, nudeći sveobuhvatan okvir za valorizaciju naslijeđa modernizma (ICOMOS General Assembly, 2017).

Architectural heritage of the Socialist Modernism period

NEW!

GRBAVICA II

Evaluating the architecture of modernism in Sarajevo requires a deep understanding of both broader social and economic processes and the specific architectural and urban discourse of that period. That period is characterized by international-style appearances in socialist countries, with in some instances regional characteristics in Bosnia and Herzegovina, especially in the early period. The study of residential settlements, especially the Grbavica II settlement, in this context indicates the importance of using the term 'legacy' instead of the traditional 'building heritage.' The reason lies in the need to include both the material and functional values of architectural and urban solutions, as well as intangible aspects such as social cohesion and quality of life, which are the result of planning and construction by the principles of socialist ideology, often realized with limited resources (Allan, 2021).

The International Review of Criteria for the Evaluation of 20th Century Architecture recognizes various values, including historical, aesthetic, cultural, social, architectural, scientific, artistic, technological, economic value, and place or urban landscape significance. These criteria, which derive from international and regional legislative frameworks, indicate the complexity of the evaluation approach. Especially in Bosnia and Herzegovina, elements such as proportions, shapes, volumes, and architectural details under the influence of regionalist style that reflect the specifics of the local context, visible in the urban fabric and lifestyle, stand out. This holistic approach to evaluating the architectural heritage of the 20th century in Bosnia and Herzegovina enables the integration of international and regional criteria, offering a comprehensive framework for valorizing the heritage of modernism (ICOMOS General Assembly, 2017).

Upravo ovako široko postavljen okvir valorizacije daje nam mogućnost da djelujemo u prostoru, naravno uz poseban senzibilitet, te omogućuje arhitektonske intervencije koje bi se mogle provesti na objektima i urbanim cjelinama, a da pritom zadrže suštinu materijalnih i nematerijalnih modernističkih principa. Za razliku od ostalog historijskog nasljeđa, stambena naselja modernizma nisu rijetkost, a vrlo često kao pojedinačni objekti nemaju visoku arhitektonsku vrijednost. S druge strane posjeduju materijalnu fragilnost, možda čak i veću od spomenika ranijeg perioda, jer su rađeni u kratkom periodu uz, često od nedovoljno kvalitetnih materijala. Da bi održali njihov kontinuitet upotrebe potrebno ih je unaprijediti u oblikovnom, funkcionalnom aspektu. Preoblikovanje i rehabilitacija stambenih naselja kroz kritičke i kreativne intervencije mogu znatno povećati vrijednost objekata i otvorenih prostora. Takve intervencije ne samo da revitaliziraju fizički prostor, već i oživljavaju socijalnu koheziju koja je bila najvažniji nematerijalni aspekt ovog nasljeđa.

Odgovarajuće intervencije na objektima i urbanim cjelinama iz razdoblja modernizma predstavljaju složen zadatak koji zahtijeva pažljivo balansiranje između očuvanja originalnih materijalnih i nematerijalnih principa i potreba savremenog života. Redizajn i rehabilitacija stambenih naselja iz tog perioda trebaju biti usmjereni ne samo prema estetskom osvježenju i tehničkom ažuriranju, već i prema ponovnom osmišljavanju njihove uloge u današnjem urbanom tkivu grada. To podrazumijeva očuvanje karakterističnih elemenata modernističke arhitekture – poput otvorenih planova, velikih prozorskih površina, funkcionalnosti i integracije sa zelenim površinama – dok se istovremeno uvode nove tehnologije i materijali koji poboljšavaju energetske učinkovitost, sigurnost i udobnost. Jedan od ključnih izazova jest kako zadržati duh modernizma, koji se temelji na ideji napretka i prilagodljivosti, dok se istovremeno odgovara na promijenjene socijalne, ekološke i ekonomske okolnosti današnjice. To zahtijeva multidisciplinarni pristup koji uključuje arhitekta, urbaniste, inženjere, kao i lokalne zajednice i krajnje korisnike. Uključivanje šire zajednice u proces planiranja može osigurati da intervencije odražavaju trenutne potrebe i želje stanovnika, dok istovremeno poštuju i valoriziraju historijski i kulturni kontekst naselja. Participacija korisnika

This broad framework of valorization allows us to act in space, of course, with a unique sensibility. It enables architectural interventions that could be carried out on buildings and urban entities while retaining the essence of material and immaterial modernist principles. Unlike other historical heritage, modernist residential areas are not uncommon, and very often, as individual buildings, they do not have a high architectural value. On the other hand, they have material fragility, perhaps even more significant than the monuments of the earlier period, because they were made quickly, often from materials of insufficient quality. In order to maintain their continuity of use, it is necessary to improve them in terms of design and functionality. Reshaping and rehabilitating residential areas through critical and creative interventions can significantly increase the value of buildings and open spaces. Such interventions revitalize the physical space and revive the social cohesion that was this heritage's most crucial intangible aspect.

Adequate interventions on buildings and urban entities from the period of modernism represent a complex task that requires careful balancing between the preservation of the original material and immaterial principles and the needs of contemporary life. The redesign and rehabilitation of residential areas from that period should be aimed not only at aesthetic refreshment and technical updating but also at reimagining their role in today's urban fabric of the city. This entails preserving the characteristic elements of modernist architecture – such as open plans, large window areas, functionality, and integration with green areas – while at the same time introducing new technologies and materials that improve energy efficiency, safety, and comfort. One of the critical challenges is maintaining the spirit of modernism, which is based on the idea of progress and adaptability while simultaneously responding to today's changed social, ecological, and economic circumstances. This requires a multidisciplinary approach involving architects, urban planners, engineers, local communities, and end users. Involving the broader community in the planning process can ensure that interventions reflect the current needs and wishes of residents while at the same time respecting and valorizing the historical and cultural context of the neighborhood. The participation of users and the academic

i akademske zajednice je poželjna jer u takvoj saradnji dolazi do razumjevanja i edukacije svih uključenih sudionika.

Kritička i kreativna reinterpretacija modernističke ostavštine također može igrati ključnu ulogu u transformaciji percepcije ovih objekata kao vrijednog nasljeđa na kojem je moguće ostvariti imprint današnjeg vremena kroz redizajn, retrofit i rehabilitaciju (Peters, 2016). Akademska zajednica može putem organizacija izložbi, radionica, te objavljivanje studija slučaja može pomoći u širenju svijesti o historijskom značaju modernističke arhitekture i potrebe za njenim očuvanjem. Tržište nekretnina nam govori da su ova naselja izuzetno popularna zbog pogodnosti koje nude, s tim da mnogi vlasnici stambenih jedinica rade ad-hoc izmjene na fasadi, zauzimaju zajedničke prostore, ruše zidove koji su ključni za stabilnost te na takav način smanjuju vrijednost objekta. Kroz dijalog između stručnjaka različitih disciplina, donositelja odluka i šire javnosti, potičući razvoj inovativnih rješenja koja poštuju prošlost dok istovremeno gledaju u budućnost moguće je ove procese usmjeriti. Kroz ovaj naučno-istraživački projekat, a i kroz analizu primjera dobre prakse pristup redizajnu i rehabilitaciji modernističkih stambenih naselja trebao bi biti utemeljen na principima održivosti, inkluzivnosti i fleksibilnosti, omogućavajući da ova arhitektonska baština ostane relevantna i funkcionalna za buduće generacije. To ne samo da podiže vrijednost objekata i otvorenih prostora, već doprinosi i stvaranju bogatijeg, raznolikijeg i dinamičnijeg urbanog okruženja (UNHABITAT, 2024).

Oblikovanje i druge karakteristike

Glavne karakteristike dizajna socijalističkog modernizma rezultirale su slijedećim: funkcionalnosti, pročišćenim oblicima, korištenjem elemenata masovne proizvodnje, istaknutim pojednostavljenim i jasnim kompozicijskim dijelovima fasade, naglasak na horizontalnost što su i globalne odlike. Lokalno, fokusirajući se na Bosnu i Hercegovinu, prilagođavali određeni elementi kao što su proporcije, protkanost zelenilom, stvaranje sekvenci i gradacija u prostoru, naročito u objektima rane faze modernizma, koja nije u većoj mjeri prisutna u naselju Grbavica II. Da bi se adekvatno razumjele implikacije socijalističkog modernizma u Sarajevu, potrebno

community is desirable because there is an understanding and education of all involved participants in such cooperation.

Critical and creative reinterpretation of the modernist legacy can also play a key role in transforming the perception of these objects as valuable heritage on which it is possible to realize the imprint of today's times through redesign, retrofit, and rehabilitation (Peters, 2016). Through the organization of exhibitions, workshops, and the publication of case studies, the academic community can help spread awareness about the historical significance of modernist architecture and the need for its preservation. The real estate market tells us that these neighborhoods are trendy because of their amenities, with many apartment owners making ad-hoc changes to the facade, occupying common spaces, and tearing down walls crucial for stability. It is possible to direct these processes through dialogue between experts of different disciplines, decision-makers, and the general public, encouraging the development of innovative solutions that respect the past while simultaneously looking to the future. Through this scientific research project and the analysis of examples of good practice, the approach to redesigning and rehabilitating modernist residential areas should be based on sustainability, inclusiveness, and flexibility, allowing this architectural heritage to remain relevant and functional for future generations. This increases the value of buildings and open spaces and creates a more prosperous, diverse, and dynamic urban environment (UN-HABITAT, 2024).

Design and other features

The main design characteristics of socialist modernism resulted in the following: functionality, refined forms, mass production elements, highlighted simplified and transparent compositional parts of the facade, and emphasis on horizontality, which are also global features. Locally, focusing on Bosnia and Herzegovina, they adapted certain elements such as proportions, interweaving with greenery, creating sequences and gradation in space, especially in the buildings of the early phase of modernism, which is not present to a greater extent in the Grbavica II settlement. In order to adequately understand the implications of socialist modernism in Sarajevo, it is necessary

je spomenuti osnovne odrednice koje su formirale arhitektonsku scenu krajem XIX i početkom XX vijeka: dogodilesu se velike promjene zbog industrijske revolucije, korištenja novih materijala, transformacije gradnje, konstruktivnih sistema, novih funkcija. Novi zahtjevi koje je arhitektura 20. vijeka morala ispuniti bili su brojni i raznovrsni, odražavajući i tradicionalne i modernističke vrijednosti. U tom razdoblju izgrađene su prve zgrade u duhu moderne arhitekture upotrebom principa internacionalnog stila, arhitekti iz praških i bečkih arhitektonskih škola vratili su se s novim idejama te s jasnom vizijom o čistim i jednostavnim volumenima, postavili su Sarajevo na svjetsku scenu moderne.

Nakon 1950., pioniri modernizma nastavili su i nosili glavni teret rekonstrukcije i nove gradnje. Grad se geografski širio zapadno prema Sarajevskom polju, sjeverno duž Koševskog Potoka. Godine 1949. osnovana je Škola arhitekture u Sarajevu unutar Tehničkog fakulteta Univerziteta u Sarajevu, gdje je velik broj pionira modernizma postao nastavno osoblje. Godine 1950., na sastanku u Dubrovniku, udruženje jugoslavenskih arhitekata donijelo je odluku o napuštanju socijalističkog realizma, nakon čega su arhitekti prešli na "zapadne arhitektonske koncepte". Ipak, neki arhitekti povezali su svoj bogati arhitektonski rad s tradicionalnom arhitekturom stvorenom u Bosni i Hercegovini kao blagom svojih ideja i umjetničke inspiracije. Tokom perioda 1960 – do Olimpijade 1984. godine došlo je i do velike migracije stanovništva u urbane područja (Kulić, Mrduljaš, & Thaler, 2012, str. 48, 120-121). Izgrađena su velika naselja, ali ne dovoljno brzo i ne adekvatno, što je rezultiralo stvaranjem ilegalnih/neformalnih naselja na periferiji grada, što je proces koji se nastavio i narednih 30 godina. Specifičnost kolektivnog stanovanja u Sarajevu iz socijalističkog perioda proizlazi iz ekonomskih i političkih uvjeta koji su uticali na oblik i arhitektonski dizajn te njihovu ponovljivost kroz Republiku Bosnu i Hercegovinu i cijelu bivšu Jugoslaviju.

to mention the essential determinants that formed the architectural scene at the end of the 19th and the beginning of the 20th century: significant changes took place due to the industrial revolution, the use of new materials, the transformation of construction, constructive systems, and new functions. The new demands that the architecture of the 20th century had to fulfill were numerous and varied, reflecting both traditional and modernist values. In that period, the first buildings were built in the spirit of modern architecture using the principles of international style; architects from the Prague and Viennese architectural schools returned with new ideas and with a clear vision of clean and straightforward volumes; they placed Sarajevo on the world stage of modernity.

After 1950, the pioneers of modernism continued to carry the main burden of reconstruction and new construction. The city spread geographically west towards Sarajevo Field and north along Koševsko Potok. In 1949, the School of Architecture in Sarajevo was founded within the Technical Faculty of the University of Sarajevo, where many pioneers of modernism became teaching staff. In 1950, at a meeting in Dubrovnik, the association of Yugoslav architects decided to abandon socialist realism, after which the architects switched to "Western architectural concepts." Nevertheless, some architects connected their rich architectural work with the traditional architecture created in Bosnia and Herzegovina as a treasure of their ideas and artistic inspiration. From 1960 to the 1984 Olympics, there was also a large population migration to urban areas (Kulić, Mrduljaš, & Thaler, 2012, p. 48, 120-121). Large settlements were built, but not fast enough and not adequately, resulting in illegal/informal settlements on the city's outskirts, a process that continued for almost 30 years. The specificity of collective housing in Sarajevo from the socialist period stems from the economic and political conditions that influenced the form and architectural design and their repeatability throughout the Republic of Bosnia and Herzegovina and the entire former Yugoslavia.

Metodologija - Istraživački rad sa studentima na izbornom predmetu *Arhitektonske intervencije na objektima i cjelinama graditeljskog naslijeđa*

Kroz naučno-istraživački projekat NOVO! Novo Sarajevo prvi korak uz mapiranje i GIS, ukazala se potrebna za evidentiranjem i valoriziranjem arhitektonskih i urbanih vrijednosti. Taj inicijalni zadatak je obavljen putem izrade identifikacionih kartona koji su sadržavali sve potrebne informacije o objektu, vremenu gradnje, originalnim sačuvanim elementima, izmjenama i nadogradnjama. Formiranje jedne takve baze podataka za dati prostorni obuhvat je esencijalni prvi korak ka utvrđivanju stanja i valorizaciji objekata. U pregledu u Tabeli 1 (1a, 1b, 1c) date su skraćene verzije ID kartona, te 3 tipa objekata koji se pojavljuju unutar prostornog obuhvata.

U okviru obuhvata posebno se izdvajaju tipologije označene kao "MS" (modernistička lamela/modernist slab) i "HR" (visoki objekt/high rise) koje, iako pojedinačno možda ne predstavljaju objekte visoke arhitektonske vrijednosti, imaju izuzetnu vrijednost kao sastavni dijelovi urbanog sistema grada. Takva naselja mogu se kategorizirati kao urbano tkivo visoke ambientalne vrijednosti, što ih čini nezamjenjivim dijelom urbanog pejzaža i svjedočanstvom vremena i prostora u kojem su nastala.

Pored izrade kartona jedna grupa je imala zadatak da snimi nekoliko tipičnih stambenih jedinica, te da u skladu s konstruktivnim mogućnostima pokaže varijante adaptacije stambenog prostora, kao jednu vrstu pokaznog kataloga koji može poslužiti budućim vlasnicima da sagledaju mogućnosti, te da postupe po smjernicama koje bi bile date tipskim rješenjima. Ovo bi otklonilo nestručne improvizacije u prostoru, te omogućilo vlasnicima maksimalno funkcionalno rješenje.

Naselje Grbavica, smješteno u srcu Sarajeva, predstavlja izuzetno poželjnu gradsku lokaciju za urbani životni stil. Karakterišu ga neposredna blizina sadržaja kao što su Vilsonovo šetalište, obrazovne institucije (osnovne škole i fakulteti), kulturne ustanove (muzeji), komercijalni centri, bankarske institucije, diplomatska predstavništva, kao i infrastruktura javnog prijevoza. Ovo naselje, također, obiluje vjerskim objektima,

Methodology - Research work with students on an elective course *Architectural interventions on heritage buildings and sites*

Through the scientific research project NOVO! Novo Sarajevo, the first step with mapping and GIS, proved necessary for recording and valorizing architectural and urban values. This initial task was created by creating identification cards containing all the necessary information about the building, the construction time, the original preserved elements, changes, and upgrades. Forming such a database for a given spatial coverage is an essential first step toward determining the condition and valorization of objects. The overview in Table 1. (1a, 1b, 1c), abbreviated versions of ID cards, and three types of objects that appear within the spatial scope are given.


Within the scope, the typologies marked as "MS" (modernist slab) and "HR" (high rise), which, although they may not individually represent objects of high architectural value, have exceptional value as integral parts of the urban system town. Such settlements can be categorized as an urban fabric of high environmental value, which makes them an irreplaceable part of the urban landscape and a testimony of the time and space in which they were created.

In addition to making building ID, one group had the task of recording several typical housing units and, by the constructive possibilities, showing the variations of adaptation of the housing space as a kind of demonstrative catalog that can serve future owners to see the possibilities and to act according to the guidelines that typical solutions would give. This would eliminate unprofessional improvisations in the space and provide the owners with a maximally functional solution.

The settlement of Grbavica, located in the heart of Sarajevo, represents a highly desirable city location for an urban lifestyle. It is characterized by proximity to amenities such as Wilson's Promenade, educational institutions (primary schools and colleges), cultural institutions (museums), commercial centers, banking institutions, diplomatic missions, and public transport infrastructure. This settlement also abounds in religious buildings, shops, markets,

Tabela 1 (1a, 1b, 1c). ID kartoni objekata analiziranih u obuhvatu Grbavica II - skraćena verzija. Izvor: studentski rad.

Table 1 (1a, 1b, 1c). ID building information charts for analyzed buildings in Grbavica II zone - short version. Source: student paper.

<p>LOKACIJA LOCATION Aleja lipa 50-66, Hrasno</p>	<p>1a</p> 
<p>TIPOLOGIJA OBJEKTA BUILDING TYPOLOGY soliter (atipični) tower (atypical)</p>	
<p>URBANA TIPOLOGIJA URBAN TYPOLOGY poluotvoreni blokovi semi-open block</p>	
<p>SPRATNOST FLOOR COUNT 13 spratova floors</p>	
<p>GODINA IZGRADNJE YEAR OF CONSTRUCTION 1970.</p>	
<p>PERIOD OBNOVE RESTORATION PERIOD 1998. (poslije rata) (after the war)</p>	
<p>VALORIZACIJA VALORIZATION visoka ambijentalna vrijednost, kontekstualna vrijednost exceptional ambiental value, contextual value</p>	

FORMA I MATERIJALIZACIJA FORM AND MATERIALIZATION

Konfiguracija poluotvorenih blokova sastoji se od osam identičnih objekata. Objekti imaju oblik pravougaone prizme s proporcionalnim omjerom 1:4 za dimenzije osnove. Fasada sadrži naizmjenične horizontalne linije otvora i parapeta. Distinktivna traka s balkonima stvara vertikalne poteze. Fasada je obrađena bijelim malterom, a trake s otvorima i parapetima su različitih boja. Krov je ravan s minimalnom visinom atike i pristupa mu se kroz uvučeno kućište lifta.

The configuration of the semi-open blocks consists of eight identical units. These units are rectangular prisms with a proportional ratio of 1:4 for their base dimensions. The facade features alternating horizontal lines of openings and parapets. A distinct band with balconies creates vertical elements. The facade is finished with white plaster, while the bands with openings and parapets are of different colors. The roof is flat with minimal parapet height, and access is provided through a recessed elevator shaft.

AUTENTIČNOST I OČUVANOST AUTHENTICITY AND PRESERVATION


Svih osam zgrade ove tipologije su bile značajno oštećena tijekom opsade Sarajeva između 1992. i 1995. godine. Oštećenja su uzrokovana granatiranjem. Nakon rata, zgrade su prošle proces rekonstrukcije. Tijekom procesa obnove, izvorna shema boja fasade je promijenjena u korist naizgled svježijih boja, dok je održan opći dojam fasade. Nije bilo dodatnih proširenja ili dodataka postojećim volumenima. Međutim, vidljivo je smanjenje estetske vrijednosti zgrade zbog akata vandalizma na fasadi podruma i prizemlja.

All eight buildings of this typology were significantly damaged during the siege of Sarajevo between 1992 and 1995, primarily due to shelling. After the war, the buildings underwent a reconstruction process. During the restoration process, the original color scheme of the facade was altered in favor of seemingly fresher colors, while maintaining the overall impression of the facade. There were no additional expansions or additions to the existing volumes. However, there is a noticeable decrease in the aesthetic value of the building due to acts of vandalism on the facade of the basement and ground floor.

POZITIVNE I NEGATIVNE KARAKTERISTIKE POSITIVE AND NEGATIVE FEATURES

Zgrade sadrže kombinaciju jednostavnih oblika i živopisnih bočnih fasada u kontrastu s dematerijaliziranom manjom fasadom. Obloga fasade varira u boji i shemi, ali tipološka priroda zgrada je očuvana. Međutim, intervencije stanara na elementima prozora i ostakljenju balkona odstupaju od izvorne arhitektonske vizije. Te su razmatranja mogla biti uzeta u obzir tijekom rekonstrukcije nakon opsade kako bi se osigurala arhitektonska koherencija.

The buildings feature a combination of simple forms and vibrant side facades contrasting with the dematerialized smaller facade. The facade cladding varies in color and scheme, but the typological nature of the buildings is preserved. However, interventions by residents on window elements and balcony glazing deviate from the original architectural vision. These considerations could have been taken into account during the reconstruction after the siege to ensure architectural coherence.

LOKACIJA LOCATION Behdžeta Mutevelića, Hasana Brkića, Grbavica II	1b 
TIPOLOGIJA OBJEKTA BUILDING TYPOLOGY modernistička izdužena lamela modernist elongated slab	
URBANA TIPOLOGIJA URBAN TYPOLOGY linearni objekti u klasterima linear buildings in clusters	
SPRATNOST FLOOR COUNT 5 spratova floors	
GODINA IZGRADNJE YEAR OF CONSTRUCTION 1962.	
PERIOD OBNOVE RESTORATION PERIOD 1998. (poslije rata) (after the war)	
VALORIZACIJA VALORIZATION kontekstualna vrijednost, vrijedna urbana matrica contextual value, valuable urban matrix/composition	

FORMA I MATERIJALIZACIJA FORM AND MATERIALIZATION

Forma objekata je pravougaona linearna sa karakterističnim krovovima sa blagim nagibima koji se čine ravni. Na prizemljima su uspostavljeni prolazi kako bi se olakšala komunikacija korisnika. Zgrade posjeduju suterensku etažu uglavnom za skladištenje, i pet stambenih spratova. Fasada prikazuje kontinuirani ritam otvora, naglašen balkonima s horizontalnim akcentom. Materijalizacija fasade sastoji se od žbuke s minimalnim materijalom za toplinsku izolaciju, pri čemu boje fasade postupno blijede tijekom vremena, što rezultuje značajnim neslaganjima u renovacijama. Izvorni prozori bili su od drveta, osim u renoviranim stanovima gdje je drvena stolarija zamijenjena PVC ili aluminijumskom stolarijom. Ostakljenje balkona na raznoliko i improvizirano bez dosljednosti.

The structures exhibit a rectangular linear form characterized by roofs with slight inclinations that seem flat. Passages have been established on ground floors to facilitate user communication. The buildings comprise a basement level primarily storage, and five residential floors. The facade displays a continuous rhythm of openings, accentuated by balconies with horizontal accent. Facade materialization consists of plaster with minimal thermal insulation material, with facade colors gradually fading over time, resulting in notable discrepancies in renovations. Original windows were wood, except in renovated apartments where wooden joinery has been replaced by PVC or aluminum joinery. Balcony glazing in diverse and improvised manner without consistency.

AUTENTIČNOST I OČUVANOST AUTHENTICITY AND PRESERVATION


Tokom rata, zgrade su pretrpjele velika oštećenja, posebno što se tiče površina fasada i otvora. Post-ratni napori obnove uključivali su minimalnu i brzu rehabilitaciju s pokušajem primjene šarenih shema fasada. Najznačajnije promjene uključivale su dodavanje cijelog sprata i instalaciju novih krovova, što je uočeno u većini zgrada ovog tipa.

During the war buildings suffered extensive devastation, particularly with regard to facade surfaces and openings. Post-war reconstruction efforts involved minimal and fast rehabilitation with an attempt to apply colorful facade schemes. The most significant alterations included the addition of entire floor and the installation of new roofs, observed in the majority of buildings of this type.

POZITIVNE I NEGATIVNE KARAKTERISTIKE POSITIVE AND NEGATIVE FEATURES

Pozitivni aspekti trenutnog stanja uključuju povoljnu insolaciju, obilje vegetacije i koeficijent izgrađenosti u skladu sa standardima prijektovanja naselja. Negativni aspekti uključuju nedostatak karakterističnih orijentira za prostornu orijentaciju, miješani pješački i kolski saobraćaj blizu škola i vrtića, otežanu pristupačnost za osobe s invaliditetom zbog nedostatka liftova, male balkone i suboptimalne rasporede stanova, nedostatak parking prostora.

Positive attributes of the current state include favorable sunlight exposure, ample vegetation, and a built-up coefficient in accordance with settlement design standards. Negative aspects involve the absence of distinctive landmarks for spatial orientation, mixed pedestrian and vehicular traffic near schools and kindergartens, hindering accessibility for individuals with disabilities due to the lack of elevators, small balconies, and suboptimal apartment layouts, lack of parking space.

LOKACIJA LOCATION Hasana Brkića, Grbavica II	1c 
TIPOLOGIJA OBJEKTA BUILDING TYPOLOGY soliter tower	
URBANA TIPOLOGIJA URBAN TYPOLOGY soliter u skupini od 3 tower in a cluster of 3	
SPRATNOST FLOOR COUNT 21 spratova floors	
GODINA IZGRADNJE YEAR OF CONSTRUCTION 1976.	
PERIOD OBNOVE RESTORATION PERIOD 1999. (poslije rata) (after the war)	
VALORIZACIJA VALORIZATION arhitektonska, estetska, kontekstualna vrijednost architectural, aesthetic, contextual value	

FORMA I MATERIJALIZACIJA FORM AND MATERIALIZATION

Visoke zgrade su konstruisane s armirano betonskom skeletnom konstrukcijom, s betonskim temeljima i zidovima od cigle. Krov visokih zgrada je prohodna ravna površina, s betonskim pločama kao završnom oblogom. Fasada zgrade je ukrašena obojenom žbukom karakteristične žute boje. Zgrade imaju jednostavan i kompaktan volumen. Formirane su u obliku pravougljih struktura s kvadratnom osnovom. Gornjih pet spratova karakterišu potpuno zatvoreni balkoni na krajevima zgrade, popraćeni novim kantilevernim balkonima, mijenjajući volumen zgrade na tim spratovima. U donjem dijelu, forma također varira s udubljenjem i izbočenjem volumena.

The high-rise buildings are constructed with a reinforced concrete skeleton structure, with concrete foundations and brick walls. The roof of the high-rises is a walkable flat surface, finished with concrete slabs. The façade of the building is adorned with colored plaster characteristic yellow. The buildings have a simple and compact volume. They are in the form of rectangular structures with a square base. The uppermost five floors feature fully enclosed balconies at the ends of the high-rises, accompanied by new cantilevered balconies, altering the volume of the building on those floors. In the lower section, the form also varies with the indentation and protrusion of volumes.

AUTENTIČNOST I OČUVANOST AUTHENTICITY AND PRESERVATION

Konstruktivni elementi, uključujući temelje, zidove, krovne strukture i krovni materijal, predstavljaju originalne elemente s djelomičnom očuvanošću. Određeni dijelovi poput fasade prizemlja su pretrpjeli izmjene, dok su gornji spratovi, uglavnom stambeni, u velikoj mjeri zadržavaju svoj izvorni izgled. Međutim, fasada pokazuje znakove loše očuvanosti, s primjerima propadanja i ruševina vidljivim u određenim područjima. Modifikacije su ograničene na prizemlje zgrada, pretežno komercijalni prostori. Te promjene uključuju izmjene fasade, zamjenu portala.

The construction elements, including foundations, walls, roof structures, and roofing material, exhibit original features with partial preservation. Specifically, certain components such as the ground floor facade have undergone alterations, while the upper floors, primarily residential, retain their original appearance to a considerable extent. However, the facade shows signs of poor preservation, with instances of deterioration and ruin evident in certain areas. Modifications have been limited to the ground floors of the buildings, predominantly commercial spaces. These alterations include changes to the facade, replacement of portals.

POZITIVNE I NEGATIVNE KARAKTERISTIKE POSITIVE AND NEGATIVE FEATURES

Pozitivni aspekti su povoljna izolacija u većini stanova, praktičan pristup svakodnevnim sadržajima i blizina zelenih površina. Nalazi se u relativno mirnom naselju i ističe se zbog svog stila, gradnje i visine. Međutim, kritike uključuju konfuzne rasporede hodnika i pristup zgradi, što može umanjiti njenu ukupnu funkcionalnost i iskustvo korisnika. Dodatno, postavljaju se pitanja o njenom utjecaju na okolinu, potencijalnim ograničenjima na socijalnu interakciju zbog njene vertikalnosti i njenom percipiranom monolitnom prisustvu unutar urbanog krajolika. Pristup za osobe s invaliditetom i veliki lift.

The buildings showcase positive aspects such as favorable insulation in most apartments, convenient access to daily amenities, and proximity to green spaces. It is situated in a relatively peaceful neighborhood and stands out prominently due to its construction style and height. However, criticisms include confusing hallway layouts and access to the building, which may detract from its overall functionality and user experience. Additionally, concerns arise regarding its environmental impact, potential limitations on social interaction due to its verticality, and its perceived monolithic presence within the urban landscape. Access for disabled persons and large elevator

trgovinama, tržnicama, pekarama, ljekarnama i poštanskim uredima, čime se osigurava visoka razina kvalitete života za sve generacije i socijalne profile stanovnika.

Svaka stambena jedinica unutar naselja Grbavica pruža mogućnost kreiranja intimnog i funkcionalnog životnog prostora, koji odražava individualnost i životni stil njenih stanara. Važnost personaliziranog pristupa uređenju stambenog prostora leži u sposobnosti da se stvori ambijent koji potiče opuštanje i odražava lične vrijednosti i estetiku. U procesu rekonfiguracije prostora, poseban naglasak stavlja se na optimalno iskorištavanje prostornih kapaciteta kroz promišljen dizajn, koji uključuje zoniranje i funkcionalnu adaptaciju prostorija u skladu s dinamičkim zahtjevima suvremenog načina života. Kvaliteta gradnje, termički komfor, prirodna osvjetljenost i prozračnost ključni su parametri koji definiraju stambeni komfor. U tom smislu, novogradnja trenutno ne nudi rješenja koja maksimiziraju prostornu efikasnost i dok starija gradnja zahtijeva dodatne intervencije, adaptacije enterijera i eksterijera kako bi se prostor prilagodio modernim životnim standardima (Slika 1).

Kroz analizu različitih stambenih modela unutar naselja Grbavica, ovaj rad istražuje spektar mogućnosti za prilagodbu stambenog prostora individualnim potrebama i željama, promovirajući koncept minimalnih intervencija za postizanje optimalnog životnog okruženja. Cilj je identificirati i implementirati strategije i smjernice koje omogućavaju stvaranje funkcionalnih i kvalitetnih životnih prostora, uz poštovanje postojećih arhitektonskih i urbanističkih okvira.

S obzirom da je kroz dokumentaciju, terenskim istraživanjem i u razgovoru s predstavnicima stanara i Opštine Novo Sarajevo, ukazano na potrebu za intervencijama na fasadi koje variraju od postavljanja kvalitetnijih materijala kao završne obloge na fasadi, energetskog utopljanja, mogućnostima pretvaranja balkona u zimske bašte, pa čak i do većih intervencija kao što je oživljavanje partera, dodavanje balkona ili opsežnih radova na proširenju životnog prostora, uz adekvatan redizajn, studenti su kroz svoja rješenja ponudili nekoliko različitih opcija koje su prilagođene potrebama ali i različitim oblicima finansiranja jedne takve obnove.

bakeries, pharmacies, and post offices, ensuring a high quality of life for all generations and social profiles of residents.

Each housing unit within the settlement of Grbavica offers the possibility of creating an intimate and functional living space that reflects the individuality and lifestyle of its residents. The importance of a personalized approach to decorating a living space lies in creating an environment that encourages relaxation and reflects personal values and aesthetics. In space reconfiguration, particular emphasis is placed on the optimal use of spatial capacities through thoughtful design, which includes zoning and functional adaptation of rooms per the dynamic requirements of a modern lifestyle. Construction quality, thermal comfort, natural light, and airiness are the key parameters that define residential comfort. In this sense, new buildings currently do not offer solutions that maximize spatial efficiency. In contrast, older buildings require additional interventions and adaptations of the interior and exterior to adapt the space to modern living standards (Figure 1).

Through the analysis of different housing models within the settlement of Grbavica, this paper explores the possibilities for adapting housing to individual needs and desires, promoting the concept of minimal interventions to achieve an optimal living environment. The goal is to identify and implement strategies and guidelines that enable the creation of functional and high-quality living spaces while respecting the existing architectural and urban planning frameworks.

Given that through documentation, field research, and in conversation with representatives of tenants and the Municipality of Novo Sarajevo, the need for interventions on the facade was indicated, which vary from the installation of higher quality materials such as finishing on the facade, energy heating, the possibility of turning balconies into winter gardens, and even and to more significant interventions such as reviving the ground floor, adding a balcony or extensive work on expanding the living space, with an adequate redesign, the students offered through their solutions several different options that are adapted to the needs but also to different forms of financing such a renovation.

Prva varijanta jeste obnova omotača - fasada, vraćanje izvornonoj usklađenosti i nivelaciji te ritamu i visinama otvora na fasadi. Nakon toga moguće je dodavanje balkona čije je rješenje proizašlo iz ponavljajućih postojećih elemenata kao što je prikazano aksonometrijom. Stanovi ove zgrade su imali balkone širine 1,5 m, a dužine 3m, što je i ponovljeno na visećoj čeličnoj konstrukciji novog balkona. Time bi se obezbjedio dodatni kvalitet za stanare, a intervencija poštuje arhitektonski sklop cijele zgrade. Ovim balkonima bi se postigla i specifičnost izgleda, te bi kao primjer moglo biti implementirano i na drugim objektima. Ostali prijedlozi zahtjevaju značajnija ulaganja (Slika 3, 4), ali sa značajnijim unapređenjem cjelokupne stambene zgrade, te ozelenjavanje krovne površine.

Na ovom prilogu prikazana je varijanta obnove fasada s dodavanjem nove konstrukcije vanjske galerije (Slika 5,6), čime bi stambeni prostori bili obogaćeni vanjskim prostorom s kliznim panelima koji omogućavaju podešavanje u skladu s potrebama korisnika. Ova varijanta predstavlja rješenje sa najvećim obimom intervencija. Glavna odrednica ovog rješenja jeste dodavanje elemenata galerije. Stanovi ove zgrade, imali su jedan manji balkon, dužine 1.5 m, a širine 2 m. Ovim rješenjem postavlja se posebna konstrukcija (da se ne opterećuje konstrukcija zgrade) za sam balkon. Ploču balkona širine 2 m nose stubovi dimenzije 15x15cm. Balkon su dodani cijelom dužinom sjeverne i južne fasade (dvije fasade sa otvorima). Parapeti otvora spuštjeni su

The first option for renovating the building is to work on the facade, which includes bringing it back to its original alignment and leveling it. The aim is to restore the rhythm and heights of the openings on the facade. Additionally, a new balcony can be added to the building. The design of the new balcony is inspired by the existing elements of the building, as shown in the axonometry. The apartments in this building had balconies that were 1.5m wide and 3m long. A hanging steel structure will support the new balcony, ensuring the tenants get additional quality. This intervention respects the architectural structure of the entire building. The addition of these balconies would give the building a unique appearance and could serve as a model for other buildings. Other proposals for renovation would require more significant investments but would lead to a more significant improvement of the entire residential building. Additionally, the roof area could be redesigned to include more green spaces.

This attachment shows a variation of the renovation of the facades with the addition of a new construction of the external gallery (Figure 5,6), which would enrich the living spaces with an external space with sliding panels that allow adjustment according to the users' needs. This variation represents the solution with the most significant volume of interventions. The primary determinant of this solution is the addition of gallery elements. The apartments in this building had one smaller balcony, 1.5 m long and 2 m wide. With this solution, a particular structure is installed (so as not to burden the building structure) for the balcony itself. The 2 m wide balcony slab is supported by columns measuring 15x15 cm. Balconies were added along the entire length of the north and south facades (two facades with openings). The parapets of the openings were lowered to 0 cm to obtain a greater possibility of lighting the rooms. Balconies are closed with movable perforated panels made of light material. With these panels, a dose of unification of the facade is obtained, and the independent interventions of the tenants, such as closing the balcony and the like, are prevented. It is possible to close the balcony with panels, thus protecting it from



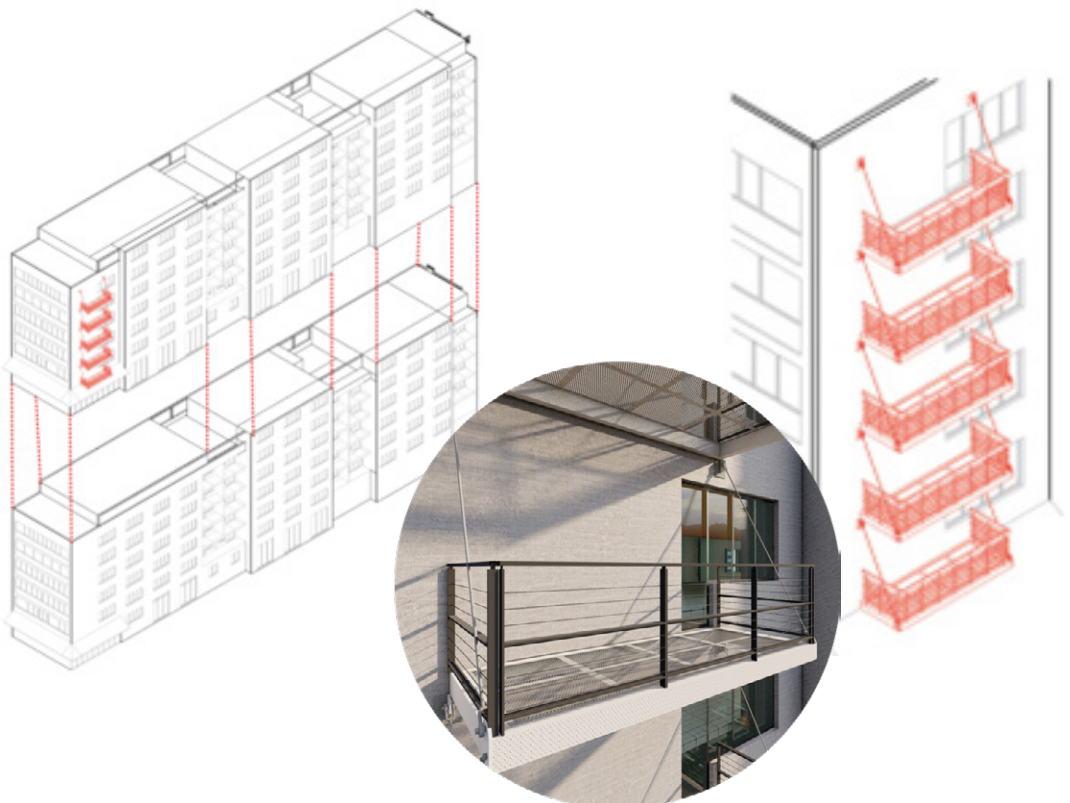
Ilustracija 1. Varijante adaptacije stambenih jedinica.

Figure 1. Variations of adaptation of housing units.

na 0 cm, da bi se dobila veća mogućnost osvjetljenja prostorija. Balkoni su zatvoreni pokretnim perforiranim panelima, od laganog materijala. Ovim panelima, dobija se doza unificiranosti fasade, te se onemogućuju samostalne intervencije stanara, kao što su zatvaranje balkona i slično. Panelima je moguće zatvoriti balkon, te se time štiti od prevelike insolacije i zagrijavanja. Na unutrašnjim pregradama balkona, moguće je postaviti klima uređaje koji će biti sakriveni, i neće narušavati izgled fasade, jer se paneli mogu otvoriti i zatvoriti u bilo kojem dijelu balkona. Također panelima je moguće zatvoriti dijelove balkona u koji se može staviti policica ili ormar (što je česta praksa stanara). Paneli se kreću po šinama postavljenim na obodu ploče. Svaki panel je sa šinama spojen točkicama, sa gornje i donje strane. Paneli se mogu rotirati do 90 stepeni, tako da kada su složeni ortogonalno na sine, balkon je potpuno otvoren.

excessive insolation and heating. On the inner partitions of the balcony, it is possible to install air conditioners that will be hidden and will not spoil the appearance of the facade because the panels can be opened and closed in any part of the balcony. It is also possible to close parts of the balcony with panels, where you can put a shelf or a closet (a common practice of tenants). The panels move along rails placed on the edge of the board. Each panel is connected to the rails with dowels on the top and bottom. The panels can be rotated up to 90 degrees, so the balcony is completely open when stacked orthogonally to each other.

Although this approach is not readily achievable in the current conditions and financing methods, students and residents of the settlement must be familiar with the possibilities, good ideas, and visions. This project could be the



Ilustracija 2. Varijante adaptacije fasada – dodavanje balkona. Izvor: studentski rad.

Figure 2. Variations of envelope improvements – addition of balconies. Source: student paper.

Iako je ovakav pristup, u trenutnim uslovima i načinima finansiranja, nije lako ostvariv, potrebno je da i studenti, stanovnici naselja budu upoznati s mogućnostima, dobrim idejama i vizijama. Ovakav projekat mogao bi biti tzv. Pilot projekat koji bi inicirao i demonstrirao mogućnosti kvalitetne transformacije objekata. S aspekta zaštite graditeljskog naljeđa već je istaknuto da ovdje pojedinačni objekti nemaju visoku arhitektonsku vrijednost, nego se ona ogleda u cjelokupnosti kriterija koji su samo djelimično vezani uz arhitekturu i materijalno. Mnogo snažnije su urbane kompozicije, prožimanje zelenilom, čitljivost ideje jedne pročišćene arhitekture, kontinuiteta njegove upotrebe (BAUA). Redizajn fasada je moguć zbog toga što su objekti izvedeni u skromnim materijalnim uslovima, repetitivni, te su korišteni elementi već na kraju svog životnog vijeka.

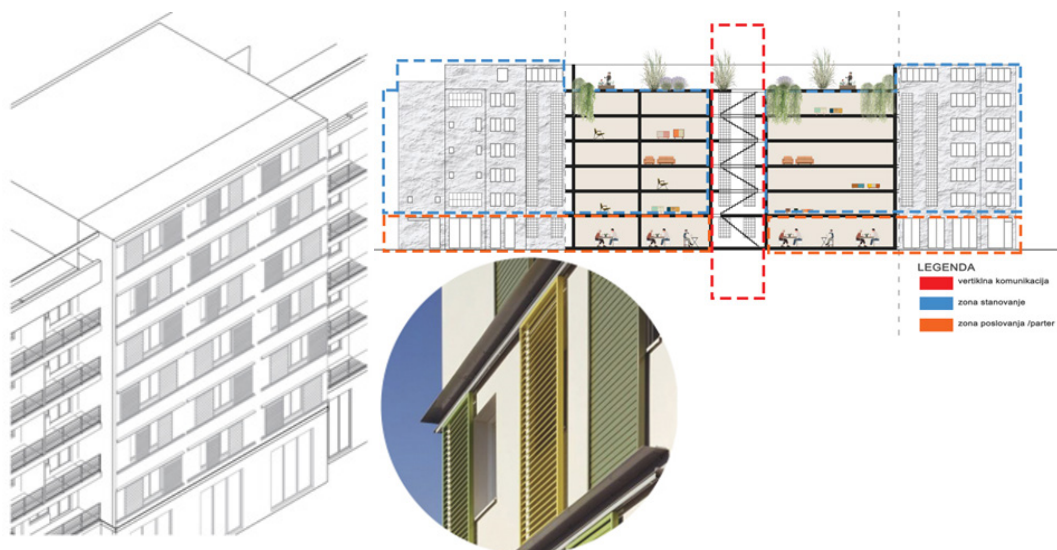
Modernizam je prije svega vjerovao novi bolji svijet, imao humanističke tendencije, te je jedna ovakva intervencija i vizuelno ali i u duhu modernizma. Različite pristupe dizajnu, ali s istom logikom, podržavajući ideje modernizma danas u rehabilitacije objekata ugradili su brojni značajni arhitekti. Jedan od najznačajnijih objekata jeste niz rehabilitacija koju su uradili Lacaton & Vassal u Bordoux u Francuskoj. Upotreba dostupnih, običnih materijala katalizuje ono što Lacaton & Vassal opisuju kao „prostorni luksuz“, koji dovodi u pitanje reduktivne norme pružanjem znatno izdašnjeg prostora od standardnog za socijalno stanovanje. „Sviđa nam se ideja luksuza u jednostavnosti“, kaže Vassal, „manje je više“, što može biti i finansijski pristup – „jeftino je više“. Naš cilj je da angažujemo privredu kako bismo dali maksimum, kako bismo povećali slobodu i životne mogućnosti porodicama koje ne moraju nužno imati mnogo novca. Zanimaju nas svjetlost, zrak i rad sa onim što postoji.“ (Slessor, The Guardian, 2019)

Na idućem prilogu prikazana je varijanta obnove fasada tako da se povećaju otvori, a fasada je akcentirana elementima u boji (Slika 7). Ova varijanta predstavlja rješenje za koje su potrebna finansijska sredstva za osnovno utopljanje te za dogradnju kubusa koji daju specifičan karakter objektu, bez značajnijeg ulaganja u konstrukciju. Glavna odrednica ovog rješenja jeste dodavanje kubusa koji ujedno predstavljaju vid mini balkona. Na kubuse je postavljena staklena ograda. Koloriti su različiti, a kao inspiracija za iste su uzete boje Bauhauusa.

so-called pilot project that would initiate and demonstrate the possibilities of quality transformation of buildings. From the protection of the architectural heritage, it has already been pointed out that the individual buildings here do not have a high architectural value. However, it is reflected in the totality of the criteria, which are only partially related to architecture and material. Much stronger are urban compositions, greenery permeation, refined architecture's legibility, and the continuity of its use (BAUA). Redesign of facades is possible because the objects are made in modest material conditions, are repetitive, and the elements used are already at the end of their useful life.

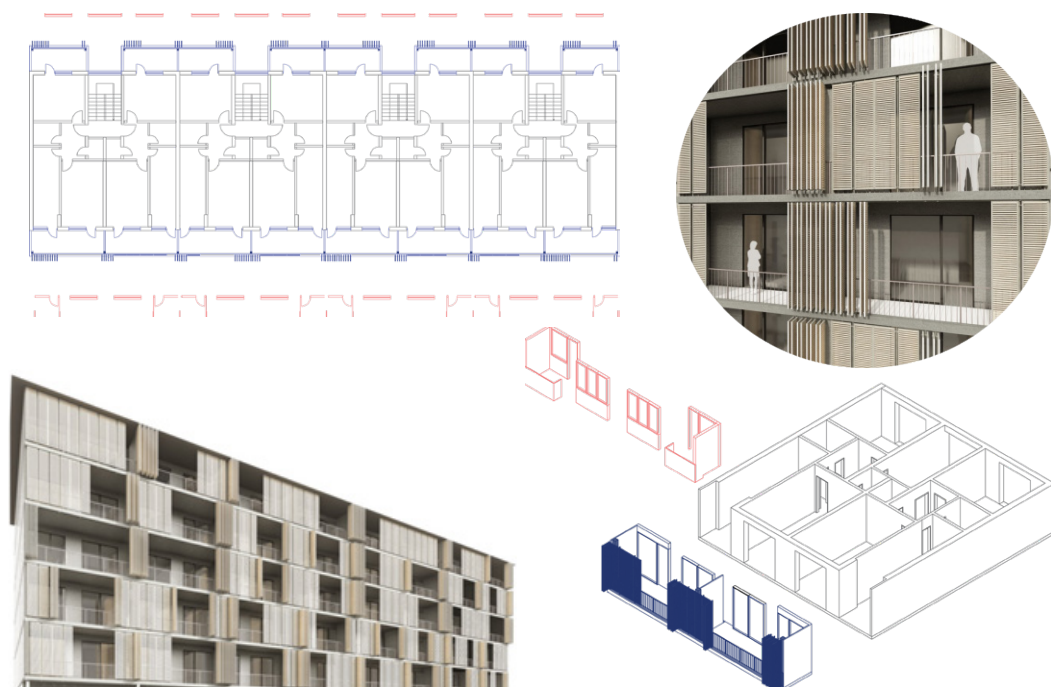
Modernism, first of all, believed in a new, better world and had humanistic tendencies, and this kind of intervention is both visual and in the spirit of modernism. Different approaches to design, but with the same logic, supporting the ideas of modernism today, have been incorporated into the rehabilitation of buildings by numerous prominent architects. One of the most significant buildings is a series of rehabilitations done by Lacaton & Vassal in Bordeaux, France.. "The employment of cheap, ordinary materials catalyses what Lacaton & Vassal describe as "spatial luxury", which challenges reductive norms by providing considerably more generous spaces than are standard for social housing. "We like the idea of luxury in simplicity," says Vassal, "of 'less is more', which can also be a financial approach - 'cheap is more'. Our goal is to employ economy in order to do the maximum, to increase freedom and living possibilities for families who don't necessarily have much money. We're interested in light, air and working with what exists." (Slessor, The Guardian, 2019)

The next attachment shows a variation of the renovation of the facades in such a way that the openings are increased, and the facade is accented with colored elements (Figure 7). This variation represents a solution that requires financial resources for basic heating and for the addition of cubes that give character to the building, without significant investment in construction. The main determinant of this solution is the addition of cubes, which at the same time function as a mini balcony. A glass fence is placed on the cubes. The colors are different, inspired by the Bauhaus.



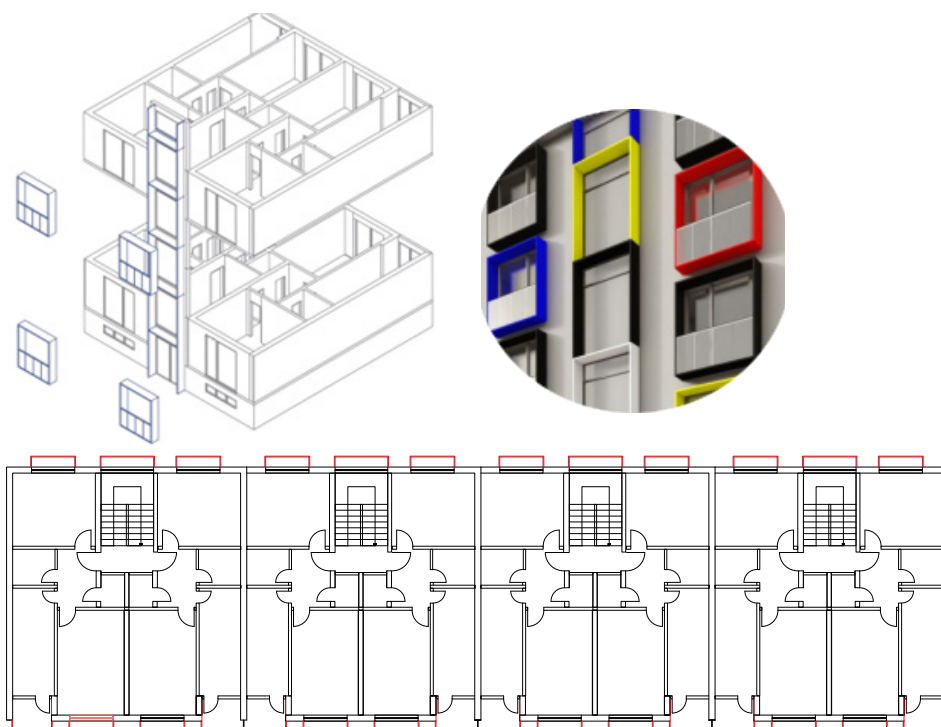
Ilustracija 3. Varijante adaptacije fasade s pomičnim panelima i adaptacije stambenih objekata, uz aktiviranje prizemlja i ozelenjavanje ravnog krova. Izvor: Studentski rad. Izvor: studentski rad.

Figure 3. Variations of facade with sliding panels and adaptation of housing units, along with activation of ground floor and adding green roofs. Source: student paper.



Ilustracija 4. Varijante adaptacije stambenih jedinica - dvostrano proširenje uz povećanje otvora i dodavanje galerija s elegantnim pomičnim panelima. Intervencijama se proširuje životni prostor i omogućuje moderiranje klime u enterijerima vanjskim panelima. Izvor: studentski rad.

Figure 4. Variations of residential unit adaptation - double-sided expansion with increased openings and the addition of galleries with elegant sliding panels. The interventions expand living space and enable climate moderation in interiors with external panels. Source: student paper.



Ilustracija 5. Varijante adaptacije stambenih jedinica - dodavanje francuskih prozora uokvirenih snažnim akcentom u boji.
Izvor: studentski rad.

Figure 5. Variations of housing units adaptation - adding minimalist protrusions as balconies accented in primary colors.
Source: student paper.

Zaključak

Kroz naučno-istraživački projekat NOVO! Novo Sarajevo dobiveni su značajni dokumenti presjeka postojećeg stanja, naročito kada se posmatraju informacije iz urbanog mapiranja, GIS-a i informacije ID kartona pojedinačnih objekata. Ova vrsta podataka bi se u daljoj razradi mogla uraditi detaljnije u smjeru da se evidentiraju sve izmjene po svakoj stambenoj jedinici i zajedničkim prostorima. Također uz to može se uraditi i popis i evaluacija potrebnih intervencija od zajedničkih prostora (npr. ugradnja lifta, rampa za osobe s otežanim kretanjem), pa do individualnih potreba (izmjene stolarije, zatvaranje balkona). Ovako bi se na sistematičan način moglo pristupiti arhitektonskim intervencijama koje su potrebne na pojedinačnim objektima. Pored evidentiranja koje je ovdje napravljeno i pokazano unutar ovog kratkog pregleda, pokazano je da kroz nastavni proces moguće je dobiti i spektar kvalitetnih rješenja koja bi činila integralan pristup obnovu ovog važnog stambenog fonda,

Conclusion

Through the scientific research project NOVO! Significant cross-section documents of the current state were obtained in Novo Sarajevo, especially when looking at information from urban mapping, GIS, and ID card information of individual buildings. This data type could be collected in further detail to record all changes for each housing unit and common areas. In addition, a list and evaluation of the necessary interventions from common areas (e.g., installation of an elevator, a ramp for people with reduced mobility) to individual needs (changes in carpentry, closing balconies) can be made. In this way, it would be possible to approach the architectural interventions that are systematically needed on individual buildings. In addition to the recording made here and shown within this short review, it was shown that through the teaching process, it is possible to obtain a spectrum of quality solutions that would constitute an integral approach to renovating this critical housing stock, along with its values.

zajedno s njegovim vrijednostima. Re-dizajn objekata: Modernistička arhitektura u urbanom stanovanju fokusira se na funkcionalnost, jednostavnost i povezanost s okolinom. Primjenom modernističkih i savremenih dizajnerskih principa, objekti mogu imati energetske poboljšane omotače, optimizaciju prirodnog svjetla i inovativne upotrebe savremenih rješenja. Zaključno, istraživanje valorizacije baštine unutar ovog istraživanja naglašava potrebu za lokaliziranim i strateškim pristupom arhitektonskom i urbanom razvoju. Potrebno je usvajanje specifičnih smjernica i strategija koje su prilagođene jedinstvenim karakteristikama stambenih naselja, prepoznajući njihov potencijal kao ambijentalnog urbanog i arhitektonskog naljeđa. Članak ističe važnost holističkih intervencija koje nadilaze osnovna unapređenja energetske efikasnosti, obuhvaćajući sveobuhvatna poboljšanja na razini cijelog područja. Ovaj pristup je pojačan preporukom za uspostavu kataloga preporučenih rješenja, materijala i certificiranih kompanija za pojedinačne intervencije.

Razlikovanje između osnovnih i naprednih intervencija za obnovu je ključno za prilagodbu poboljšanja dostupnim resursima, ističući dvostruku strategiju koja se kreće od lokaliziranih nadogradnji do ambicioznih projekata urbane regeneracije. Ovo nijansirano razumijevanje razina intervencija odražava duboko bavljenje složenostima struke ali i društveno-ekonomskih i vlasničkih odnosa. Osim toga, pažnja je posvećena praktičnoj primjeni teorijskih koncepta ističe važnost premošćivanja jaza između inovativne arhitektonske misli i implementacije u stvarnom svijetu. To osigurava da predložene smjernice nisu samo vizionarske, već i izvedive, čineći značajan doprinos revitalizaciji i promišljenom razvoju urbanih prostora. Ono što je proizašlo iz rada na ovom projektu jeste da se pokazao potencijal akademske zajednice, studenata i nastavnika arhitekture da aktivno sudjeluju, stvarajući spregu između edukacije i stvarnih potreba grada. Kroz svoju detaljnu analizu i predložena rješenja, projekat predstavlja koherentan put prema postizanju održivih i prilagodljivih arhitektonskih praksi, konačno promičući informiraniji i učinkovitiji pristup poboljšanju urbanih okoliša.

Re-design of buildings: Modernist architecture in urban housing focuses on functionality, simplicity, and environmental connection. By applying modernist and contemporary design principles, buildings can have energy-enhanced envelopes, optimization of natural light, and innovative use of contemporary solutions. In conclusion, the research on heritage valorization within this research emphasizes the need for a localized and strategic approach to architectural and urban development. It is necessary to adopt specific guidelines and strategies adapted to the unique characteristics of residential areas, recognizing their potential as an ambient urban and architectural legacy. The article highlights the importance of holistic interventions that go beyond basic improvements in energy efficiency, including comprehensive improvements at the level of the entire area. This approach is reinforced by the recommendation to establish a catalogue of recommended solutions, materials, and certified companies for individual interventions.

The distinction between primary and advanced regeneration interventions is critical to adapting improvements to available resources, highlighting a dual strategy that moves from localized upgrades to ambitious urban regeneration projects. This nuanced understanding of the levels of intervention reflects a deep engagement with the complexities of the profession as well as socio-economic and social relations. In addition, the attention paid to the practical application of theoretical concepts highlights the importance of bridging the gap between innovative architectural thought and real-world implementation. This ensures that the proposed guidelines are not only visionary but also feasible, making a significant contribution to the revitalization and thoughtful development of urban spaces. What emerged from the work on this project is that the potential of the academic community, students, and architecture teachers to participate actively, creating a connection between education and the real needs of the city, was demonstrated. Through its detailed analysis and proposed solutions, the project presents a coherent path toward achieving sustainable and adaptive architectural practices, ultimately promoting a more informed and practical approach to improving urban environments.

Participacija

NOVI! HEROJI TRGA

doc. dr. Isra Tatlić

*docentica, Univerzitet u Sarajevu - Arhitektonski fakultet
assistant professor, University of Sarajevo - Faculty of Architecture*

prof. dr. Vedad Islambegović

*vanredni profesor, Univerzitet u Sarajevu - Arhitektonski fakultet
associate professor, University of Sarajevo - Faculty of Architecture*

Ideja da bi korisnici i javnost trebali sudjelovati u projektiranju arhitekture zapravo potječe iz burnih vremena 60-ih i 70-ih godina prošlog stoljeća. Tada su se dogodili veliki studentski prosvjedi, posebno 1968. godine, što je označilo preokret u socijalnom i političkom razmišljanju. Tokom 70-ih godina, sumnja u tehnološki napredak porasla je zbog energetske krize i užasnih posljedica ratova. To je potaknulo razmišljanje o zaštiti Zemlje i ograničenim resursima. U to vrijeme su se pojavili i novi moderni stambeni blokovi koji su trebali riješiti probleme stanovanja, no to je često rezultiralo funkcionalnim pristupom i ekonomskim utilitarizmom.

U kasnim 60-ima, ljudi su počeli sumnjati u centraliziranu kontrolu i funkcionalnost u arhitekturi te su se okrenuli novom, otvorenom i optimističnom pristupu. To je doveo do razvoja ideje participacije, gdje bi građani trebali imati veći utjecaj na planiranje svojih zajednica. Ova ideja participacije vezuje se uz historijske trenutke promjene vlasti ili pada autoriteta. Razmišljanje o participaciji razlikuje se ovisno o kontekstu. U bogatijim dijelovima svijeta, gdje su gradovi strogo regulirani i kontrolirani, ljudi često osjećaju nedostatak individualne slobode i utjecaj korporacija. S druge strane, u ekonomski nerazvijenim zemljama, problemi su drugačiji: oskudica, neplanski razvoj, ekspanzija gradova i nedostatak osnovnih uvjeta za život. U oba slučaja, ljudi osjećaju potrebu za većim sudjelovanjem u planiranju svojih životnih prostora.

Iako je tradicionalno projektovanje arhitekture bilo fokusirano na stručnjake i crteže, ideja participacije mijenja tu dinamiku. Sada se

Participation

NEW! HEROES OF THE SQUARE

The idea that users and the public should participate in architectural design stems from the turbulent times of the 1960s and 1970s. Significant student protests occurred during this period, especially in 1968, marking a turning point in social and political thinking. Throughout the 1970s, skepticism towards technological progress increased due to the energy crisis and the horrific consequences of wars. This spurred thinking about protecting the Earth and its limited resources. At that time, new modern residential blocks emerged to address housing problems, often resulting in a functional approach and economic utilitarianism.

In the late 1960s, people began to doubt centralized control and functionality in architecture, turning instead to a new, open, and optimistic approach. This led to the development of participation, where citizens should have a more significant influence on planning their communities. This idea of participation is associated with historical moments of regime change or the decline of authority. Thinking about participation varies depending on the context. In wealthier parts of the world, where cities are strictly regulated and controlled, people often feel a need for more individual freedom and the influence of corporations. On the other hand, in economically underdeveloped countries, the problems are different: scarcity, unplanned development, urban sprawl, and a lack of primary living conditions. In both cases, people need greater involvement in planning their living spaces.

Although traditional architectural design has been focused on experts and drawings, the idea



Ilustracija 1. Community Design Centers (CDCs) u SAD. Jedan od prvih CDC-ova bio je Arhitektonski odbor obnove Harlema (ARCH) osnovan 1964. godine, čiji je direktor bio Max Bond Junior. St. Josephs ReBuild Center za beskućnike, New Orleans. Izvor: Spatial Agency.

Figure 1. Community Design Centers (CDCs) in the USA. One of the first CDCs was the Architectural Renewal Committee of Harlem (ARCH), founded in 1964, with Max Bond Junior as its director. St. Joseph's ReBuild Center for the Homeless, New Orleans. Source: Spatial Agency.

koristi socijalna mreža komunikacije i razmjene kako bi se omogućilo korisnicima da izraze svoje želje i potrebe. Ovaj demokratski pristup stvaranju zajednice postaje sve važniji. Peter Aeschbacher i Michael Rios ističu važnost aktivnog građanstva, gdje ljudi prepoznaju javno dobro i sudjeluju u demokratskim procesima. "Potrebno je temeljno promisliti građanstvo u savremenom društvu. Aktivno građanstvo počinje prepoznavanjem javnog dobra, kao političkog i fizičkog utjelotvorenja borbe kontekstualno stvorene kroz odnose i dijalog koji je ostvaren putem pregovora kroz demokratsku participaciju i koji je manifestovan u materijalnoj formi." (Rios 2008)

Ideja o građanskoj inicijativi i participaciji je, nakon nekoliko decenija mirovanja, kulminirala u radu mladih aktivista kasnih 1960-tih i početkom 1970-tih godina. Participacija i učešće javnosti u planiranju su nove metode koje se koriste za stvaranje demokratskog pristupa u izgradnji. U Americi ovaj pokret je više političan i krajem 1960. i početkom 1970. godina nastaje po uzoru na pokrete za civilna prava i socijalnu jednakost. Na konvenciji Američkog arhitektonskog instituta dolazi do razvoja koncepta volonterskog rada arhitekata unutar neprofitne organizacije The Community Design Center (Ilustracija 1). U narednom periodu osamdeset članova CDC-a će djelovati širom zemlje. Ovaj pristup, koji se sastojao od niza radionica, intervjua i posjeta lokacijama, nazvao se projektovanje za zajednicu (community design). U tom periodu arhitektura zajedništva

of participation changes that dynamic. Social communication and exchange networks enable users to express their desires and needs. This democratic approach to community creation is becoming increasingly important. Peter Aeschbacher and Michael Rios emphasize the importance of active citizenship, where people recognize the public good and participate in democratic processes. "It is necessary to rethink citizenship in contemporary society fundamentally. Active citizenship begins with recognizing the public good as a political and physical embodiment of a contextually created struggle through relationships and dialogue achieved through negotiation through democratic participation and manifested in material form." (Rios 2008).

The idea of civic initiative and participation, after several decades of dormancy, culminated in the work of young activists in the late 1960s and early 1970s. Participation and public involvement in planning are new methods used to create a democratic approach to construction. This movement is more political in America, emerging in the late 1960s and early 1970s following the civil rights and social equality movements. At the American Institute of Architects convention, the concept of voluntary work by architects within the nonprofit organization The Community Design Center emerged. (Figure 1) In the following period, eighty members of the CDC would operate nationwide. This approach, consisting of workshops, interviews, and site visits, was

(community architecture) i zastupničko planiranje (advocacy planning) nastoje se oduprijeti sistemu odlučivanja od vrha prema dole i zauzeti se za socijalno ugrožene zajednice i njihove probleme. Arhitektura zajedništva se kao princip djelovanja javlja zbog potreba zajednice i korisnika za istovremenim ostvarenjem i individualnih i kolektivnih zahtjeva. Razumijevanje termina "projektovanje za zajednicu" razlikuje se među vodećim stručnjacima. Zeynep Toker ističe da je ovaj pojam obuhvaćen različitim definicijama (Toker 2007). Prema Sanoffu, on uključuje planiranje, arhitekturu, socijalnu strukturu i participaciju, s ciljem uključivanja lokalnog stanovništva u razvoj svog okoliša (Sanoff 2000). S druge strane, Hamdi Nabeel definiše participaciju zajednice kao angažman stručnjaka, obitelji, zajednica i vlasti u oblikovanju okoline (Hamdi 1991). Analiza savremene prakse pokazuje da se naglasak stavlja na participaciju, iako se primjećuje tendencija da se fokusira na grupe koje nisu politički ili ekonomski marginalizirane. Tokerova zaključuje da se terminologija mijenja, ali oba termina "arhitektura zajedništva" i "participativno projektovanje" dijele važnost uključivanja korisnika u proces (Toker 2007).

Studio Arhitektura zajedništva

Koncept zajedničkih dobara, poznat i kao "commons" ili "common good", predstavlja važan koncept koji se nalazi između privatnog i javnog u društvenom diskursu. Umjesto da se oslanjamo isključivo na upravljanje države ili tržišta, koncept zajedničkih dobara nudi alternativu usmjeravajući moć na nivo zajednice. U jačanju mikro društvenih oblika zajedništva, ključno je nastaviti na postojeće oblike saradnje kroz njihovu obnovu, rekonstrukciju i adaptaciju kako bi bili održivi. Razmatranjem mogućnosti rekonstrukcije i prilagodbe postojećih oblika participacije građana u prostornom i organizacijskom smislu, kao što su mjesne zajednice, istražuju se načini korištenja društvenog naslijeđa s ciljem što efikasnijeg unapređenja. Putem istraživanja i projektovanja studenti problematiziraju pitanje prava djelovanja na prostor, potom istražiti koji su stvarni odnosi koji utiču na kreiranje prostora, potom koje su potrebe korisnika. Unutar novog konteksta, novog vremena koje karakteriziraju različite krize, kako je moguće iskoristiti postojeće socijalne strukture i prostorom djelovati na rekonstrukciju zajedništva?

called community design. During this period, community architecture and advocacy planning sought to resist the top-down decision-making system and advocate for socially disadvantaged communities and their issues. As a principle, community architecture arises from the community's and users' needs to simultaneously realize individual and collective demands. Understanding the term "community design" varies among leading experts. Zeynep Toker emphasizes that this term encompasses different definitions. (Toker 2007) According to Sanoff, it includes planning, architecture, social structure, and participation, aiming to involve the local population in developing their environment. (Sanoff 2000) On the other hand, Hamdi Nabeel defines community participation as the engagement of professionals, families, communities, and authorities in shaping the environment. (Hamdi 1991) Analysis of contemporary practice shows an emphasis on participation, although there is a tendency to focus on groups that are not politically or economically marginalized. Toker concludes that terminology is changing, but "community architecture" and "participatory design" share the importance of involving users in the process. (Toker 2007)

Community Architecture Studio

The concept of common goods (or commons) within social discourse occupies a position between the private and the public. In this sense, the ideas and practices associated with common goods present an alternative by redirecting power from macro-level state and market management to the community level. In strengthening micro-social forms of community, building upon existing forms of collaboration through their regeneration, reconstruction, and adaptation is crucial to ensure their sustainability. Local communities consider utilizing social heritage with more efficient improvement forms by exploring the possibilities of reconstructing and adapting existing forms of citizen participation in spatial and organizational forms. Through research and design, students problematize the right to act on space, investigate the relationships that influence space creation, and identify user needs. Within the new context of a different time characterized by various crises, how can it utilize existing social structures and act on the reconstruction of community through space?

Odabrana lokacija se nalazi u naselju Trg Heroja, općina Novo Sarajevo. Granice istraživanja su OŠ Trg Heroja, stambeni objekti na sve četiri stranice školskog dvorišta, vrtić Košuta, te parkovska površina južno od škole koja se pruža od ulice Porodice Ribar do ulice Aleja Lipa. Na pojedinačnim lokacijama šireg obuhvata će se u grupama raditi istraživački dio, dok se prostorne intervencije predviđaju na lokaciji u obuhvatu Mjesne zajednice Trg Heroja (Ilustracija 2). Zadatak je baziran na nekoliko različitih faza unutar kojih se formiraju ciljevi, programi i opseg djelovanja. Istraživački dio se zasniva na mapiranju potreba stanara i korisnika prostora s ciljem adekvatnog odgovora putem prostorne intervencije. Svaka intervencija ili analiza počinje sa hipotetskom pretpostavkom koja se dalje istraživanjem, suradnjom i komunikacijom mijenja i prilagođava. Pretpostavljeni početak djelovanja jeste mjesna zajednica Trg Heroja, koja se budućim intervencijama nastoji transformirati u centar zajednice koji uz postojeće administrativno – prostorne funkcije mjesne zajednice posjeduje mogućnost okupljanja građana, njihovih zajedničkih aktivnosti, međusobne podrške i razmjene informacija sa ciljem učešća u upravljanju

The selected location is in the neighborhood of Heroes' Square, municipality of Novo Sarajevo. The research boundaries include Heroes' Square Elementary School, residential buildings on all four sides of the schoolyard, Košuta kindergarten, and the parking area south of the school extending from Porodice Ribar Street to Aleja Lipa Street. Research activities will be conducted in groups at individual locations within the broader scope, while spatial interventions are planned within the Heroes' Square local community area. (Figure 2) The task is based on several phases within which objectives, programs, and scope of action are formed. The research phase is based on mapping the needs of residents and space users to provide an appropriate response through spatial intervention. Each intervention or analysis begins with a hypothetical assumption further explored, adapted, and adjusted through research, collaboration, and communication. The assumed starting point is the Heroes' Square local community, which aims to be transformed into a community center through future interventions. In addition to the existing administrative and spatial functions of the local community, it will provide opportunities for

Ilustracija 2. Obuhvat lokacije i predmeta istraživanja. Mjesna zajednica Trg Heroja. Izvor: Studenti AZ 22/23.

Figure 2. Site coverage and research subject. Local community Heroes' Square. Source: Students AZ 22/23.



prostorom. Upotreba, adaptacija i rekonstrukcija postojećih prostornih kapaciteta ili dogradnja novih je prva hipoteza koja je postavljena studentima kao zadatak, s ciljem rekonstrukcije socijalnih struktura.

Stručni paneli

Sa ciljem promjene tradicionalnih metoda i alata prostornih djelovanja neophodno je bilo organizirati stručne panele. Na panelima su prezentirane različite percepcije prostora i njegovog društvenog konteksta putem organiziranih grupa gdje se sa studentima problematiziralo područje djelovanja iz različitih pozicija. (Ilustracija 3).

Grupe stručnih panela su:

1. Arhitektura zajedništva (AFS) Ovaj panel će se fokusirati na koncept arhitekture za zajednicu, istražujući načine kako arhitektura može podržati i oblikovati zajednice, kao i važnost uključivanja zajednice u sam proces projektovanja.
2. Metodologija društvenog istraživanja (FPN) Na ovom panelu se raspravljalo o metodama i alatima društvenog istraživanja koji su važni za razumijevanje potreba i dinamike zajednica. Bilo je riječi o pristupima i analizi društvenih procesa koji su ključni za uspješno planiranje i implementaciju projekata za zajednicu.
3. Definiranje konteksta (AFS) Ovaj panel istražuje proces definiranja konteksta u kojem se provode projekti za zajednicu. Govori se o važnosti razumijevanja kulturnih, ekonomskih, socijalnih i fizičkih čimbenika koji utječu na oblikovanje prostora i života zajednice.
4. Strategije planiranja zajednice (Općine, NVO) Panel je razmotrio različite strategije i pristupe prostornom planiranju, s posebnim naglaskom na ulogu lokalnih vlasti i nevladinih organizacija.
5. Bottom-up intervencije (demonstrativni aktivizam, građenje u zajednici) Članovi različitih nevladinih organizacija i udruženja problematiziraju pristupe koji se temelje na aktivnom uključivanju zajednice u proces oblikovanja prostora, poput demonstrativnog aktivizma i projekata građenja u zajednici. Govori se o tome kako ove inicijative mogu doprinijeti poboljšanju kvalitete života i zajedničkom osnaživanju.
6. Društveni kontekst prostornih intervencija (FPN) Panel istražuje društveni kontekst prostornih intervencija, analizirajući kako društveni i kulturni faktori utječu na planiranje

citizen gatherings, collective activities, mutual support, and information exchange aimed at participating in space management. The use, adaptation, and reconstruction of existing spatial capacities or the addition of new ones is the first hypothesis given to students as a task to reconstruct social structures.

Expert Panels

Intending to change traditional methods and tools of spatial interventions, it was necessary to organize expert panels. These panels presented various perceptions of space and its social context through organized groups, where the area of action was problematized from different positions with students. (Figure 3).

The expert panel groups are as follows:

1. Community Architecture (AFS): This panel will focus on community architecture, exploring how architecture can support and shape communities and the importance of involving the community in the design process.
2. Social Research Methodology (FPN): This panel discussed methods and tools of social research that are important for understanding the needs and dynamics of communities. Discussions revolved around approaches and analyses of social processes crucial for successfully planning and implementing community projects.
3. Defining Context (AFS): This panel explores the process of defining the context in which community projects are conducted. It discusses the importance of understanding cultural, economic, social, and physical factors that influence the shaping of space and community life.
4. Community Planning Strategies (Municipalities, NGOs): The panel examined various strategies and approaches to spatial planning, particularly emphasizing the role of local governments and non-governmental organizations.
5. Bottom-up Interventions (Demonstrative Activism, Community Building): Members of various NGOs and associations problematize approaches based on active community involvement in space-shaping, such as demonstrative activism and community-building projects. Discussions focus on how these initiatives can improve quality of life and collective empowerment.
6. Social Context of Spatial Interventions

i implementaciju projekata koji oblikuju fizički prostor. Bit će riječi o važnosti uzimanja u obzir socioloških i antropoloških perspektiva prilikom oblikovanja prostora za zajednicu.

Analize, društveni angažman, transparentnost i priprema komunikacije sa građanima

Nakon sudjelovanja u diskusijama i radionicama studenti su mogli pristupiti analizama. Prvo je napravljena anketa sa ciljem definiranja korisnika i njihovih potreba, kako bi se odredili ciljevi daljnjih analiza (Ilustracija 4). Paralelno sa izradom analiza, jedan dio studentskog tima je radio na transparentnosti cijelog projekta i angažiranosti u naselju i Mjesnoj zajednici Trg Heroja (Ilustracija 5). U narednoj fazi studenti su uradili mapiranje otvorenih javnih prostora i zatvorenih potencijalno zajedničkih prostora sa ciljem otvaranja diskusije na Prvom građanskom panelu. Osim provedenih analiza neophodno je bilo projektirati komunikaciju sa građanima. Kako i na koji način grafički komunicirati sa građanima, gdje bi se ostavio prostor za dijalog umjesto stručne manipulacije? Sva grafička vizualizacija, mape su pružali otvorenost u zaključivanju, nisu smjeli sadržavati nikakve zaključke niti sugestije u oblikovanju prostora o u koji se trebaju uključiti građani. Za najbolji oblik otvorene komunikacije je dogovorena je 3D maketa naselja.

Maketa je prije svega odabrana kao alatka efikasnije komunikacije sa građanima, koja bi sudionicima rasprave omogućila lakše razumijevanje prostora i ponudila opciju direktnog izražavanja po pitanju prostornih potreba kroz fizičke intervencije/mapiranja

(FPN): This panel explores the social context of spatial interventions, analyzing how social and cultural factors influence the planning and implementation of projects that shape physical space. Discussions emphasize the importance of considering sociological and anthropological perspectives in shaping space for communities.

Analysis, Social Engagement, Transparency, and Preparation of Communication with Citizens

After participating in discussions and workshops, students were able to access analyses. First, a survey was conducted to define users and their needs to determine further study goals. (Figure 4) Concurrently with the analysis, a part of the student team worked on transparency and engagement within the Heroes' Square neighborhood and the local community throughout the project. (Figure 5) In the next phase, students conducted mapping of open public spaces and potentially shared closed spaces to open discussions at the First Civic Panel. In addition to the analyses performed, it was necessary to design communication with citizens. How and in what way should we graphically communicate with citizens, and where should we leave space for dialogue instead of professional manipulation? All graphic visualizations and maps provide openness in conclusions; they must not contain any findings or suggestions in shaping the space in which citizens should be involved. A 3D model of the neighborhood was agreed upon as the best form of open communication.

The model was primarily chosen as a tool for more effective communication with citizens,

Ilustracija 3. Stručni paneli održani na AFS i angažman studenata sa lokalnom zajednicom. Izvor: Studenti AZ 22/23.

Figure 3. Expert panels were held at AFS, and student engagement with the local community. Source: Students AZ 22/23.



na modelu. Pored navedenog, maketa kao alatka je odabrana i iz namjere da se kroz nastavu na predmetu dodatno ojačaju praktične vještine kod studenata, prije svega kroz ovladavanje alata kompjuterskog modeliranja i korištenja 3D-print tehnologije. Okruženje je modelirano na osnovu podataka preuzetih iz prostorno-planske dokumentacije (digitalna podloga regulacionog plana), te na osnovu fotogrametrijskog pristupa uz pomoć kojeg su u model unesene informacije koje nije bilo moguće pročitati sa dostupnih podloga (stvarne visine i izgledi fasada objekata). Na osnovu ovih podataka je izvršeno modeliranje i priprema za 3D print. Rad na maketi je raspodijeljen na nekoliko grupa studenata, formiranih i organiziranih prije svega od strane njih samih, uz minimalne konsultacije sa nastavnim osobljem.

Građanski paneli

Studenti su organizirali i vodili tri građanska panela. Studenti su putem plakata, društvenih mreža i uz veliku pomoć uprave i članova Mjesne zajednice organizirali posjećenost panela. Radi uključivanja građana u definiranje samog problema realizirana je anketa, nakon koje su formirani "conversation starters". Na Prvom panelu građana je otvoren dijalog studentskom prezentacijom analiziranih problema. Stvaranje otvorene grafičke komunikacije je formirano sa ciljem slobodnijeg uključenja korisnika o mogućnostima, potrebama i problemima prostora koji naseljavaju. Nakon prezentacije, vođene su diskusije u tri grupe, sa tri različite teme, u kojima su studenti sa nastavnicima bili podijeljeni na moderatore i zapisničare. U posljednjoj fazi građani su svoja pojedinačna zapažanja, potrebe i probleme evidentirali na 3D maketi naselja uz asistenciju studenata (Ilustracija 6).

U fazi nakon panela, studenti su sve informacije mapirali i pretvorili u smjernice djelovanja na prostor. Formirane su problemske cjeline, koje su se u potpunosti razlikovale u odnosu na postavljenu hipotezu djelovanja. Na osnovu broja glasova građana definirani su dominantni problemi: nedovoljno promišljene otvorene zelene površine, nedostatak inkluzivnog igrališta, nedostatak prostora za penzionere, nedostatak prostora za mlade, potom nedostatak organiziranog urbanog mobilijara. Osim toga mapirani su i svi ostali

allowing participants in the discussion to understand the space better and offer the option of directly expressing spatial needs through physical interventions/mappings on the model. In addition to the above, the model was chosen as a tool to further strengthen practical skills among students through teaching on the subject, primarily through mastering the tools of computer modeling and 3D printing technology. The environment was modeled based on data extracted from spatial planning documentation (digital base of the regulatory plan), as well as through photogrammetric approaches, which were used to incorporate information into the model that could not be read from the available data (actual heights and appearances of building facades). Based on this data, modeling, and preparation for 3D printing were carried out. Work on the model was divided among several groups of students, formed and organized primarily by themselves, with minimal consultations with teaching staff.

Citizen Panels

Students organized and facilitated three citizen panels. Students organized attendance for the panels through posters and social media, with significant assistance from the administration and local community members. A survey was conducted to involve citizens in defining the problem itself, following which "conversation starters" were formed. A dialogue was opened at the First Citizen Panel, and a student presented the analyzed issues. The creation of open graphic communication aimed to facilitate freer involvement of users in discussing the possibilities, needs, and problems of the inhabited space. After the presentation, discussions were held in three groups, each focusing on a different theme, with students and teachers divided into moderators and recorders. In the final phase, citizens documented their observations, needs, and problems on a 3D model of the neighborhood with the assistance of students. (Figure 6) In the phase following the panels, students mapped all information and turned it into guidelines for action in the space. Problematic areas were formed, utterly different from the initially hypothesized actions. Based on the number of citizen votes, dominant problems were defined: insufficiently designed open green spaces, lack of inclusive playgrounds, lack of space for retirees, lack of youth, and a shortage of organized urban

Prezenter: studenti AFUNSA.

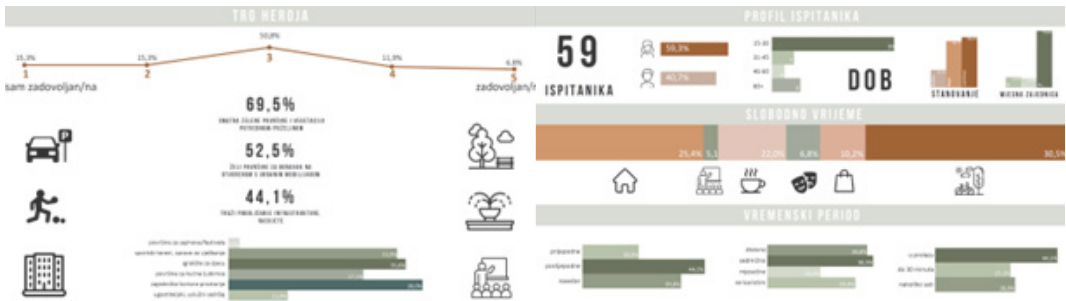


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Ilustracija 4. Izrada vizuelnog identiteta za društvene mreže, plakate, publikacije. Izvor: Studenti AZ 22/23.

Figure 4. Development of visual identity for social media, posters, and publications. Source: Students AZ 22/23.



Ilustracija 5. Rezultati ankete sprovedene na lokaciji Trg Heroja. Izvor: Studenti AZ 22/23.

Figure 5. Results of the survey conducted at Heroes' Square. Source: Students AZ 22/23.



Ilustracija 6. Studio Arhitektura zajedništva na građanskim panelima organiziranim u prostorijama Memorijalnog centra Novo Sarajevo. Prvi građanski panel i završne diskusije i mapiranje prijedloga i problema na maketi. Izvor: Studenti AZ 22/23.

Figure 6. Community Architecture Studio at citizen panels organized on the Memorial Center Novo Sarajevo premises. First, the citizen panel and final discussions and mapping of proposals and issues on the model. Source: Students AZ 22/23.

problemi, koji su se pokušali riješiti u sastavu dominantnih cijelina (Ilustracija 8). Nakon mapiranja i određivanja područja djelovanja, studenti su formirali prostore intervencija sa predloženim varijantnim scenarijima, sa ciljem uključivanja građana u proces projektovanja. Nakon Drugog panela sa građanima, diskusije

furniture. Additionally, all other problems were mapped and attempted to be solved within the composition of dominant units. (Figure 08) After mapping and determining areas of action, students formulated intervention spaces with proposed alternative scenarios, aiming to involve citizens in the design process. Following

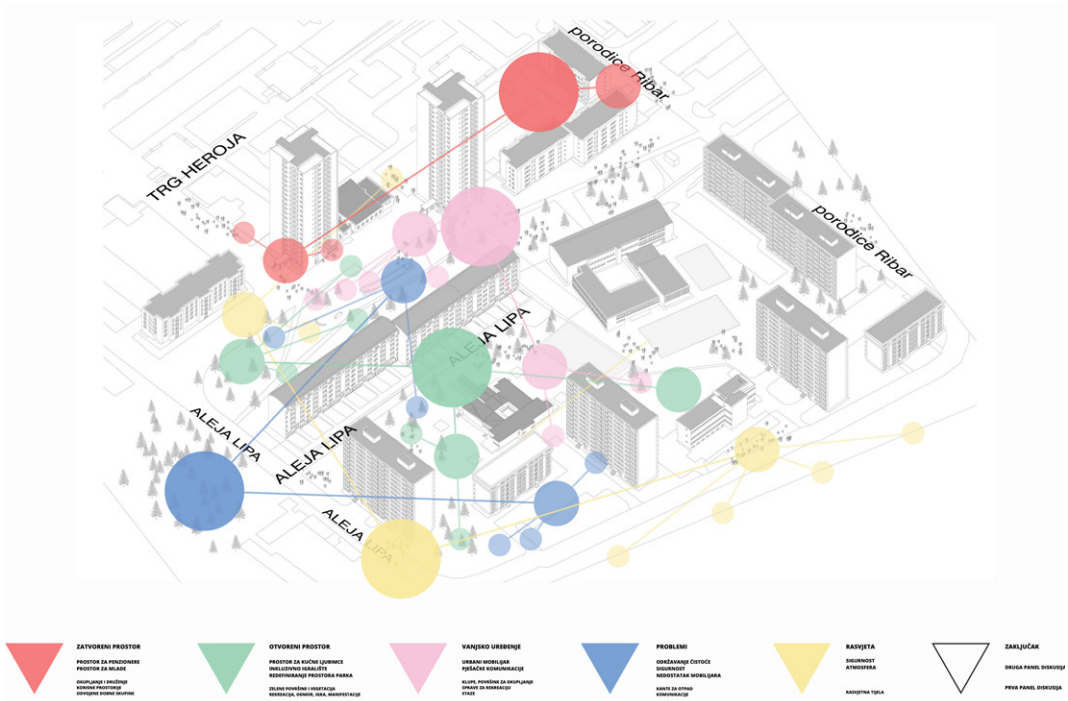


Ilustracija 7. Drugi građanski panel i participacija građana u oblikovanju. Izvor: Studenti AZ 22/23.

Figure 7. Second, the citizen panel and citizen participation are in shape. Source: Students AZ 22/23.

o prostornim problemima, prijedlozima rješenja i organizacije problemski definiranih lokaliteta, ponovno su mapirani zaključci i prevedeni u prostorna rješenja (Ilustracija 7). Na Trećem građanskom panelu su prezentirani rezultati u vidu arhitektonskih rješenja lokalnoj zajednici i predstavnicima Općine.

the Second Citizen Panel, discussions on spatial problems, proposed solutions, and the organization of problem-defined locations were again mapped, and conclusions were translated into spatial solutions. (Figure 7) The results were presented to the local community and municipal representatives at the Third Citizen Panel as architectural solutions.



Ilustracija 8. Rezultati ankete sprovedene na lokaciji Trg Heroja. Izvor: Studenti AZ 22/23.

Figure 8. Results of the survey conducted at Heroes' Square. Source: Students AZ 22/23.

Arhitektonska rješenja prijedloga zajedničkih intervencija

Na osnovu razgovora sa građanima i provedenih analiza odabrane su prostorne zone i projektantske teme koje su u grupnom radu obrađivane od strane studenata, te formulirane kao konkretna projektantska rješenja prezentirana zajednici na kraju procesa. Građani su akcentirali ukupno šest tema od čega su se četiri odnosile na problematiku aktiviranja otvorenog javnog prostora, uvođenja novog programa i njegovog dodatnog opremanja, dok je se dvije teme odnosile na opremanje zatvorenog prostora u javnom vlasništvu i njegovim stavljanjem na javno raspolaganje različitim populacijama unutar zajednice.

U zoni pod nazivom Otvoreni prostor 01 studenti su se bavili preuređenjem i dodatnim opremanjem postojeće parkovske površine sa zatečenim odraslim zelenilom i terenom za boćanje. Osnovni cilj ovog rada svodio se na unaprjeđenje postojećeg mobilijara i reaktiviranje postojećih sadržaja kako bi se korisnicima prostora omogućilo novo, praktičnije i ugodnije iskustvo korištenja javnih površina. Značajan dio rada je baziran na jednostavnoj ideji sanacije, dopune, i dorade postojeće infrastrukture javnog prostora parka, pri čemu je zaključeno: a. da je postojeće šetnice potrebno popraviti, unaprijediti njihovu materijalizaciju i vizualni dojam, te mjestimično ukloniti primjetne nedostatke na njima (kao što su oštri radijusi na mjestima njihovog sučeljavanja); b. da je potrebno dodati nove staze sekundarnog karaktera na mjestima gdje su unutar parka primjetni utabani, spontano stvorene staze, prije svega da bi se povećao broj kratica između tačaka kojima u prostoru gravitiraju pješaci. Također je primijećeno da u parku postoji mobilijar do kojeg ne vode postojeće staze, te je predviđeno njihovo postavljanje; c. da bi bilo dobro pretvoriti zidne površine partera stambenih objekata uz park u galeriju ulične umjetnosti (grafita) obzirom da na mjestima kontakta objekata i parka dominiraju visoke, zatvorene plohe visokih prizemlja bez komercijalnog ili javnog sadržaja. Na ovaj način bi sami parteri zgrada dobili vlastiti sadržaj i prerasli u određenu vrstu "opreme" javnog prostora; d. da je neophodno popraviti postojeći mobilijar parka, ali i dodati novi u skladu sa promjenama na nivou sekundarnih, novo-predviđenih šetnica. Postojeći spomenik unutar

Architectural solutions for proposed joint intervention

Based on conversations with citizens and analyses conducted, spatial zones and design themes were selected, which were then collectively worked on by students and formulated as concrete design solutions presented to the community at the end of the process. Citizens emphasized six themes: activating open public spaces, introducing new programs, and additional furnishing. At the same time, two focused on furnishing enclosed public spaces and making them available to various populations within the community.

In the area called Open Space 01, students focused on redesigning and furnishing the existing park area with mature greenery and a bocce court. The main goal of this work was to enhance the existing furniture and reactivate the existing facilities to provide users with a new, more practical, and enjoyable experience of using public spaces. A significant part of the work was based on the simple idea of repairing, supplementing, and refining the existing infrastructure of the park's public space. It was concluded that: a. Existing walkways need to be repaired, their materialization and visual impression improved, and noticeable deficiencies (such as sharp radii at points of intersection) removed; b. New secondary paths need to be added to places where spontaneously created paths are noticed within the park, primarily to increase the number of shortcuts between points pedestrians gravitate towards in space. It was also noted that there is furniture in the park that is not accessible via existing paths, and their installation is planned; c. It would be beneficial to transform the wall surfaces of the ground floors of residential buildings adjacent to the park into a gallery of street art (graffiti), given that high, enclosed surfaces of the ground floors dominate in areas where buildings and the park meet without any commercial or public content. This way, the ground floors of buildings would gain their content and evolve into a kind of "equipment" for public space; d. Existing Park furniture needs to be repaired, and new furniture needs to be added by the changes at the level of the newly planned secondary walkways. The existing monument within the park is fully preserved, but based on the expressed desires of the space users, a water/fountain element

parka je u potpunosti sačuvan, ali je na osnovu iskazanih želja korisnika prostora neposredno uz njega dodan element vode/fontana. Obzirom da je postojeći pristup spomeniku trenutno ostvaren isključivo kretanjem kroz zelenu površinu parka, predviđeno je dodavanje dodatne staze koja bi ga učinila pristupačnijim.

Osim spomenika, u parku je sačuvan i postojeći teren za boćanje. Obzirom da se radi o prilično dotrajalom i nedovršenom prostoru predviđeno je nekoliko intervencija vezanih za boćalište, kao što su: dodavanje klupa za rezervne igrače bočno od staze; odvajanje tribina jedan metar od staze; postavljanje ograde visine 150 cm na čelu boćališta; postavljanje adekvatne mekane podloge za boćanje (zbog sprečavanja ozljeda); usklađivanje postojećih tribina sa važećim standardima. Navedeno je predloženo prvenstveno zbog obezbjeđivanja veće sigurnosti prilikom boćanja, kao i zbog stvaranja mogućnosti okupljanja većeg broja korisnika. Pored navedenog predviđen je i scenarij natkrivanja boćališta, da bi se stvorila hladovina koja je neophodna za njegovo korištenje u toku vrućih ljetnih dana. U ranijim varijantama projektne intervencije studenti su predviđali i stolove za igranje šaha, ali su građani odbili ovu opciju smatrajući da je prostor neadekvatno razrađen od strane studenata.

U zoni pod nazivom Otvoreni prostor 02 studenti su na osnovu iskazanih želja građana predvidjeli formiranje parka za pse. Park je predviđen kao prostor okružen ogradom visine 150 cm unutar koje je predviđeno postavljanje namjenskog mobilijara za trening i igru pasa, za standardnu opremu kao što su klupe, rasvjeta, kante za smeće i parking za bicikla. U sklopu navedene intervencije predviđeno je izmještanje kontejnera za otpad na drugu, povoljniju i pristupačniju lokaciju. U sklopu navedene intervencije studenti su se bavili istraživanjem tematike dizajna parkovskog mobilijara za pse, kao i njegovim projektovanjem.

Na prostoru pod nazivom Otvoreni prostor 03, na osnovu iskazanih želja građana, studenti su predvidjeli inkluzivno višeosjetilno igralište za djecu sa posebnim potrebama. Igralište je postavljeno na mjestu dosta manjeg, postojećeg, klasičnog igrališta, čija je funkcija dopunjena dodatnom namjenski projektovanom opremom koja je dizajnirana prema postojećim standardima vezanim za specifičnost teme.

has been added adjacent to it. Considering that the current access to the monument is achieved solely by moving through the green area of the park, an additional path is planned to make it more accessible.

In addition to the monument, the existing pentaquin court in the park has been preserved. Considering it is pretty worn-out and unfinished, several interventions related to the pentaquin court are planned, such as adding benches for reserve players beside the court, separating the stands one meter from the court, installing a 150 cm high fence at the head of the court; placing suitable soft flooring for pentaquin (to prevent injuries); aligning the existing stands with current standards. These proposals aim to ensure excellent safety during pentaquin playing and create the possibility of gathering a more significant number of users. In addition to the above, a scenario for covering the pentaquin court is envisaged to provide shade necessary for its use during hot summer days. In earlier project intervention variations, students also envisioned chess tables, but citizens rejected this option, considering the space needed to be more developed by the students.

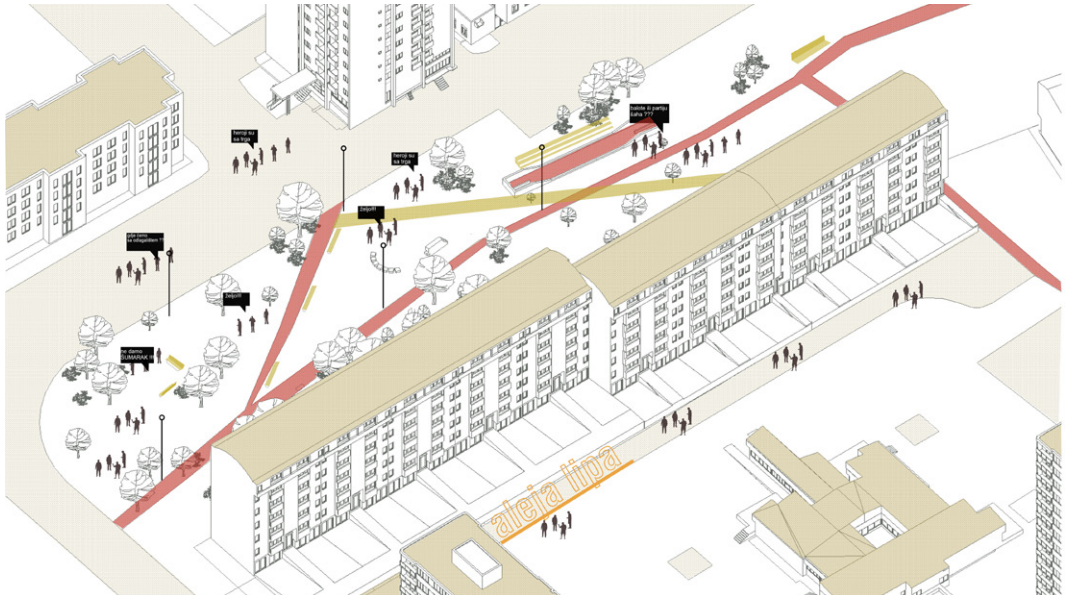
In the zone named Open Space 02, based on the expressed desires of the citizens, the students envisioned creating a dog park. The park is planned as an area enclosed by a 150 cm high fence, within which dedicated furniture for dog training and play is to be installed, along with standard amenities such as benches, lighting, trash cans, and bicycle parking. As part of this intervention, the relocation of waste containers to another, more convenient, and accessible location was planned. Students also researched the design of park furniture for dogs and carried out its design.

In the area called Open Space 03, based on citizens' wishes, students envisaged an inclusive multisensory playground for children with special needs. The playground was set up in the place of a much smaller, existing, traditional playground, whose function was supplemented with additional purpose-designed equipment designed according to existing standards related to the specificity of the theme. When planning, students considered the materialization of the space, children's safety, accessibility, and attractiveness of the area. The main goal of the intervention was to

Prilikom projektovanja, studenti su vodili računa o materijalizaciji prostora, sigurnosti djece, pristupačnosti i atraktivnosti prostora. Osnovni cilj intervencije je bilo stvaranje prostora u kojem je interakcija unutar zajednice olakšana, u kojem se stimuliraju fizičke, senzorne i socijalne vještine, pobuđuju kreativnosti i mašta, i putem kojeg se djeca animiraju da koriste otvorene gradske površine.

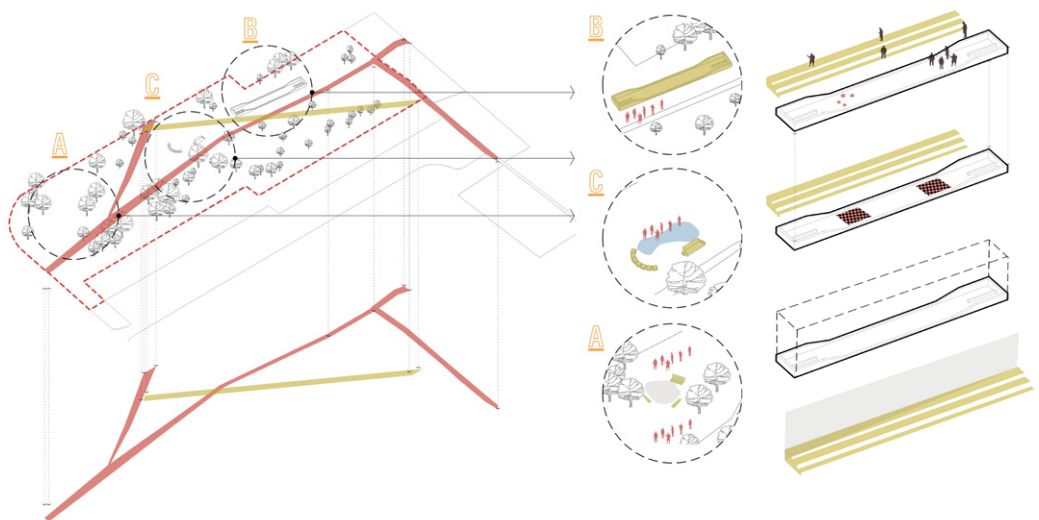
create a space that facilitates interaction within the community, stimulates physical, sensory, and social skills, encourages creativity and imagination, and encourages children to use open urban spaces.

In line with these ambitions, students also worked on adapting the interior of a neglected indoor space on the ground floor of one of the



Ilustracija 9. Aksonometrijski prikaz varijante rješenja za zonu "Otvoreni prostor_01". Izvor: Studenti AZ 22/23.

Figure 9. Axonometric representation of solution variant for zone "Open space_01". Source: Students AZ 22/23.



Ilustracija 10. Dijagramsko pojašnjenje varijante rješenja za zonu "Otvoreni prostor_01". Izvor: Studenti AZ 22/23.

Figure 10. Diagrammatic explanation of the solution variant for the "Open Space_01" zone. Source: Students AZ 22/2.

Na tragu navedenih ambicija, studenti su se bavili i adaptacijom enterijera zapuštenog zatvorenog prostora koji se nalazi na visokom prizemlju jednog od nebodera na Trgu Heroja, sa namjerom da se isti pretvori u javni prostor za mlade. Osnovni namjera intervencije ogledala se u ideji da se stvori atraktivan, multifunkcionalni grijani prostor koji bi omogućio okupljanje mladih kontinuirano tokom godine, a naročito u kišnim i hladnim periodima kada je korištenje vanjskog prostora ograničeno lošim vremenskim uslovima. Prostor je projektovan kao format koji može udomiti nekoliko različitih scenarija korištenja, kao što su: prostor za rad; radionica/maketarnica; prostor za predavanja, te kao prostor za opuštenu druženje. Navedena raznolikost scenarija je stvorena korištenjem modularnih elemenata opreme, čijim se sklapanjem, skladištenjem i premještanjem dobijaju različite mogućnosti korištenja prostora.

Na sličan način je predložena intervencija u napuštenom prostoru u ulici Porodice Ribar, koji je procesu projektovanja namijenjen korištenju od strane penzionera, obzirom da je u procesu dijaloga od strane građana iskazana potreba za njim. Prostor je projektovan prije svega kao prostor za boravak, odmor, druženje i razgovore građana starije starosne dobi. Fleksibilnost prostora u smislu formiranja mogućnosti za odvijanje različitih scenarija korištenja u ovom slučaju nije bila fokus projektnog zadatka. Studenti su nastojali stvoriti prije svega ugodan prostor za boravak, vodeći se različitim referentnim primjerima prostora slične namjene širom svijeta.

Zaključak

Participacija građana u prostornom djelovanju ključna komponenta savremenog urbanog planiranja i arhitekture. Kroz historiju se participacija razvijala kao odgovor na promjene u socijalnom, političkom i ekonomskom okruženju, a danas se smatra neizostavnim dijelom demokratskog procesa u oblikovanju zajedničkih prostora. Kroz studijski primjer opisan u tekstu, vidimo kako su studenti arhitekture koristili različite metode i alate kako bi omogućili aktivno uključivanje građana u planiranje i oblikovanje prostora. Kroz organizaciju građanskih panela, istraživanje potreba korisnika, analize društvenog konteksta i transparentnu komunikaciju, studenti su uspješno integrirali participativni pristup

skyscrapers on Heroes' Square to turn it into a public space for young people. The primary purpose of the intervention was to create an attractive, multifunctional heated space that would enable young people to gather continuously throughout the year, especially in rainy and cold periods when poor weather conditions limit the use of outdoor space. The space was designed as a format that could accommodate several different usage scenarios, such as workspace, workshop/studio, lecture space, and as a space for casual socializing. This diversity of scenarios was created using modular equipment elements, which provide various possibilities for space utilization when assembled, stored, and moved.

Similarly, an intervention was proposed in an abandoned space on Porodice Ribar Street, intended for use by pensioners, as expressed by citizens during the dialogue process. The space was primarily designed for relaxation, socializing, and conversations for senior citizens. The flexibility of the space in terms of forming possibilities for different usage scenarios was different from the focus of the project task in this case. Students aimed to create a pleasant space for relaxation, drawing on various reference examples of spaces with similar purposes worldwide.

Conclusion

Citizen participation in spatial action is crucial to contemporary urban planning and architecture. Throughout history, participation has evolved in response to changes in social, political, and economic environments, and today, it is considered an essential part of the democratic process in shaping shared spaces. Through a case study described in the text, we see how architecture students used various methods and tools to enable active citizen involvement in planning and shaping space. Students successfully integrated a participatory approach into the design process by organizing citizen panels, researching user needs, analyzing social context, and transparent communication. The examples of specific architectural solutions cited demonstrate how citizen participation has created spatial interventions that meet the real needs and desires of the local community. Through dialogue, problem and idea mapping, and iterative solution development, students have demonstrated the importance of

u proces dizajniranja. Navedeni primjeri konkretnih arhitektonskih rješenja pokazuju kako je participacija građana rezultirala stvaranjem prostornih intervencija koje odgovaraju stvarnim potrebama i željama lokalne zajednice. Kroz proces dijaloga, mapiranja problema i ideja te iterativnog razvoja rješenja, studenti su demonstrirali važnost saradnje između stručnjaka i građana u stvaranju održivih i inkluzivnih urbanističkih projekata.

Uključivanje u nastavu arhitektonskog studija sa participacijom građana je nosilo dosta izazova, ali se može zaključiti da je projekat „NOVI! heroji Trga“ uspješno implementiran zahvaljujući timu studenata, lokalne zajednice, nastavnika, mnogobrojnih gostujućih predavača i općine, te njihovoj međusobnoj komunikaciji i angažmanu. Unatoč preprekama nepoznavanja metodologije, studenti su pokazali zainteresiranost, angažman, suradnju i otvorenost, što je doprinijelo izvanrednom napretku i uspješnoj međusobnoj komunikaciji i saradnji sa lokalnom zajednicom. Sudionici građanskih panela, uprava Mjesne zajednice Trg Heroja, članovi kolektiva Općine Novo Sarajevo su prepoznali važnost njihovog doprinosa i aktivnog učešća u procesu, što je rezultiralo uspješnom implementacijom participacije u arhitektonskim projektima i stvaranjem prostora koji odražava potrebe i želje zajednice. U konačnici, participacija građana u prostornom djelovanju ne samo da omogućava bolje iskorištavanje resursa i planiranje održivih gradova, već i jača osjećaj pripadnosti i odgovornosti prema zajednici, stvarajući prostor u kojem svaki pojedinac ima priliku doprinijeti i oblikovati svoje okruženje prema vlastitim potrebama i vrijednostima.

collaboration between experts and citizens in creating sustainable and inclusive urban projects.

Involving citizen participation in architectural education posed many challenges, but it can be concluded that the NOVI! Heroes of the Square project was successfully implemented thanks to the teamwork of students, the local community, teachers, numerous visiting lecturers, and the municipality and their mutual communication and engagement. Despite the obstacles of unfamiliar methodology, students showed interest, engagement, collaboration, and openness, contributing to extraordinary progress and successful communication and collaboration with the local community. Participants in citizen panels, the administration of the Heroes' Square Community, and members of the Novo Sarajevo Municipality collective recognized the importance of their contribution and active participation in the process, resulting in the successful implementation of user participation in architectural projects and the creation of spaces that reflect the needs and desires of the community. Citizen participation in spatial action enables better use of resources and planning for sustainable cities. It strengthens a sense of belonging and responsibility to the community, creating a space where individuals can contribute to and shape their environment according to their needs and values.

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Novi prostori za rekreaciju

NOVI! PROSTORI ZA REKREACIJU

ass. Andrea Pavlović

asistentica, Univerzitet u Sarajevu - Arhitektonski fakultet
teaching assistant, University of Sarajevo - Faculty of Architecture

doc. dr. Nasiha Pozder

docentica, Univerzitet u Sarajevu - Arhitektonski fakultet
assistant professor, University of Sarajevo - Faculty of Architecture

Stvaranje sveobuhvatne baze podataka postojećih uslova, te izvođenjem simulacije pritisaka i stanja na projektovane sadržaje, omogućilo je detaljan i činjenično zasnovan uvid u potrebe za rekonstrukcijom urbanog prostora unutar posmatrane matrice, čime je otvoreno posljednje i završno poglavlje u istraživačkom postupku koji vođen na predmetima Katedre za urbanizam i prostorno planiranje.

Kroz apsorpciju znanja, prethodni rad na terenu, dopunjavanje i obnovu GIS baze podataka, upoznavanje sa alatima korištenja GIS-a, uspostavljen je metodološki okvir daljnjeg djelovanja u okviru projekta Novo!Novo Sarajevo. Otvoreni i javni prostori koji su u istraživanjima prethodnih predmeta odabrani kao interesantni i prioritetni za daljnje aktivnosti i rekonstrukciju, ponovo se preispituju kroz predmet Rekreacija i slobodno vrijeme, ovog puta u novom kontekstu i sa mnogo više podataka i akumuliranog znanja, kao posljedica reakcije društva na planirana i predložena rješenja.

Rekreacija i slobodno vrijeme

Cilj predmeta/studija, bio je projektovanje novih sadržaja i prostornih odnosa na odabranim lokalitetima, u skladu sa zaključcima cjelokupnog projekta. U to ime, odabrano je nekoliko lokacija na kojim je izrađen urbanistički projekat, a koje su iskazale najveći stepen potrebe intervencija. Od pet lokacija, jedna je obrađivana detaljno i na predmetu Arhitektura zajedništva, čime je uspostavljena saradnja ne samo između predmeta, već i različitih katedri, što je dozvolilo mnogo dublje sagledavanje problematike i potreba stanovnika i korisnika prostora društvene dobrobiti. Naime, predmeti

New recreational spaces

NEW! RECREATIONAL SPACES

The creation of a comprehensive database of existing conditions and the simulation of pressures and conditions on the projected contents enabled a detailed and fact-based insight into the needs for the reconstruction of urban space within the observed matrix, which opened the last and final chapter in the research process conducted about the Department of urbanism and spatial planning.

Through the absorption of knowledge, previous work in the field, addition and renewal of the GIS database, and familiarization with GIS tools, a methodological framework for further action within the project "Novo!Novo Sarajevo" was established. Open and public spaces, which were selected as interesting and prioritized for further activities and reconstruction in the research of previous subjects, are re-examined through the subject Recreation and free time, this time in a new context and with much more data and accumulated knowledge, because of society's reaction to planned and proposed solutions.

Recreation and free time

The course/studies aimed to design new contents and spatial relationships in the selected localities based on the conclusions of the overall project. Several locations where the urban project was developed were selected and showed the highest degree of need for interventions. Of the five locations, one was covered in detail in the Architecture of Community subject, which established cooperation between subjects and different departments, allowing for a much deeper insight into the issues and needs of residents and users of social welfare spaces. Namely,



Ilustracija 1. Odabrane lokacije unutar prostora Trg Heroja i Grbavica II. Izvor: Digitalni arhiv Arhitektonskog fakulteta Univerziteta u Sarajevu.

Figure 1. Selected locations within Heroes' Square and Grbavica II. Source: Digital archive of the Faculty of Architecture, University of Sarajevo.

u okviru projekta, a koji se bave participacijom, omogućili su anketiranjem uvid u stav krajnjih korisnika, što je neprocjenjivo važan podatak u procesu stvaranja prostora koji služe javnosti i lokalnoj zajednici.

Na osnovu tih saznanja, finalnim predmetom u okviru projekta, a iz iste porodice predmeta Katedre za urbanizam, mogle su se upotrijebiti sve vještine prethodno savladane u projektu i ponuditi novi identiteti i onim cjelinama koje možda na početku nisu bile posmatrane kao tačke fokusa. Ovo podrazumijeva projektovanje novih sadržaja i prostornih odnosa na odabranim lokalitetima, a u skladu sa zaključcima cjelokupnog projekta. Ekperimentalni procesi i do sada neprimjenjivani alati u projektovanju i planiranju prostora, omogućili su prenos i diseminaciju znanja i informacija i na participante koji prethodno nisu bili dijelom projekta, što se smatra

the courses within the project, which deal with participation, provided an insight into the attitude of the end users through surveys, which is invaluable information in creating spaces that serve the public and the local community.

Based on these findings, the final subject within the project, from the same family of subjects of the Department of Urbanism, could use all the skills previously mastered in the project and offer new identities to those entities that may not have been seen as focal points at the beginning. This implies the design of new contents and spatial relationships in selected localities by the conclusions of the overall project. Experimental processes and hitherto unapplied tools in design and space planning enabled the transfer and dissemination of knowledge and information to participants who were not previously part of the project, which is considered an excellent indicator of the usefulness and applicability of project methods.

Databases and simulations performed on previous subjects that dealt with space were sufficient for understanding the dynamics of the observed whole and forming a wide range of expected interventions in public space,

izvršnim pokazateljem korisnosti i primjenjivosti projektnih metoda.

Baze podataka i simulacije koje su izvedene na prethodnim predmetima koji su se bavili prostorom, bili su dovoljni za razumijevanje dinamike posmatrane cjeline i formiranje širokog raspona očekivanih intervencija u javnom prostoru, koje su na vrlo senzibilan način odgovorile na problematiku i ponudile lokalnoj zajednici alate za daljnje djelovanje. Dodatno, prostori su sada razmatrani i u kontekstu postojeće planske dokumentacije, ukoliko je takva prisutna, koja je konsultovana i kritikovana od strane studenata. Regulacioni planovi na snazi, a kada se na njima planirana rješenja primijene zaključci koji su prethodili u okviru istraživanja, ne pokazuju puno razumijevanje parametara koji utiču na sam odabir lokacija prostora društvene dobrobiti, kao i na njihovu formaciju, sadržaj i opremljenost, što je vidljivo i u eksploataciji prostora od strane korisnika, koja nije na zadovoljavajućem nivou. Na ovaj način se utvrđuje i uzročno-posljedična veza između planske, ali ne i svim potrebnim parametrima uslovljene izgradnje prostora društvene dobrobiti, te uspješnosti njihovog korištenja, što je jedan od ciljeva istraživanja.

Odabrane lokacije se mogu posmatrati kroz dvije tipologije: 1. zasebni prostori bez ponavljanja unutar matičnog urbanog tkiva Novog Sarajeva (Šareni park, Inkluzivno igralište na Trgu Heroja, park Grbavica - Kavez), te 2. tipološki prostori igrališta između blokova, koji se ponavljaju unutar matičnog urbanog tkiva Novog Sarajeva. Tri projekta su se bavila tipologijom 1, dok su dva projekta odgovorila na problematiku tipologije 2.

Projekat Inkluzivnog igrališta bavi se prostorom unutar MZ Trg Heroja, a na kojem su iskazane potrebe formiranja inkluzivnog prostora za sve stanovnike naselja. Zamišljeno kao neograđena, otvorena i fleksibilna površina, koja svoj zaštitni pojas uma u vidu objekata između kojih se smješta i postojećeg i planiranog rastinja, inkluzivni park je mjesto aktivnosti i živosti, prilagođeno i najranjivijim skupinama korisnika. Kroz senzornu igru, djeca uključuju svoja osjetila i otkrivaju svijet mašte na nov način. Projekat je zasnovan na elementima rada sa budućim korisnicima, istraživanjima i anketiranjima javnog mišljenja, te mjerenjima izvršenim na terenu, a koja su otkrila prostore

which responded to the issue very sensitively and offered the local community tools for further impact. In addition, the spaces are now considered in the context of the existing planning documentation, if such is present, which was consulted and criticized by the students. Regulatory plans in force, and when the solutions planned for them are applied to the conclusions that preceded in the framework of the research, they do not show a full understanding of the parameters that influence the very selection of the locations of social welfare spaces, as well as their formation, content and equipment, which is also visible in exploitation of space by users, which is not at a satisfactory level. In this way, the cause-and-effect relationship between the planned, but not with all the necessary parameters, conditional construction of social welfare spaces, and the success of their use, is established, which is one of the goals of the research.

The selected locations can be viewed through two typologies: 1. Separate spaces without repetition within the original urban fabric of Novo Sarajevo (Colorful et al. on Heroes' Square, Park Grbavica - Cage) and, 2. Typological playground spaces between blocks are repeated within the original urban fabric of Novo Sarajevo. Three projects dealt with Typology 1, while two projects responded to the issues of Typology 2.

The Inclusive Playground project deals with the space within Heroes' Square Community, where the need to create an inclusive space for all settlement residents was expressed. Conceived as an unfenced, open, and flexible area that has a protective belt in the form of buildings between existing and planned vegetation, the inclusive park is a place of activity and liveliness adapted to the most vulnerable groups of users. Through sensory play, children engage their senses and discover the world of imagination in a new way.

The project is based on elements of work with future users, research and polling of public opinion, and measurements carried out in the field, which revealed areas that need to be looked at from the microclimate aspect and responded to adequately with a project solution.

The Grbavica Park - Cage project deals with the inert, microclimate- and content-burdened



Ilustracija 2. Projekat Inkluzivnog igrališta, Trg Heroja. Izvor: Studentski rad.

Figure 2. Inclusive Playground Project, Heroes' Square. Source: Student paper.

koje je potrebno sagledati i sa mikroklimatskog aspekta i na njih adekvatno projektnim rješenjem i odgovoriti.

Projekat Parka Grbavica – Kavez, bavi se inertnim, te mikroklimatski i sadržajno opterećenim prostorom parka kod OŠ Grbavica II i Centra za mlade na Grbavici. Kroz prepoznavanje kvaliteta postojećeg stanja, ali

space of the park near Grbavica II Primary School and the Grbavica Youth Center. Through recognition of the quality of the existing state, but also of necessary changes, the project reconstructs the space and replaces it with new, year-round contents, which are adaptable and properly located, to reduce the negative microclimatic aspects. The reduced activity of the space in its current state is a consequence

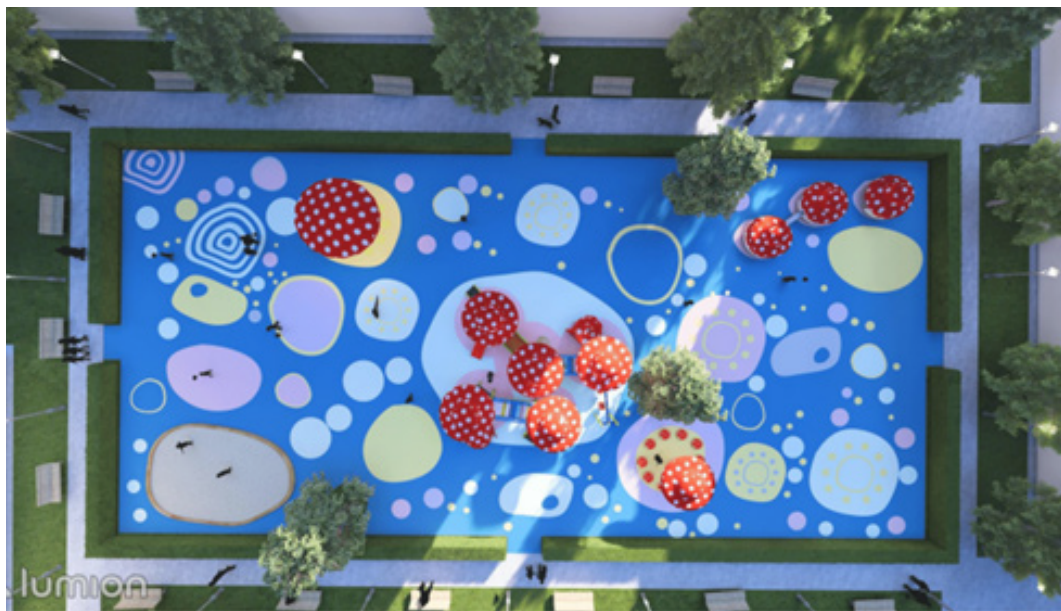


Ilustracija 3. Projekat Parka Grbavica – Kavez. Izvor: Studentski rad.

Figure 3. Grbavica Park Project - Cage. Source: Student paper.

i neophodnih izmjena, projektom se prostor rekonstruiše i zamjenjuje novim, cjelogodišnjim sadržajima, koji su adaptibilni i pravilno locirani, kako bi se umanjili negativni mikroklimatski aspekti. Smanjena aktivnost prostora u trenutnom stanju je posljedica pozicioniranja sadržaja, što se novim rješenjem mijenja i prilagođava uslovima na terenu. Prijedlog novog rješenja uzima u obzir tri ključna faktora:

of the positioning of the content, which is changed and adapted to the conditions on the ground with the new solution. The proposal for a new solution considers three key factors: the response to mixed impacts, the need to preserve greenery, and the introduction of new attractions.



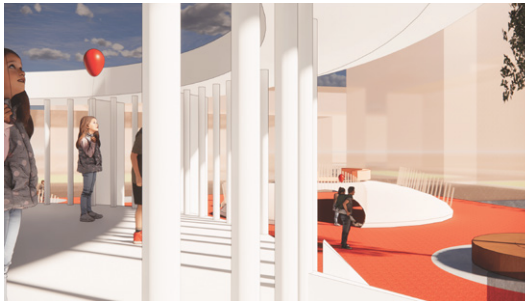
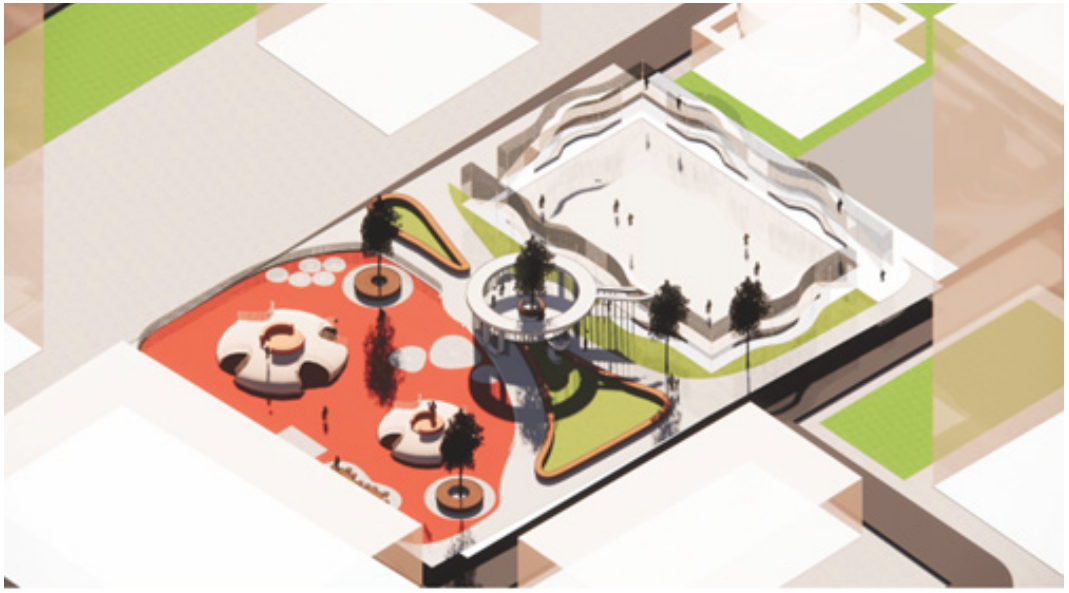
Ilustracija 4. Projekat igrališta Šareni park, Trg Heroja. Izvor: Studentski rad.

Figure 4. Colorful Park Project, Heroes' Square. Source: Student paper.

odgovor na mješovite utjecaje, potrebu očuvanja zelenila, te uvođenje novih atrakcija.

Projekat igrališta Šareni park na Trgu Heroja, kao i tipska igrališta u naseljima Hrasno i Grbavica II, na jednako dobar način pristupaju problematici uočenih prostornih, funkcionalnih, estetskih i mikroklimatskim problema, te svaki sa svog aspekta i polazišta, odgovara na zadati problem.

The Colorful Park playground project on Heroes' Square, as well as typical playgrounds in the Hrasno and Grbavica II settlements, approach the perceived spatial, functional, aesthetic and microclimatic problems in an equally good way, and each from its own aspect and starting point, responds to the given problem.



Ilustracija 5. Projekat igrališta Šareni park, Trg Heroja. Izvor: Studentski rad.

Figure 5. Colorful Park Project, Heroes' Square. Source: Student paper.



Zaključak

Projekti koji su tretirali otvorene javne prostore, odnosno, prostore društvene dobrobiti, uspostavili su novi metodološki okvir planiranja korištenja prostora u Novom Sarajevu. Polazeći od problema nedefinisanosti sadržaja ove tipologije, uspostavljajući sveobuhvatnu analitičku i simulacijsku sliku, a koja služi za dubinsko shvatanje „genetskog koda“ razvoja Novog Sarajeva, pa sve kroz selekciju prioritarnih zahvata sa ciljem poboljšanja života korisnika i posjetilaca, i na posljertku kroz finalizaciju detaljnih projekata, sa okvirnim troškovima izvođenja, lokalna zajednica je dobila izuzetno važnu polaznu osnovu za obnovu i rekonstrukciju prostora jedne od najvažnijih i najprepoznatljivijih gradskih cjelina. Zbog navedenog, projekat se može smatrati novim protokolom, u kojem svi uključeni u procese planiranja, izgradnje i korištenja prostora, zauzimaju važnu ulogu, te iako su zahvati koji se predlažu apsolutno poznati i vidljivi, pozadina istraživanja i sinteza principa i metoda korištenih u procesima, može se u okvirima grada Sarajeva smatrati novom metodologijom i paradigmom.

Conclusion

The development of open public spaces that provide social welfare has brought about a new methodological framework for thinking and planning the use of space in Novo Sarajevo. A comprehensive analytical and simulation picture was created to address the issue of the undefined content of this typology. This provides an in-depth understanding of the “genetic code” of the development of Novo Sarajevo. The projects prioritized procedures to enhance the lives of users and visitors, considering their needs and well-being. The finalization of detailed projects with approximate execution costs provided the local community with a critical starting point for the renovation and reconstruction of the space of one of the most important and recognizable city units. Because of the forementioned, the project can be considered a new protocol, in which everyone involved in the processes of planning, construction and use of the space, plays an important role, and although the interventions that are proposed are absolutely known and visible, the background of the research and the synthesis of the principles and methods used in the processes, can be considered a new methodology and paradigm within the framework of the city of Sarajevo.



Komercijalni objekti

NOVA!

TRŽNICA HRASNO

prof. dr. Nermina Zagora

vanredna profesorica, Univerzitet u Sarajevu - Arhitektonski fakultet

associate professor, University of Sarajevo - Faculty of Architecture

Arhitektura savremenih tržnica

Iako su nerijetko u sjeni reprezentativnih javnih objekata namijenjenih kuturi, obrazovanju i upravi, gradske tržnice, marketi i pijace predstavljaju značajna arhitektonska i urbanistička obilježja i centralna mjesta okupljanja stanovnika i posjetilaca u mnogim svjetskim gradovima. Bilo da se radi o tradicionalnim ili savremenim, zatvorenim ili otvorenim prostorima u različitim urbanim sredinama, pored primarne namjene koja podrazumijeva trgovačke aktivnosti, posebna uloga tržnica se, kako u prošlosti tako i danas, ogleda u generiranju socijalne kohezije i urbanog života lokalne zajednice i grada. Tradicionalni marketi kao što su La Boqueria u Barceloni, Plečnikova tržnica u Ljubljani, Les Halles u Parizu, Naschmarkt u Beču, te savreneni primjeri kao što su Time Out Market u Lisabonu, Besiktas Market u Istanbulu, Santa Catarina i Encants u Barceloni, Tržnica u Vodice, Torvehallerne u Kopenhagenu i drugi, predstavljaju vrijedna arhitektonsko-urbanistička rješenja koja su postala prepoznatljivi javni prostori i urbani reperi kulturnog i gastro-turizma.

Neovisno o razvoju novih komercijalnih objekata kao što su šoping centri, super marketi, hipermarketi, outleți i digitalna prodaja, i uprkos povremenim padovima njihove popularnosti u postindustrijskom društvu, tradicionalne tržnice sa ponudom lokalnih proizvoda su opstale kao suverena arhitektonska tipologija, zbog toga što je nijedan drugi format ne može vjerodostojno zamijeniti, jer „omogućava kupcima da direktno razgovaraju sa proizvođačima hrane. Obzirom na rastuću industrijalizaciju proizvodnje hrane i depersonalizaciju njene prodaje, bliski (međuljudski) odnos sve više dobija na značaju“ (Tomlinson & Planas, 2018). Pored hrane, u tržnicama širom svijeta se prodaju antikviteti,

Commercial buildings

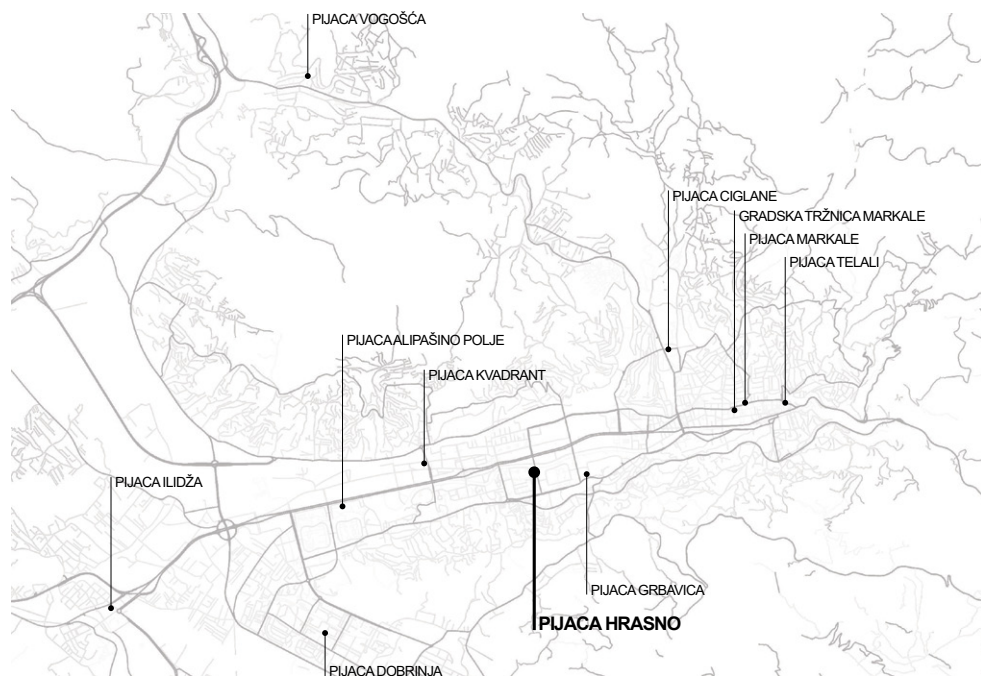
NEW!

HRASNO MARKET

Architecture of Modern Markets

Although often overshadowed by representative public buildings intended for culture, education, and administration, urban markets and bazaars are characterized by significant architectural and urban features and represent central gathering places for residents and visitors in many cities worldwide. Whether traditional or contemporary, enclosed or open spaces in various urban environments, in addition to their primary purpose of facilitating trade activities, the unique role of markets, both in the past and today, lies in generating social cohesion and urban life within the local community and the city. Traditional markets such as La Boqueria in Barcelona, Plečnik's market in Ljubljana, Les Halles in Paris, Naschmarkt in Vienna, as well as contemporary examples such as Time Out Market in Lisbon, Besiktas Market in Istanbul, Santa Catarina and Encants in Barcelona, Vodice Market, Torvehallerne in Copenhagen, and others, represent valuable architectural and urban sites that have become recognizable public spaces and urban landmarks of cultural and gastro-tourism.

Regardless of the development of new commercial objects such as shopping centers, supermarkets, hypermarkets, outlets, and digital sales, and despite occasional declines in their popularity in post-industrial society, traditional markets offering local products have persisted as a sovereign architectural typology because no other format can credibly replace them, as “they allow customers to communicate with food producers directly. Given the growing industrialization of food production and depersonalization of its sale, close (interpersonal) relationships are increasingly gaining importance” (Tomlinson & Planas, 2018). In addition to food, markets around the world sell antiques, books, clothing, flowers, and other



Ilustracija 1. Mapa lokacija tržnica u Kantonu Sarajevo. Izvor: Autor.

Figure 1. Map of market locations in the Sarajevo Canton. Source: Author.

knjige, odjeća, cvijeće, i drugi artikli koji evociraju nostalgiju i na taj način izdvajaju ovakve prostore od drugih arhitektonskih komercijalnih tipologija, a naročito od sve popularnije internet kupovine. Nadalje, revitalizacija gradskih tržnica se primjenjuje u strategijama urbanih transformacija historijskih jezgri zapadnoevropskih gradova kao mjera otpora gentrifikaciji (Wilkinson, 2018).

Uporedo sa sagledavanjem savremenih tendencija i evolucije arhitekture tržnica u urbanim sredinama širom svijeta, potrebno je kontekstualizirati trenutni status, ulogu i značaj postojećih tržnica u urbanoj strukturi Sarajeva. Nadalje, potrebno je istražiti načine njihove moguće redefinicije u sinergiji sa javnim prostorima, u službi urbane regeneracije njihovog užeg i šireg okruženja. Na području Kantona Sarajevo danas postoji 11 gradskih tržnica i pijaca (Ilustracija 1), kojima upravlja javno preduzeće KJKP „Tržnice“. Najstarija tržnica Markale, čije je ime izvedenica iz izvornog naziva projekta „Markthalle für Sarajevo“, izgrađena je 1895. godine, a 2008. godine ovaj objekat je proglašen nacionalnim spomenikom Bosne i Hercegovine (Komisija

items that evoke nostalgia, thus distinguishing such spaces from other architectural commercial typologies, especially from the increasingly popular internet shopping. Furthermore, the revitalization of urban markets is applied in strategies for the urban transformation of the historical cores of Western European cities as a measure against gentrification (Wilkinson, 2018).

In parallel with examining contemporary trends and the evolution of market architecture in urban environments worldwide, it is necessary to contextualize the current status, role, and significance of existing markets in the urban structure of Sarajevo. Furthermore, exploring ways of their possible redefinition in synergy with public spaces is essential, serving the urban regeneration of their immediate and broader surroundings. Today, the Sarajevo Canton area has 11 city markets and bazaars (Figure 2. a) managed by the public enterprise KJKP “Markets.” The oldest market, Markale, whose name is derived from the original project name “Markthalle für Sarajevo,” was built in 1895. 2008 this facility was declared a national monument of Bosnia and Herzegovina

za očuvanje nacionalnih spomenika, 2008). U cjelokupnoj mreži gradskih tržnica, samo tržnica Markale, koja se nalazi u historijskoj jezgri Sarajeva, sačuvana je i aktivno se koristi u svom izvornom obliku, i posjeduje arhitektonske, ambijentalne i historijske vrijednosti. Ostale pijace se nalaze unutar stambenih naselja gradskih općina Stari Grad, Novo Sarajevo, Vogošća Novi Grad i Ilidža, i izgrađene u drugoj polovini 20. stoljeća, te osim tekućeg održavanja u proteklom periodu nisu bila predmetom strateških ulaganja u pogledu rekonstrukcije, transformacije i razvoja. Prepoznavajući njihov značaj za urbani život stambenih naselja u kojima se nalaze, predmetno istraživanje se stoga fokusira na potencijal arhitekture tržnica i pijaca sa pripadajućim javnim prostorima u službi urbane regeneracije njihovog neposrednog okruženja.

Analiza i vrednovanje lokacije

U okviru metodologije i prostornog obuhvata projekta "NOVO! Novo Sarajevo" analizirana je mikrolokacija Tržnice „Hrasno“. Istraživanje je provedeno u studiju "Savremeni prostorni koncepti, dizajn i prototip" u zimskom semestru 2022/23. i 2023/24. godine na Arhitektonskom fakultetu Univerziteta u Sarajevu. Nastava u studiju se sastojala iz niza predavanja i interdisciplinarnog, kolaborativnog rada na istraživačko-projektantskom zadatku koji povezuje naučno-nastavne oblasti arhitektonskog projektovanja, konstrukcija i fizike zgrade. U studiju su oba ciklusa učestvovala grupe od po 16 studenata I godine II ciklusa studija i nastavnici sa Katedre za arhitektonsko projektovanje i Katedre za arhitektonske konstrukcije i tehnologiju građenja, uz učešće gostujućih predavača i stručnjaka iz prakse.

U cilju sveobuhvatnog i neposrednog upoznavanja sa temama održive urbane regeneracije i reaktivacije javnih prostora, s jedne strane, te projektovanja savremenih tržnica, s druge strane, upriličena su *online* gostujuća predavanja eksperata iz oblasti urbanizma i zaštite kulturno-historijskog naslijeđa. Danski urbanista Jakob Matzen je predstavio uspješne projekte održivih urbanih transformacija iz Kopenhagena. Javni prostor „Superkilen“ (BIG Architects, 2011) je primjer primjene principa društvene inkluzije u urbanizmu, dok projekat stambenog naselja

(Commission for the Preservation of National Monuments, 2008). Within the overall network of city markets, only the Markale market, situated in the historic core of Sarajevo, has been preserved and actively used in its original form, possessing architectural, ambient, and historical values. Other markets are located within residential neighborhoods of the municipalities of Stari Grad, Novo Sarajevo, Vogošća Novi Grad, and Ilidža, built in the second half of the 20th century, and aside from routine maintenance, they have not been the subject of strategic investments regarding reconstruction, transformation, and development in the past period. Recognizing their significance for the urban life of the residential neighborhoods they are situated in, the current research focuses on the potential of market and bazaar architecture with their associated public spaces in the service of urban regeneration of their immediate surroundings.

Analysis and Evaluation of the Location

Within the methodology and spatial scope of the project "NOVO! Novo Sarajevo," the micro-location of the Hrasno Market was analyzed. The research was conducted as part of the design studio Contemporary Spatial Concepts, Design, and Prototypes in the winter semesters of 2022/23 and 2023/24 at the Faculty of Architecture, University of Sarajevo. The studio consisted of lectures and interdisciplinary, collaborative work on research-design tasks that connect the scientific-teaching areas of architectural design, construction, and building physics. Both studio cycles involved groups of 16 students each from the Bachelor and Master studies and teachers from the Department of Architectural Design and the Department of Architectural Constructions and Building Technology, with the participation of guest lecturers and experts from practice.

In order to comprehensively and directly acquaint participants with topics related to sustainable urban regeneration and the reactivation of public spaces on one hand, and the design of modern markets on the other hand, online guest lectures were organized featuring experts in urbanism and cultural-historical heritage conservation. Danish urbanist Jakob Matzen presented successful projects of sustainable urban transformations from Copenhagen. The public space "Superkilen"

„Climate quarters“ ilustruje alate koji pružaju otpor izazovima klimatskih promjena. Od posebnog značaja za temu studija, predstavljala je analiza urbane obnove „Israels Plads“ (Cobe Architects, 2011), javnog trga sa školskim igralištem smještenim na krovu podzemne garaže, kao i Toverhallerne (Hans Peter Hagens, 2011), uspješnog projekta gradske tržnice koji je proistekao iz građanske inicijative, a realiziran je u partnerstvu između privatnog sektora i gradskih vlasti. Dr. Nina Stevanović, arhitektica iz Sarajeva koja živi i radi u Barceloni, čiji fokus naučnog interesovanja je proučavanje koncepata zaštite arhitektonske baštine, govorila je o arhitekturi kao alatu koji može uticati na mikro i makro promjene u prostornom i društvenom kontekstu. Predstavljena su tri projekta obnove tržnica u Barceloni, koja su inicirala prostorne i društvene promjene: „Santa Caterina“, „Sant Antoni“ i „Born“.

Unatoč globalnoj proliferaciji *javnih enterijera* (Pimlott, 2016), kao dominantne tipologije idealiziranih, vještački kondicioniranih, zatvorenih prostora, koje simboliziraju tržni centri kao alternative tradicionalnim formama javnih prostora, u posljednje vrijeme ponovo dolazi do popularizacije tržnica (Wilkinson, 2018), kao univerzalnog, vibrantnog poluotvorenog-poluzatvorenog javnog prostora. Nadalje, uočava se globalno rasprostranjeni trend inkorporiranja i reinterpretiranja modela enterijera i ambijenta tržnice unutar savremenih komercijalnih centara i supermarketa, pa i aerodroma, poslovnih i obrazovnih objekata, u sinergiji sa gourmet restoranima. Istovremeno, u revitalizirane i novoizgrađene tržnice, uvode se ugostiteljski sadržaji poput *gourmet* i *street food* restorana, u kojima je moguće konzumirati svježe, domaće proizvode koji se prodaju na štandovima. Također, u savremenim primjerima se uočava tendencija osnaživanje tržnice kao centra društvenih aktivnosti kroz inkorporiranje

Studija referentnih primjera je ukazala na dijalog arhitekture savremenih tržnica sa svojim okruženjem, koje predstavljaju žarišta javnog života lokalne zajednice okolnih naselja koja im gravitiraju. Posmatrani prostor pijace Hrasno nalazi se u općini Novo Sarajevo, u blizini mosta Topal Osman Paše, na trasi III transferzale. Granica obuhvata na sjeveru uključuje zelenu površinu prema šetalištu Aleja Lipa kao i postojeće trgovke, na istoku graniči sa parcelom trafo-stanice, na jugu obuhvat

(BIG Architects, 2011) is an example of applying principles of social inclusion in urban planning, while the residential project “Climate Quarters” illustrates tools that resist the challenges of climate change. Of particular importance to the study theme was the analysis of urban renewal at “Israels Plads” (Cobe Architects, 2011), a public square with a school playground located on the roof of an underground garage, as well as Torvehallerne (Hans Peter Hagens, 2011), a successful market project stemming from civic initiative, realized through a partnership between the private sector and municipal authorities. Dr. Nina Stevanović, an architect from Sarajevo living and working in Barcelona, whose scientific focus is studying concepts of architectural heritage preservation, spoke about architecture as a tool that can influence micro and macro changes in spatial and social contexts. Three market renovation projects in Barcelona were presented, which initiated spatial and social changes: “Santa Caterina,” “Sant Antoni,” and “Born.”

Despite the global proliferation of public interiors (Pimlott, 2016), as the dominant typology of idealized, artificially conditioned, enclosed spaces, symbolized by shopping malls as alternatives to traditional forms of public spaces, there has been a resurgence in the popularity of markets (Wilkinson, 2018) as universal, vibrant semi-open-semi-closed public spaces. Furthermore, there is a globally recognized trend of incorporating and reinterpreting the market interior and atmosphere within contemporary commercial centers and supermarkets, as well as airports, business and educational facilities, in synergy with gourmet restaurants. At the same time, in revitalized and newly built markets, hospitality facilities such as gourmet and street food restaurants are introduced, where it is possible to consume fresh, locally sourced products sold at stalls. Additionally, contemporary examples demonstrate a trend of strengthening the market as a centre of social activities through the incorporation of cultural amenities, such as exhibition spaces, social, and educational centres (Tomlinson & Planas, 2018).

The case study has highlighted the dialogue between the architecture of modern markets and their surroundings, which serve as focal points of public life for the local community of surrounding neighbourhoods. The observed

graniči sa nadzemnim parkingom prema ulici Porodice Ribar, a na zapadu sa ulicom Aleja lipa. Ukupna površina obuhvata iznosi cca 4800 m². Predmetna parcela je pretežno ravna, sa denivelacijom cca 50 cm u dijelu pristupa pijaci sa sjeverne strane, odnosno iz pravca Aleje Lipa (Ilustracija 2). Na lokaciji se trenutno nalaze prizemni objekti sa trgovinama i skladištima „U“ forme, u čijem središtu se nalazi betonska površina-parking, dok se prema rijeci Miljacka nalazi zelena površina. Pješački pristup je omogućen sa sjeverne i djelomično sa zapadne strane, dok je stacionarni saobraćaj riješen u vidu nadzemnog parkinga na jugu. Pozicija pijace na uglu Aleje Lipa i ulice Topal Osman Paše, u neposrednoj blizini mosta, omogućava atraktivne vizure sa i prema lokaciji, što predstavlja značajan urbanističko-arhitektonski potencijal. U skladu sa važećom prostorno-planskom dokumentacijom (Regulacioni plan Hrasno I), na predmetnoj lokaciji je predviđena nova izgradnja objekta tražnice spratnosti P+2 sa podzemnom garažom.

Istraživačka faza rada u studiju, podrazumijevala je funkcionalnu analizu i mapiranje programskih sadržaja u okviru šireg obuhvata lokacije. Analiza užeg obuhvata zatečenog stanja na lokaciji se sastojala iz posmatranja i vrednovanja

area of the Hrasno market is located in the municipality of Novo Sarajevo, near the Topal Osman Paša Bridge, along the route of the III transversal road. The boundary of the area includes a green area towards the promenade Aleja Lipa and existing shops to the north, bordered to the east by the transformer station parcel, to the south by the above-ground parking lot facing Porodice Ribar Street, and to the west by Aleja Lipa Street. The total area of is approximately 4800 m². The observed site is mostly flat, with a slope of approximately 50 cm in the access area to the market from the north, or from the direction of Aleja Lipa (Figure 2). Currently, there are ground-floor buildings with shops and warehouses in a “U” shape, with a concrete surface parking lot in the center, while towards the Miljacka River, there is a green area. Pedestrian access is provided from the north and partially from the west, while vehicular traffic is accommodated by an above-ground parking lot to the south. The location of the market at the corner of Aleja Lipa and Topal Osman Paša Street, in the immediate vicinity of the bridge, allows for attractive views to and from the site, representing significant urban and architectural potential. In accordance with the current spatial planning documentation (Regulation Plan of Hrasno I), new construction

Ilustracija 2. (a) Katastarski plan lokacije pijace Hrasno. (b) Izvod iz Regulacionog plana Hrasno I, 2006. Izvor: Digitalni arhiv Općine Novo Sarajevo.

Figure 2. (a) Cadastral plan of the Hrasno market location. (b) Extract from the Regulatory Plan Hrasno I, 2006. Source: Digital Archive of the Municipality of Novo Sarajevo.





Ilustracija 2. (c) Fotografije postojećeg stanja pijace Hrasno. Izvor: Digitalni arhiv Općine Novo Sarajevo.

Figure 2. (c) Photographs of the current state of the Hrasno market. Source: Digital Archive of the Municipality of Novo Sarajevo.

saobraćajnog rješenja, pristupa i pješačkih komunikacija, te prirodnih i stvorenih uvjeta postojećeg stanja, u usporedbi sa važećom prostorno planskom dokumentacijom. Osim analize zatečenih prostorno-fizičkih aspekata postojećeg stanja, studenti su posmatrali sadržaje, dnevnu dinamiku aktivnosti i društvene parametre, te proveli anketu sa prolaznicima i individualne intervjue sa korisnicima prostora. Rezultati istraživanja, odnosno ankete koja je provedena u novembru 2023. godine na uzorku od 115 ispitanika, pokazuju da 73,9 % ispitanika povremeno posjećuje pijace u poređenju sa ostalim komercijalnim objektima, te da je najčešći period posjete pijaci vikend u jutarnjim satima (46,1% ispitanika), a zatim radnim danima u poslijepodnevnom terminu (19,1 %). Pored dominantno prodajnih sadržaja (zelena pijaca, prodaja mesa, mlijeka i sl.) i servisnih sadržaja, više od trećine ispitanika (32,2 %) je pozitivnim ocijenilo prisustvo ugostiteljskih sadržaja (cafe, restorani), zanatskih radnji i otvorenog javnog prostora (trga, parka).

U pogledu programiranja i funkcionalne organizacije, objekti tržnica objedinjuju više funkcija, a prije svega predstavljaju prostor za susret, razmjenu informacija i trgovinu, uz poštivanje zdravstvenih, sigurnosnih i higijenskih zahtjeva, i održivo tretiranje otpada. Uz prodajne, prateće servisne i komunikacione prostore, posebnu vrijednost savremenim tržnicama daju upravo ugostiteljski sadržaji, ali i društveni prostori, kao što su dječije igraonice,

of a market building with a ground floor plus two floors and an underground garage is planned at the observed site.

The research phase of the work in the studio involved functional analysis and mapping of programs within the broader context of the site. The analysis of the proximate surrounding of the existing conditions at the location consisted of observation and evaluation of traffic, access, and pedestrian communications, as well as natural and man-made structures at the existing state, compared to the current spatial planning documentation. In addition to analysis of the existing spatial-physical features, students studied program, daily dynamics of activities, and social parameters, and conducted a survey with passers-by and individual interviews with the market vendors. The research results show that 73.9% of respondents occasionally visit markets compared to other commercial facilities, and the most common period of visiting the market is weekends in the morning hours (46.1% of respondents), followed by weekdays in the afternoon (19.1%). In addition to predominantly sales areas (green market, meat, milk, etc.) and service facilities, more than a third of respondents (32.2%) positively rated the presence of hospitality facilities (cafes, restaurants), craft shops, and open public spaces (squares, parks).

In terms of program and functional organization, market facilities integrate multiple functions, primarily serving as spaces for gathering,

i prostori za kulturu (izložbe, društveni centri i slično). U provedenom istraživanju, građani su istakli značaj higijene, sigurnosti, kvalitetnog rješenja komunikacija, uređenje javnog prostora i mogućnost korištenja prostora tržnice u večernjim satima. Rezultati provedene ankete ističu dodatne vrijednosti koje savremena tržnica nudi u odnosu na ponudu u supermarketima i prodavnicama, šoping centrima, i to raznovrsnost, dostupnost svježih i kvalitetnih proizvoda zdrave hrane po dostupnim cijenama, kao i ugodan, siguran i higijeničan ambijent, vanjskih i unutrašnjih prostora koji podstiču socijalizaciju i interakciju.

Koncept NOVE! tržnice Hrasno

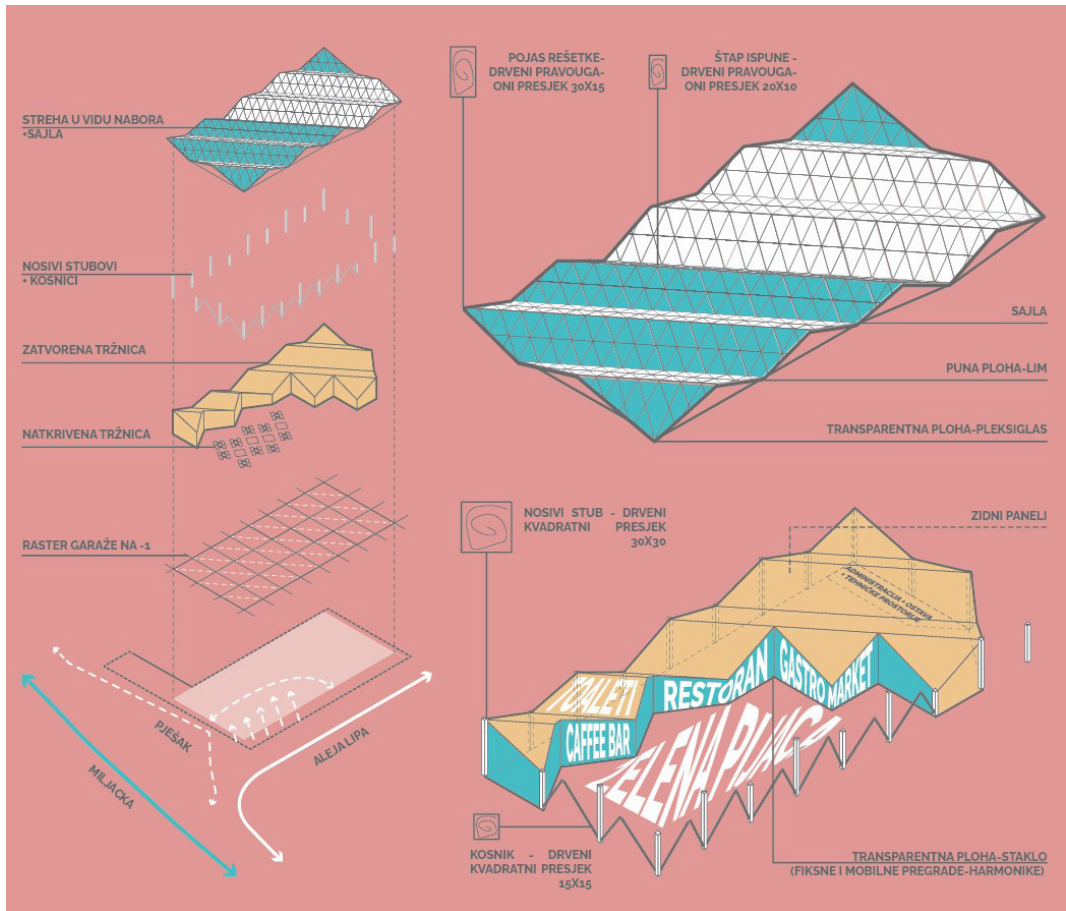
Istraživačka faza rezultirala je projektantskim smjernicama prema kojima je predmetnu lokaciju postojeće pijace Hrasno potrebno redefinirati i osmisliti kao savremeno i održivo urbanističko-arhitektonsko i dizajnersko rješenje zatvorenog objekta tržnice i otvorenog javnog prostora, koje će pored ekonomskih i ugostiteljskih aktivnosti, afirmirati socijalizaciju svih starosnih grupacija naselja i šire lokalne zajednice. Po završetku semestra, prezentirani su studentski projekti koji sadrže urbanističko rješenje lokacije, idejni arhitektonski projekat tržnice sa uređenjem pripadajuće javnog prostora i veze sa šetnicom Aleja lipa, idejno rješenje konstrukcije i materijalizacije i dizajn enterijera i koncept mobilnih prodajnih štandova. Iz urbanističko-arhitektonske analize lokacije i kritičkog osvrta na saobraćajno rješenje, proizašli su prijedlozi izmještanja kolskog pristupa-rampe budućej podzemnoj garaži sa sjeverozapadnog na jugozapadni dio lokacije, sa ciljem omogućavanja nesmetanog kretanja pješaka na sjevernom dijelu parcele, u pravcu sjever-istok i sjever-zapad, i povezivanju pristupnog trga i parka buduće tržnice sa Alejom lipa i Vilsonovim šetalištem (Ilustracija 3).

Dijalog otvorenog i zatvorenog prostora, predstavlja jednu od suštinskih tema koja se preispituje u genezi koncepta nove tržnice. Proces evolucije ideje su činila prostorna istraživanja odnosa mase i volumena, generiranje forme iznutra prema vani („unutrašnjost definiše spoljašnjost“ (Corbusier, 1931)), odnosno uspostavljanje korelacije otvorenog segmenta pijace i zatvorenog segmenta tržnice. Većinu projektantskih

information exchange, and trade, while adhering to health, safety, and hygiene requirements, and sustainable waste management. In addition to sales, supporting service, and communication spaces, contemporary markets derive special value from hospitality facilities, as well as social spaces such as children's play areas and cultural spaces (exhibitions, community centers, etc.). In the conducted research, citizens emphasized the importance of hygiene, safety, quality communication solutions, the design of public spaces, and the possibility of using market spaces in the evening hours. The results of the survey highlight additional values that modern markets offer compared to offerings in supermarkets and shops, shopping centers, namely diversity, availability of fresh and quality healthy food products at affordable prices, as well as a pleasant, safe, and hygienic environment, both outdoors and indoors, fostering socialization and interaction.

Concept of the NEW! Hrasno Market

The research phase has resulted in design guidelines according to which the existing Hrasno market location needs to be redefined as a contemporary and sustainable urban architectural and design concept for a closed market facility and an open public space. Besides economic and hospitality activities, this concept aims to promote socialization among all age groups within the neighborhood and the broader local community. At the end of the semester, student projects presented urban design concepts for the location, conceptual architectural design for the market with the corresponding public space and connection to the Aleja Lipa promenade, structural design and materialization, and interior design and concept of mobile sales stands. From the urban architectural analysis of the location and critical review of the traffic, proposals emerged for relocating the vehicular access ramps to the future underground garage from the northwest to the southwest part of the location. This aims to facilitate uninterrupted pedestrian movement on the northern part of the plot, towards the northeast and northwest, and to connect the access square and park of the future market with the Aleja Lipa and Vilson's Promenade. Dialogue between open and closed spaces represents one of the fundamental themes explored in the genesis of the new market concept. The evolution process of the idea



Ilustracija 3. Urbanističko-arhitektonsko rješenje nove tržnice Hrasno. (a) Studentski projekat: Fatima Zejnilagić i Nedžmija Torlić, 2022/23;

Figure 3. Isometric view of the structure and form of the market building. (a) Student project by Ehlimana Šaranović and Šejla Dizdarević, 2022/23;

rješenja nastala u toku dva semestra realizacije studija "Savremeni prostorni koncepti, dizajn i prototip" (2022/23. i 2023/24.), karakteriše prožimanje enterijera i eksterijera. Uvođenjem međuprostora, kao tranzicije između trga/parka, otvorene pijace i zatvorenog objekta tržnice (Ilustracija 5), ostvareno je povezivanje tri projektantska nivoa i mjerila: urbanističkog, arhitektonskog projektovanja i dizajna enterijera. Stoga se nova tržnica metaforički percipira kao „mali grad - veliki enterijer“, odnosno „grad u malom“ ili velika „urbana soba“ (Zagora & Šamić, 2021), i referiše na trijadu Louis Khana „soba-ulica-grad“, čiju poveznicu predstavlja ljudska interakcija (Kahn, 1973), odnosno društveni život zajednice u javnom prostoru.

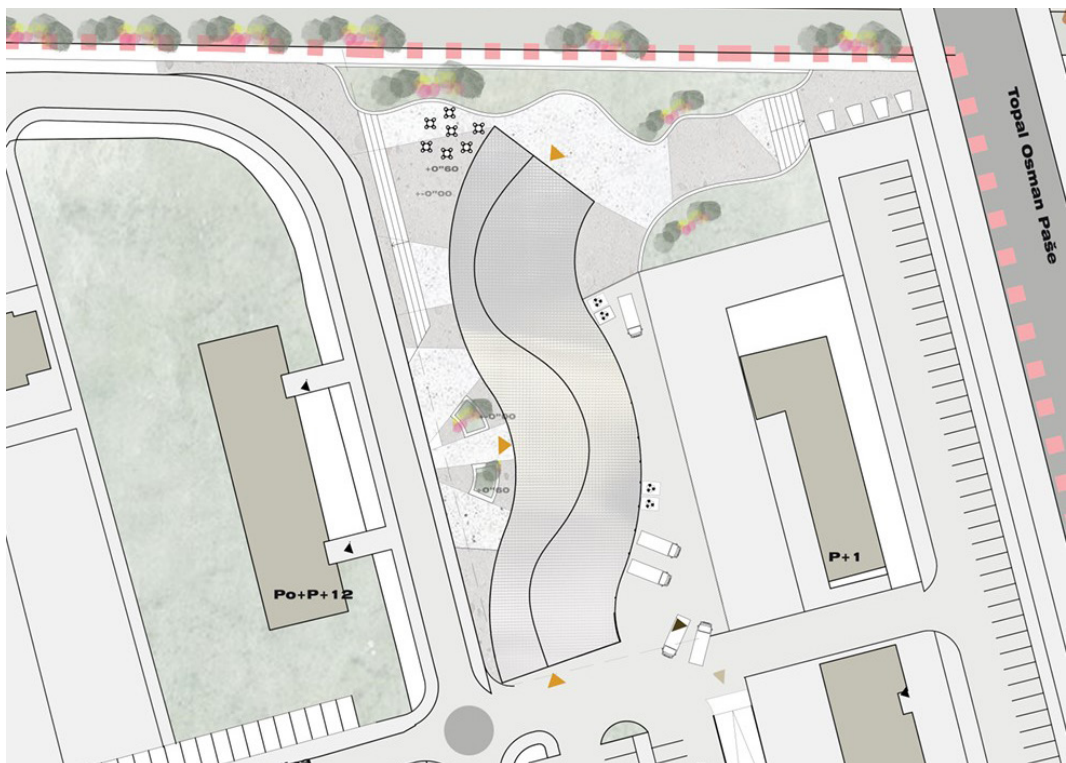
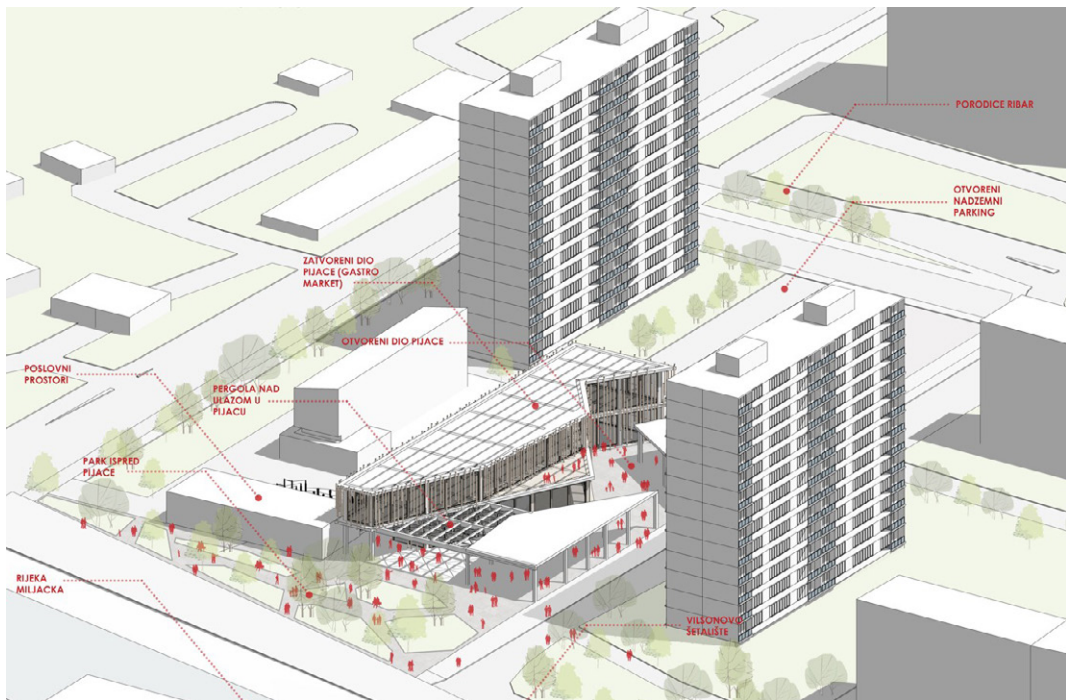
involved spatial investigations of mass and volume relationships, generating form from the inside out (“the interior defines the exterior” (Corbusier, 1931)), establishing a correlation between the open segment of the market square and the closed segment of the market building. Most of the design proposals produced during the two semesters of the Contemporary Spatial Concepts, Design, and Prototype studio (2022/23 and 2023/24) are characterized by integrating interior and exterior spaces. Introducing intermediate spaces as transitions between the square/park, open market, and closed market building (Figure 5) made a connection between three design levels and scales: urban planning, architectural design, and interior design. Therefore, the new market is metaphorically perceived as a “small city - large interior,” or a “city in miniature” or a large “urban room” (Zagora & Šamić, 2021), referencing Louis Kahn’s triad of “room-street-city,” linked by human interaction (Kahn, 1973), or the community’s social life in public space.

Struktura i forma. Obzirom da je Regulatornim planom „Hrasno I“ iz 2006. godine na predmetnoj lokaciji planirana podzemna garaža, koncepti nove tržnice sadrže projektantska i konstruktivna rješenja u kojima je integrisano rješenje stacionarnog saobraćaja, te su planirane pozicije pristupnih rampi, vertikalnih komunikacija i ekonomskih pristupa za snadbijevanje. Poseban projektantski i konstruktivni izazov predstavljalo je oblikovanje krova tržnice obzirom na mjerilo objekata iz okruženja, a zatim i pozicioniranje budućeg objekta prema izgrađenim strukturama na istočnoj granici parcele. Primjena prefabrikovanih, modularnih konstrukcija (Glulam, CLT, i LVL konstrukcije, čelične konstrukcije) omogućava premoštavanje velikih raspona i ostvarivanje potrebne visine tržnice, uz ostvarivanje prirodne ventilacije i osvetljenja prostora, fleksibilnu organizaciju sadržaja (Ilustracija 4). Primjenom prefabrikovanih sistema prilikom rješavanja konstrukcije nove tržnice se afirmiše održivost (The 2030 Agenda for Sustainable Development), koriste obnovljivi materijali i izvorni energije, ostvaruje visoka preciznost izrade komponenti u fabrici i skraćuje rok izvedbenih radova na gradilištu (Smith, 2010).

Ambijenti i multisenzorski doživljaj. Pored kvalitetnog programskog i održivog arhitektonskog rješenja objekta, kreiranje nove tržnice na predmetnoj lokaciji u naselju Hrasno, prije svega podrazumijeva redefinisane urbanog identiteta njenog užeg i šireg okruženja, te promjenu dinamike i kvalitete urbanih aktivnosti kako u dnevnom, tako i večernjem periodu, kao i u svim godišnjim dobima. Stoga je zadatak podrazumijevao idejno oblikovanje enterijera tržnice i pojedinačnih štandova, zajedno sa pripadajućom opremom i mobilijarom za vanjsku i unutrašnju upotrebu. Kontrastirajući ortogonalnoj urbanističkoj kompoziciji i racionalnoj arhitekturi stambenih objekata iz perioda socijalističkog modernizma, studenti su za oblikovanje tržnice pronašli inspiraciju organskim formama drveta i rijeke, referirajući se na Vilsonovo šetalište i rijeku Miljacku. Uočavaju se dinamične, zatalasane linije i površine, koje usmjeravaju kretanje u prostoru, te vanjski i unutrašnji ambijenti u kojima preovladava drvo i tako evociraju prirodu (Ilustracija 5). Pažnja se posvećuje i vizualnom identitetu nove tržnice, kroz prepoznatljive i lako razumljive upute korištenja i pronalazjenja

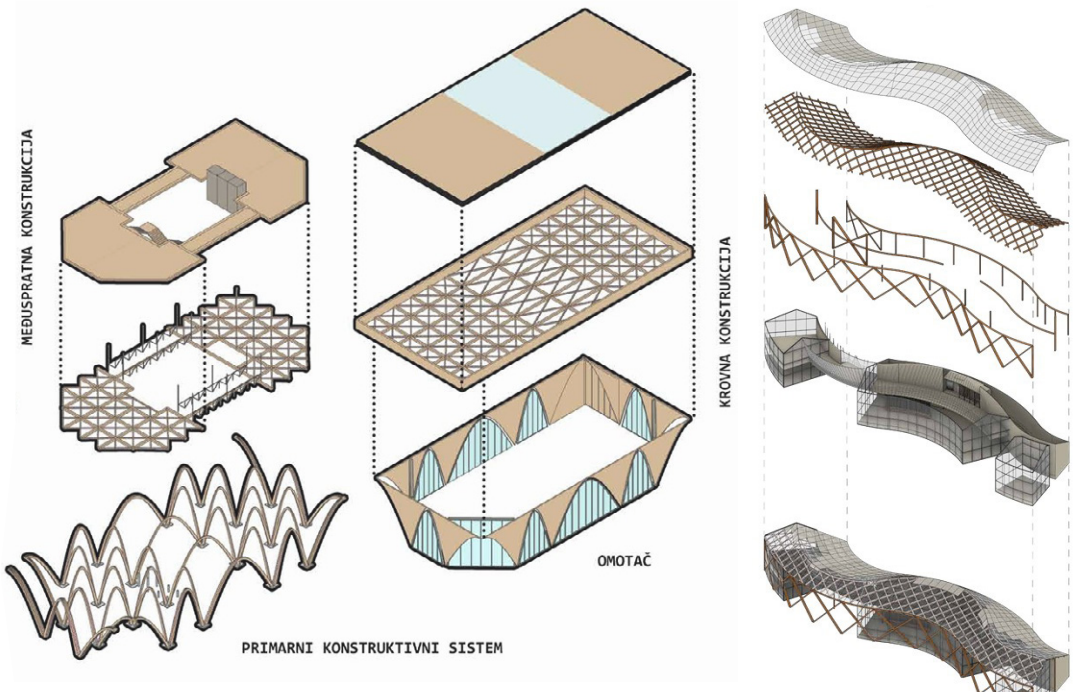
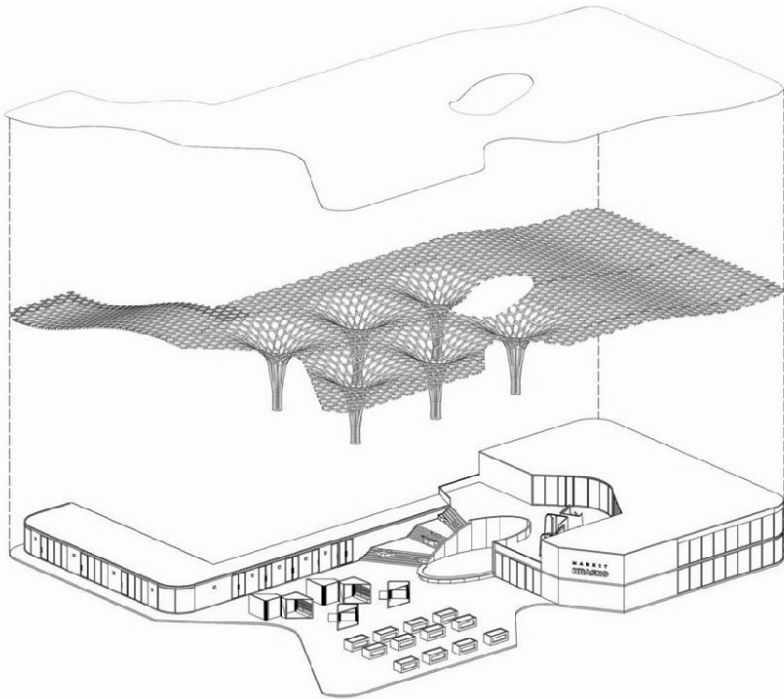
Structure and form. Considering that the Regulatory Plan “Hrasno I” from 2006 proposes an underground garage at the site in question, the concepts of the new market include design and structural solutions integrating parking solutions. The proposed positions of access ramps, vertical communications, and economic access for supplies are included. A unique design and structural challenge was shaping the market’s roof, considering the scale of surrounding buildings and positioning the future building relative to existing structures on the eastern boundary of the plot. The use of prefabricated modular constructions (Glulam, CLT, LVL constructions, steel constructions) enables traversing large spans and achieving the necessary height of the market while providing natural ventilation and lighting flexible, functional organization (Figure 4). The application of prefabricated systems in the design of the construction of the new market affirms sustainability (The 2030 Agenda for Sustainable Development), uses renewable materials and energy sources, achieves high precision in component manufacturing in the factory, and shortens the construction period on-site (Smith, 2010).

Atmosphere and multisensory experience. In addition to a quality functional and sustainable architectural design for the building, creating a new market at the Hrasno location primarily involves redefining the urban identity of its proximate and wider surroundings and changing the dynamics and quality of urban activities both during the day and in the evening, as well as in all seasons. Therefore, the task involved conceptually shaping the market’s interior, individual vendor booths, and the corresponding equipment and furniture for outdoor and indoor use. Contrasting with the orthogonal urban composition and rational architecture of residential buildings from the period of socialist modernism, students found inspiration for shaping the market in organic forms of the trees and the river, referring to Vilson’s Promenade and the Miljacka River. Dynamic, undulating lines and surfaces are intended to direct the movement in space, as the outdoor and indoor atmosphere predominantly features wood and natural materials, thus evoking nature (Figure 5). Attention is also paid to the visual identity of the new market through recognizable and easily understandable wayfinding signage, ensuring



Ilustracija 3. Urbanističko-arhitektonsko rješenje nove tržnice Hrasno. (b) Studentski projekat: Amila Habibović i Edna Halilović, 2022/23; (c) Studentski projekat: Tajra Šurković i Igor Mandić, 2022/23.

Figure 3. Urban architectural solution of the new market in Hrasno. (b) Student project: Amila Habibović and Edna Halilović, 2022/23; (c) Student project: Tajra Šurković and Igor Mandić, 2022/23.

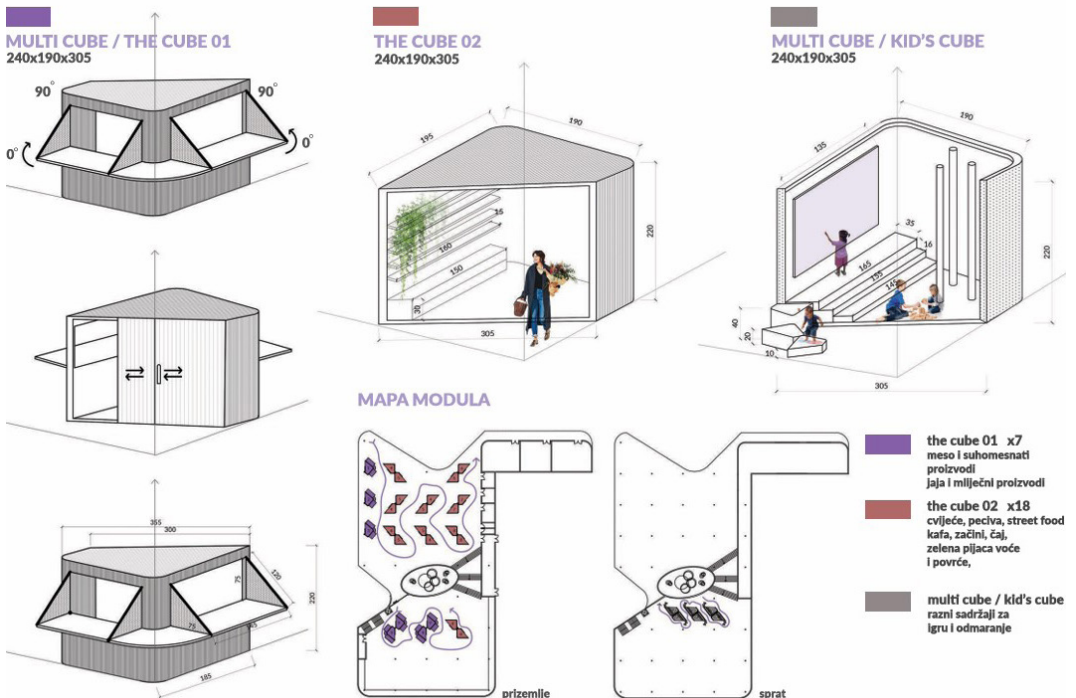


Ilustracija 4. Izometrijski prikaz strukture i forme objekta tržnice. (a) Studentski projekat: Ehlimana Šaranović i Šejla Dizdarević, 2022/23; (b) Studentski projekat: Hana Hadžiabdić i Marija Popović, 2023/24; (c) Studentski projekat: Igor Mandić i Tajra Šurković, 2022/23.

Figure 3. Isometric view of the structure and form of the market building. (a) Student project by Ehlimana Šaranović and Šejla Dizdarević, 2022/23; (b) Student project by Hana Hadžiabdić and Marija Popović, 2023/24; (c) Student project by Igor Mandić and Tajra Šurković, 2022/23.

sadržaja, kako bi doživljaj u prostoru za posjetioce uvijek bio jedinstven i privlačan. Redefinisanje urbanog identiteta znači kreiranje atmosfere, kako u unutrašnjem, tako i u vanjskom prostoru: „Atmosfera ispunjava prostor; ona zrači iz predmeta, konstelacija predmeta i ljudi“ (Böhme, 2014). Pored vizuelnih obilježja, tržnice su prostori mirisa (Henshaw, 2013) i prostori zvuka (Atkinson, 2007).

that visitors' experience in the space is always unique and appealing. Redefining the urban identity means creating an indoor and outdoor atmosphere: “The atmosphere fills the space; it radiates from objects, constellations of objects, and people” (Böhme, 2014). In addition to visual characteristics, markets are spaces of smells (Henshaw, 2013) and sound spaces (Atkinson, 2007).



Ilustracija 5. Ambijenti vanjskog i unutrašnjeg prostora NOVE! Tržnice Hrasno. Studentski projekat: Ehlimana Šaranović i Šejla Dizdarević, 2022/23.

Figure 5. Indoor and outdoor atmosphere of the NEW! Hrasno Market. Student project by Ehlimana Šaranović and Šejla Dizdarević, 2022/23.



Zaključak

Uprkos globalnim ekonomskim uticajima koji favorizuju masovnu proizvodnju i prodaju, dovodeći u pitanje isplativost investiranja u arhitekturu tržnica, ova tradicionalna tipologija je zadržala svoje mjesto i dobila novo značenje u urbanim sredinama širom svijeta, afirmišući pozitivne društvene vrijednosti, kao što su inkluzija, kohezija lokalne zajednice, održivost i zdrav način života. U posljednjim desetljećima dolazi do popularizacije revitalizacije i izgradnje novih tržnica, upravo zahvaljujući njihovom društvenom i kulturološkom potencijalu koji generišu u unutar lokalne zajednice, doprinoseći pozitivnoj percepciji urbanog identiteta naselja ili grada. U tom smislu, istraživačko-projektantski studio Savremeni prostorni koncepti, dizajn i prototip predstavlja različite scenarije i moguće intervencije u okviru urbanističko- arhitektonske redefinicija Tržnice „Hrasno“. Pored formalnog diverziteta predloženih koncepata tržnice, u procesu rada na projektu iskritalizirali su se zajednički elementi i principi, i to, dijalog između otvorenog i zatvorenog prostora, fleksibilnost i adaptabilnost arhitektonske strukture, kreiranje ambijentalnog i multisenzorskog doživljaja prostora, kao ključni faktori koji mogu katalizirati procese socijalne kohezije i javnog života u neposrednom i širem okruženju naselja Hrasno.

Conclusion

Despite global economic influences favoring mass production and sales and questioning the profitability of investing in market architecture, this traditional typology has retained its place and gained new significance in urban environments worldwide, affirming positive social values such as inclusion, the cohesion of the local community, sustainability, and a healthy way of life. In recent decades, there has been a rise in revitalization and construction projects for new markets, precisely due to their social and cultural potential generated within the local community, contributing to a positive perception of the urban identity of a neighborhood or city. In this regard, the research and design studio Contemporary Spatial Concepts, Design, and Prototype presents various scenarios and possible interventions within the urban-architectural redefinition of the Hrasno Market. In addition to the formal diversity of proposed market concepts, common elements and principles featured in the design process include the dialogue between outdoor and indoor spaces, the flexibility and adaptability of architectural structure, and the creation of an atmosphere and multisensory spatial experience as crucial factors that can generate processes of social cohesion and public life in the immediate and broader environment of the Hrasno neighborhood.

Ilustracija 5. Ambijenti vanjskog i unutrašnjeg prostora NOVE! Tržnice Hrasno. (a)(b) Studentski projekat: Ehlimana Šaranović i Šejla Dizdarević, 2022/23 (d) Studentski projekat: Hana Hadžiabdić i Marija Popović, 2023/24; (e) Studentski projekat: Ahmed Ljubijankić i Meryem Baždar, 2023/24.

Figure 5. Indoor and outdoor atmosphere of the NEW! Hrasno Market. (a)(b) Student project by Ehlimana Šaranović and Šejla Dizdarević, 2022/23 (d) Student project by Hana Hadžiabdić and Marija Popović, 2023/24; (e) Student project: Ahmed Ljubijankić and Meryem Baždar, 2023/24.

Kultura

NOVO! VILSONOVO

prof. dr. Senka Ibrišimbegović

vanredna profesorica, Univerzitet u Sarajevu - Arhitektonski fakultet
associate professor, University of Sarajevo - Faculty of Architecture

v. ass. Nedim Mutevelić

viši asistent, Univerzitet u Sarajevu - Arhitektonski fakultet
senior teaching assistant, University of Sarajevo - Faculty of Architecture

Urbana regeneracija kroz arhitekturu, kulturu i umjetnosti: intervencije u otvorenim javnim prostorima

Poznato da su objekti kulture, muzeji, galerije, umjetnički centri i koncertne dvorane, ali i umjetničke instalacije u prostoru, često dio strategija urbanih regeneracija i kulturnih revitalizacija gradova. Objekti kulture također ilustriraju evoluciju arhitekture i ubranu transformaciju trendova u prostoru, a kao takvi su često i generatori urbanog razvoja. Briga o razvoju grada, njegovoj urbanoj regeneraciji doprinosi evoluciji kulturnog identiteta, a ujedno treba da bude i znak poštovanja prema izgrađenoj kulturnoj baštini. Razvijanje takve kulturno odgovorne arhitekture i javnih prostora doprinosi oblikovanju novih arhitektonskih i urbanih procesa. Ovaj pristup omogućuje izgradnju novih prostora koji poštuju vrijednosti iz prošlosti, ali se istovremeno otvaraju prema novim mogućnostima u budućnosti. Ti procesi su vrlo osjetljivi, jer u doba kulturne transformacije mogu postati nepovratni i rezultirati gubitkom kulturnog identiteta, pogotovo u vremenu tranzicije, kapitalizma te kompleksnih društveno-političkih odnosa.

Umjetnost također posjeduje karakter izražajnosti koji ima potencijal da regenerira prostor i da podstiče socijalni angažman. Umjetnička društva često djeluju regenerirajuće u problematičnim urbanim zonama. Nemoguće je proučavati neke vrijednosti ili umjetnička djela, a da se ne uzme u obzir konkretno društvo u kojem nastaju, ali jednako je pogrešno pretpostaviti presudnost socijalnog objašnjenja, odnosno pretvoriti vrijednosti i djela u puke popratne proizvode. Ako je, naime, umjetnost

Culture

NEW! WILSON'S PROMENADE

Urban Regeneration through Architecture, Culture, and Arts: Interventions in Open Public Spaces

It is well-established that cultural edifices such as museums, galleries, artistic centers, and concert halls, alongside artistic installations in public spaces, frequently form part of the strategies for urban regeneration and cultural revitalization of cities. Cultural buildings also exemplify the evolution of architecture and the rapid transformation of spatial trends, and as such, they often act as catalysts for urban development. Attention to the development of a city and its urban regeneration contributes to the evolution of cultural identity while also serving as a mark of respect towards the constructed cultural heritage. The development of such culturally responsible architecture and public spaces contributes to shaping new architectural and urban processes. This approach allows for constructing new spaces that respect values from the past yet simultaneously open up to new possibilities in the future. These processes are susceptible, for in times of cultural transformation, they can become irreversible and result in the loss of cultural identity, especially in periods of transition, capitalism, and complex socio-political relations.

Art also possesses a characteristic expressiveness that has the potential to regenerate space and encourage social engagement. Artistic communities often act regeneratively in problematic urban zones. Studying certain values or artworks is possible by considering the specific society in which they are produced. However, it is equally

dio društva, onda izvan nje ne postoji neka čvrsta cjelina kojoj dajemo prvenstvo. Proučavati odnose znači privremeno ih proučavati kao djelatne, posmatrati sve djelatnosti kao osobite i savremene oblike očitovanja ljudske energije. Dakle, pitanje odnosa umjetnosti i društva može se definirati i kao proučavanje svih djelatnosti i njihovih međuodnosa, bez pridavanja prvenstva bilo kojoj od njih koju želimo izdvojiti. Umjetnošću se prenose osjećaji, ideali, kakvoća života. Umjetnost ogleda društvo ne kroz koncept mimizeza¹ nego kroz strukturu osjećaja, jer umjetnost kroz nove oblike percepcije stvara sastavnice koje društvo, kao takvo, ne može vidjeti.²

Savremene urbane transformacije kojima danas svjedočimo u našem društvu pokazuju značajan stepen raznolikosti, uvjetovan, između ostalog, percepcijom i stavom prema razvoju kulturnog identiteta i kulture općenito. Konstantne, turbulentne globalne promjene ubrzavaju ritam života, često postavljajući izazove pred čovjeka u prilagođavanju i praćenju istih. Pandemija Covid-19 kao globalni događaj koji je trajao više od dvije godine (2020-2022) stvorio je dodatne izazove te otkrio nedostatke stručno utemeljenog planiranja razvoja grada Sarajeva. Prvenstveno pitanje nedostatka kvalitetnih javnih prostora unutar urbanog izgrađenog, koje je sada još više u opasnosti i temeljito se mijenja, isplivalo je na površinu.

Danas smo obvezni procijeniti prethodne pristupe i razmišljati o budućnosti prostora iz ovih novih pozicija, ne samo uzimajući u obzir tehnološke izazove već i razne nepredvidive situacije koje postaju stvarnost. Naša istraživanja oslanjaju se i na nedavne procese izrade novog urbanističkog plana grada Sarajeva, koji su implicirani u razvoju i planiranju sa stavom prema onome što jest i vizijama onoga što dolazi. U tom smislu, Sarajevo je primjer ekstremne kompleksnosti koja, osim svega navedenog, proizilazi i iz kompleksnih društveno-političkih okolnosti, gdje se ti planirani procesi tranzicije gube u bitnom značenju: tranzicija, transformacija, privremeno stanje, pitanje budućnosti. Umjesto toga, ti procesi postali su trajno stanje; čak se može

erroneous to assume the decisiveness of a social explanation, i.e., to reduce values and works to merely by-products. If art is part of society, then outside of it, there exists no solid whole to which we accord primacy. Studying relations means temporarily examining them as active, observing all activities as distinct and contemporary forms of human energy manifestation. Thus, the relationship between art and society can also be defined as studying all activities and their interrelations without giving precedence to any we wish to highlight. Art conveys feelings, ideals, and the quality of life. Art reflects society not through the concept of mimesis¹ but through the structure of feelings because art, through new forms of perception, creates components that society, as such, cannot see.²

Contemporary urban transformations that we witness today exhibit a significant degree of diversity, conditioned, among other things, by the perception of and attitude towards the development of cultural identity and culture in general. Constant, turbulent global changes accelerate the pace of life, often posing challenges for individuals in adapting and keeping up. The COVID-19 pandemic, a global event that lasted more than two years (2020-2022), has introduced additional challenges and revealed deficiencies in the professionally grounded planning for the development of the city of Sarajevo. The primary issue of the lack of quality public spaces within the urban built environment, which is now even more endangered and undergoing thorough changes, has come to the forefront.

Today, we must assess previous approaches and consider the future of spaces from these new positions, considering technological challenges and various unpredictable situations that have become a reality. Our research also relies on recent processes of creating a new urban plan for Sarajevo, which are implicated in the development and planning with an attitude towards what exists and visions of what is to come. In this sense, Sarajevo is an example of extreme complexity that, in addition to everything mentioned, also stems from

¹ mimizeza (mimizezis; grč.), jedan od osnovnih pojmova ant. estetike, odn. teorije umjetnosti po kojem je stvaralačko oponašanje stvarnosti bit umjetničkog stvaranja. (www.hrleksikon.info) mimesis (mimēsis; Greek), one of the fundamental concepts of ancient aesthetics, or the theory of art, according to which creative imitation of reality is the essence of artistic creation.

² <http://www.slideshare.net/likovnaumjetnost/pristup-suvremenoj-umjetnosti>

reći da su pozicionirani kao specifično “stanje uma”. (Ugljen-Ademović & Ibrišimbegović, 2023) Stoga želimo i kroz naša naučna istraživanja, a uključujući studente, lokalno stanovništvo, napraviti projekte koji mogu dati smjernice institucijama koje su uključene u procese planiranja prostora, te zajednički kreirati kvalitetniji javni prostor. Definišući složene procese kojima svjedočimo kroz interaktivnu ulogu arhitekture i urbanizma u oblikovanju kulturnog identiteta, te kulturnog identiteta kao kokreatora fizionomije grada, razumijemo da je u konkretnom slučaju riječ o specifičnoj genezi koja ukazuje na potrebu da se oživljavanje Augeovog “antropološkog mjesta”, ispunjenog istorijom, identitetom i interakcijom, ali i preispitivanje Lynchove “slike grada”, vođene tezom da je grad, zapravo, simbol kompleksnog društva. (Auge, 2009).

Međutim, grad može biti složen na različite divergentne načine i stoga je specifična interakcija kulture, kao nematerijalnog koncepta, i arhitektonske forme, kao materijalnog proizvoda, područje koje ima potencijal da izgradi grad, razvije urbanitet i savremenu svijest mjesta i prostora. Prema Lynchu, slika životne sredine treba da ima tri komponente – „identitet, strukturu i značenje“, a sve to lokalitet o kojem govorimo, grad Sarajevo, zaista, posjeduje. Njihova kreativna sinteza je polazna tačka ideje koju predlažemo o kulturno održivom urbanom prostoru. “Danas čitamo / promatramo savremenu umjetničku i kulturnu proizvodnju kao oblik društvenih akcija. Kulturni sistem ulazi u oblast društva, obrazovanja, ekonomije, turizma, ekologije. Društvena i urbana regeneracija grada nemoguće je bez umjetnika. Za umjetnike danas je više nego ikad, znanje o sociologiji i marketingu, a za sve ostale, znanje o umjetnosti preduvjet je za bolji kvalitet života. Recesija treba biti u suprotnosti s renesansom.” Janko Ljumović (Ibrišimbegović & Mutevelić, 2022).

Interesantni primjeri umjetničkih instalacija u vanjskom prostoru u kojima se povezuju arhitektura i umjetnost koji se mogu pratiti u susjednim državama

Projekti u vanjskom prostoru Muzeja integralni su dio Zbirki u pokretu, a nalaze se na ulaznim terasama, na krovu, ispod pojedinih krila zgrade u sklopu Muzeja savremene umjetnosti u Zagrebu. Jedni su velikih dimenzija i bučni, a

complex socio-political circumstances, where the planned processes of transition lose their essential meaning: transition, transformation, temporary state, question of the future. Instead, these processes have become a permanent state; it can even be said that they are positioned as a specific “state of mind.” (Ugljen-Ademović & Ibrišimbegović, 2023) Therefore, through our scientific research, including students and the local population, we aim to create projects that provide guidelines to institutions involved in spatial planning processes and jointly create a higher-quality public space. Defining the complex processes we witness through the interactive role of architecture and urbanism in shaping cultural identity and cultural identity as a co-creator of the city’s physiognomy, we understand that, in the specific case, we are dealing with a particular genesis that points to the necessity of reviving Auge’s “anthropological place,” filled with history, identity, and interaction, as well as re-examining Lynch’s “image of the city,” guided by the thesis that the city is, in fact, a symbol of complex society. (Auge, 2009).

However, a city can be complex in various divergent ways. Thus, the specific interaction of culture, as an intangible concept, and architectural form, as a tangible product, is an area with the potential to construct the city, develop urbanity, and create contemporary awareness of place and space. According to Lynch, the image of the environment should have three components – “identity, structure, and meaning,” indeed, the site we are discussing, the city of Sarajevo, possesses all of these. Their creative synthesis is the starting point of our idea about a culturally sustainable urban space. “Today, we read/observe contemporary artistic and cultural production as a form of social action. The cultural system enters the realm of society, education, economy, tourism, and ecology. The social and urban regeneration of a city is only possible with artists. For artists today, more than ever, knowledge of sociology and marketing is essential, and for everyone else, knowledge of art is a prerequisite for a better quality of life. Recession should be contrasted with renaissance.” Janko Ljumović (Ibrišimbegović & Mutevelić, 2022).

drugi pak diskretni i samozatajni. Ovdje ćemo ih tek nabrojiti i locirati kako ne bi promakli vašoj pažnji. Skulptura poljskog umjetnika Mirosława Bałke Oči pročišćenja nalazi se na južnoj ulaznoj platformi, interaktivna instalacija-skulptura njemačkog umjetnika Carstena Höllera Dvostruki tobogan povezala je sve etaže sjevernog krila zgrade; neonska instalacija Riječi, neoni i baloni, Ante Jerkovića, u svjetliku sjevernog krila; svjetleći neonski objekt Umjetnik pri radu hrvatskog medijskog umjetnika Dalibora Martinisa na krovu je južnog krila zgrade, te audioinstalacija Bojno polje hrvatskog medijskog umjetnika Antuna Božičevića na krovnoj terasi Muzeja (Anon., 2024).

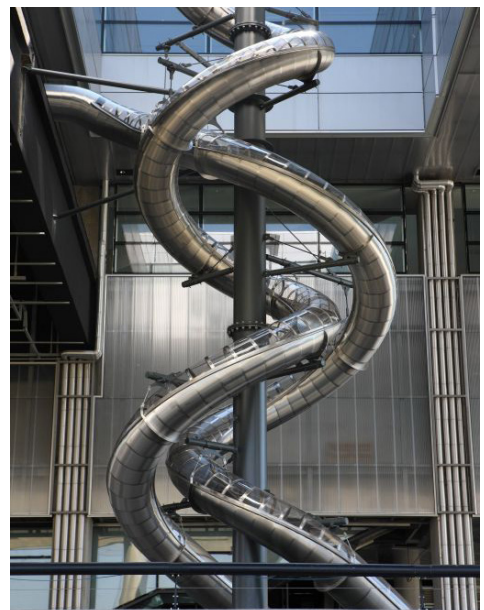
Izgradnjom Muzeja savremene umjetnosti Metelkova i cijelim konceptom MG+MSUM stvoren je jedan brend kojim se promovira kulturni život u Ljubljani. Ne samo da je oživio cijeli bivši vojni kvart i dao dodatni urbanistički impuls za stvaranje sličnih intervencija, već je i decentno oplemenio cijeli prostor savremenom interpretacijom i oblikovanjem prostora za savremenu umjetnost, stvarajući velike otvorene prostore i vrtove i otvarajući cijelu „instituciju“

Interesting examples of outdoor art installations that connect architecture and art that can be seen in neighboring countries

Examples of such installations can be observed in neighboring countries. The outdoor projects of the Museum are an integral part of the Collections in Motion, located at the entrance terraces, on the roof, and under particular wings of the building within the Museum of Contemporary Art in Zagreb. Some are of large dimensions and noisy, while others are discreet and self-contained. Here, we will list and locate them so they stay focused on your attention. The sculpture by Polish artist Mirosław Bałka, Eyes of Purification, is located on the southern entrance platform; the interactive installation-sculpture by German artist Carsten Höller, Double Slide, has connected all floors of the building's northern wing; the neon installation Words, Neons, and Balloons by Ante Jerković, in the skylight of the northern wing; the glowing neon object Artist at Work by Croatian media artist Dalibor Martinis on the roof of the southern wing of the building, and the audio

Ilustracija 2. Instalacije u otvorenom prostoru Muzeja savremene umjetnosti Zagreb. Arhitektonsko rješenje otvorenog javnog prostora Metelkove uz MG+MSUM. Izvori: www.msu.hr, Groleger Arhitekti.

Figure 1. Installations in the open space of the Museum of Contemporary Art Zagreb. The architectural project of the public space at Metelkova, alongside MG+MSUM. Sources: www.msu.hr, Groleger Arhitekti.



galerije prema vanjskom, otvorenom prostoru (Ibrišimbegović, 2015).

Analiza i vrednovanje lokacije

Odabrana mikrolokacija predstavlja nastavak na prošlogodišnji zadatak na predmetu Prostorni koncepti u arhitekturi i umjetnosti, gdje je odabrana mikrolokacija bila prostor ispred budućeg Muzeja Ars Aevi i pored Historijskog Muzeja BiH, koja je svojom južnom stranom povezana sa Vilsonovim šetalištem. Potencijal koji ovaj javni prostor ima kao buduća Muzejska četvrt, inspiracija je i logičan slijed nastavka analize ovog proširivanja sličnih funkcija i sadržaja duž rijeke Miljacke.

Ako Visonovo šetalište posmatramo kao potez koji se proteže od Ulice Malta I Mosta na početku ulice Azize Šaćirbegović, do Ulice Vrbanja i Mosta Suade i Olge, u srednjem dijelu Ulica Hamdije Čemerlića sa Mostom Bratstva i Jedinstva isti dijeli na (1) istočni dio prema prema centralnom dijelu grada koji karakteriše veći kvalitet javnog pješačkog prostora i veća udaljenost od glavne gradske saobraćajnice, dok s druge strane (2) zapadni dio Vilsonovog šetališta koji je znatno bliži profilu glavne gradske saobraćajnice i sa većim brojem poprečnih ulica (Šibenska, Fra Filipa Lastrića i Ložionička, Topal Osman Paše).

Mikrolokacija, prostor između Hotola Bristol i Elektroprivrede, ispred objekata S2 na zapadnom dijelu Vilsonovog šetališta se može posmatrati kao svojevrsni pandan prostoru ispred budućeg Muzeja Ars Aevi i pored Historijskog Muzeja BiH. Osim što dijele sličnosti u mjerilu i geometrijskom odnosu sa Vilsonovim šetalište, obje lokacije su u posljednjim godinama ozbilježene sezonskim i povremenim javnim događajima.

U sklopu projekta "NOVO! Novo Sarajevo" a u okviru izbornog predmeta "Prostorni koncepti u arhitekturi i umjetnosti" u VI (ljetnom) semestru 2022/2023. godine na Arhitektonskom fakultetu Univerziteta u Sarajevu analizirana mikrolokacija na Vilsonovom šetalištu, a pored hotela Bristol i ispred novoizgrađenih stambeno-poslovnih objekata S2 (Bristol-Elektroprivreda-S2). Lokacija se trenutno koristi i kao parking prostor ali se sezonski koristi i za privremene događaje kao što su klizalište zimi ili koncerti i zabavni park za djecu ljeti.

installation Battlefield by Croatian media artist Antun Božičević on the Museum's rooftop terrace (Anon., 2024).

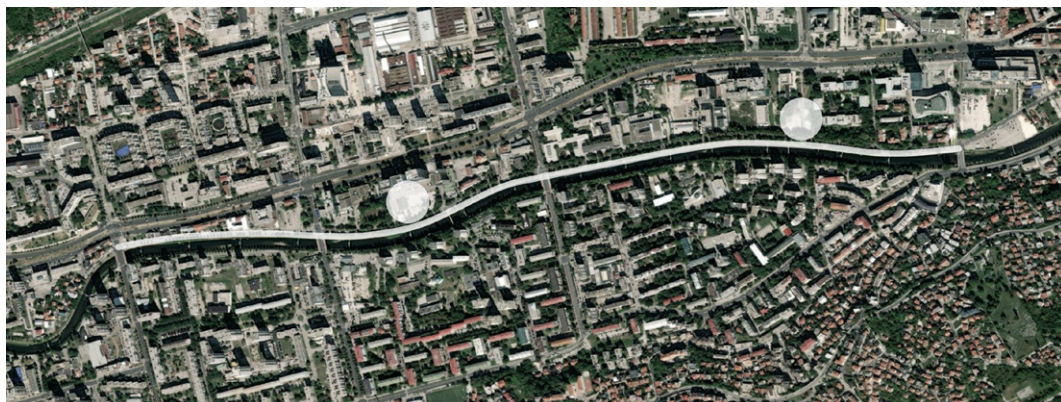
The construction of the Museum of Contemporary Art Metelkova, along with the entire MG+MSUM concept, has created a brand that promotes cultural life in Ljubljana. It not only revitalized the entire former military quarter, providing an additional urban impulse for creating similar interventions, but it also subtly enriched the whole space with a contemporary interpretation and design for contemporary art, creating large open spaces and gardens, and opening up the entire "institution" of the gallery to the external, open space. (Ibrišimbegović, 2015).

Analysis and evaluation of the location

The selected micro-location is a continuation of last year's task in the course Spatial Concepts in Architecture and Art, where the chosen micro-location was the space in front of the future Ars Aevi Museum and beside the Historical Museum of BiH, which is connected on its southern side to Wilson's Promenade. This public space's potential as a future Museum Quarter serves as both inspiration and a logical sequence for the continuation of the analysis of this expansion of similar functions and content along the Miljacka River.

If we regard Wilson's Promenade as a stretch extending from Malta Street and the bridge at the beginning of Azize Šaćirbegović Street, to Vrbanja Street and the Suada and Olga Bridge, with the central section being Hamdija Čemerlić Street along with the Brotherhood and Unity Bridge dividing it into (1) an eastern part towards the central part of the city characterized by a higher quality of public pedestrian space and a greater distance from the main city traffic artery, while on the other hand, (2) the western part of Wilson's Promenade, which is considerably closer to the profile of the main city traffic artery and with a higher number of cross streets (Šibenska, Fra Filipa Lastrića, and Ložionička, Topal Osman Paša).

The micro-location, the space between Hotel Bristol and the Electric Power Industry, in front of the S2 buildings on the western part of Wilson's Promenade, can be viewed as a



Ilustracija 3a. Vilsonovo šetalište i dvije mikrolokacije. Izvor: Google Maps.

Figure 3a. Wilson's Promenade and two microlocations. Source: Google Maps.

Nastava i istraživanje koncipirani su uz predavanja predmetne profesorice, gostujućih predavača, odlaskom na teren, istraživanja u salama sa asistentom i grupnim razmjenama ideja (brainstorming). Na predmetu je učestvovalo 14 studenata, Predmet se bavio prostornim fenomenima iz perspektive arhitekture i ostalih vizuelnih umjetnosti na lokaciji pored bivšeg Hotela Bristol (danas Hotel Novotel) na Vilsonovom šetalištu. Imajući u vidu da predložena metodologija ovog naučno-istraživačkog projekta, podrazumijeva iniciranje procesa kritičkog sagledavanja problematike javnih prostora od strane akademske zajednice, studente smo odmah uključili u analizu konteksta i sagledavanja svih objektivnih prostornih, socijalnih, političkih i ekonomskih faktora.

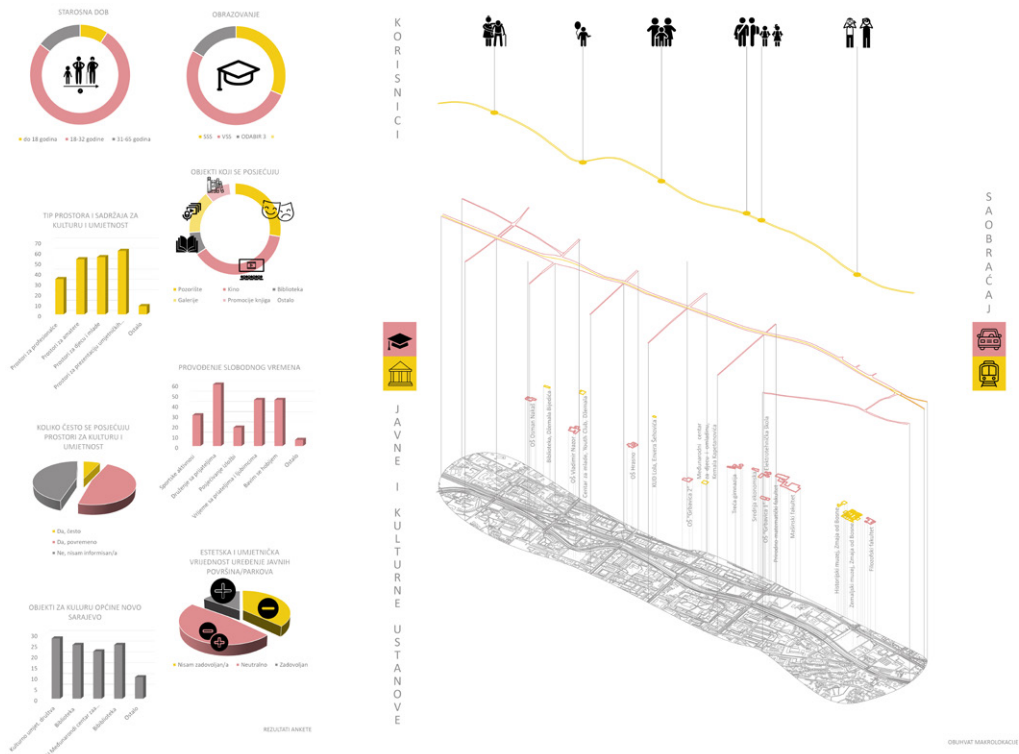
kind of counterpart to the space in front of the future Ars Aevi Museum and beside the Historical Museum of BiH. In addition to sharing similarities in scale and geometric relation with Wilson's Promenade, both locations have been marked by seasonal and occasional public events in recent years.

As part of the project "NEW! New Sarajevo" within the elective course "Spatial Concepts in Architecture and Art" in the VI (summer) semester of the 2022/2023 academic year at the Faculty of Architecture, University of Sarajevo, a micro-location on Wilson's Promenade, next to the Bristol hotel and in front of the newly built residential and commercial buildings S2 (Bristol-Electric Power Industry-S2), was analyzed. The location is currently used as a parking space. However, it is seasonally utilized for temporary events such as an ice rink in winter or concerts and an amusement park for children in summer.



Ilustracija 3b. Odabrana mikrolokacija. Izvor: Google Maps.

Figure 3b. Selected microlocation. Source: Google Maps.



Ilustracija 1. Studentske analize. Izvor: Studentski rad.

Figure 5. Student analyses. Source: Student work.

Studenti su dobili zadatak da oblikuju otvoreni javni prostor, koji bi bio prostor kulture/ umjetnosti, da se na taj način regeneriše i upotpuni funkcija u ovom dijelu Novog Sarajeva. Cilj je bio posmatranje prostora, uključivanje građana koji koriste ovaj prostor i njihove analize lokacije kao i šireg konteksta sa aspekta ovih funkcija. Smjernice su im bile slijedeće: Arhitektura kao projekcija društva može poticati različite stavove i percepcije, nudeći stalnu mogućnost društvu da razmišlja o sebi. Finski arhitekt, Mauri Korkka, smatrao je da djelovanje kao arhitekt znači biti dio profesije koja stvara kulturu i komunicira s ljudima. (Ibrišimbegović, 2015) Arhitekt mora razmišljati o tome kako najbolje pristupiti arhitekturi u odnosu na ljudska bića, čineći ih sigurnima i smirenima u svakom arhitektonskom prostoru, reflektirajući prostor i otkrivajući istinu i mir. Pokušavajući unijeti umjetnost u svakodnevni život, mijenjajući tako funkciju umjetnosti i status umjetnika u društvu, ali i promatrača, kao

The teaching and research were conceived with lectures by the subject professor, guest lecturers, field visits, research in halls with an assistant, group idea exchanges, and brainstorming. Fourteen students participated in the course, which dealt with spatial phenomena from the perspective of architecture and other visual arts at the location next to the former Hotel Bristol (now Hotel Novotel) on Wilson's Promenade. Bearing in mind that the proposed methodology of this scientific research project involves initiating a process of critical examination of the issues of public spaces by the academic community, students were immediately involved in analyzing the context and considering all objective spatial, social, political, and economic factors.

Students were assigned to design an open public space dedicated to culture/art, thus regenerating and enriching the function of this segment of New Sarajevo. The goal was to observe the space, involve citizens who utilize it, and analyze the location and the broader context from the perspective of these functions. The guidelines were as follows: Architecture, as a projection of society, can stimulate diverse attitudes and perceptions, offering

aktivnog sudionika također je dio regeneracije i razvoja prostora i društva.

Analizirali su recipročan uticaj medija koje koriste arhitekti i vizuelni umjetnici, usaglašavajući percepcijske odredbe i mehanizme djelovanja u ovom trenutno djelimično definiranom javnom prostoru. Posmatranjem prostornih situacija i trenutaka kretanja stvorilo im je nove perspektive i mogućnosti korištenja ovog prostora, kroz aktivnosti koje su produbili pomoću umjetničkih, arhitektonskih analiza i eksperimentalnih zadataka. Anketirajući lokalno stanovništvo dobili su inpute o potrebama lokalnog stanovništva na ovom lokalitetu tako da su sve informacije pokušali sistematično i holistički objedniti kako bi razumijeli u kojem smjeru posmatrati budućnost ove lokacije.

Koncept NOVO! Vilsonovo

Zadatak je trebalo da ostane eksperimentalni, spekulativni i otvoreni, ali u isto vrijeme sistematični i holistički pristup razumijevanju prostornih koncepata u arhitekturi i umjetnosti uz davanje dodatne vrijednosti javnom prostoru na primjeru odabrane lokacije.

Prvi dio studentskog rada odnosio se na analize unutar okvirnog radijusa od 500m, koje su uključivale analizu tipologija objekata i analizu demografskih podataka. Provedena je anketa među lokalnim stanovništvom o odnosu prema Vilsonovom šetalištu te o načinu korištenja prostora. Rezultati ankete su pokazali da prostor dominantno koriste ljudi srednje starosne dobi (18-32) godine različitih nivoa obrazovanja, koji najviše privrženi kinima i pozorištima, a nešto manje posjećivanju biblioteka i galerija. Na pitanje o vlastitoj procjeni estetske i umjetničke vrijednosti javnih prostora u Općini Novo Sarajevo, blizu polovine ispitanika su imali neutralan odnos, dok je nešto manji broj zadovoljnih bio od nezadovoljnih. Dijagram tipologije objekata je pokazao prisustvo većeg broja kulturno obrazovnih ustanova u neposrednoj blizini u Vilsonovom šetalištu sa zapadne strane lokacije, dok su na istočnoj strani dominantno stambeno-poslovni objekti.

Analiza odnosa mikrolokacije sa glavnih pješačkih tokova i infrastrukturnim tačkama u neposrednoj blizini pokazala je značajan odnos autobuske stanice na glavnoj gradskoj

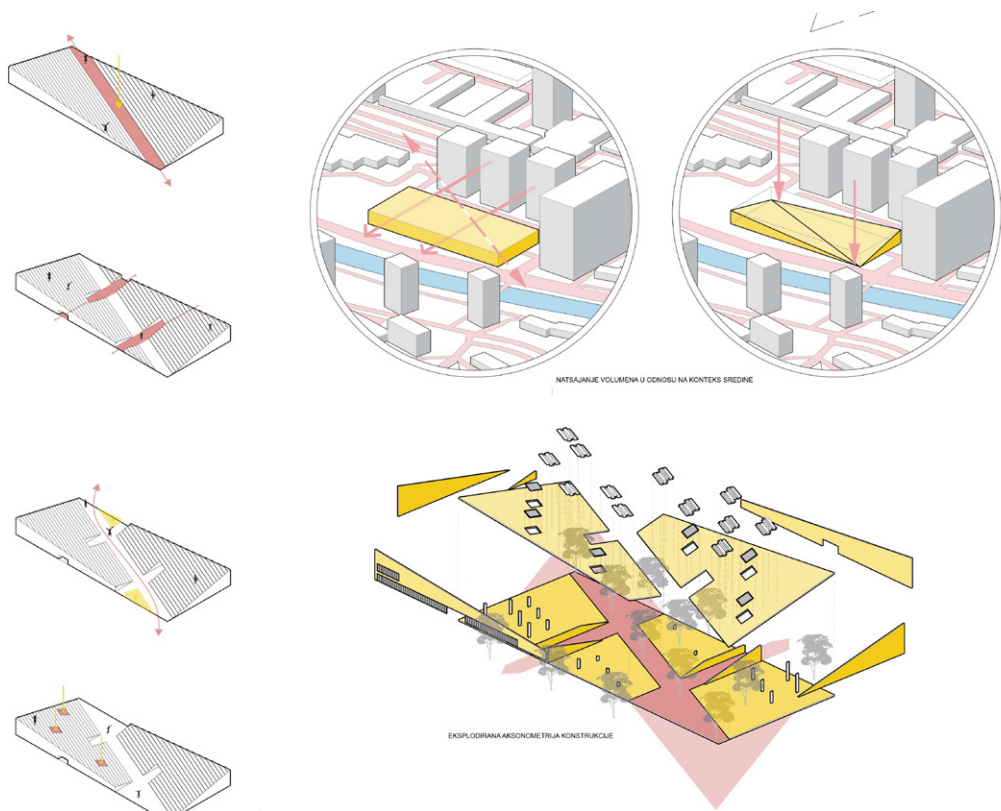
a constant opportunity for society to reflect upon itself. Finnish architect Mauri Korkka believed that to act as an architect means to be part of a profession that creates culture and communicates with people. (Ibrišimbegović, 2015) An architect must contemplate how to approach architecture about human beings best, ensuring their safety and tranquility in every architectural space, reflecting the space, and unveiling truth and peace. Attempting to incorporate art into everyday life, thereby altering the function of art and the status of the artist in society, as well as that of the observer, as an active participant, is also a component of the regeneration and development of space and society.

They analyzed the reciprocal influence of the media utilized by architects and visual artists, harmonizing perceptual stipulations and action mechanisms in this partially defined public space. Observing spatial situations and movements engendered new perspectives and possibilities for using this space through activities deepened by artistic, architectural analyses, and experimental tasks. Surveying the local population provided insights into the community's needs at this location, so they attempted to systematically and holistically integrate all information to understand in which direction to consider the future of this location.

Concept NEW! Vilsonovo

The "NOVO! Vilsonovo" concept was intended to remain experimental, speculative, and open, yet at the same time systematic and holistic in its approach to understanding spatial concepts in architecture and art while adding additional value to the public space of the selected location.

The first part of the student work focused on analyses within a 500m radius, which included an analysis of building typologies and demographic data. A survey was conducted among the local population regarding their relationship to Wilson's Promenade and how they use the space. The survey results showed that the space is predominantly used by middle-aged people (18-32 years old) of various educational levels, who are most attached to cinemas and theaters and somewhat less to visiting libraries and galleries. When asked about their assessment of public spaces'



Ilustracija 1. Dijagrami koncepta projekta "Iza Uglu". Izvor: Studentski rad.

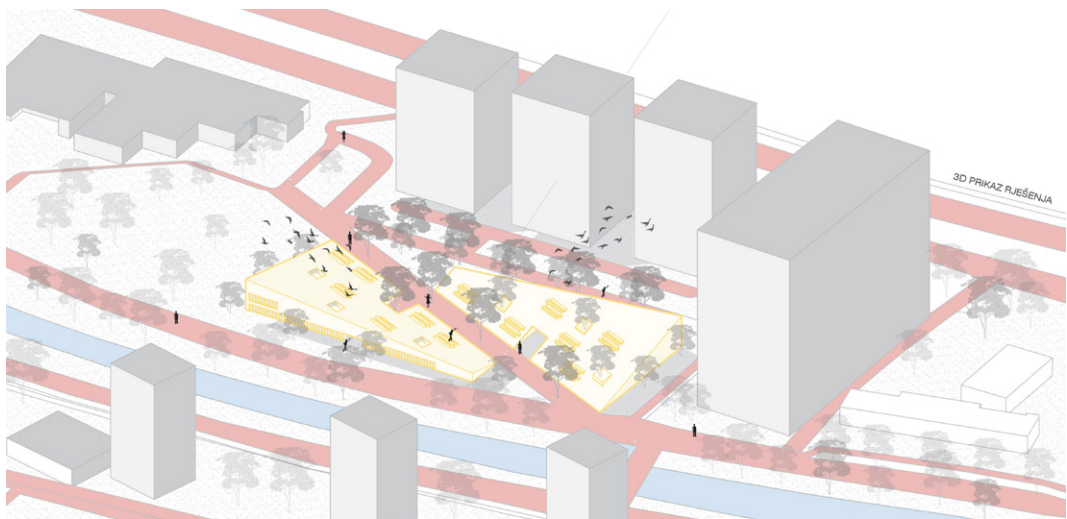
Figure 6. Diagrams of the "Behind the Corner" project concept. Source: Student work.

saobraćajnici pored objekta Elektroprivrede s jedne strane, te postojećeg pješačkog mosta kojem gravitiraju stanovnici naselja Grbavica, ali i svi uposlenici u poslovnim i kulturno-obrazovnim objektima koji koriste javni trolejbuski saobraćaj ili parking prostore u naselju Grbavica.

Kao i most Ars Aevi, ovaj je značajan jer povezuju Vilsonovo šetalište sa šetnicu „Aleja lipa“ sa lijeve obale rijeke Miljacke. Iako je most planiran za uklanjanje iz razloga što su temelji vezani za dno korita Miljacke i „...što se kroz niz godina eksploatacije pokazalo kao loše rješenje i njegova rekonstrukcija nije opravdana (utjecaji promjene vodostaja, udari nanosa na stubove, smrzavanje, ...)“ (Burazor, NOVI! mostovi Novog Sarajeva, 2024) planirana je zamjena sa novim mostom. Dodatna vrijednost koncepta direktnog povezivanja sa pješačkim mostom nastavlja se na već ranije uspostavljenu saradnjom Arhitektonskog fakulteta Univerziteta u Sarajevu sa Općinom Novo Sarajevo u

aesthetic and artistic value in the Municipality of Novo Sarajevo, nearly half of the respondents had a neutral attitude. At the same time, a slightly smaller number were satisfied than dissatisfied. The diagram of building typologies revealed more cultural and educational institutions near Wilson's Promenade on the west side of the location. In contrast, residential and commercial buildings predominated on the east side.

Analyses explored the relationship of the micro-location with main pedestrian flows and infrastructure points in the immediate vicinity, revealing a significant connection to the bus station on the main city traffic artery next to the Electric Power Industry building on one side, and the existing pedestrian bridge which is frequented by residents of the Grbavica neighborhood, as well as all employees in business and cultural-educational buildings who use public trolleybus transport or parking spaces in Grbavica.



Ilustracija 5. Aksonometrijski prikaz projekta "Iza Uгла". Izvor: Studentski rad.

Figure 7. Axonometric view of the "Behind the Corner" project. Source: Student work.

akademske 2021./2022. godine, kada je postavljen je zadatak za izradu idejnog rješenja pješačkih mostova u gradu Sarajevu, gdje je nakon provedenog konkursa odabrano najbolje rješenje za ovaj most, a isto je prezentovano općinskim i gradskim strukturama.

Koncept studentskog rada na predmetu Prostorni koncepti u arhitekturi i umjetnosti iza radnog naziva „Iza Uгла“ zasniva se na jasnom vektoru koji spaja postojeći/novi most sa najbržim putem do glavne gradske saobraćajnice i autobuske stanice. Kao široka pješačka staza koja na nultoj koti presijeca dok dva preostala isječena trokuta se podižu na svojim krajnjim tačkama formirajući korisni stepenasti javni prostor na trgu, te djelomično ukopani korisni prostor ispod u kojem mogu biti smješteni različiti servisi za javni prostor, prostori za kulturne manifestacije te prostori namijenjeni odmoru i rekreaciji. U tekstualnom obrazloženju projekta grupa studenata navodi: „...željeli smo stvoriti inspirativno i dinamično okruženje u kojem će se održavati različiti kulturni program, projektujući geometriju koja istovremeno omogućava jasno i brzo kretanje, kao i prostore za okupljanje u formi amfiteatra.“

Like the Ars Aevi bridge, this bridge is significant as it connects Wilson's Promenade to the "Aleja Lipa" promenade on the left bank of the Miljacka River. Although the bridge was planned to be removed due to its foundations being tied to the riverbed of the Miljacka and "...as years of exploitation have shown it to be a poor solution and its reconstruction is not justified (effects of water level changes, impacts on pillars, freezing, ...)" (Burazor, NEW! bridges of New Sarajevo, 2024), a replacement with a new bridge is planned. The added value of the concept of direct connection to the pedestrian bridge continues on the already established collaboration of the Faculty of Architecture, University of Sarajevo, with the Municipality of Novo Sarajevo in the academic year 2021/2022 when the task was set to create a conceptual design for pedestrian bridges in the city of Sarajevo, where after a competition, the best solution for this bridge was selected and presented to municipal and city structures.

The concept of the student work for the course Spatial Concepts in Architecture and Art, under the working title "Behind the Corner," is based on a transparent vector that links the existing/new bridge with the fastest route to the main city traffic artery and bus station. It envisions a wide pedestrian path that intersects at ground level. At the same time, two remaining cut triangles rise at their endpoints, forming a functional stepped public space in the square

Zaključak

U okviru izbornog predmeta Prostorni koncepti u arhitekturi i umjetnosti za studente šestog semestra Arhitektonskog fakulteta Univerziteta u Sarajevu (AFUNSA) željeli smo obezbijediti rad na konkretnom zadatku. Kroz saradnju lokalne i akademske zajednice, studenti su radili na kreiranju smjernica koje bi, ukoliko se implementiraju, imale za cilj poboljšanje razvoja životne sredine. Osim ovog primarnog cilja, radili su i na razumijevanju korelacije između (savremene) arhitekture i (vizualne/konceptualne/savremene) umjetnosti.

Razvijajući holistički, savremeni, likovni i konceptualni pristup arhitektonskom projektovanju, razvili su kompetencije koje im mogu pomoći da promišljaju rješenja za složenije prostorne formacije uz pomoć učešća lokalnog stanovništva i u skladu sa razvojnim trendovima savremene arhitekture i umjetnosti, ukazujući na kreativni potencijal izvan granica arhitekture i davanje novog impulsa procesu dizajna. Dodatna vrijednost ponuđenog koncepta je u njegovom jasnom nastavku već uspostavljenih elemenata javne infrastrukture i projekata, poput izgradnje novog pješačkog mosta, otvorenih javnih prostora sa umjetničkom interakcijom, kroz saradnju Općine Novo Sarajevo i Arhitektonskog fakulteta Univerziteta u Sarajevu.

Nadamo se da će ideje i smjernice studenata, koje su razvijene pod stručnim vodstvom nastavnika i saradnika sa AFUNSA, biti uvažene od strane planera i donosilaca odluka, ali i lokalnog stanovništva kao ideje za bolje uređenje javnog prostora.

and a partially buried functional space below where various services for public space, spaces for cultural events, and areas designated for rest and recreation can be located. In the textual explanation of the project, the group of students' states: "...we wanted to create an inspiring and dynamic environment where various cultural programs can be held, designing geometry that allows for precise and quick movement, as well as gathering spaces in the form of an amphitheater."

Conclusion

Within the elective course Spatial Concepts in Architecture and Art for the sixth-semester students of the Faculty of Architecture at the University of Sarajevo (UNSA), we aimed to provide work on a concrete task. Through collaboration between the local and academic communities, students worked on creating guidelines that, if implemented, would aim to improve environmental development. Besides this primary goal, they also worked on understanding the correlation between (contemporary) architecture and (visual/conceptual/contemporary) art.

Developing a holistic, contemporary, artistic, and conceptual approach to architectural design, they developed competencies that can help them contemplate solutions for more complex spatial formations with the help of local population participation and in accordance with the developmental trends of contemporary architecture and art, indicating the creative potential beyond the boundaries of architecture and giving a new impulse to the design process. The additional value of the offered concept lies in its clear continuation of already established elements of public infrastructure and projects, such as the construction of a new pedestrian bridge, open public spaces with artistic interaction, through collaboration between the Municipality of Novo Sarajevo and the Faculty of Architecture at the University of Sarajevo.

We hope that students' ideas and guidelines, developed under the professional guidance of teachers and associates from AFUNSA, will be respected from the planners and decision makers, as well as from the local citizens as ideas for better designing of public space.

Turizam

NOVI!

GRADSKI HOTEL STROJORAD

doc. dr. Lejla Kreševljaković

docentica, Univerzitet u Sarajevu - Arhitektonski fakultet

assistant professor, University of Sarajevo - Faculty of Architecture

Uloga gradskih hotela

Urbano tkivo Sarajeva krasi ne samo reprezentativni javni, kulturni i administrativni objekti, već i neizostavni gradski hoteli. Može se reći da su tržnice i pijace važni centri lokalnih zajednica, a da su hoteli njihovi gostoljubivi susjedi. Gradski hoteli pružaju stranim posjetiteljima udoban smještaj unutar živopisnih gradskih pejzaža, ali i mnogo interesantnih sadržaja lokalnom stanovništvu. Oni nisu samo mjesta odmora i zabave za posjetitelje, već su i integralni dio arhitektonsko-urbanističke priče grada. S obzirom na brz razvoj turizma kroz historiju, hoteli su postali prostori gdje se susreću različite kulture i gdje se stvaraju nezaboravna iskustva. Oni nude gostima lokalnu gostoljubivost i kulinarske čarolije. U hotelima putnici ne samo da pronalaze odmor, već i priliku da urone u bogatstvo gradske atmosfere.

Stari gradski hoteli često čuvaju uspomene na prošlost, dok moderni hotelski kompleksi aktivno učestvuju u definisanju novih urbanih iskustava. Hoteli poput Waldorf Astoria u New Yorku, Du Louvre u Parizu, ili Sacher hotela u Beču su historijska mjesta, mjesta susreta i kulturnih događaja. Poput tržnica i hoteli nose pečat vlastite autentičnosti i historije. Jedan od najpoznatijih gradskih hotela u Sarajevu, hotel Evropa, kao i tržnica Markale, simbol je vremena i prostora u kojem je nastao. On nije samo jedna od najpoznatijih građevina Sarajeva austrougarskog perioda, već i historijska priča koja oživljava duh lokalne zajednice. Sarajevo ima takve hotele iz raznih historijskih perioda. Hotel Holiday Inn izgrađen za potrebe XIV Zimskih olimpijskih igara 1983. godine, iako je star samo četrdeset godina postao je također jedan od simbola grada Sarajeva (Morrison, Lizdek, Kreševljaković, & Krečo, 2024).

Tourism

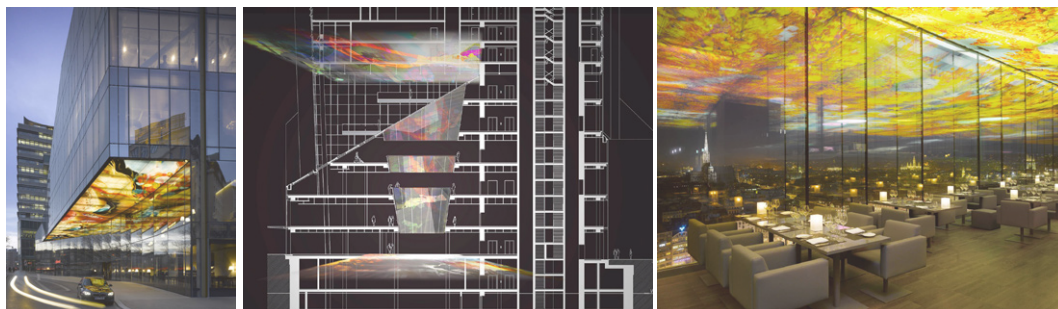
NEW!

STROJORAD CITY HOTEL

The Role of City Hotels

The urban fabric of Sarajevo is adorned not only by representative public, cultural, and administrative buildings but also by indispensable city hotels. Markets and squares are essential centers of local communities, and hotels are their hospitable neighbors. City hotels provide foreign visitors with comfortable accommodations within vibrant cityscapes, offering a plethora of interesting amenities for the local population as well. They are not just places of rest and entertainment for visitors but also an integral part of the city's architectural and urbanistic narrative. Given the rapid development of tourism throughout history, hotels have become spaces where diverse cultures meet, creating unforgettable experiences. They offer guests a taste of local hospitality and culinary delights. In hotels, travelers find not only relaxation but also the opportunity to immerse themselves in the richness of the city's atmosphere.

Old city hotels often preserve memories of the past, while modern hotel complexes actively participate in shaping new urban experiences. Hotels like the Waldorf Astoria in New York, the Hôtel du Louvre in Paris, and the Sacher Hotel in Vienna are historical sites, meeting places, and cultural event venues. Like markets, hotels carry the stamp of their authenticity and history. One of the most famous city hotels in Sarajevo, Hotel Europe, along with the Markale market, is a symbol of the time and space in which it originated. It is not only one of the most recognizable buildings from Sarajevo's Austro-Hungarian period but also a historical narrative that revives the spirit of the local community. Sarajevo has such hotels from various historical periods. The Holiday Inn Hotel, built for the needs of the XIV Winter Olympic Games in 1983, although only forty years old,



Ilustracija 1. Hotel Sofitel u Beču, arhitekt Jean Nouvel 2005-2010. Izvor: www.jeannouvel.com.

Figure 1. Hotel Sofitel in Vienna, architect Jean Nouvel 2005-2010. Source: www.jeannouvel.com.

Izgradnja novog gradskog hotela često prati i revitalizaciju okolnog područja. Kroz strategije urbanih transformacija ovi hoteli postaju pokretači pozitivnih promjena, potičući razvoj ne samo turizma već i lokalnih zajednica. Njihova uloga se proširuje izvan granica njihova četiri zida, postajući most između prošlosti i budućnosti. Mnogstvo takvih primjera nalazimo na granicama širenja gradskih centralnih područja, kakav je i slučaj kod NOVO! gradskog hotela Strojorad, poput npr. hotela Sofitel u Beču arhitekta Jean Nouvela (Ilustracija 1) i sl. U skladu s globalnim trendovima i novi gradski hoteli u Sarajevu nastoje ne samo pružiti udobnost već i stvarati prostor gdje se isprepliću lokalna autentičnost i internacionalni utjecaji, kakvi su Swissotel ili Marriott u Sarajevu izgrađeni u posljednje vrijeme. Ovi hoteli nisu samo mjesta za boravak, oni su doživljaji sami po sebi i aktivno podržavaju puls urbanog života. Dok grad raste i mijenja se, gradski hoteli igraju važnu ulogu u definiranju identiteta i karaktera grada. Kroz svoju arhitekturu, gostoljubivost i raznovrsne sadržaje i novi gradski hoteli, na tragu prethodnih, nastoje doprinijeti bogatstvu urbanog iskustva Sarajeva.

Analiza i vrednovanje lokacije „Strojorad“

Istraživanje u okviru nastave na predmetu “Projektovanje objekata turizma i ugostiteljstva”, u zimskom semestru 2022/23. godine na Arhitektonskom fakultetu Univerziteta u Sarajevu baziralo se na metodologiji i prostornom obuhvatu projekta “NOVO! Novo Sarajevo”, pod motom „MALI URBANIZAM, VELIKI ENTERIJER“. Cilj i zadatak je bio upoznavanje studenata sa konceptualnim pristupom u projektovanju objekata turizma i ugostiteljstva kroz afirmiranje cjelovitog

has also become one of the symbols of the city of Sarajevo (Morrison, Lizdek, Kreševljaković, & Krečo, 2024).

The construction of a new city hotel often accompanies revitalizing the surrounding area. Through urban transformation strategies, these hotels become catalysts for positive changes, promoting development in tourism and local communities. Their role extends beyond the confines of their four walls, becoming a bridge between the past and the future. Numerous examples of such developments can be found on the fringes of expanding urban central areas, like the case of the NEW! City Hotel Strojorad resembles, for instance, the Hotel Sofitel in Vienna by architect Jean Nouvel (Figure 1) and others. In line with global trends, the new city hotels in Sarajevo strive to provide comfort and create a space where local authenticity and international influences intertwine, similar to establishments like Swissotel or Marriott in Sarajevo built recently. These hotels are not just places to stay; they are experiences in themselves and actively contribute to the pulse of urban life. As the city grows and evolves, city hotels play a crucial role in defining the identity and character of the city. Through their architecture, hospitality, and diverse amenities, the new city hotels, following in the footsteps of their predecessors, aim to contribute to the richness of Sarajevo’s urban experience.

Analysis and Evaluation of the Location ‘Strojorad’

The research conducted as part of the course “Design of Tourism and Hospitality Facilities” during the winter semester of the academic year 2022/23 at the Faculty of Architecture, University of Sarajevo, was based on the

pristupa u projektiranju, odnosno povezivanju nivoa urbanizma, arhitektonskog oblikovanja i dizajna enterijera.

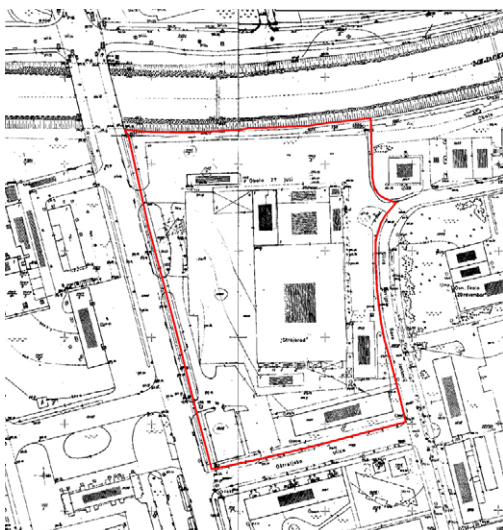
Analizirana je mikrolokacija STROJORAD koja se nalazi u naselju Grbavica II, općina Novo Sarajevo, u blizini mosta Topal Osman Paše. Obuhvat graniči na sjeveru sa šetalištem Aleja Lipa, na istoku i jugu sa ulicom Kemala Kapetanovića, a na zapadu sa ulicom Topal Osman paše (Ilustracija 2). U neposrednoj blizini se nalaze rijeka Miljacka, Vilsonovo šetalište, te stadion Grbavica. Za ovu lokaciju je rađen Urbanistički projekat Grbavica II – Strojorad, koji nije usvojen. Obzirom da ne postoji važeća prostorno-planska dokumentacija na osnovu provedenih analiza, potrebno je bilo najprije uraditi urbanističko rješenje koje predviđa i gradski hotel. Obzirom da gradski hoteli sa svojim ugostiteljskim i ostalim javnim sadržajima nisu samo dio turističke ponude već i mjesta okupljanja lokalnog stanovništva, cilj zadatka je bio projektovati savremeno i održivo urbanističko-arhitektonsko i dizajnersko rješenje gradskog hotela i okolnog javnog prostora, koje će pored komercijalnih i ugostiteljskih aktivnosti, afirmirati socijalizaciju svih starosnih grupa naselja Grbavica II i šire lokalne zajednice. Nastava u studiju je obuhvatala niz predavanja

methodology and spatial scope of the project “NEW! New Sarajevo,” under the motto “SMALL URBANISM, BIG INTERIOR.” The goal and task were to familiarize students with a conceptual approach to designing tourism and hospitality facilities by emphasizing a comprehensive approach to design, connecting the levels of urban planning, architectural shaping, and interior design.

The micro-location analyzed was STROJORAD, situated in the Grbavica II settlement, Novo Sarajevo municipality, near the Topal Osman Paša Bridge. The boundary to the north is the Aleja Lipa promenade, to the east and south is the Kemal Kapetanovića Street, and to the west is Topal Osman Paša Street (Figure 2). Nearby are the Miljacka River, Vilsonovo promenade, and the Grbavica Stadium. An Urban Project for Grbavica II - Strojorad was developed for this location but was not adopted. Since there is no valid spatial planning documentation based on the conducted analyses, creating an urban solution that includes a city hotel was necessary. Given that city hotels, with their hospitality and other public facilities, are part of the tourist offering and gathering places for the local population, the task's objective was to design a contemporary and sustainable urban and architectural and design solution for the city hotel and the surrounding public space. Besides commercial and hospitality activities, the aim is to promote socialization of all age groups in the Grbavica II settlement and the broader local community.

Ilustracija 2. (a) Granica obuhvata. (b) Izvod iz Katastra. Izvori: (a) Zavod za planiranje razvoja Kantona Sarajevo. (b) www.katastar.ba.

Figure 2. (a) Location boundaries. (b) Extract from the Cadastre. Sources: (a) Institute for Planning and Development of Sarajevo Canton. (b) www.katastar.ba.



i interdisciplinarnog, kolaborativnog rada na istraživačko-projektantskom zadatku koji povezuje različite nastavne oblasti urbanističkog i arhitektonskog projektovanja. Nastavni proces se sastojao iz teoretskog dijela koji se izvodio kroz predavanja nastavnika i gostujućih predavača, te praktičnog dijela koji je podrazumijevao vježbe, terensku nastavu i periodične prezentacije faza semestralnog zadatka. Jedan nastavnik i jedan saradnik su radili sa 17 studenata I godine II ciklusa studija, na individualnim zadacima.

U cilju sveobuhvatnog i neposrednog upoznavanja sa temama projektovanja savremenih hotelskih zgrada i kompleksa, upriličena su gostujuća predavanja eksperata iz oblasti projektovanja hotela. Arhitekti Vedad Kasumagić i Feđa Hadžibegović predstavili su savremene trendove u oblasti projektovanja i izvođenja hotela, a akademik Amir Vuk i njegov kolega arhitekt Mirsad Hadžirović su podijelili svoje višegodišnje projektantsko iskustvo u ovoj oblasti kroz prezentaciju realiziranih projekata.

U istraživačkoj fazi studija, obuhvaćena je funkcionalna analiza i mapiranje programskih sadržaja unutar šireg obuhvata lokacije. Analiza užeg obuhvata trenutnog stanja na lokaciji obuhvatila je promatranje i vrednovanje saobraćajnih rješenja, pristupa i pješačkih komunikacija, kao i prirodnih i stvorenih uvjeta postojećeg stanja. Osim analize prostorno-fizičkih aspekata postojećeg stanja, studenti su istraživali sadržaje, dnevnu dinamiku aktivnosti i društvene parametre, te proveli pojedinačne intervjue s korisnicima prostora. Provedena je i opsežna studija referentnih primjera koja je ukazala na dijalog arhitekture savremenih hotela sa svojim okruženjem, kako hoteli predstavljaju žarišta javnog života lokalne zajednice okolnih naselja koja im gravitiraju. Također, istraživanje teorije vezane za hotele ukazuje na „raspadanje“ monolitnih hotelskih struktura i njihovo razlaganje na pojedine strukturalne jedinice, što rezultira gradskim hibridnim objektima, ali i disperznim rješenjima na širem gradskom području (Skorup, 2020). Nekoliko osnovnih zaključaka proizišlih iz analiza lokacije su vodili u pravcu urbanističkog rješenja NOVOG! Strojorada. Prioritet je bio očuvati kontinuitet šetnice uz Miljacku, te sa eventualnim proširenjem zelenog pojasa uz rijeku, riješiti stacionarni saobraćaj javnim parking garažama. Vodeći računa o postojećoj urbanoj matrici,

The teaching in the program encompassed a series of lectures and interdisciplinary, collaborative work on a research-design task that connects various disciplines within urban and architectural design. The educational process consisted of a theoretical component delivered through lectures by instructors and guest lecturers and a practical component involving exercises, fieldwork, and periodic presentations of phases of the semester-long task. One instructor and collaborator worked with 17 first-year students on individual assignments in the second cycle of studies.

To provide a comprehensive and direct understanding of the topics related to the design of modern hotel buildings and complexes, guest lectures were organized featuring experts in the field of hotel design. Architects Vedad Kasumagić and Feđa Hadžibegović presented contemporary trends in the design and construction of hotels. At the same time, academician Amir Vuk and his colleague, architect Mirsad Hadžirović, shared their extensive design experience in this field by presenting completed projects.

During the research phase of the study, a functional analysis and mapping of programmatic content within the broader scope of the location were conducted. The analysis of the narrower scope of the current situation at the location included observation and evaluation of traffic solutions, access, and pedestrian communications, as well as the natural and created conditions of the existing state. In addition to analyzing spatial-physical aspects of the existing situation, students explored content, daily dynamics of activities, and social parameters and conducted individual interviews with space users. An extensive study of reference examples was also conducted, indicating the dialogue of contemporary hotel architecture with its surroundings and how hotels represent focal points of public life for the local community of surrounding neighborhoods. Moreover, research into hotel-related theory indicates the “breaking down” of monolithic hotel structures into individual structural units, resulting in urban hybrid buildings and dispersed solutions in the wider urban area. (Skorup, 2020). Several key conclusions from the location analyses guided the direction of the urban solution for the NEW! Strojorad. The priority was to preserve the

građevinskim linijama, stambenim kulama uz rijeku, i postojećim pješačkim tokovima, trebalo je kreirati urbanističko rješenje kojim bi bio zastupljen i NOVI! gradski hotel. Osnovna smjernica za arhitektonsko projektovanje novog gradskog hotela na toj lokaciji bila je da se planira kao kombinacija otvorenog, zatvorenog i poluzatvorenog/natkrivenog prostora, sa ciljem podizanja kvaliteta urbanog života u užem i širem okruženju.

Koncept NOVOG! gradskog hotela STROJORAD

Obzirom da je najprije trebalo ponuditi novo urbanističko rješenje za lokaciju StroJORAD, većina rješenja, u skladu sa zaključcima provedene analize predviđa pješačko povezivanje Grbavice II i naselja Hrasno, proširenje zelene zone uz šetnicu Aleje Lipa, te ispod najvećeg dijela parcele predviđa podzemnu javnu parking garažu, kako bi se riješio problem stacionarnog saobraćaja. Osim toga, većina urbanističkih rješenja poštujući postojeću urbanu matricu, bavi se redefiniranjem stambene blokovske izgradnje, te nudi nove forme i strukture uzimajući u obzir postojeće građevinske linije i spratnost, odnosno visinu susjednih objekata (Ilustracije 4 i 5). Studentska urbanističko-arhitektonska rješenja predviđaju različite forme javnih gradskih prostora u vidu trgova i parkova, natkrivenih i otvorenih prostora, koji su u direktnoj interakciji sa sadržajima raspoređenim u prizemlju objekata. Najpovoljnija pozicija za hotel predlaže se u sjevero-zapadnom dijelu parcele, uz ulicu i most Topal Osman paše zbog dobre povezanosti sa gradskom saobraćajnom mrežom, ostavljajući centralne dijelove parcele na korištenje pješacima (Ilustracije 4 i 5).

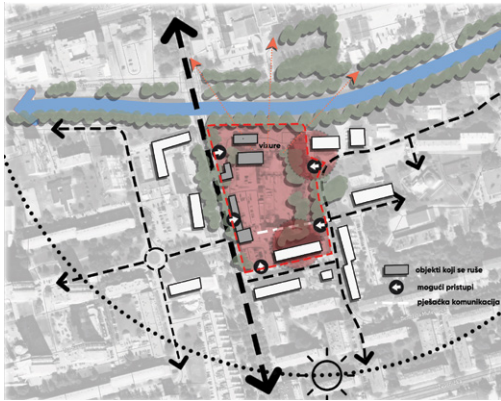
Arhitektonska rješenja istražuju različite tipologije hotela. Sa ciljem oslobađanja što više površine u parteru prevladavaju toranjska rješenja, međutim čest izbor su i atrijalni hoteli zbog velikog potencijala u kreiranju unutrašnjeg dinamičnog poluotvorenog javnog prostora (Ilustracije 6 i 7). Sva ponuđena rješenja u prizemlju imaju pored hola i recepcije, prostore kafea i/ili restorana, koji su direktno povezani sa okolnim javnim parternim prostorima. Posebnu dinamiku u rasporedu javnih sadržaja daju često projektovani prostori sky-bara na višim ili posljednjim etažama hotela. Nezaobilazan sadržaj NOVOG! gradskog hotela StroJORAD

continuity of the promenade along the Miljacka River, with the potential expansion of the green belt along the river, as well as addressing stationary traffic with the use of public parking garages. Considering the existing urban matrix, building lines, residential towers along the river, and existing pedestrian flows, the goal was to create an urban solution incorporating the NEW! City Hotel. The fundamental guideline for the architectural design of the new city hotel in that location was to plan it as a combination of open, closed, and semi-open/covered spaces intending to enhance the quality of urban life in the immediate and broader environment.

The concept of the NEW! City Hotel STROJORAD

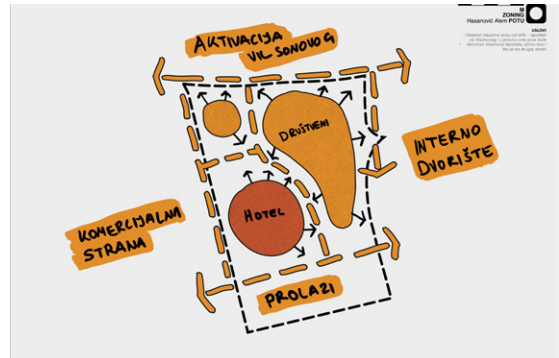
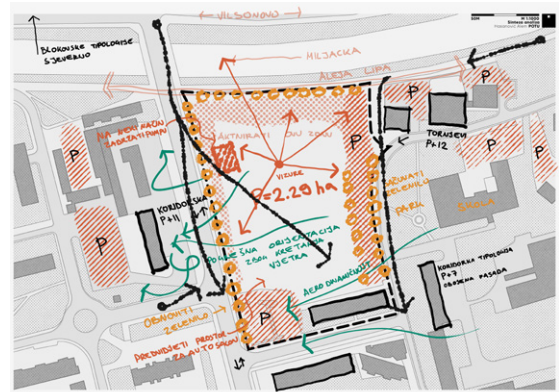
Considering that the initial task was to propose a new urban solution for the StroJORAD location, the majority of solutions, following the conclusions of the conducted analysis, foresee pedestrian connections between Grbavica II and the Hrasno settlement, the expansion of the green zone along the Aleja Lipa promenade, and an underground public parking garage beneath the largest part of the parcel to address the issue of stationary traffic. Additionally, most urban solutions, respecting the existing urban matrix, redefine residential block construction and offer new forms and structures, considering existing building lines and the height of adjacent buildings (Figures 4 and 5). Student urban-architectural proposals envision various forms of public urban spaces in the form of squares and parks, covered and open areas, which are in direct interaction with the facilities distributed on the ground floors of the buildings. The most favourable position for the hotel is proposed in the north-western part of the parcel, along the street and Topal Osman Paša Bridge, due to its good connectivity with the city's traffic network, leaving the central parts of the parcel for pedestrian use (Figures 4 and 5).

Architectural proposals explore various typologies of hotels. Intending to maximize the ground floor area, tower solutions often prevail; however, atrial hotels are also a common choice due to their significant potential in creating an internal dynamic semi-open public space (Figures 6 and 7). All proposed ground-floor solutions include the lobby and reception and café and restaurant spaces directly connected



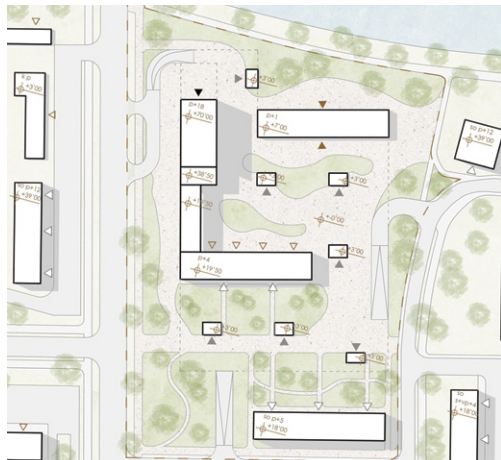
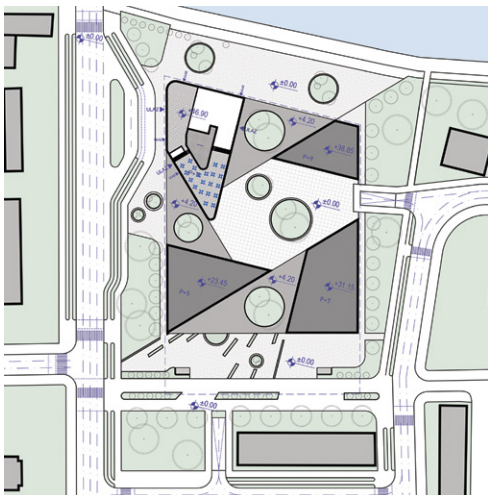
Ilustracija 3. Analize lokacije za NOVI! gradski hotel Strojorad 2022/23. Autori: (a) Hajrudin Omerović, (b) Alem Hasanović.

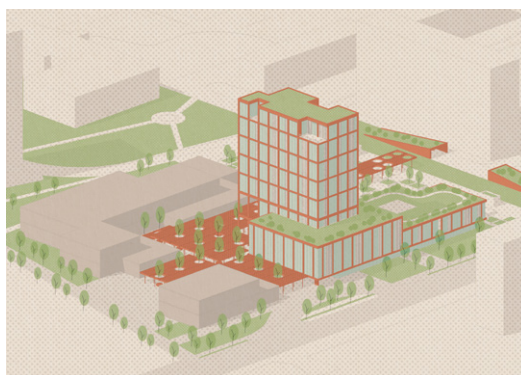
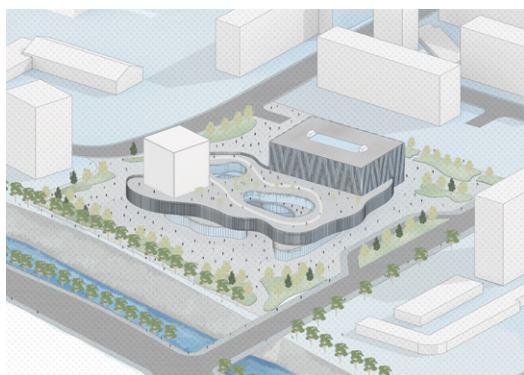
Illustration 3. Location analyses for the NEW! City Hotel Strojorad 2022/23. Authors (a) Hajrudin Omerović, (b) Alem Hasanović.



Ilustracija 4. Situaciona studentska urbanističko-arhitektonska rješenja NOVOG! gradskog hotela Strojorad 2022/23. Autori: (a) Alem Hasanović, (b) Igor Zarić, (c) Benjamin Bojanić.

Illustration 4. Site plans of student urban-architectural proposals for the NEW! City Hotel Strojorad 2022/23. Authors: (a) Alem Hasanović, (b) Igor Zarić, (c) Benjamin Bojanić.





Ilustracija 5. Aksonometrije i 3d prikazi studentskih urbanističko-arhitektonskih rješenja NOVO! gradskog hotela Strojorad 2022/23. Autori: (a) Hajrudin Omerović, (b) Alem Hasanović, (c) Ahmed Peco, (d) Benjamin Bojanić.

Illustration 5. Axonometries and 3D representations of student urban-architectural solutions for the NEW! City Hotel Strojorad 2022/23. Authors: (a) Hajrudin Omerović, (b) Alem Hasanović, (c) Ahmed Peco, (d) Benjamin Bojanić.

je wellness centar koji je projektovan kao odvojena cjelina sa mogućnošću korištenja od strane vanjskih posjetitelja, odnosno stanovnika okolnih stambenih naselja Grbavica II i Hrasno. Vodilo se računa da ravni krovovi budu što više iskorišteni, najčešće kao krovne terase koje koriste wellness prostori ili kongresni centri u okviru hotela (Ilustracija 8).

to the surrounding public landscaped areas. A particular dynamic in the arrangement of public spaces is often provided by the designed sky-bar spaces on the higher or top floors of the hotel. An essential feature of the NEW! City Hotel Strojorad is the wellness center, designed as a separate unit with the possibility of use by external visitors, i.e., residents of the surrounding residential areas of Grbavica II and Hrasno. Care was taken to make the flat roofs as usable as possible, often as rooftop terraces utilized by wellness facilities or conference centers within the hotel (Figure 8).

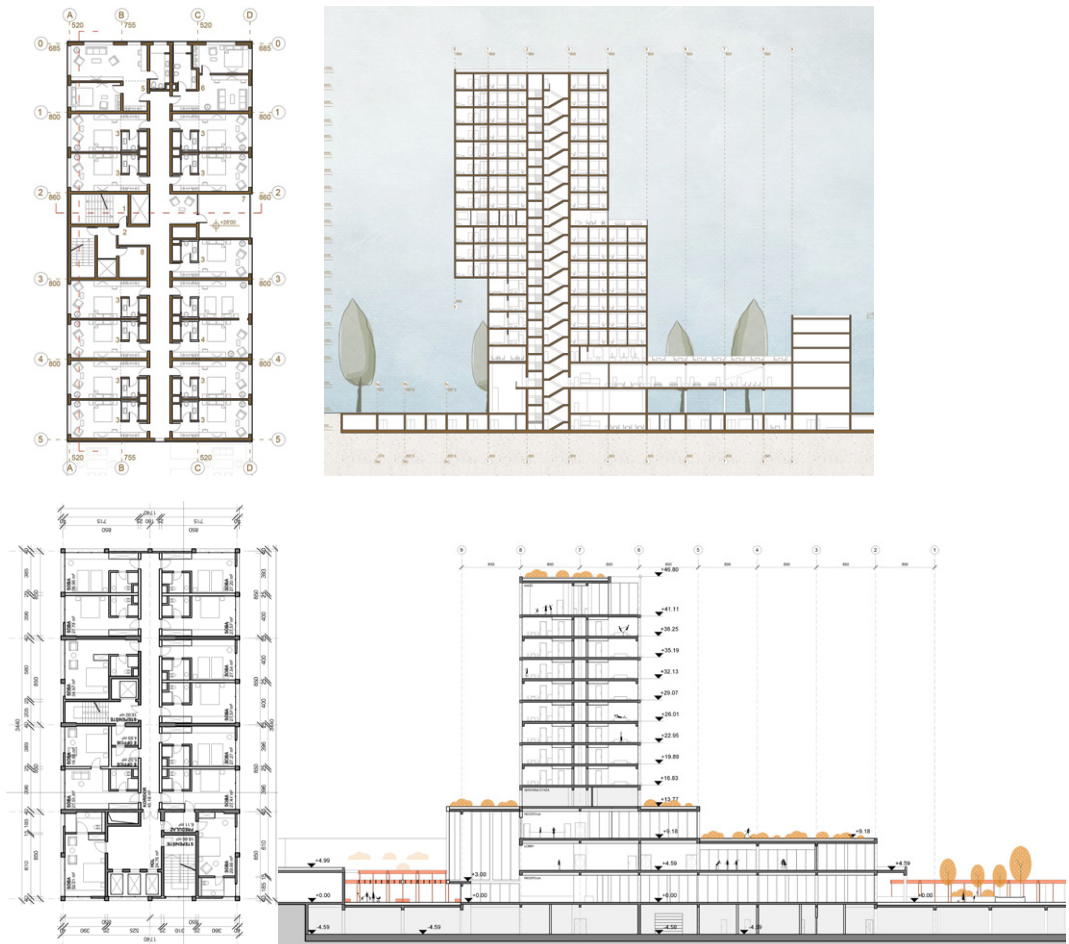
Zaključak

Urbanističko-arhitektonsko istraživanje lokacije Strojorad rezultiralo je nizom rješenja koja ukazuju na važnost očuvanja postojeće urbane matrice i spratnosti u skladu sa visinom okolnih objekata naselja Grbavica II i Hrasno, te povećanja kvalitete parkovskih površina i javnih otvorenih prostora novim formama i rješenjima. Početna ideja o projektovanju hotela na ovoj lokaciji pokazala se opravdanom i mogućom. Niz je pogodnosti koje ova lokacija može pružiti hotelu za njegovo bolje poslovanje, a i hotel bi na ovom mjestu sa svojim ugostiteljskim, rekreativnim i komercijalnim sadržajima mogao odgovoriti i na potrebe lokalnog stanovništva i integrirati se u okolne javne otvorene i

Conclusion

The urban-architectural exploration of the Strojorad location has resulted in a series of proposals that emphasize the importance of preserving the existing urban matrix and height in harmony with the surrounding buildings in the Grbavica II and Hrasno neighborhoods. Additionally, it aims to enhance the quality of park areas and public open spaces through new forms and solutions.

The initial idea of designing a hotel at this location has proven to be justified and feasible. There are several advantages that this location can offer to enhance the hotel's operations. Moreover, the hotel, with its hospitality, recreational, and commercial facilities, could



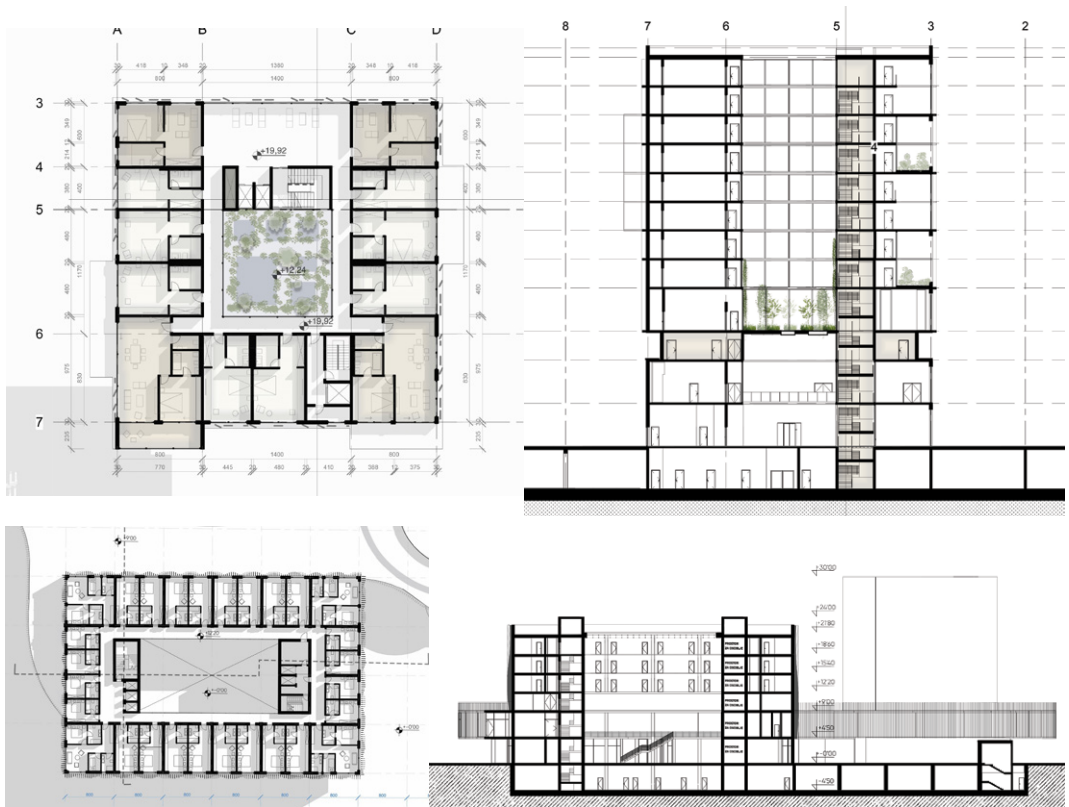
Ilustracija 6. Osnove karakterističnih etaža i presjeci toranjskog rješenja hotela. Autori: (a) Alem Hasanović, (b) Igor Zarić.

Illustration 6. Characteristic floors plans and sections for hotel proposals of tower typology. Authors: (a) Alem Hasanović, (b) Igor Zarić.

poluotvorene prostore. Metodološki rad na ovakvom zadatku studentima je predstavljao novo iskustvo, u smislu integralnog promišljanja nivoa urbanističkog i arhitektonskog rješenja u realnom okruženju. Uzimajući aktivno učešće u ovom edukativnom procesu, općina Novo Sarajevo je dobila niz NOVIH! rješenja lokacije Strojorad. Studentska rješenja potenciraju prostorne kvalitete nasuprot sveprisutnijoj intenzivnoj investicijskog gradnji sa visokim koeficijentima izgrađenosti. Značaj provedenog projekta je upravo u tome da i stavovi mladih stručnih ljudi, budućih arhitekata budu prisutni u javnosti kroz izložbu, publikaciju, web prostor, kako bi oni koji budu pravili buduće planove bili upoznati i sa njihovim rješenjima i vizijama.

meet the needs of the local population and integrate into the surrounding public open and semi-open spaces.

The methodological work on such a task represented a new experience for the students, involving the integrated consideration of urban and architectural solutions at a real-world level. By actively participating in this educational process, the municipality of Novo Sarajevo gained a series of NEW! Solutions for the Strojorad location. Student solutions emphasize spatial qualities in contrast to the increasingly prevalent intensive investment construction with high building coefficients. The significance of the project lies precisely in ensuring that the perspectives of young professionals, or rather future architects, are present in the public sphere through exhibitions, publications, and online spaces, allowing those involved in future planning to become familiar with their solutions and visions.



Ilustracija 7. Osnove karakterističnih etaža i presjeci atrijalnog rješenja hotela. Autori: (c) Ahmed Peco, (d) Hajrudin Omerović.

Figure 7. Characteristic floors plans and sections for hotel proposals of atrial typology. Authors: (c) Ahmed Peco, (d) Hajrudin Omerović.



Ilustracija 8. Perspektivni prikazi studentskih rješenja NOVOG! gradskog hotela Strojorad 2022/23. Autori: (a) Alem Hasanović, (b) Igor Zarić, (c) Ahmed Peco, (d) Hajrudin Omerović.

Figure 8. Perspective views of student proposals for the NEW! City Hotel Strojorad 2022/23. Authors: (a) Alem Hasanović, (b) Igor Zarić, (c) Ahmed Peco, (d) Hajrudin Omerović.



Novi mostovi Novog Sarajeva

NOVI!

MOSTOVI NOVOG SARAJEVA

prof. dr. Mladen Burazor

vanredni profesor, Univerzitet u Sarajevu - Arhitektonski fakultet

associate professor, University of Sarajevo - Faculty of Architecture

Mostovi su pored svoje praktične (upotrebne) vrijednosti kao infrastrukturni objekti, oduvijek imali i onu drugu, simboličku vrijednost. Mostovi spajaju nešto što je razdvojeno prirodnom ili vještačkom barijerom. Iz tog razloga, često imamo priliku slušati (pogotovo u političkom diskursu), kako su izgrađeni „mostovi prijateljstva“, „mostovi povjerenja“ ili su „uspostavljeni mostovi saradnje“. U ovom radu će biti predstavljena dva pješačka mosta, koji su nastali kao rezultat saradnje Općine Novo Sarajevo i Arhitektonskog fakulteta Univerziteta u Sarajevu a predstavljaju autorska djela studenata koji su u okviru izbornog predmeta Arhitektonski natječaji, dizajnirali pobjednička rješenja. Oba mosta, pored svoje praktične uloge, sadrže i simbolički narativ. Pozadina modaliteta saradnje obrazovne institucije i lokalne samouprave je opisana u uvodnom dijelu tako da je u ovom tekstu prezentiran proces koji može poslužiti kao univerzalno rješenje za mnoge slične zadatke.

Mostovi grada Sarajeva

Geomorfološke karakteristike su diktirale razvoj grada Sarajeva od istoka prema zapadu u gotovo linearnom poretku. Svakako najvažnija prirodna odrednica je rijeka Miljacka koja dijeli grad na dva dijela. U periodu od uspostave otomanske vlasti na području BiH pa do danas, izgrađeno je više od 20 mostova duž rijeke Miljacke.

Prvi i najstariji most je Kozja Čuprija koji se nalazio na „starom carigradskom drumu“ a prema nekim procjenama je izgrađen u 16. stoljeću (Grad Sarajevo, 2024). Sa odmakom od više stotina godina, gradili su se ostali mostovi u prvom redu kameni koji su povezivali staru jezgru grada. Svi ti mostovi su imali uporište u koritu rijeke Miljacke sve do pojave čeličnih konstrukcija koje su omogućile ostvarivanje

New bridges of Novo Sarajevo

NEW!

BRIDGES OF NOVO SARAJEVO

Bridges, in addition to their practical (usable) value as infrastructural objects, have always had another symbolic value. Bridges connect something that is separated by a natural or artificial barrier. For this reason, we often have the opportunity to hear (especially in political discourse) how “bridges of friendship,” “bridges of trust,” or “bridges of cooperation” were built. This paper will present two pedestrian bridges, which were created as a result of cooperation between the Municipality of Novo Sarajevo and the Faculty of Architecture of the University of Sarajevo, and represent the works of the students who designed the winning solutions as part of the Architectural Competition elective. In addition to their practical role, both bridges contain a symbolic narrative. The background of the modality of cooperation between the educational institution and the local government is described in the introductory part, so this text presents a process that can serve as a universal solution for many similar tasks.

Bridges of the City of Sarajevo

Geomorphological characteristics dictated the development of the city of Sarajevo from east to west in an almost linear order. Indeed, the most important natural feature is the river Miljacka, which divides the city into two parts. From the establishment of Ottoman rule on the territory of BiH until today, more than 20 bridges have been built along the Miljacka River.

The first and oldest bridge is “Kozja Čuprija,” which was located on the “old Constantinople road” and, according to some estimates, was built in the 16th century (City of Sarajevo, 2024). With the passage of hundreds of years, other bridges were built, primarily stone ones that connected the city’s old core. All these bridges had a foothold in the bed of the Miljacka River until the appearance of steel structures that

većih raspona bez potrebe za gradnjom oslonaca u samoj rijeci (tkz. „Eiffelov most“ iz 1893. godine (Grad Sarajevo, 2024)). Slijedeći dalje tehničko-tehnološke inovacije, počeli su se graditi armirano-betonski mostovi čiji je prvenstveni zadatak bio povezati okolne kolske saobraćajnice.

U periodu nakon rata u BiH (1992-1995.) do danas, izgrađeno je 5 novih mostova i to: pješački most „Ars Aevi“ iz 2002. godine; „Novi most Vijećnica“ 2003. godine; „Most malezijsko-bosanskohercegovačkog prijateljstva“ 2005. godine; pješački most „Festina Lente“ iz 2012., i pješački „Most kraj džamije Istiqlal“ (Grad Sarajevo, 2024). Od navedenih, recentno izgrađenih mostova, svojim stilskim i oblikovnim kvalitetama se ističu dva pješačka mosta i to most „Ars Aevi“ koji je projektirao svjetski poznati arhitekt i dobitnik Pritzkerove nagrade, Renzo Piano. Taj most ujedno predstavlja jedinstvenu cjelinu sa planiranim objektom muzeja savremene umjetnosti i „simbolično i funkcionalno dovodi građane Sarajeva na buduću lokaciju muzeja“ (Gradski muzeji Sarajevo, 2024) (Ilustracija 1a). Most „Festina Lente“ imenovan po latinskoj poslovice „požuri polako“, je autorsko djelo tadašnji studenata Akademije likovnih umjetnosti u Sarajevu i to Alagić Adnana, Hrustić Amile i Kanlić Bojana (Alikalfić, Sadović, & Galić-Grozdanić, 2007) (Ilustracija 1b).

Za potrebe izrade idejnog rješenja mosta ispred Akademije likovnih umjetnosti u Sarajevu,

Ilustracija 1. (a) Most „Ars Aevi“ (b) Most „Festina Lente“. Izvor: Autor.

Ilustracija 1. (a) The bridge „Ars Aevi“ (b) The bridge „Festina Lente“. Source: Author.



made it possible to build larger spans without the need to build supports in the river itself (the so-called “Eiffel Bridge” from 1893 (City of Sarajevo, 2024)). Following further technical and technological innovations, concrete bridges were built to connect the surrounding roadways.

In the period after the war in Bosnia and Herzegovina (1992-1995) until today, five new bridges were built, namely: pedestrian bridge “Ars Aevi” in 2002, “New Town Hall Bridge” in 2003; “Malaysian-Bosnian-Herzegovinian Friendship Bridge” in 2005; the “Festina Lente” pedestrian bridge from 2012, and the “Bridge near the Istiqlal Mosque” pedestrian bridge (City of Sarajevo, 2024). Of the mentioned recently built bridges, two pedestrian bridges stand out for their stylistic and design qualities, namely the “Ars Aevi” bridge, which the world-famous architect and winner of the Pritzker Prize, Renzo Piano, designed. This bridge also represents a unique entity with the planned object of the Museum of Contemporary Art and “symbolically and functionally brings the citizens of Sarajevo to the future location of the museum” (Museums of the City of Sarajevo, 2024) (Figure 1a). The “Festina Lente” bridge, named after the Latin proverb “hurry slowly,” is the work of the (at that time) students of the Academy of Fine Arts in Sarajevo: Adnan Alagić, Amila Hrustić and Bojan Kanlić (Alikalfić, Sadović, & Galić-Grozdanić, 2007) (Figure 1b).

In 2007, the Association of Architects in Bosnia and Herzegovina announced a public competition for the design of the bridge in front of the Academy of Fine Arts in Sarajevo, to which 42 works were submitted (Asocijacija arhitekata u BiH, 2007). The architectural qualities of the winning work are best described by the jury itself: “... the offered idea is so



Asocijacija arhitekata u BiH je 2007. godine raspisala javni natječaj na koji su pristigla 42 rada (Asocijacija arhitekata u BiH, 2007). Arhitektonske kvalitete pobjedničkog rada najbolje opisuje sam žiri: „... ponuđena ideja toliko karakteriše tzv. „memoriju mjesta” i donosi toliko simboličkih socio-filozofskih i artistskih poruka (u sarajevskom žargonu: „otkačena poruka”), da se, s pravom, izdvaja kao ingeniozna ideja izuzetne zanimljivosti i originalnosti. Za razliku od ostalih radova koji se zadržavaju u sferi konvencionalnih i već viđenih poimanja funkcije i arhitekture mostova, ovaj rad nudi pravi „genius loci” primjeren prostoru ispred hrama umjetnosti kakav je Akademija. Forma je jednostavna, a istovremeno i atraktivna i budi čitav niz asocijacija, kao što su primjerice: slap Miljacke, kupola Akademije, siluete mostova na Miljacki, savremena interpretacija mostovskog luka, uspostavljajući čitav niz vizuelnih sekvenci, kako prema Radićevoj i Akademiji, tako i nizvodno i uzvodno uz Miljacku. Posebnim kvalitetom smatramo definisanje pozicije na mostu za vizire duž korita Miljacke sa sekvencama arhitektonskog užeg i šireg okoliša. Tako autor stvara i socijalan prostor koji je potreban i dovoljan. Ocjenjivački sud najtoplije preporučuje materijalizaciju ove izvanredne ideje i stoji na stanovištu da je riječ o izuzetnom poklonu gradu Sarajevu koji treba objeručke prihvatiti ...“ (Alikalčić, Sadović, & Galić-Grozdanić, 2007)

Autori ova dva mosta (koji se ističu nizom pozitivnih atributa) su u stvari djela dizajnera a ne građevinskih inženjera - koji po svojoj vokaciji primarno rade objekte niskogradnje. Upravo iz tog razloga je dat naglasak na tim primjerima i ujedno ponuđen odgovor na pitanje zašto se arhitekti i dizajneri uopće trebaju baviti projektiranjem mostova. U svijetu postoje mnogobrojni primjeri mostova koje su projektirali arhitekti a dovoljno je spomenuti dva: „Millenium bridge” u Londonu i „Ponte della Costituzione” u Veneciji. Iako su projektirani od strane renomirani arhitekata „Foster and Partners” (London) i Santiago Calatrava (Venecija), ti mostovi nisu bili imuni na tehničke probleme. Arhitekti ne mogu projektirati mostove bez građevinskih inženjera ali zadani nekonvencionalni dizajn, se pokazao izazovnim i za građevinske inženjere sa dugogodišnjim iskustvom. U slučaju „Millenium bridge“-a, odmah po otvorenju on je morao biti zatvoren zbog pojave neugodne

characteristic of the so-called “memory of the place” and brings so many symbolic socio-philosophical and artistic messages (in Sarajevo jargon: “wacky message”) that it rightfully stands out as an ingenious idea of exceptional interest and originality. Unlike other works that remain in the sphere of conventional and previously seen notions of the function and architecture of bridges, this work offers a true “genius loci” suitable for the space in front of the temple of art, such as the Academy. The form is simple and, at the same time, attractive and evokes a whole series of associations, such as the Miljacka waterfall, the dome of the Academy, the silhouettes of the bridges on the Miljacka, the contemporary interpretation of the bridge’s arch, establishing a whole series of visual sequences, both towards Radićeva (street) and the Academy, as well as downstream and upstream along Miljacka. We consider the definition of the position on the bridge for the visors along the Miljacka with the sequences of the narrow and wider architectural environment to be of special quality. Thus, the author creates a social space that is both necessary and sufficient. The judging panel warmly recommends the materialization of this extraordinary idea. It thinks it is an exceptional gift to Sarajevo that should be accepted wholeheartedly...” (Alikalčić, Sadović, & Galić-Grozdanić, 2007).

The authors of these two bridges (which stand out with several positive attributes) are, in fact, the works of designers and not civil engineers - who, by their vocation, primarily work on civil engineering objects. It is precisely for this reason that emphasis was given to these examples, and at the same time, an answer was offered as to why architects and designers should be engaged in bridge design. There are numerous examples of bridges designed by architects worldwide, and it is enough to mention two: “Millenium Bridge” in London and “Ponte della Costituzione” in Venice. Although they were designed by renowned architects “Foster and Partners” (London) and Santiago Calatrava (Venice), these bridges were not immune to technical problems. Architects can only design bridges with civil engineers, but the unconventional design proved challenging even for engineers with many years of experience. In the case of the “Millenium Bridge,” immediately after opening, it had to be closed due to the appearance of unpleasant lateral vibration

lateralne vibracije (zanošenje mosta) jer kako su naknadna istraživanja pokazala, pješaci koji hodaju nasumično, održavajući ravnotežu kao i obično, su uzrokovali veliko njihanje mosta (Macdonald, 2009). U slučaju pješačkog mosta u Veneciji, arhitekt Santiago Calatrava je bio suočen sa tužbom za nemar prilikom projektiranja pješačkog mosta u Veneciji zbog skliskih podnih staklenih panela (zbog kojih su ljudi padali i lomili kosti) koji su na kraju morali biti zamijenjeni (Ravenscroft, 2019), (Vora, 2022).

Projektiranje (kvalitetnih, atraktivnih, unikatnih, smjelih, ...) mostova je zajednička aktivnost dizajnera i građevinskih inženjera. Kako se može vidjeti iz navedenih primjera, iza snažnih ideja mora postojati niz koraka i razrađenih scenarija kojima će se spriječiti veliki broj potencijalnih problema. Projekat mosta „Ars Aevi“ je bio svojevrsni poklon (renomiranog) arhitekta gradu Sarajevu (Gradski muzeji Sarajevo, 2024) dok je most “Festina Lente” bio rezultat sprovedenog natječaja na kojem su mladi dizajneri briljirali. U tom kontekstu, postavlja se pitanje potencijala koji imaju studenti arhitekture kada je riječ o projektiranju pješačkih mostova i na koji način ga mogu pokazati. U slučaju novih mostova Novog Sarajeva, odgovor je bio u sprovođenju studentskog arhitektonskog natječaja.

Koliko su zaista realni studentski zadaci?

Vječno pitanje unutar akademske zajednice je kako uspostaviti pravi balans između teorije i prakse. U nastavi, kod koncipiranja projektantskih zadataka, često se poseže ka relativno idealnim scenarijima. Projektira se objekt za imaginarnog investitora, bez posebno određenog budžeta i prepušta se studentima da pokažu svoje kreativne potencijale. U takvim situacijama nema posebnih limita kod odabira konstruktivnog sistema, fasadne obloge, opreme i sl. Bez kontakata sa stvarnim investitorom – njegovim željama (prohtjevima), postavljenih racionalnih ali i iracionalnih uvjeta, i bez definiranih budžetskih ograničenja, studenti imaju popriličnu slobodu dok god rade u okviru propisanih urbanističko-tehničkih uvjeta i standarda i normativa koji vrijede za tu vrstu gradnje. Sa druge strane, kada se radi za poznatog investitora i u okvirima (skromnih) budžeta, onda je za studente vrlo izazovno izraditi projekte kojim će pokazati sav svoj kreativni potencijal. Umjesto izvanrednog/

(bridge swinging) because, as subsequent research showed, pedestrians walking randomly, maintaining their balance as usual, caused an enormous swaying of the bridge (Macdonald, 2009). In the case of the pedestrian bridge in Venice, architect Santiago Calatrava was sued for negligence when designing the pedestrian bridge in Venice due to slippery floor glass panels (causing people to fall and break bones), which eventually had to be replaced (Ravenscroft, 2019), (Vora, 2022).

Designing (with attributes such as quality, attractiveness, uniqueness, boldness, etc.) bridges is a joint activity of designers and civil engineers. As seen from the above examples, behind strong ideas, there must be a series of steps and elaborate scenarios to prevent many potential problems. The “Ars Aevi” bridge project was a gift from the (renowned) architects to the city of Sarajevo (Museums of the City of Sarajevo, 2024), while the “Festina Lente” bridge was the result of a competition in which young designers excelled. In this context, the question arises of architecture students’ potential when designing pedestrian bridges and how they can demonstrate it. In the case of New Sarajevo’s new bridges, the answer was to conduct a student architectural competition.

How realistic are student assignments?

A perennial question within the academic community is how to strike the right balance between theory and practice. In classes, relatively ideal scenarios are often used when designing given assignments. An object is designed for an imaginary investor without a specific budget, and students are left to show their creative potential. There are no particular limits when choosing a constructive system, facade cladding, and equipment. Without contact with the real investor - his wishes, set of rational but irrational conditions, and without a defined budget (with restrictions), students have considerable freedom if they work within the prescribed urban-technical conditions and standards and norms that apply to that type of construction. On the other hand, when working for a well-known investor and within the framework of (modest) budgets, it is very challenging for students to create projects showing all their creative potential. Instead of extraordinary/provocative work (most often financially unrealistic solutions), students may

provokativnog rada (najčešće financijski nerealnog rješenja), studenti mogu biti suočeni sa prosječnim i ne tako atraktivnim ali realnim rješenjem.

Povezivanje teorije i prakse unutar akademskih okvira je moguće izvesti na više načina. Arhitektonski fakultet Univerziteta u Sarajevu ima dugogodišnju saradnju sa raznim gradskim općinama. To je dovelo do mnogih arhitektonskih projekata, od kojih su neki realizirani ili su u fazi provođenja. Ta saradnja (između Fakulteta i lokalnih vlasti) stvara svojevrsni „poligon“ (ili generator ideja) na kojem učenici, nastavnici i korisnici mogu razmjenjivati mišljenja ali i evaluirati dizajnerske radove koji su usmjereni ka poboljšanju našeg životnog okruženja. Jedan od, možda i najboljih načina, za usvajanje znanja jeste „learning by doing“ pristup. U slučaju „Sarajevskih paviljona“ i „Banjalučkog mola“ studenti su prošli sve arhitektonske faze od izrade idejnog rješenja, do realizacije tj. gradnje sa vlastitim kapacitetima (rukama i ručnim alatima) (Burazor & Schwai, 2020). Takve praktične ali i životne lekcije koje osim stručne sfere prelaze i u sferu socijalne interakcije, organizacije rada i saradnje sa lokalnom zajednicom su sigurno najbolji modaliteti za razvoj studenata arhitekture. Problem koji se neminovno javlja i zbog kojeg je teško organizirati takve vrste aktivnosti na redovnoj bazi, jesu rokovi i kontinuirana posvećenost koju je teško realizirati kada studenti imaju redovnu nastavu. Intenzivni rad na jednom predmet ujedno znači zanemarivanje obaveza na drugim predmetima tako da je jedino realno rješenje organiziranje vannastavnih radionica u periodima kada studenti imaju manje obaveza ili su završili sa predajama programa i polaganjima ispita. Sa druge strane, moguće je djelomično integrirati praktična iskustva i u nastavni proces kao što je to slučaj sa izbornim predmetom „Arhitektonski natječaji“ koji je pozicioniran u šesti semestar prvog ciklusa studija.

Arhitektonski natječaji

Već dugi niz godina, na predmetu se organiziraju realni arhitektonski natječaji jer forma natječaja predstavlja najbolji način rješavanja postavljenih zadataka. Pod istovjetnim uvjetima, studenti se takmiče a odluka o najboljem radu više ne ovisi o predmetnom nastavniku i njegovim

be faced with an average and not-so-attractive but realistic solution.

Connecting theory and practice within academic frameworks can be done in several ways. The Faculty of Architecture of the University of Sarajevo has long-term cooperation with various city municipalities. This led to many architectural projects, some of which have been realized or are being implemented. This cooperation (between the Faculty of Architecture and local authorities) creates a sort of “polygon” (or idea generator) where students, teachers, and users can exchange opinions and evaluate design works aimed at improving our living environment. One of the best ways to acquire knowledge is the “learning by doing” approach. In the case of the “Sarajevo Pavilions” and “Banja Luka Pier,” the students went through all the architectural phases from conceptual design to realization, i.e., construction with their capacities (hands and hand tools) (Burazor & Schwai, 2020). Such practical and life lessons that, in addition to the professional sphere, also move into the sphere of social interaction, work organization, and cooperation with the local community are indeed the best modalities for developing architecture students. The problems that inevitably arise and make it difficult to organize these activities regularly are deadlines and continuous dedication, which are difficult to establish when students have regular classes. Intensive work on one subject also means neglecting obligations on other subjects. Hence, the only realistic solution is to organize extracurricular workshops in periods when students have fewer obligations or have finished with program submissions and exams. On the other hand, it is possible to partially integrate practical experiences into the teaching process, as is the case with the elective course “Architectural Competitions,” which is positioned in the sixth semester of the first study cycle.

Architectural competitions

For many years, real architectural competitions have been organized within the course because the form of the competition represents the best way to solve the given task. Under the same conditions, students compete with their submitted assignments, and the decision on the best work no longer depends on the teacher

preferencijama već o stavu ocjenjivačkog suda. Ovom prilikom važno je istaknuti studentski natječaj za izradu Idejnog rješenja spomenika palim borcima na prostoru parka „Betanija“ u Sarajevu (studijska 2018./2019. godina). Nakon provedenog natječaja, pristupilo se izradi i investiciono-tehničke dokumentacije potrebne za pribavljanje urbanističke i građevinske dozvole. Recentnije, u akademskoj godini 2022./2023. svi studenti su imali priliku sudjelovati na natječaju za uređenje interijera ulaza i amfiteatra Fakulteta zdravstvenih studija Univerziteta u Sarajevu s realnim izgledima za uređenje prostora prema pobjedničkim nacrtima.

U kontekstu saradnje Fakulteta sa Općinom Novo Sarajevo u akademskoj 2021./2022. godini, postavljen je zadatak za izradu idejnog rješenja pješačkih mostova u gradu Sarajevu. Imajući u vidu da je tipologija objekata dosta drugačija od one koja se izučava na Fakultetu, nastava na izbornom predmetu je neminovno bila prilagođena tako da su studenti mogli pratiti predavanje gosta predavača sa dugogodišnjim iskustvom iz oblasti mostogradnje. Ovo stručno vodstvo pomoglo je studentima da postave „čvrste temelje“ za svoje dizajne. Po isteku rokova za predaju natječajnih radova, studentski radovi (u maniru anonimnog natječaja) su evaluirani od strane ocjenjivačkog suda kojeg su činili tri člana. Predsjednik ocjenjivačkog suda (žirija) je bio arhitekt i direktor Instituta za arhitekturu, urbanizam i prostorno planiranje Arhitektonskog fakulteta UNSA, drugi član je bio građevinski inženjer specijaliziran za mostogradnju dok je treći član žirija bila arhitektica i predstavnica Službe za investicije i zaštitu okoliša Općine Novo Sarajevo.

Mikrolokacije

Natječajem su tretirane dvije lokacije od kojih se na prvoj već nalazi pješački most. Prva lokacija je u naselju Grbavica i u pitanju je most koji se nalazi u neposrednoj blizini bivšeg hotela „Bristol“ (danas hotel „Novotel“). Tim mostom se povezuju dvije šetnice „Aleja lipa“ sa lijeve obale rijeke Miljacke i „Wilsonovo šetalište“ koje se nalazi na drugoj obali rijeke (Ilustracija 2a). Specifičnost postojećeg mosta je da su njegovi temelji u rijeci Miljackoj što se kroz niz godina eksploatacije pokazalo kao loše rješenje i njegova rekonstrukcija nije opravdana (utjecaji promjene vodostaja, udari nanosa na

and his preferences but on the jury's opinion. On this occasion, it is essential to highlight the student competition for the Design of the conceptual solution for the monument to the fallen soldiers in the area of the “Betanija” park in Sarajevo (2018/2019 academic year). After the competition, the preparation of the investment and technical documentation necessary for obtaining the urban planning and construction permit was started and delivered. More recently, in the academic year 2022/2023, all students had the opportunity to participate in the competition for the interior Design of the entrance hall and the amphitheater of the Faculty of Health Studies of the University of Sarajevo with realistic prospects for decorating the space according to the winning designs.

In the context of the Faculty's cooperation with the Municipality of Novo Sarajevo in the academic year 2021/2022. year, the task was to create a conceptual solution for pedestrian bridges in Sarajevo. Bearing in mind that the given typology is quite different from the one studied by the Faculty, the teaching of the optional course was inevitably adjusted so that students could follow the lecture of a guest lecturer with many years of experience in the field of bridge construction. This expert guidance helped students lay a “solid foundation” for their designs. At the end of the deadline for submitting competition works, the student designs (in the manner of an anonymous competition) were evaluated by a jury of three members[1]. The president of the judging panel (jury) was an architect and director of the Institute for Architecture, Urbanism, and Spatial Planning of the UNSA Faculty of Architecture; the second member was a civil engineer who specialized in bridge construction. In contrast, the third jury member was an architect and representative of the Municipality of Novo Sarajevo Investment and Environmental Protection Service.

Microlocations

The competition covered two locations, the first of which already has a pedestrian bridge. The first location is in the settlement of “Grbavica,” and it is a bridge located near the former hotel “Bristol” (today the hotel “Novotel”). This bridge connects the two promenades, “Aleja Lipa,” on the left bank of the river Miljacka, and “Wilson's Promenade,” located on the other bank of



Ilustracija 2. (a) Most kod hotela „Bristol“ („Novotel“) (b) Lokacija buduće mosta kod O.Š. Vladimir Nazor. Izvor: Autor.

Ilustracija 2. (a) Bridge near Hotel “Bristol” (“Novotel”) (b) Location of the future bridge near primary school “Vladimir Nazor”. Source: Author.

stubove, smrzavanje, ...). To je ujedno i razlog što se tražilo rješenje za njegovu zamjenu. Druga lokacija se nalazi nešto više od jednog kilometra nizvodno od prve lokacije u naselju Hrasno. Potreba za izgradnjom mosta na toj lokaciji je evidentna iz više razloga a osnovni je što ne postoji direktna pješačka komunikacija na relaciji Dom zdravlja „Omer Maslić“ kojem gravitiraju građani iz naselja Hrasno a nalazi se na suprotnoj obali rijeke Miljacke. Sa druge strane, ne postoji direktna pješačka veza prema O.Š. Vladimir Nazor kojoj također gravitiraju učenici sa desne obale rijeke Miljacke dok se škola nalazi na lijevoj obali (Ilustracija 2b). U kontekstu postavljenog projektnog zadatka, osim univerzalnih uvjeta koji vrijede za ovakvu vrstu konstrukcija poput funkcionalnosti, ekonomičnosti i jednostavnosti održavanja, od kandidata se tražilo da inkorporiraju pristupne biciklističke staze ali i da u pogledu širine mosta, planiraju dovoljan koridor za prolazak vozila hitne pomoći u iznimnim slučajevima.

Priprema i realizacija natječaja

U toku ljetnog semestra, predavanja su bila prilagođena odabranom zadatku s tim da je dvoje studenata dobrovoljaca, umjesto učešća u natječaju, radilo na pripremi raspisa natječaja, njegovoj realizaciji, organizaciji izložbe radova i izradi kataloga. Postavljeni rok za dostavljanje natječajnih radova je bio zakazan za mjesec septembar prije ispitnog roka. Uvjet za ostvarivanje pozitivne ocjene na predmetu bio je kompletiran i na vrijeme predan natječajni rad uz gradaciju ocjena na način da prvonagrađeni

the river (Figure 2a). The main characteristic of the existing bridge is that its foundations are in the Miljacka River, which has proven to be a wrong solution, as seen through several years of exploitation. Therefore, reconstruction is unjustified (effects of water level changes, deposit impacts on pillars, freezing, etc.). Therefore, a replacement of the existing bridge was sought as the most appropriate measure. The second location is located more than one kilometer downstream from the first location in the settlement of “Hrasno.” The need to build a bridge at that location is evident for several reasons, the main one being that there is no direct pedestrian communication on the route to the “Omer Maslić” Health Center, to which the citizens from the Hrasno settlement gravitate (and which is located on the opposite bank of the Miljacka River). On the other hand, there is no direct pedestrian connection to the primary school “Vladimir Nazor,” to which pupils from the right bank of the Miljacka River also gravitate. In contrast, the school is on the left bank (Figure 2b). In the context of the set project task, in addition to the universal conditions that apply to this type of construction, such as functionality, economy, and ease of maintenance, the candidates were asked to incorporate bicycle access paths but also to plan a sufficient corridor for the passage of emergency vehicles in exceptional (emergency) cases.

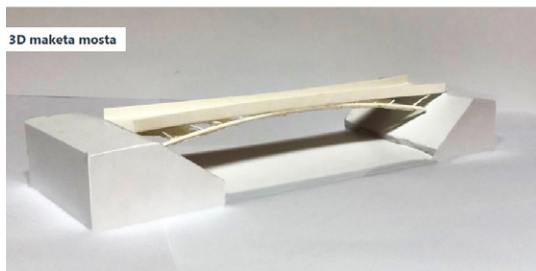
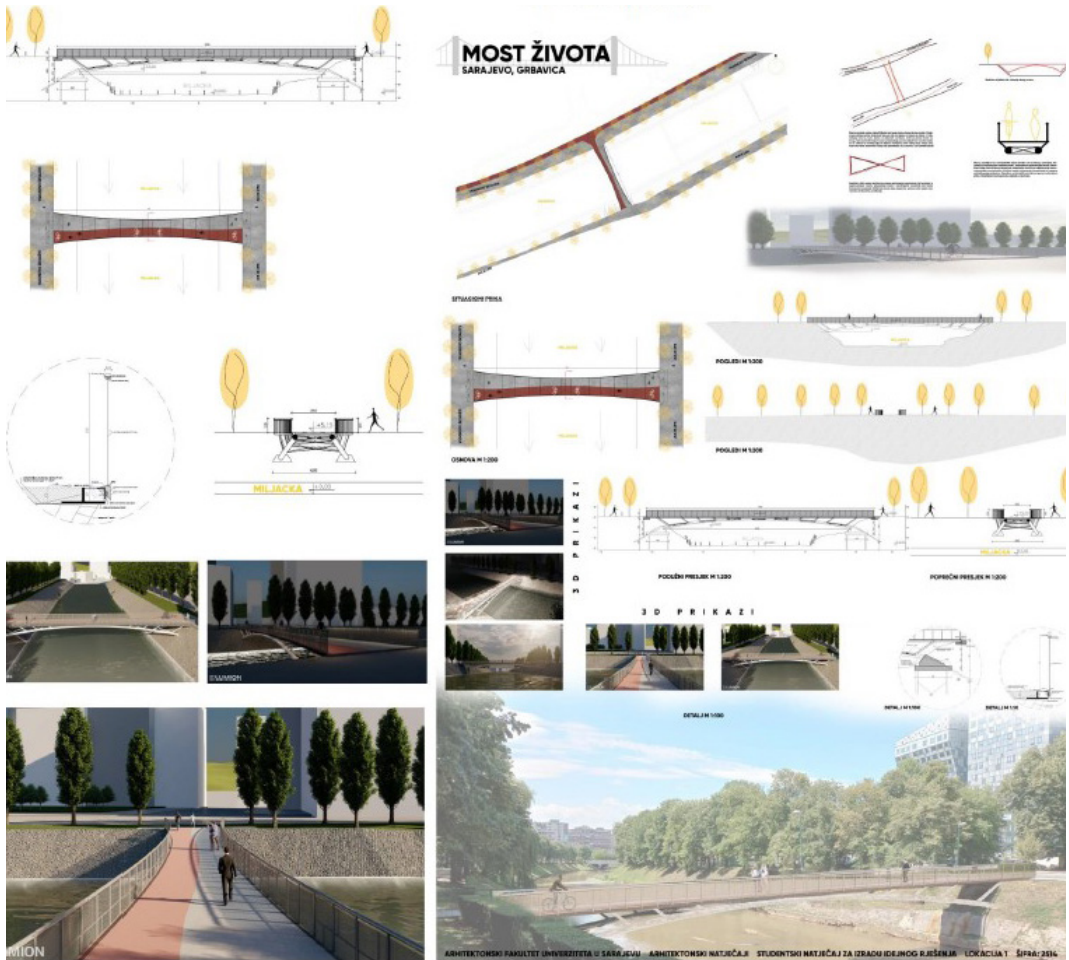
radovi budu ocijenjeni maksimalnom ocjenom. U konačnici, 18 validnih radova je primljeno nakon čega je ocjenjivački sud započeo sa radom. Jedinstvenom odlukom žirija, za pobjednike natječaja su proglašeni studenti Ekrem Polovina za „Most života“ na lokaciji Grbavica i Tajra Šurković za „Paper bridge“ u naselju Hrasno (Ilustracija 3 i Ilustracija 4).

U opisu idejnog rješenja, autor Ekrem Polovina pojašnjava ideju vodioj kojom se rukovodio kod izrade idejnog rješenja a to je da: „Dizajn mosta oblikuje priča (činjenica) koja se veže za mjesto na kojem se nalazi. U toku zadnjeg rata na ovom mjestu se dešavala razmjena civila sa jedne strane na drugu, tako da široki krajevi mosta predstavljaju put ka slobodi do trenutka kada se on sužava na sredini gdje se dešava razmjena civila. Zbog toga svega ovaj most ima takav autentičan dizajn koji predstavlja žilu kucavicu i put prema slobodi“ (Polovina, 2023). Afirmativni osvrt ocjenjivačkog suda se prvenstveno odnosio na oblikovnost i estetiku rješenje uz određene sugestije vezano za nosivu konstrukciju i opremu mosta: „Most u prostoru izgleda vrlo elegantno i prozračno sa blagom zakrivljenom linijom čeličnih nosača vidljivih u presjeku sa sličnom zakrivljenošću koja se pojavljuje i u osnovi što rješenju daje dodatni kvalitet i originalnost. Širenje mosta prema krajevima osim u oblikovnom potrebno je iskoristiti i u funkcionalnom smislu, i to na način suptilnijeg uklapanja sa pješačkim šetnicama koje se nalaze sa obje strane rijeke. Ideja je interesantna, jednostavna i provodiva, međutim stvarne dimenzije je potrebno optimizirati kroz računsku analizu koja je sastavni dio nekih kasnijih analiza. Potrebno je provjeriti da donja ivica konstrukcije bude iznad kote visoke vode na lokaciji sa rangom pojave 1/100, te je u tom smislu potrebno oblikovati plići ili dublji luk. Uvažavajući da je širina mosta promjenjiva, potrebno je definisati minimalnu širinu mosta u sredini kako bi se obezbijedila protočnost pješaka i biciklista, a sve kako se na mostu ne bi stvaralo usko grlo. U smislu materijalizacije, potrebno je razmotriti da se umjesto od čelika lučni nosači izvode od armiranog betona. Opremite barem presjeke mosta sa elementarnim kotama kako bi crtež imao tehnički karakter, te kako bi se moglo sagledati rješenje kao cjeline. S obzirom da konstrukcija silazi u korito veoma je važan visinski odnos sa kotom visoke vode na lokaciji. Oblikovno, most je usklađen sa postojećim ambijentom,

Preparation and implementation of the competition

During the summer semester, the lectures were adapted to the given topic. Instead of participating in the competition, two student volunteers worked on preparing the competition proposal, implementing and organizing the exhibition of works, and creating the catalog. The set deadline for submission of competition designs was scheduled for September before the exam. The condition for obtaining a positive grade in the subject was the completed and submitted (on time) competition work with grades assigned so that the first-prized works are graded with the maximum grade. In the end, 18 valid works were received, after which the jury began its work. By a unanimous decision of the jury, students Ekrem Polovina for the “Bridge of Life” in the Grbavica location and Tajra Šurković for the “Paper bridge” in the Hrasno settlement were declared the winners of the competition (Figure 3 and 4).

In the description of the conceptual design, the author Ekrem Polovina explains the idea that guided him when creating the conceptual design: “The design of the bridge is shaped by a story (fact) which is connected to the place where it is located. During the last war, there was an exchange of civilians from one side to the other at this place, so the wide ends of the bridge represent the path to freedom until the moment it narrows in the middle, where the civilian exchange occurs. This bridge has an authentic design that represents the lifeblood and the path to freedom.” (Polovina, 2023). The jury’s affirmative review was primarily related to the shape and aesthetics of the solution with certain suggestions related to the load-bearing structure and equipment of the bridge: “The bridge in space looks very elegant and airy with a slightly curved line of steel girders visible in section with a similar curvature appearing in the base which gives to the solution additional quality and originality. The widening of the bridge towards the ends, in addition to the design, should also be used in a functional sense, in a more subtle way of fitting in with the pedestrian walkways located on both sides of the river. The idea is interesting, simple and implementable; however, the actual dimensions need to be optimized through computational analysis, which is an integral part of some later analyses. It is necessary to check



Ilustracija 3. Idejno rješenje mosta kod hotela „Bristol“ („Novotel“).

Ilustracija 3. Conceptual solution of the bridge near Hotel „Bristol“ („Novotel“).

nenametljiv, ali ipak sa dozom originalnosti vrlo elegantna konstrukcija primjerena za pješački most zadatog raspona. Na jednostavan način, tj. svojim oblikovnim rješenjem i idejom se ističe i izdvaja u odnosu na druga rješenja u estetskom smislu; predstavlja kompaktnu i skladnu

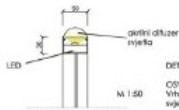
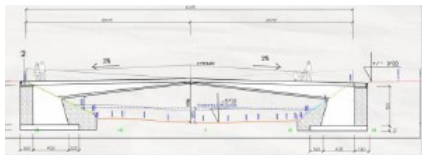
that the lower edge of the structure is above the high water level at a location with an occurrence rate of 1/100, and in this sense it is necessary to form a shallower or deeper arc. Acknowledging that the width of the bridge is variable, it is necessary to define the minimum width of the bridge in the middle in order to ensure the flow of pedestrians and cyclists, all in order not to create a bottleneck on the bridge. In terms of materialization, it is necessary to consider that instead of steel, the arc supports are made of reinforced concrete. Equip at least the sections of the bridge with elementary elevations so that the drawing has a technical character, and so that the solution can be seen as a whole. Given that the construction descends into the river trough, the height relationship with the high water level at the location is very important. The shape of the bridge is in harmony with the existing environment, unobtrusive, but still with a touch of originality, a very elegant

cjelinu. Svojom jednostavnošću i oblikovnim konstruktivnim rješenjem, kao i izborom materijala na dosta uspješan način se postigla usklađenost između kreativnih i komercijalnih aspekata. Prijedlog za doradu: da se razmisli o drugoj materijalizaciji ograde iz funkcionalnih razloga i održavanja, ali i generalno dati malo više pažnje kod odabira materijala (ograda, popločanje), sa aspekta njihovog životnog vijeka i ponašanja kroz vrijeme.“ (UNSA - Arhitektonski fakultet, 2022).

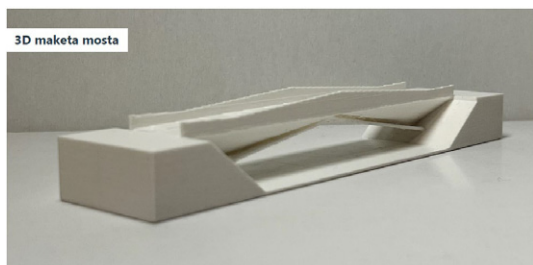
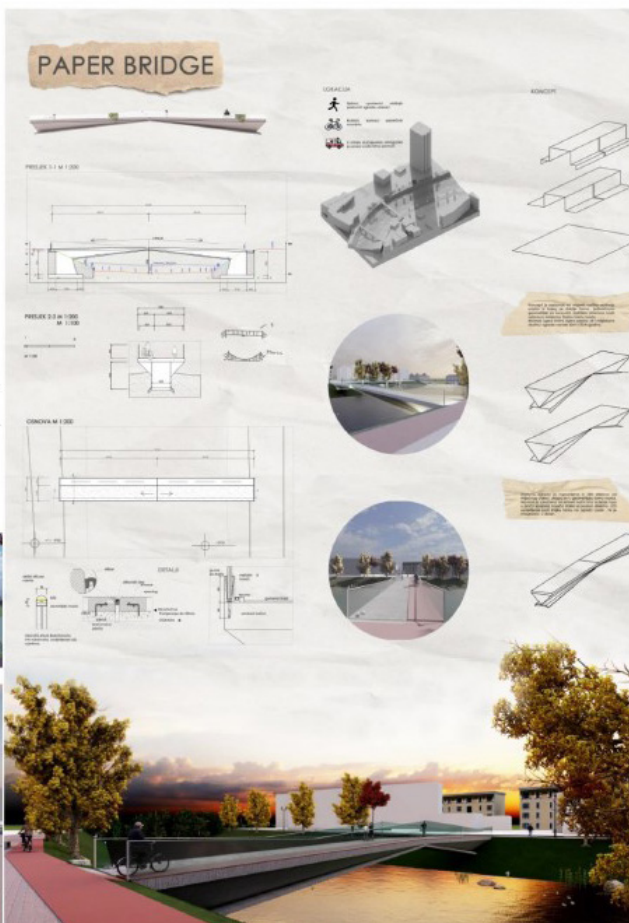
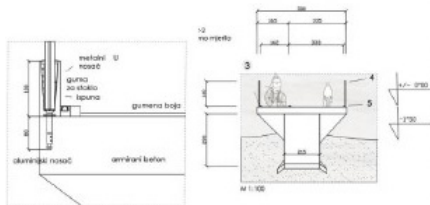
Studentica Tajra Šurković je ideju za svoje rješenje mosta, pronašla „... u Japanskoj arhitekturi koja me inspiriše kroz cijeli studij.“ (Šurković, 2023). Papir kao osnovno sredstvo za rad u školi koja se nalazi u neposrednoj blizini, je autorica kreativno povezala za origamijem – japanskom umjetnošću savijanja papira što je rezultiralo i nazivom „Paper bridge“ ili u prevodu „Papirni most“. Kao i u slučaju prvog mosta, ocjenjivački sud je u rješenju prepoznao niz pozitivnih atributa: „Most je vrlo elegantan, jednostavan sa interesantnim konceptom i samom idejom. U konačnici trebalo bi razmisliti da li će ideja i koncept koji je vidljiv samo u fazi izrade rješenja biti dovoljan da most bude prepoznatljiv i poseban. U radu nedostaju određeni detaljnije prikazani prilozi i opisi koji bi na pravi način prezentirali ideju rješenja. Najlogičniji prelazak rijeke je okomito na korito, te je u tom smislu potrebno razmotriti tlocrtno pozicioniranje mosta. Ideja je oblikovno interesantna, međutim stvarne dimenzije (prvenstveno visine grednog nosača) nije moguće potvrditi bez prethodne računске analize koja je sastavni dio nekih kasnijih analiza. Gredni nosač nije poželjno raditi kao ošupljeni, već kao puni uz masivne temelje koji se trebaju spustiti do nosivog tla. Uvažavajući karakter konstrukcije predlažem da se rješenje potraži u temeljima koji će pratiti kosine regulisanog korita sa dnom temelja ispod dna korita rijeke Miljacke. Na presjecima koje dajete kroz konstrukciju prikažite barem elementarne kote iz kojih je moguće sagledati dimenzije. Bitan podatak koji nedostaje je i visina visoke vode koju konstrukcija mora poštovati uz zaštitnu visinu od minimalno 80cm. Oblikovno, most je usklađen sa postojećim ambijentom, nenametljiv, vrlo realističan i funkcionalan. Elegantna betonska konstrukcija primjerena za pješački most zadatog raspona. Na jednostavan način, tj. svojim oblikovnim rješenjem i idejom se ističe i izdvaja u odnosu na druga rješenja

construction suitable for a pedestrian bridge of the given span. In a simple way, i.e. with its design solution and idea, it stands out and stands out from other solutions in an aesthetic sense; represents a compact and harmonious whole. With its simplicity and form-constructive solution, as well as the choice of materials, harmony between creative and commercial aspects was achieved in a quite successful way. Proposal for refinement: to think about another materialization of the fence for functional reasons and maintenance, but also in general to pay a little more attention when choosing materials (fence, paving), from the aspect of their life span and behaviour over time.“ (UNSA - Arhitektonski fakultet, 2022).

Student Tajra Šurković found the idea for her bridge solution “... in Japanese architecture, which inspires me throughout my studies” (Šurković, 2023). The author creatively linked paper as a basic tool for work in the nearby primary school to the origami - the Japanese art of paper folding, which resulted in the name “Paper bridge”. As in the case of the first bridge, the judging panel, too, recognized several positive attributes in the solution: “The bridge is elegant, simple with an interesting concept and idea. Ultimately, one should consider whether the idea and concept visible only in the design phase will be enough to make the bridge recognizable and special. The paper lacks certain more detailed attachments and descriptions that would properly present the idea of the solution. The most logical crossing of the river is perpendicular to the river bed; in this sense, it is necessary to consider the ground plan positioning of the bridge. The idea is interesting in design, but the actual dimensions (primarily the height of the beam support) cannot be confirmed without a previous computational analysis, which is an integral part of some later analyses. It is not desirable to work with the girder as a hollow one but as a solid one with massive foundations that should be lowered to the load-bearing ground. Respecting the structure’s character, the suggestion is that the solution could be sought in the foundations that will follow the slopes of the regulated bed with the bottom of the foundation below the bed of the river Miljacka. The sections through the construction that you provided show at least elementary elevations from which it is possible to see the dimensions. An important



DETALJ 4 M 1:2
 ČENJUTLJENJE RUKOHVATA
 Vih rukohvata, cevi i letenje LED
 svetiljka



Ilustracija 4. Idejno rješenje mosta kod O.Š. Vladimir Nazor.
 Izvor: (UNSA - Arhitektonski fakultet, 2022).

Ilustracija 4. Idejno rješenje mosta kod O.Š. Vladimir Nazor.
 Source: (UNSA - Arhitektonski fakultet, 2022).

i u estetskom smislu. Svojom jednostavnošću i oblikovnim konstruktivnim rješenjem, kao i izborom materijala na dosta uspješan način se postigla usklađenost između kreativnih i komercijalnih aspekata. Prijedlog za doradu: da se razmisli o oblikovnim detaljima ograde, urbanog mobilijara, povezanosti sa obalom,

missing piece of information is high water height, which the structure must respect with a protective height of at least 80 cm. In terms of shape, the bridge is harmonized with the existing environment, unobtrusive, very realistic, and functional. An elegant concrete structure suitable for a pedestrian bridge of a given span. Simply, i.e., with its design solution and idea, it stands out about other solutions and in an aesthetic sense. With its simplicity and form-constructive solution, as well as the choice of materials, harmony between creative and commercial aspects was achieved quite successfully. Proposal for refinement: to think about the design details of the fence, urban furniture, and connection with the coast, but also, in general, to pay more attention to the selection of materials (obviously fences, paving), from the aspect of their lifespan and behavior over time; it is desirable to show the night appearance as well." (UNSA - Arhitektonski fakultet, 2022).

ali i generalno dati malo više pažnje na odabir materijala (naočito ograde, popločanja), sa aspekta njihovog životnog vijeka i ponašanja kroz vrijeme; poželjno prikazati i noćni izgled.“ (UNSA - Arhitektonski fakultet, 2022).

Po završetku rada ocjenjivačkog suda, pristupilo se promotivnim aktivnostima vezano za rezultate saradnje Općine i Fakulteta ali što je još i važnije daljim aktivnostima na izradi investiciono-tehničke dokumentacije.

Epilog

Po okončanju natječajne procedure, u mjesecu novembru 2022. je u prostorijama Međunarodnog centra za djecu i omladinu u naselju Grbavica, upriličena izložba studentskih radova koji su ušli u uži izbor zajedno sa prezentacijom pobjedničkih radova (Ilustracija 5a). Tom prilikom su predstavnicima općinskih i gradskih struktura, studenti Ekrema Polovine i Tajra Šurković održali prezentacije svojih autorska rješenja (Ilustracija 5b).

Koncept izbornog predmeta Arhitektonskog natječaja počiva na premisi da studenti osim puke ocjene koju dobiju za izvršavanje svoga zadatka, imaju priliku da osjete dodatno zadovoljstvo kroz promociju i samo-promociju. Tako su i u ovom slučaju, studenti osim javnog predstavljanja svoga rada i uspostavljanja kontakata sa lokalnom upravom, imali priliku gostovati u TV emisijama i davati intervjuje za pojedine novinske agencije. Biti pobjednik na nekom natječaju neminovno utječe na samopouzdanje studenata i jača motivaciju za buduće zadatke: „... kao mladom studentu predstavlja mi satisfakciju i ohrabrenje za budućnost“ (Polovina, 2023). Idealni scenarij je onaj prema kojem se studentske ideje realiziraju ali isto tako, one najvećim dijelom ostaju samo ideje: „Radi se o saradnji Općine Novo Sarajevo i Arhitektonskog fakulteta gdje mi kao zadatak dobijamo inovativne projekte kako možemo uljepšati naš grad, ali dosta tih projekata ostane samo na papiru, nažalost.“ (Šurković, 2023).

Epilog svih provedenih aktivnosti od pripreme natječaja do njegove realizacije i promocije jeste raspis javnog poziva za izradu investiciono-tehničke dokumentacije. Gradska uprava grada Sarajeva je preuzela na sebe financiranje izrade idejnog i izvedbenog projekta pješačkog mosta „Paper bridge“ preko rijeke Miljacke i u

After the work of jury was concluded, promotional activities related to the results of the cooperation between the Municipality and the Faculty were started, but what is more important, further activities on the preparation of investment-technical documentation.

Epilogue

After the end of the competition procedure, in the month of November 2022, in the premises of the International Centre for Children and Youth in the settlement of Grbavica, an exhibition of the shortlisted student works was held together with the presentation of the winning works (Figure 5a). On that occasion, students Ekrema Polovina and Tajra Šurković gave presentations of their authentic solutions to the representatives of municipal and city structures (Figure 5b).

The entire concept of the Architectural Competition elective course is based on the premise that students, in addition to the mere grade they receive for completing their task, can feel additional satisfaction through promotion and self-promotion. So, in this case, in addition to publicizing their work and establishing contacts with the local administration, students had the opportunity to appear on TV programs and give interviews for certain news agencies. Being a winner in a competition inevitably affects students' self-confidence. It strengthens their motivation for future tasks: "... as a young student, it gives me satisfaction and encouragement for the future" (Polovina, 2023). The ideal scenario is the one when students' ideas are materialized. However, in many cases, they remain just ideas: "It is a collaboration between the Municipality of Novo Sarajevo and the Faculty of Architecture, whereas a task we are given innovative projects to make our city more beautiful, but many of these projects remain only on paper, unfortunately." (Šurković, 2023).

The epilogue of all the carried-out activities, from the preparation of the competition to its realization and promotion, is the announcement of a public procurement call to prepare investment-technical documentation. The city administration of the city of Sarajevo took over the financing of the conceptual and implementation project of the pedestrian bridge "Paper bridge" over the river Miljacka and, in August 2023, announced a public tender with

mjesecu augustu 2023. godine je raspisala Javni tender sa procijenjenom vrijednosti ugovora od 75.000KM (Grad Sarajevo - Gradska uprava, 2023).

U slučaju „Mosta života“, sačinjen je projektni zadatak na osnovu zakonske i podzakonske regulative, smjernica i obaveza proizašlih iz planske dokumentacije, konsultacija sa uključenim stranama kao i stanja koje je zatečeno na terenu. U mjesecu oktobru 2023. urađene su detaljne analize najoptimalnijeg položaja mosta u odnosu na trenutnu lokaciju i razmotrena je mogućnost pomjeranja mosta nizvodno u odnosu na položaj postojećeg mosta i izrađeni su preliminarni hidraulički i statički proračuni. Prijedlog za gradnju novog mosta 10-ak metara nizvodno od postojećeg je dat iz najmanje tri razloga a to su: nesmetano korištenje postojećeg mosta dok se gradi novi, problem izmještanja 110kV elektro kabla koji se nalazi ispod postojećeg mosta i naposljetku, uspostavljanje logičnije osovinske veze mosta sa ulicom Fra Filipa Lastrića. Jedini problem za takvu vrstu intervencije predstavljaju dva odrasla stabla lipe. Naime, potez Vilsonovog šetališta, koje je formirano još 1906. godine se nalazi na „Listi evidentiranih, prethodno zaštićenih i zaštićenih nepokretnih dobara baštine i prirodne baštine Kantona Sarajevo“ tako da bilo kakve intervencije podrazumijevaju specifične mjere zaštite (Kantonalni zavod za zaštitu kulturno-historijskog i prirodnog naslijeđa Sarajevo, 2024) . Izgradnja mostova predstavlja značajnu

an estimated contract value of 75,000 BAM (City of Sarajevo - City Management, 2023).

In the case of the “Bridge of Life,” the project task was drawn up based on legal and building law regulations, guidelines, and obligations arising from the planning documentation, along with the consultations with all involved parties and about the state of conditions found on the site. In October 2023, a detailed analysis was made of the most optimal position of the bridge about the current location and the possibility of moving the bridge downstream about the position of the existing bridge. This idea was considered, and preliminary hydraulic and static calculations were made. The proposal for the construction of a new bridge 10 meters downstream from the existing one was made for at least three reasons, namely: the unhindered use of the existing bridge while the new one is being built, the problem of moving the 110kV electric cable located under the existing bridge, and finally, the establishment of a more logical axle connection of the bridge with Fra Filipa Lastrić Street. The only problem with this type of intervention is that there are two adult Linden trees. Namely, the stretch of Wilson’s Promenade, formed as early as 1906, is on the “List of recorded, previously protected and protected immovable assets of heritage and natural heritage of Sarajevo Canton”. Hence, any interventions imply specific protection measures (Cantonal Institute for the Protection of Cultural, Historical, and Natural Heritage Sarajevo, 2024).

Ilustracija 5. (a) Naslovnica izložbenog kataloga, Izvor: (UNSA - Arhitektonski fakultet, 2022) (b) prezentacija radova i izložba. Izvor: Autor

Ilustracija 5. (a) Cover of the exhibition catalogue, Source: (UNSA - Arhitektonski fakultet, 2022) (b) presentation of the winning designs and exhibition. Source: Autor.



budžetsku stavku u lokalnoj zajednici i ovisno o prioritetima i finansijskim mogućnostima, u vremenu pred nama ćemo vidjeti hoće li doći do njihove realizacije. Ako dođe do njihove gradnje, tek tada će stanovnici ovih naselja osjetiti benefite saradnje lokalne i akademske zajednice.

Zaključak

Saradnja lokalne i akademske zajednice mora postojati ako se želi raditi na poboljšanju životne sredine. Iako hipotetski projektantski zadaci sadrže dovoljno elemenata na kojima studenti uz nadzor akademskog osoblja mogu unaprijediti svoje znanja i steći nove vještine, pravi izazov predstavljaju realni/životni zadaci. Studenti su sasvim sigurno motiviraniji da rade zadatke za koje postoji nada da će jednog dana biti realizirani a iz prezentiranih primjera možemo vidjeti koliko to pozitivno utiče na njihov dalji rad.

Iako postoji mogućnost direktnog angažmana arhitekata/dizajnera/građevinskih inženjera za izradu idejnih rješenja javnih objekata (u ovom slučaju mostova), organizacija natječaja uvijek predstavlja bolju opciju. Nažalost, Zakon o javnim nabavkama BiH ne predviđa mogućnost dodjele ugovora za izradu izvedbenog projekta autorima idejnog rješenja/projekta, pa stoga imamo mnogo negativnih primjera kada se izvedeni objekti drastično razlikuju od inicijalne autorske ideje jer je projektnu dokumentaciju radio neko drugi tj. najjeftiniji ponuđač. Borba za izmjene toga segmenta zakona je sada već decenijska ali u cilju podizanja kvalitete izgrađenog prostora, od nje se ne smije odustati.

The construction of bridges represents a significant budget item in the local community, and depending on priorities and financial possibilities, we will see whether they will be realized in the future. If they are built, only then will the residents of these settlements feel the benefits of cooperation between the local and academic communities.

Conclusion

Cooperation between the local and academic community must exist if one wants to work on improving the environment. Although hypothetical design tasks contain enough elements where students can improve their knowledge and acquire new skills under the supervision of academic staff, the real challenge is represented by real/life-defining tasks. Students are certainly more motivated to do tasks for which there is hope that one day they will be realized, and from the examples presented, we can see how positively this affects their further work.

Although there is the possibility of direct engagement of architects/designers/civil engineers to create conceptual solutions for public buildings (in this case, bridges), organizing competitions is always a better option. Unfortunately, the Law on Public Procurement of BiH does not provide for the possibility of awarding a contract for the creation of an implementation project to the authors of the conceptual solution/project. Therefore, we have many negative examples when the completed objects differ drastically from the initial author's idea because the project documentation was done by someone else, i.e. the cheapest bidder. The fight for changes to that segment of the law has been going on for decades, but to raise the quality of the built space, it must continue until it is won.

GENERALNI ZAKLJUČCI

Novi urbani protokol je metodološki okvir koji povezuje aktivnosti i procese mapiranja, analize, valorizacije, a uključuje participaciju, te kreiranje smjernica za djelovanje i simuliranje intervencija u javnom prostoru. U ovom istraživanju, prostorni obuhvat unutar Općine Novo Sarajevo imao je ulogu laboratorija za testiranje prostornih i društvenih implikacija predložene metodologije.

U inicijalnoj fazi istraživanja izvršeno je prikupljanje velikog broja podataka, koji su sistematski formirali baze podataka, izvršena su detaljna mjerenja mikroklimatskih uslova (buka, zagađenje, temperature, zračna strujanja, osvjetljenje) čije razumijevanje je ključno za kvalitetan odabir budućih intervencija i njihovu prioritizaciju. Paralelno, predstavljen je metod za evidentiranje i valorizaciju arhitektonskih i urbanih vrijednosti stambenih naselja iz perioda socijalističkog modernizma. Rezultati terenskih istraživanja ukazuju na potrebu kreiranja specifičnih smjernica i strategija za osavremenjivanje funkcionalnosti, pristupačnosti i unapređenje održivosti zajedničkih prostora, uz prepoznavanje arhitektonske i ambijentalne vrijednosti naslijeđa. Upravo je učešće akademske i stručne zajednice ključno u procesu kreiranja preporuka koje bi obuhvatale široki spektar osnovnih i naprednih intervencija, na nivou individualnih stambenih jedinica, zajedničkih prostora, do arhitektonskih objekata i stambenih četvrti.

Kako bi se prepoznala i istakla društvena vrijednost javnog prostora, afirmišući principe arhitekture zajedništva, ovo istraživanje je uključivalo interaktivno planiranje i oblikovanje prostora kroz participaciju građana. Za razliku od pasivne, jednosmjerne komunikacije koja karakterizira javne rasprave u završnoj fazi usvajanja planske i projektne dokumentacije, u ovom projektu demonstrirana je metodologija višestrukih iteracija diskusija sa građanima i interpretacije zaključaka i njihovog prevođenja u prostor. Primjenom tehnologije 3D printa i fotogrametrije, producirana je maketa, koja je korištena kao alat komunikacije u procesu participativnog projektovanja. U završnoj fazi su prezentirane simulacije mikrointervencija

GENERAL CONCLUSIONS

New Urban Protocol is a methodological framework that integrates activities and processes of mapping, analysis, and valorization, and includes participation and creating guidelines for action and simulating interventions in public spaces. In this research, the selected area within the Municipality of Novo Sarajevo served as a laboratory for testing the spatial and social implications of the proposed methodology.

In the initial phase of the research, a large amount of data was collected, followed by a systematic creation of databases and detailed measurements of microclimatic conditions (noise, pollution, temperatures, air currents, lighting) to understand and prioritize future interventions. Simultaneously, a method for identifying and assessing residential neighborhood architectural and urban values from the socialist modernism period was presented. The results of field research indicate the need for creating specific guidelines and strategies for modernizing the functionality and accessibility of shared spaces and improving their sustainability while recognizing the architectural and ambient values of heritage. The participation of the academic and professional community is crucial in creating recommendations that would encompass a wide range of primary and advanced interventions, from the level of individual residential units and common spaces, to architectural buildings and residential neighborhoods.

In order to recognize and highlight the social value of public space, affirming the principles of architecture of community, this research included interactive planning and design of public space through citizen participation. Unlike passive, one-way communication that characterizes public discussions in the final stage of adopting planning and project documentation, this project demonstrated a methodology of multiple iterations of discussions with citizens interpreting conclusions and translating them into space. Using 3D printing technology and photogrammetry, a model was produced and used as a communication tool in the

na nivou otvorenog javnog prostora, te reaktiviranja zatvorenog prostora u javnom vlasništvu i njegovim stavljanjem na javno raspolaganje različitim populacijama unutar zajednice.

Novi urbani protokol kritički preispituje institucionalne i ustaljene profesionalne prakse, te predlaže inovativne, alternativne metode planiranja i oblikovanja prostora. U procesu sistematičnog i detaljnog upoznavanje „genetskog koda“ analiziranog prostornog obuhvata unutar Općine Novo Sarajevo, utvrđen je stepen izgrađenosti i starosti struktura stambenih naselja, na čiju funkciju i vitalnost je moguće utjecati strategijom *urbane akupunkture*. Na strateški odabranim urbanim prazninama, predložene su tačkaste intervencije, poput uređenja mikro-prostora „društvene dobrobiti“ za rekreaciju i igru, redefinicije Tržnice Hrasno i projektovanja Gradskog hotela Strojorad sa atraktivnim javnim prostorima, te planiranja savremenih umjetničkih instalacija uz rijeku Miljacku i novih mostova na njoj, s ciljem urbane regeneracije i „izliječenja“ šireg prostornog konteksta.

Upotreba pleonazma u naslovu i sadržaju ovog izdanja je namjerna i sugestivna, nastoji da potencira značaj *NOVIH vrijednosti*, koje metodologija *NOVOG urbanog protokola* donosi svim akterima u procesu planiranja i oblikovanja javnog prostora:

- Akademaska zajednica prepoznaje svoju NOVU ulogu u savremenom društveno-ekonomskom kao inicijatora i medijatora dijaloga u domenu planiranja i odlučivanja o javnom prostoru, te podrazumijeva izlazak iz konvencionalnih akademskih okvira i učionica u realno okruženje,
- Javni sektor i institucije izlaze iz okvira ustaljene profesionalne prakse rada i otvaranje prema NOVIM, alternativnim istraživačko-projektantskim pristupima, kao svojevrsnim nadgradnjama hijerarhijskog pristupa planiranju *top-down*, kroz primjenu inkluzivnih i održivih pristupa participacije i ko-kreacije javnog prostora,
- Lokalna zajednica i privatni sektor aktivno i neposredno učestvuju u NOVIM procesima odlučivanja o prostoru, čime se jača socijalna kohezija i kreira okruženje usklađeno sa potrebama i vrijednostima, kako pojedinaca tako i kolektiva.

participatory design process. In the final phase, simulations of micro-interventions of open public spaces were presented, as well as the reactivation of enclosed spaces in public ownership and their provision to various populations within the community.

New Urban Protocol critically re-examines institutional and established professional practices and proposes innovative, alternative spatial planning and design methods. In the systematic and comprehensive study of the “genetic code” within the observed area in the Municipality of Novo Sarajevo, the degree of construction and age of residential neighborhood structures was determined, whose function and vitality are possible to influence through the strategy of *urban acupuncture*. Strategically selected urban voids are proposed for punctual interventions, such as for the rearrangement of micro-spaces of “social welfare” for recreation and play, redefinition of Hrasno Market and the design of Strojorad City Hotel along with attractive public spaces, as well as planning contemporary art installations along the banks of the Miljacka River and new bridges across it, with the aim of urban regeneration and “healing” of the broader spatial context.

The use of pleonasm in the title and content of this book is intentional and suggestive, seeking to emphasize the importance of *NEW values* that the methodology of the *NEW urban protocol* brings to all stakeholders in the process of planning and shaping public space:

- The academic community recognizes its NEW role in contemporary socio-economics as an initiator and mediator of dialogue in planning and decision-making regarding public space, which implies stepping out conventional academic frameworks and classrooms into natural environments,
- The public sector and institutions move beyond the framework of established professional practice and open up to NEW, alternative approaches that connect research and design as a way to upgrade the hierarchical top-down planning approach, through the application of inclusive and sustainable approaches to participation and co-creation of public space,
- The local community and private sector actively and directly participate in NEW spatial decision-making processes, strengthening social cohesion and creating an environment aligned with individual and collective needs and values.

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REFERENCES, AUTHORS & REVIEWS

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AUTORI



van. prof. dr. Nermina Zagora, dipl. ing. arh. SARAJEVO, 1982.

glavna urednica i voditeljica projekta, vanredna profesorica na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
editor in chief and project leader, associate professor at the University of Sarajevo - Faculty of Architecture

Diplomirala je na Arhitektonskom fakultetu 2005. godine, magistrirala je na Akademiji likovnih umjetnosti 2008. godine, a doktorirala na Arhitektonskom fakultetu u Sarajevu 2012. Učestvovala u višemjesečnim studijskim boravcima na univerzitetima u Barceloni (2004), Oslu (2005), Londonu (2007), Ghentu (2009) i Kobeu (2009), te u više kraćih međunarodnih akademskih razmjena. Bavi se naučnoistraživačkim, kao i stručnim radom u Projektantskom studiju "Firma". Dobitnica je domaćih i regionalnih nagrada i priznanja za stručne i naučne radove (Nagrada „Ranko Radović“ i dvije Godišnje nagrade AABH Collegium Artisticum), te nagrade i priznanja na arhitektonskim konkursima.

She graduated from the Faculty of Architecture in 2005, obtained her master's degree from the Academy of Fine Arts in 2008, and completed her PhD at the Faculty of Architecture in Sarajevo in 2012. She participated in several-month-long study visits at universities in Barcelona (2004), Oslo (2005), London (2007), Ghent (2009), and Kobe (2009), as well as in numerous shorter international academic exchanges. Engaged in scientific research and as well as in professional work at the Design Studio "Firma." She has received domestic and regional awards and recognitions for professional and scientific work (the "Ranko Radović Award" and two Annual Awards AABH Collegium Artisticum), as well as awards and recognitions in architectural competitions.

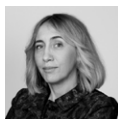


ass. Andrea Pavlović, dipl. ing. arh. SARAJEVO, 1983.

asistentica na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
teaching assistant at the University of Sarajevo - Faculty of Architecture

Arhitektica/urbanistica s četrnaestogodišnjim iskustvom rada u sektoru urbanog i prostornog planiranja i urbanističkog projektovanja. Radno iskustvo stiče u privatnom i javnom sektoru, kroz saradnju s međunarodnim organizacijama, kroz izradu više desetina dokumenata prostorno-planske, projektne i studijske dokumentacije. Fokus djelovanja usmjerava ka projektima i zadacima u kojim se ispituju mogućnosti korištenja prostora na održiv, te socijalno i ekološki prihvatljiv način, u teoriji i praksi, te kroz rad u nastavi. Aktivno se bavi i naučnoistraživačkim radom. Dobitnica je više priznanja i nagrada, te timske nagrade Collegium Artisticum 2023. godinu.

Architect/urban planner with fourteen years of work experience in the sector of urban and spatial planning and urban design. He gained work experience in the private and public sector, through cooperation with international organizations, through the creation of dozens of spatial planning, project and study documentation. The focus of the activity is directed towards projects and tasks in which the possibilities of using space in a sustainable, socially and ecologically acceptable way are examined, in theory and practice, and through work in the classroom. He is also actively engaged in scientific research work. She is the winner of several recognitions and awards, as well as the Collegium Artisticum 2023 team award.



doc. dr. Nasiha Pozder, dipl. ing. arh. TUZLA, 1978.

docentica na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
assistant professor at the University of Sarajevo - Faculty of Architecture

Diplomirala 2003. godine, a 2013. godine i doktorirala na oblasti iz arhitekture i urbanizma. Od 2004. godine je zaposlena na Arhitektonskom fakultetu u Sarajevu, na Katedri za urbanizam i prostorno planiranje. Saradivala je s univerzitetima širom Evrope i svijeta, poput TU Stuttgart, TU Istanbul, TU Delft, La Villete Paris, ALBA Beirut, te gostujuća predavanja na TU Beč i INALCO institute Paris. Profesionalnu karijeru razvija kroz projekte iz oblasti urbanizma, ali i kroz saradnju s lokalnim zajednicama, te kao konsultantica za UNDP i Svjetsku banku. Autorica je značajnog broja naučnih radova.

She graduated in 2003, and in 2013 she received her doctorate in architecture and urban planning. Since 2004, she has been employed at the Faculty of Architecture in Sarajevo, at the Department of Urban Planning and Spatial Planning. She collaborated with universities around Europe and the world, such as TU Stuttgart, TU Istanbul, TU Delft, La Villete Paris, ALBA Beirut, and guest lectures at TU Vienna and INALCO institute Paris. She develops her professional career through urban planning projects, but also through cooperation with local communities and as a consultant for UNDP and the World Bank. She is the author of a significant number of scientific works.



van. prof. dr. Aida Idrizbegović Zgonić, dipl. ing. arh. TRAVNIK, 1978.

vanredna profesorica na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
associate professor at the University of Sarajevo - Faculty of Architecture

Diplomirala je na Arhitektonskom fakultetu u Sarajevu 2000. godine, završavajući magistarske studije 2003. godine, a doktorske studije 2009. godine. Od 2010. godine radi na Arhitektonskom fakultetu u Sarajevu. Njena interesovanja obuhvataju očuvanje kulturne baštine, kontekst, elemente regionalne arhitekture, kao i modalitete prilagodavanja historijskih objekata, posebno doprinoseći obnovi starih gradova u Mostaru i Počitelju za Aga Khan Trust for Culture. Autorica je knjige "Restoration of Mosques in B&H" i uključena je u rad DOCOMOMO BiH. Kao prodekanesa za međunarodnu saradnju, nadgleda projekte koji unapređuju razmjenu studenata i osoblja, gdje se ističe međunarodni koordinatorski projekat Erasmus+ Capacity Building (2023-2026).

She graduated from the Faculty of Architecture in Sarajevo in 2000, completing her master's studies in 2003, and her doctoral studies in 2009. Since 2010, she has worked at the Faculty of Architecture in Sarajevo. Her interests include heritage preservation and context, regional architecture elements, as well as modalities of adapting historical buildings, notably contributing to the restoration of old towns in Mostar and Počitelj for the Aga Khan Trust for Culture. She is the author of the book "Restoration of Mosques in B&H" and is involved in DOCOMOMO BiH. As vice-dean for international cooperation, she oversees projects that enhance student and staff exchanges, notably the Erasmus+ Capacity Building international coordination project (2023-2026).

AUTORI

AUTHORS



doc. dr. Isra Tatlić, dipl. ing. arh. SARAJEVO, 1982.

docentica na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
assistant professor at the University of Sarajevo - Faculty of Architecture

Nakon studija, sa D. Tatlić otvara projektantsku praksu Ideogram. Od 2008. radi u nastavi na Katedri za arhitektonsko projektovanje Arhitektonskog fakulteta Univerziteta u Sarajevu. Trenutno radi na grupi predmeta iz stambene arhitekture sa fokusom istraživanja na problematiziranje oskudice u arhitekturi i upotrebu društvenih resursa u novim prostornim konceptima. Njeno teorijsko istraživanje fokusirano je na redefinisaniu vrijednosti u arhitekturi, te promjeni uloge arhitekta u kontekstu tranzicijskog kapitalizma u BiH. Kroz svoj angažman u nastavi i praksi radi na provjeri modela arhitekture u političkom i postideološkom kontekstu.

After her studies, she opened the design practice Ideogram with D. Tatlić. Since 2008, she has been teaching at the Department of Architectural Design at the Faculty of Architecture, University of Sarajevo. Currently, she is working on a group of subjects in residential architecture with a focus on exploring scarcity in architecture and the use of social resources in new spatial concepts. Her theoretical research focuses on redefining values in architecture and changing the role of architects in the context of transitional capitalism in Bosnia and Herzegovina. Through her engagement in teaching and practice, she works on testing models of architecture in political and post-ideological contexts.



van. prof. dr. Vedad Islambegović, dipl. ing. arh. ZENICA, 1983.

vanredni profesor na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
associate professor at the University of Sarajevo - Faculty of Architecture

Diplomirao je 2008. godine na Arhitektonskom fakultetu Univerziteta u Sarajevu. Nakon odbrane doktorata, 2017. godine, izabran je u zvanje docenta na Katedri za projektovanje, te u zvanje vanrednog profesora 2022. godine. Objavio je nekoliko naučnih i istraživačkih teoretskih radova. Autor je i koautor mnogobrojnih projekata iz oblasti urbanističkog projektovanja, arhitektonskog projektovanja, unutrašnjeg uređenja i produkt dizajna, i kao suosnivač Studija "Filter arhitektura" nosilac je više stručnih priznanja (tri nominacije za Mies Van Der Rohe Award, četiri nominacije za Aga Khan Award for Architecture, te tri nagrade Collegium Artisticum uključujući i Grand Prix).

He graduated in 2008 from the Faculty of Architecture, University of Sarajevo. After defending his doctoral dissertation in 2017, he was appointed as an assistant professor at the Department of Design, and promoted to associate professor in 2022. He has published several scientific and research theoretical papers. He is the author and co-author of numerous projects in the fields of urban design, architectural design, interior design, and product design, and as a co-founder of "Filter Arhitektura" studio, he has received several professional awards (three nominations for the Mies Van Der Rohe Award, four nominations for the Aga Khan Award for Architecture, and three Collegium Artisticum Awards, including the Grand Prix).



van. prof. dr. Senka Ibrišimbegović, dipl. ing. arh. TRAVNIK, 1979.

vanredna profesorica na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
associate professor at the University of Sarajevo - Faculty of Architecture

Diplomirala je na Arhitektonskom fakultetu u Sarajevu 2003, magistrirala u Italiji na Univerzitetu di Siena/Politecnico di Milano 2004, a doktorirala na Arhitektonskom fakultetu u Sarajevu 2015. godine. Od 2008. zaposlena je na Arhitektonskom fakultetu. Bavi se naučnoistraživačkim i stručnim radom u oblastima arhitekture, urbanizma, kulture i savremene umjetnosti. Od 2018. vodi proces izgradnje Muzeja savremene umjetnosti Ars Aevi Sarajevo, te promoviše Kolekciju Ars Aevi. Kao autorica, koordinatorica, komesarka i članica naučnih komiteta učestvuje na internacionalnim i domaćim izložbama, konferencijama, projektima. Dobitnica je domaćih i regionalnih priznanja kako za stručne i naučne radove.

She graduated from the Faculty of Architecture in Sarajevo in 2003, received her master's degree in Italy from the Università di Siena/ Politecnico di Milano in 2004, and received her doctorate from the Faculty of Architecture in Sarajevo in 2015. Employed at the Faculty of Architecture since 2008, she conducts research and professional work in architecture, urban planning, culture, and contemporary art. Since 2018, she has led the construction of the Contemporary Art Museum Ars Aevi Sarajevo and promoting the Ars Aevi Collection. As an author and coordinator, she participates in international and domestic exhibitions, conferences, and projects, winning national and regional awards for her work.



v. ass. Nedim Mutevelić, dipl. ing. arh. BANJA LUKA, 1986.

viši asistent na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
senior teaching assistant at the University of Sarajevo - Faculty of Architecture

Diplomirao je na Arhitektonskom fakultetu u Sarajevu 2011. godine. Dobitnik je stipendije za studij u Barceloni 2009., priznanja „Zlatna značka“ Univerziteta u Sarajevu, te brojnih drugih univerzitetskih i nagrada na arhitektonskim konkursima (2005-2011). Suosnivač je i koordinator Dana arhitekture Sarajevo (2008) i suosnivač organizacije Lift - prostorne inicijative (2012) koje okupljaju mlade arhitektae sa ciljem organiziranja javnih događaja i intervencija. Član je Upravnog odbora ASAS/AAHB (2012-2016) i suosnivač Studija „Filter arhitektura“ (2009), čiji su projekti nagrađivani na internacionalnim i lokalnim konkursima, te nominovani za nagrade kao što su Mies van der Rohe, nagrada Evropske unije za savremenu arhitekturu i Aga Khan nagrade za arhitekturu.

He graduated from the Faculty of Architecture in Sarajevo in 2011. He received a scholarship for studies in Barcelona in 2009, as well as the "Golden Badge" award from the University of Sarajevo, and numerous other university awards and prizes in architectural competitions (2005-2011). He is a co-founder and coordinator of Days of Architecture Sarajevo (2008) and the Lift organization for spatial initiatives (2012), which bring together young architects and organize public events and interventions. He is a member of the Board of ASAS/AAHB (2012-2016) and a co-founder of "Filter Arhitektura" Studio (2009), whose projects have been awarded in international and local competitions and nominated for awards such as the Mies van der Rohe Award, the European Union Prize for Contemporary Architecture, and the Aga Khan Architecture Award.

AUTORI



doc. dr. Lejla Kreševljaković, dipl. ing. arh. SARAJEVO, 1976.

docentica na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
assistant professor at the University of Sarajevo - Faculty of Architecture

Magistrirala je arhitekturu i urbanizam (AF-UNSA, 2005), te produkt dizajn (ALU-UNSA, 2013). Doktorirala je na temu očuvanja socijalističkog graditeljskog naslijeđa u Bosni i Hercegovini kroz aktivnu zaštitu društvenih domova (AF-UNSA, 2021). Svoj arhitektonski rad prikazala je kroz kolektivne izložbe i tri samostalne izložbe (2010, 2013, 2017). Više od 20 godina (1996-2018) saradivala je s akademikom Ivanom Štrausom na različitim arhitektonskim projektima. Lejla Kreševljaković je dobitnica nagrada na arhitektonskim konkursima, nagrade Collegium Artisticum (2012) i nagrade Husref Redžić (2021).

She obtained her master's degree in architecture and urbanism (AF-UNSA, 2005), and in product design (AFA-UNSA, 2013). Her doctorate was on the preservation of socialist architectural heritage in Bosnia and Herzegovina through the active protection of social centres (AF-UNSA, 2021). She has showcased her architectural work through collective exhibitions and three solo exhibitions (2010, 2013, 2017). She collaborated with academician Ivan Štraus for over 20 years (1996-2018) on various architectural projects. Lejla has received awards in architectural competitions, the Collegium Artisticum Award (2012) and the Husref Redžić Award (AF-UNSA, 2021).

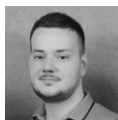


van. prof. dr. Mladen Burazor, dipl. ing. arh. SARAJEVO, 1980.

vanredni profesor na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
associate professor at the University of Sarajevo - Faculty of Architecture

Diplomirao je na Arhitektonskom fakultetu u Sarajevu 2004., magistrirao na Akademiji likovnih umjetnosti 2008. (odsjek produkt dizajn) i potom doktorirao na Arhitektonskom fakultetu 2012. godine. Osim rada u nastavi na Katedri za arhitektonsko projektovanje, ima iskustva u radu na brojnim arhitektonskim (međunarodnim) projektima i studijama. Kao autor i koautor sudjelovao je na brojnim arhitektonskim konkursima gdje je osvajao je nagrade. Izlagao je radove na raznim izložbama i kongresima. Učestvovao je u izradi i provedbi interdisciplinarnih istraživačkih projekata. Bio je član naučnih i organizacionih odbora međunarodnih skupova, te recenzent mnogih članaka. Od 2019. godine obavlja funkciju prodekana za nastavu.

He graduated from the Faculty of Architecture in Sarajevo in 2004, completed his master's degree at the Academy of Fine Arts in 2008 (product design department), and earned his PhD from the Faculty of Architecture in 2012. Besides teaching at the Department of Architectural Design, he has extensive experience in various architectural (international) projects and studies. As an author and co-author, he has participated in numerous architectural competitions, receiving awards. He has exhibited his works at various exhibitions and congresses and contributed to interdisciplinary research projects. He served on scientific and organizational committees of international events and reviewed numerous articles. Since 2019, he has been serving as the vice-dean for teaching.



ss. Edib Pašić, dipl. ing. arh. SARAJEVO, 1999.

stručni saradnik na Univerzitetu u Sarajevu - Arhitektonskom fakultetu
associate assistant at the University of Sarajevo - Faculty of Architecture

Dipomirao je na Univerzitetu u Sarajevu - Arhitektonskom fakultetu 2023. godine, i stekao zvanje magistar arhitekture – dipl. inženjer arhitekture. Za Bachelor i Master cikluse studija dobio je priznanja „Zlatna značka“ Univerziteta u Sarajevu. Kao student učestvovao je na brojnim projektima i konkursima, poput radionice DOCExDOCE (2019). Kao student Master studija je angažiran na projektu „Novo! Novo Sarajevo“ na koordinaciji komunikacije sa studentima i dizajnu vizualnog identiteta projekta, što je nastavio i nakon okončanja studija, zaposlen kao stručni saradnik na Katedri za urbanizam i prostorno planiranje Arhitektonskog Fakulteta. Zaposlen je i kao arhitekt u Studiju „Maketarium“, a prethodno je surađivao sa Studiom „Filter arhitektura“ i „NONSTOP“.

He graduated from the University of Sarajevo - Faculty of Architecture in 2023, obtaining a Master's degree in Architecture. He received the "Golden Badge" Awards from the University of Sarajevo for both Bachelor's and Master's studies. As a student, he participated in various projects and competitions, including the DOCExDOCE workshop (2019). During his Master's studies, he was involved in the "New! Novo Sarajevo" project, coordinating communication with students and designing the project's visual identity. He continued this role after completing his studies employed as a associate assistant at the Department of Urbanism and Planning at the Faculty of Architecture. Additionally, he works as an architect at the Studio "Maketarium", having previously collaborated with the "Filter Arhitektura" and "NONSTOP" Studios.

AUTHORS

IZBORNI STUDIO : SAVREMENI PROSTORNI KONCEPTI DIZAJN I PROTOTIP**ELECTIVE STUDIO : CONTEMPORARY SPATIAL CONCEPTS, DESIGN, AND PROTOTYPES**

zimski semestri winter semesters 2022/2023 + 2023/2024

NASTAVNICI TEACHERS : prof. dr. Erdin Salihović, v. prof. dr. Amira Salihbegović, v. prof. dr. Nermina Zagora.

STUDENTI STUDENTS : 2022/2023 : Meryem Baždar, Maid Bešić, Zuhdija Crnkic, Asija Fijuljanin, Hana Hadžiabdić, Alemka Hasečić, Lamija Hota, Zana Imamović, Dalila Karahmet, Lana Landeka, Ahmed Ljubijankić, Hana Macić, Marija Popović, Marija Pravdić, Amina Rustempašić, Elma Trkić. 2023/2024 : Ena Ćiber, Lejla Delalić, Šejla Dizdarević, Bakir Drnda, Amila Habibović, Edna Halilović, Igor Mandić, Ema Mušović, Amna Okanović, Ehlimana Šaranović, Tajra Šurković, Nedžmija Torlić, Nađa Zahirović, Fatima Zejnilagić, Melisa Zrno.

IZBORNI PREDMET : PROJEKTOVANJE OBJEKATA TURIZMA I UGOSTITELJSTVA**ELECTIVE SUBJECT : TOURISM AND HOSPITALITY BUILDINGS DESIGN**

zimski semestri winter semesters 2022/2023 + 2023/2024

NASTAVNICI TEACHERS : doc. dr. Lejla Kreševljaković. **SARADNICI ASSOCIATES :** ass. Armin Kešo.

STUDENTI STUDENTS : 2022/2023 : Benjamin Bojanić, Zerina Dacić, Alem Hasanović, Amila Kadrić, Jasmina Kurić, Belma Muminović, Hajrudin Omerović, Ahmed Peco, Ekrem Polovina, Haris Sahačić, Ana Sužnjević, Igor Zarić. 2023/2024 : Aida Jusufović, Dina Karić, Victoria Marević, Mahir Marić, Amina Mešić, Matej Mihaljević, Selma Mujić, Anida Pljakić, Elvedin Podanović, Selma Softić, Amila Terzić, Marko Vlasisavljević, Belma Zahirović.

IZBORNI PREDMET : GRAD ZA XXI VIJEK**ELECTIVE SUBJECT : CITY FOR THE 21ST CENTURY**

zimski semestar winter semester 2022/2023

NASTAVNICI TEACHERS : doc. dr. Nasiha Pozder. **SARADNICI ASSOCIATES :** ass. Andrea Pavlović.

STUDENTI STUDENTS : Faruk Brčkalića, Anis Demirović, Faruk Frljak, Amer Ibrakić, Emir Kazazović, Faris Kukić, Arman Kulenović, Aldin Lanjgić, Edina Mulaosmanović, Adna Smajić, Melika Trako, Dino Zlatarević.

IZBORNI PREDMET : ARHITEKTONSKE INTERVENCIJE NA OBJEKTIMA I CJELINAMA GRADITELJSKOG NASLIJEĐA**ELECTIVE SUBJECT : ARCHITECTURAL INTERVENTIONS ON HERITAGE BUILDINGS AND SITES**

zimski semestar winter semester 2022/2023

NASTAVNICI TEACHERS : v. prof. dr. Aida Idrizbegović Zgonić. **SARADNICI ASSOCIATES :** v. ass. dr. Lejla Kahrović Handžić.

STUDENTI STUDENTS : Ajla Gluhić, Kenan Herceglija, Hanka Kurdić, Edib Pašić, Almina Pozder, Dževad Redžić, Amer Topalović, Hasan Vikalo, Ema Zeković, Emina Zolota.

IZBORNI PREDMET : ARHITEKTONSKI NATJEČAJI**ELECTIVE SUBJECT : ARCHITECTURAL COMPETITIONS**

ljetni semestar summer semester 2022/2023

NASTAVNICI TEACHERS : v. prof. dr. Mladen Burazor.

STUDENTI STUDENTS : Ekrem Polovina, Tajra Šurković.

IZBORNI PREDMET : PROSTORNI KONCEPTI U ARHITEKTURI I UMJETNOSTI**ELECTIVE SUBJECT : SPATIAL CONCEPTS IN ARCHITECTURE AND ART**

ljetni semestar summer semester 2022/2023

NASTAVNICI TEACHERS : v. prof. dr. Senka Ibrišimbegović. **SARADNICI ASSOCIATES :** v. ass. Nedim Mutevelić.

STUDENTI STUDENTS : Meryem Baždar, Hena Begović, Haris Bešlić, Daria Martinović, Lejla Mašić, Selma Mujić, Muris Nikšić, Hana Pirović, Elvedin Podanović, Marija Popović, Amina Puzić, Adna Sefić, Amina Starogorčić, Dženana Strašević.

IZBORNI PREDMET : EKOLOŠKE KONSEKVENCE URBANE ORGANIZACIJE I ODRŽIVI URBANI RAZVOJ**ELECTIVE SUBJECT : ECOLOGICAL CONSEQUENCES OF URBAN ORGANIZATION AND SUSTAINABLE URBAN DEVELOPMENT**

ljetni semestar summer semester 2022/2023

NASTAVNICI TEACHERS : doc. dr. Nasiha Pozder. **SARADNICI ASSOCIATES :** ass. Andrea Pavlović.

STUDENTI STUDENTS : Ajla Gluhić, Nizama Mureškić, Edib Pašić, Tamara Petrović, Tanja Petrović, Emina Zolota.

IZBORNI PREDMET : ARHITEKTURA ZAJEDNIŠTVA**ELECTIVE SUBJECT : COMMUNITY ARCHITECTURE**

ljetni semestar summer semester 2022/2023

NASTAVNICI TEACHERS : doc. dr. Isra Tatlić, v. prof. dr. Vedad Islambegović, doc. dr. Senaida Halilović.

STUDENTI STUDENTS : Ilma Avdagić, Doris Baotić, Benjamin Bojanić, Dženis Buljubašić, Emir Drakovac, Sabrija Hasančević, Elvir Hasanović, Amer Ibrakić, Ajla Idrizović, Ilma Kučuk, Nives Mašić, Lejla Pištoljević, Nerma Pločo, Edna Selimović, Ana Sužnjević, Amina Šabanović, Melika Trako, Lejla Tucaković.

IZBORNI PREDMET : REKREACIJA I SLOBODNO VRIJEME**ELECTIVE SUBJECT : RECREATION AND FREE TIME**

zimski semestar winter semester 2023/2024

NASTAVNICI TEACHERS : doc. dr. Nasiha Pozder. **SARADNICI ASSOCIATES :** ass. Andrea Pavlović.

STUDENTI STUDENTS : Doris Baotić, Benjamin Bojanić, Dženis Buljubašić, Emir Drakovac, Sabrija Hasančević, Elvir Hasanović, Amer Ibrakić, Ajla Idrizović, Ilma Kučuk, Nives Mašić, Lejla Pištoljević, Nerma Pločo, Edna Selimović, Ana Sužnjević, Amina Šabanović, Melika Trako, Lejla Tucaković.

IZVODI IZ RECENZIJA

Ono što ovaj istraživački projekat, pretočen u rukopis za objavljivanje čini posebno interesantnim je inovativan metodološki postupak. Naizgled standardan način analize postojećeg stanja istraživanje lokacije i predloga za unapređenje je kroz koncept i uz pomoć tehnoloških mogućnosti pretočen u dva (naizgled) jednostavna zadatka mapiranje i akupunktura u prostoru. Upravo ta dva stava ukazuju na suštinsko razumijevanje ograničenja procesa planiranja kao i implementacije u tekućoj planerskoj praksi, a što ovim radom se nastoji da se drugačijom interpretacijom definisanom na jednostavan način kao Novi urbani protokol, prevaziđu ograničenja ustaljene prakse. Sa druge strane autori postavljaju tezu, iako kasnije ne elaboriraju, o uplivu „investitorskog urbanizma“ i uticaja na devastaciju i degradaciju prostora, implicitno je prisutan stav.

prof. dr. Ružica Bogdanović

*redovni profesor Univerziteta u Beogradu,
profesor emeritus Univerziteta UNT u Beogradu*

EXCERPTS FROM REVIEWS

What makes this research project, translated into a manuscript for publication, particularly interesting is its innovative methodological approach. The seemingly standard way of analyzing the current state of a location and proposing improvements is transformed into two (seemingly) simple tasks: mapping and acupuncture in space, conceptualized and facilitated by technological capabilities. These two approaches indicate a fundamental understanding of the limitations of the planning process and its implementation in current planning practices, which this work seeks to overcome through a different interpretation defined in a straightforward manner as the New Urban Protocol. On the other hand, the authors posit a thesis, although not elaborated later, about the influence of “investor urbanism” and its impact on the devastation and degradation of space, implicitly expressing a viewpoint.

prof. Ružica Bogdanović, PhD

*full-time professor at the University of Belgrade,
professor emeritus of the University of UNT in
Belgrade.*

Rukopis je tematski, sadržajem i zaključcima naučno i stručno relevantan i pruža uvid u aktuelne socio - urbane procese, koji zahtijevaju promptno reagovanje struke, kako bi se amortizovali i spriječili dalji nekontrolisani urbani procesi, koji trajno devastiraju i dekontekstualizuju grad. Tokom teorijskog istraživanja korištena je aktuelna literatura, čime rezultat istraživanja prati savremene istraživačke tokove u urbanim studijama, i kao takav postaje relevantno štivo za studente ali i cjelokupnu stručnu javnost, koje se kao takvo može nadograđivati. Društveni interes za ovom publikacijom bi mogao biti veoma važan, zato što direktno tematski obuhvata javne – zajedničke prostore, kao i participaciju kao vodeći metod u procesu intervenisanja u prostoru.

The manuscript is thematically, in content, and in conclusions scientifically and professionally relevant, providing insight into current socio-urban processes that require a prompt response from the profession to mitigate and prevent further uncontrolled urban processes that permanently devastate and decontextualize the city. During theoretical research, current literature was used, aligning the research results with contemporary trends in urban studies, making it relevant reading for students and the entire professional community, with potential for further development. The social interest in this publication could be significant, as it directly addresses public-shared spaces and participation as a leading method in spatial interventions.

doc. dr. Ema Alihodžić Jašarović

*docentica na Arhitektonskom fakultetu
Univerziteta Crne Gore*

doc. Ema Alihodžić Jašarović, PhD

*assistant professor at the Faculty of Architecture,
University of Montenegro*

Promjena društveno-ekonomskog sistema je uzrokovala disbalans između javne i privatne sfere, te dovela do zapuštanja, propadanja i privatnog prisvajanja javnih prostora u mnogim stambenim naseljima grada Sarajeva iz perioda socijalističkog modernizma. U knjizi "NOVO! Novo Sarajevo: NOVI urbani protokol" se predlaže alternativni metodološki pristup kroz uvođenje novog urbanog protokola u domenu strategije uređenja javnih prostora, kao kritički odgovor na neusklađenost postojećeg, institucionalnog pristupa top down planiranja s tehnološkom i društvenom dinamikom digitalnog doba, kao i stvarnim potrebama lokalne zajednice. Stambene četvrti općine Novo Sarajevo su ovoj knjizi posmatrane kao svojevrsni urbani laboratorij za istraživanje i detekciju problema javnih prostora i kvalitete urbanog života, s ciljem njihove sveobuhvatne i višeslojne urbane regeneracije. Kao odgovor na identificirane probleme, u knjizi se elaboriraju koraci metodološkog postupka: mapiranje i umrežavanje podataka u GIS bazi javnih prostora, ko-kreacija ili kolaborativni pristup koji podrazumijeva saradnju svih aktera u procesima uređenja javnih prostora, digitalizacija analitičkih podataka, korištenje inovativnih alata vizuelizacije za testiranje scenarija urbane transformacije u participativnom procesu. Novi urbani protokol integriše smjernice za istraživačke i projektantske metodološke okvire, te povezuje urbanističko planiranje i projektovanje javnih prostora za rekreaciju i slobodno vrijeme, arhitektonsko projektovanje komercijalnih i sadržaja kulture i turizma uz osnaživanje društvene infrastrukture, prostora i alata za participaciju građana.

The change in the socio-economic system has led to an imbalance between the public and private spheres, resulting in neglect, decay, and private appropriation of public spaces in many residential neighborhoods of the city of Sarajevo from the period of socialist modernism. The book "NEW! Novo Sarajevo: NEW Urban Protocol" proposes an alternative methodological approach by introducing a new urban protocol in the domain of public space planning strategy, as a critical response to the discrepancy between the existing top-down institutional planning approach and the technological and social dynamics of the digital age, as well as the real needs of the local community. The residential neighborhoods of the Novo Sarajevo municipality are seen in this book as urban laboratories for the exploration and detection of public space problems and the quality of urban life, aiming for their comprehensive and multi-layered urban regeneration. In response to identified problems, the book elaborates on the steps of the methodological process: mapping and networking of data in the GIS database of public spaces, co-creation or collaborative approach involving cooperation of all stakeholders in the processes of public space planning, digitalization of analytical data, use of innovative visualization tools for testing scenarios of urban transformation in a participatory process. The new urban protocol integrates guidelines for research and design methodological frameworks, and connects urban planning and design of public spaces for recreation and leisure, architectural design of commercial, cultural and tourist facilities, while empowering social infrastructure, spaces, and tools for citizen participation.