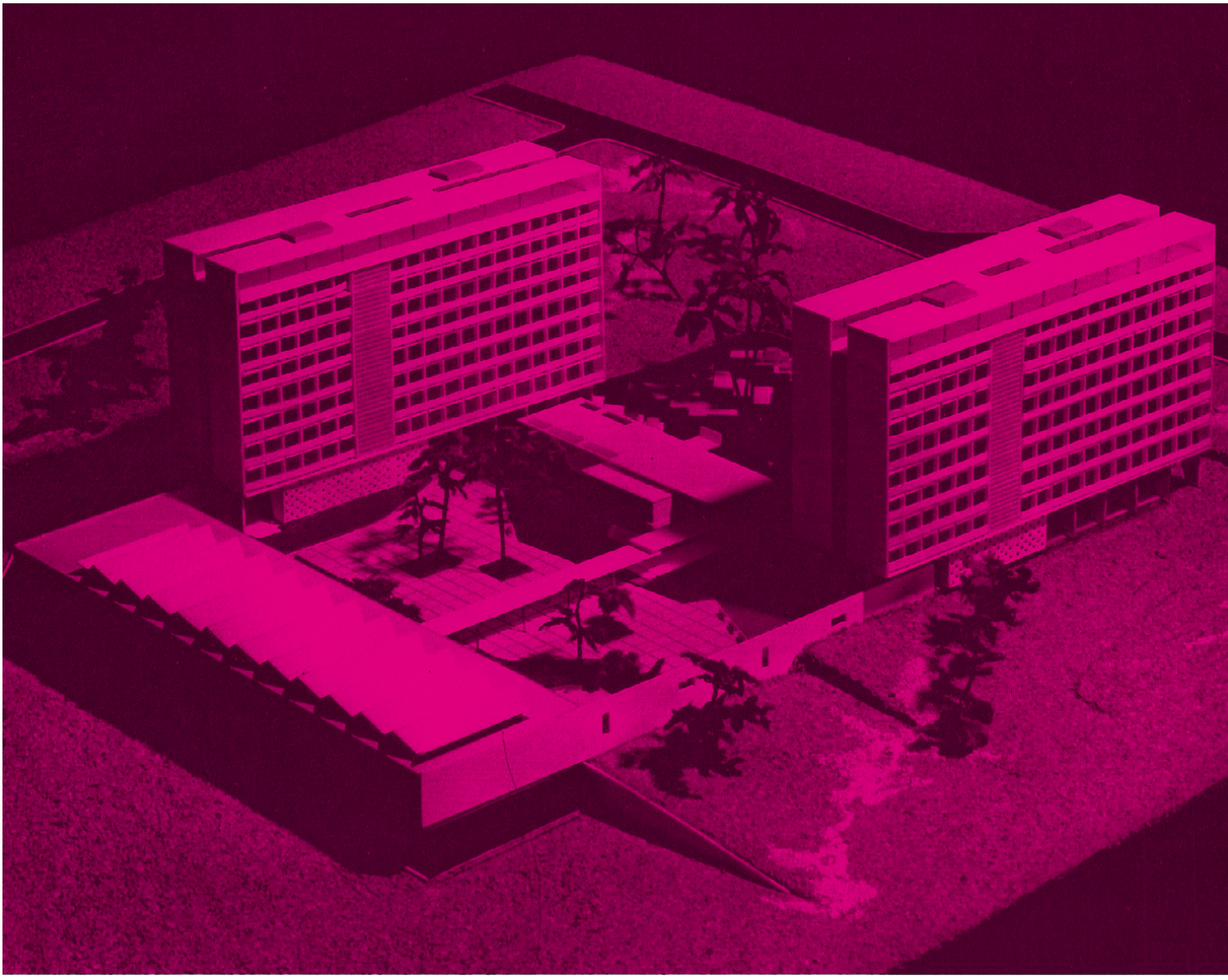

HPA
Histories of Postwar Architecture

n.**6** 2020
vol.**3**

Thick Descriptions: Socialist Yugoslavia in Construction

Guest editors
Vladimir Kulić
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Histories of Postwar Architecture

ISSN 2611-0075
https://doi.org/10.6092/issn.2611-0075/v3-n6-2020

"**Histories of Post War Architecture**" is scientific journal recognized by ANVUR (Italian National Agency for Evaluation of Universities and Research Institutes) for disciplinary areas 08 and 10.

The Journal is indexed in the following databases and search engines: ANCP, BASE, DOAJ, ERIH PLUS, Google Scholar, JournalTOCs, PLEIADI, ROAD, Worldcat.

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HPA

n.6 2020 vol.3

Thick Descriptions: Socialist Yugoslavia in Construction

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Thick Descriptions: Socialist Yugoslavia in Construction

After being denigrated, neglected, or actively destroyed for two decades, the architecture and monumental public art of socialist Yugoslavia have recently drawn an unusual degree of international attention. That attention has manifested itself most obviously through the fascination with massive 'brutalist' structures, which have been endlessly displayed across the digital media. Their most famous subset are the Yugoslav antifascist memorials identified as large abstract sculptures, which have become a media phenomenon in their own right, in large part due to the hegemonic agency of Western media. While this kind of attention afforded the once vilified structures unprecedented global visibility, it also filtered their interpretations through the received wisdoms of neoliberal ideology, resulting in what we may call a radical 'thinning out' of their meaning, accompanied by a healthy dose of 'westsplaining.'[1] Throughout the same period, however, a growing amount of scholarship has documented, mapped, and analyzed the spaces and buildings of socialism, assessing them from more

1 For a critique of such semantic emptying, see: Vladimir Kulić, "Orientalizing Socialism: Architecture, Media, and the Representations of Eastern Europe," *Architectural Histories* 6, no. 1 (2018): 7. DOI: http://doi.org/10.5334/ah.273. For 'Yugoslplaining' as a countermovement to 'westsplaining,' see: Una di Gallo, Žana Kozomora, Saša Raj šić, Bojana Videkanić, Tamara Vukov, and Sonja Zlatanova, "Thinking and doing in-between," *The Disorder of Things*, published July 8, 2020, https://thedisorderofthings.com/2020/07/08/thinking-and-doing-in-between/, accessed July 18, 2020.

https://doi.org/10.6092/issn.2611-0075/11612 | ISSN 2611-0075

deeply informed and ideologically self-aware perspectives. The 2018 exhibition *Toward a Concrete Utopia: Architecture in Yugoslavia, 1948-1980* at the Museum of Modern Art in New York, which to some degree reconciled scholarly knowledge and popular visibility, ultimately consecrated socialist Yugoslavia as an important episode in the history of modern architecture.

When we wrote the call for papers for this special issue of *Histories of Postwar Architecture* over a year ago, we started from the premise that the initial inventorying and mapping of the Yugoslav architectural and artistic heritage has been mostly completed. We proposed that the time has come for a more focused scrutiny that would disentangle the evolving webs of meaning woven around the material practices, objects, and spaces. We invited submissions that would engage in what anthropologist Clifford Geertz almost fifty years ago famously termed 'thick descriptions,' i.e., interdisciplinary contextual interpretation aimed at understanding the meaning of social actions, especially where they include interactions between multiple groups with different interests and cultural codes.[2] The method is commonplace in social sciences, but in architectural and art history it is less commonly practiced in a methodologically self-conscious way, even though the production of the built environment unavoidably invites precisely the kind of complex layered interpretations that Geertz proposed. In postwar Yugoslavia, the multiplicity of agencies was especially pronounced, as the country sought to reconcile the fundamental contradictions of modernity all at the same time. Founded upon a socialist revolution, it set out to modernize a predominantly agrarian society without enforcing the extreme class inequalities associated with capitalist development, but also without the extreme top-down centralization of Soviet-style socialism. An intensely multiethnic state, it was federalized to give voice to its constituent ethnicities, thus seeking to resolve the 'national question' that had previously provoked fratricidal bloodshed. Finally, as a founding member of the Non-Aligned Movement, it resisted dependence on either of the two global empires of the Cold War, siding instead in solidarity with Africa, Asia, and Latin America in their efforts against neocolonialism. These different axes of emancipation were not pursued in isolation from each other, but they intersected often and at many points, involving numerous social agencies and vectors. To further complicate the matter, during its short life of less than half a century, the Yugoslav socialist system underwent continuous evolution, which means that the metaphorical grounds for the construction of architecture were not only structurally challenging, but also in constant shift. Parsing such complexity is unavoidably demanding, even more so when taking into account the interpretative chasm that opened up in the 1990s with the destruction of the common state and its triple emancipatory project. In that sense, our invitation to scrutinize Yugoslav architecture and art through the lens of thick descriptions was not only ambitious, but also ideologically deeply charged.

2 See "Thick Description: Toward an Interpretive Theory of Culture" in Clifford Geertz, *The Interpretation of Cultures: Selected Essays* (New York: Basic Books, 1973), 3-30.

More or less explicitly, ideological connotations hover over all four articles published in this issue of *Histories of Postwar Architecture*, not only because they deal with the material remnants of a defunct political system that from today's perspective seems patently alien. They also manifest themselves in more structural terms, as both positive stimulants that motivate the research—for example the need to understand the reasons for the enduring success of the socialist city amidst pervasive neoliberal orthodoxy—and as impediments, such as the difficulties in piecing the story together caused by the extensive destruction of archives in the post-socialist period. Although sometimes more implicit than we hoped for, the 'thickness' of the resulting case-studies rests precisely on such ideologically driven discrepancies, which help lay bare the material, symbolic, and affective layers accumulated in and around the analyzed physical spaces.

The essays gathered here, however, also reveal that the need to map the relevant large-scale phenomena is far from exhausted. In that respect, Jelica Jovanović opens an important new topic that has hitherto barely registered on the radar of architectural history: the extensive architectural exports from Yugoslavia to Czechoslovakia. Scholars have already established the general contours of the architectural exchanges between the so-called Second and Third Worlds, including Yugoslavia's own engagement in that respect.[3] However, the architectural exchanges within the socialist world itself, especially those that circumvented Moscow, remain only marginally explored. Jovanović charts one such route, haunted by its own discrepancies: despite the shared adherence to state socialism and the Pan-Slavic affiliation, Yugoslavia and Czechoslovakia were differently aligned in geopolitical terms, the former belonging to the Non-Aligned Movement and the latter to the Soviet sphere. Jovanović's article draws attention to the constantly shifting balance of power between the two countries, but it also begins to uncover a vast network of transnational exchanges that so far have escaped scholarly attention, in part due to the post-socialist destruction of archives in both former Yugoslavia and former Czechoslovakia.

Continuing in a similar direction, Mojca Smode Cvitanović focuses on one particular instance of transnational cooperation, the involvement of a group of Yugoslav architects from Croatia led by Miro Marasović in the development of the Kwame Nkrumah University of Science and Technology campus in Kumasi, Ghana, in the 1960s. The article draws attention to the intricate interplay between architecture's embeddedness in the socio-political conditions and its claims to professional 'autonomy' by pointing out how non-aligned cooperation resulted in the conceptual and aesthetic continuities between Marasović's work in Yugoslavia and Ghana. The effects of such transfer of architectural knowledge and culture are obvious through the contrast with the previous phases in the development of the KNUST campus, which had been designed by British architects in the mode of 'tropical modernism.' Another important

3 Łukasz Stanek's work in that respect is ground-breaking; see his book *Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War* (Princeton: Princeton University Press, 2020). See also, among others, Dubravka Sekulić, "Energoprojekt in Nigeria," in *Southeastern Europe* 41, no. 2 (2017): 200-229, https://doi.org/10.1163/18763332-04102005.

contribution of the paper is to consider the 'technical cooperation' between Yugoslavia and Ghana as a part of the larger affective category of 'friendship' established between the two non-aligned countries, the lingering effects of which were obvious even when the author visited the site fifty years later. The intersection of practical effects and the lived experience of transnational cooperation that Smode Cvitanović reveals contradicts the recent attempts to recast the Yugoslav involvement in the Non-Aligned Movement as empty posturing motivated purely by status-seeking on the international stage.[4]

Lea Horvat shifts our attention to housing, focusing on a large residential neighborhood in Podgorica known as the Blok 5. In her article, Horvat makes an important connection between the Yugoslav self-management, the built space, social relationships, the role of the architect, and the complicated question of financing large-scale building projects. The text's key lines of inquiry are the ways in which the system of self-management, enacted on the local and national level, attempted to include future residents of housing estates in the design of the living space, and secondly, the complex financing system in which the economic burden of building an apartment building was shared across the social body. In short, the text points to the importance of social, emotional, and financial entanglements when building residential neighborhoods. Finally, Horvat also reveals the core of the relationship between self-managed socialism and architecture, in which the latter was to serve as a device to diminish rather than perpetuate class differences. As lived space, architecture thus sought to transform the affective and ideological structure of everyday life.

Finally, Aleksa Korolija and Cristina Pallini expand the focus to the scale of the entire country, analyzing the iconic Highway of Brotherhood and Unity as a nation-building tool that unified Yugoslavia in concrete and symbolic terms. Traversing four of Yugoslavia's six constituent republics, Slovenia, Croatia, Serbia, and Macedonia, and all but touching the border of a fifth, Bosnia and Herzegovina, the highway was intended not only as a piece of physical infrastructure to stimulate economic growth, but also as social infrastructure that would promote bonds among the different nationalities. It operated on multiple scales, from geographical, to urban and architectural. At the same time, its construction involved highly diverse groups of agents, from volunteer youth brigades, the army, and construction companies, to various professionals, all brought together in a project of pan-national solidarity. In turn, the highway initiated discussions across different disciplines, including planning, architecture, design and art, and it even played an important role in the emergence of the discipline of landscape architecture in Yugoslavia. Amongst the project's many scales and layers of meaning, the authors especially focus on its 'poleogenetic' use, or the generative role it played in the urban development of Yugoslavia's largest cities, including Belgrade, Zagreb, and Skopje, serving as the backbone for new urban structures, as much as the backbone for the entire country.

4 See Jelena Subotić and Srđan Vučetić, "Performing Solidarity: Whiteness and Status-Seeking in the Non-Aligned World," *Journal of International Relations and Development* 22 (2019): 722-743.

Jelica Jovanović

Reversing the Exchange: Yugoslav Architectural Exports to Czechoslovakia

Yugoslavia, Czechoslovakia, Export, Technology, Construction

/Abstract

The paper aims to map out the numerous projects in Czechoslovakia realized by Yugoslav construction companies from the 1960s to the 1980s and offers the preliminary insights into their modes of operation. Due to insufficient archival records, the paper offers a preliminary insight into the matter. However, with the extensive coverage of these projects in the Czechoslovak professional periodicals, it was possible to trace down fifty projects, done by companies from Serbia, Croatia and Macedonia. Interviews with the surviving protagonists and contemporaries of these collaborations provided detailed introspect into the mechanisms of the processes, with local architects typically responsible for the overall design, while Yugoslav companies provided the design development, technological know-how, construction services, and materials. These insights contribute to a growing body of knowledge about the exports of architecture from Europe's socialist half during the Cold War and broadens the narrative of international architectural circulation, while unpacking the usual presumptions on "developed" and "und(er)developed". The paper points to other routes of exchange, based on the cooperation within the socialist world, but nevertheless across a geopolitical division, the one that separated the non-aligned Yugoslavia and the Warsaw Pact-member Czechoslovakia.

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Jelica Jovanović (1983) is an architect and PhD student at the University of Technology in Vienna, working as an independent researcher. She graduated with a degree in Architecture from the Faculty of Architecture, University of Belgrade. She is a founder and member of the NGO Grupa arhitekata, within which she has worked on several projects: *Summer Schools of Architecture* in Bač and Rogljevo (from 2010), *(In)appropriate Monuments* (ongoing from 2015), *Lifting the Curtain* (2014-2016, exhibited in Venice Bienale in 2014). She also coordinated the regional project *Unfinished Modernisations* for Association of Belgrade Architects (2010-2012) and worked as s curatorial assistant for the Museum of Modern Art in New York (MoMA) for the exhibition *Toward a Concrete Utopia: Architecture in Yugoslavia, 1948–1980*. She is a twice-elected secretary general of DOCOMOMO Serbia, for which she is also working as a project coordinator and web editor. She is also the coauthor of the book B*ogdan Bogdanović Biblioteka Beograd - An Architect's Library* with Wolfgang Thaler and Vladimir Kulić, as well as the coauthor of the web page *Arhiva modernizma* with Ljubica Slavković. She is also an OeAD One Month Visit scholar (Austria) and SAIA (Slovakia) scholar.

https://doi.org/10.6092/issn.2611-0075/10416 | ISSN 2611-0075

Introduction

1

While wandering around Kobylisy neighborhood in Prague, one building in exposed concrete caught my eye. Although appearing generic to an extent, its facade contained both custom-made elements and prefabricated panels shaped in uncommon ways. The difference was subtle, but to my eyes it was clear that these panels differed from the kind of prefabrication one normally sees in the Czech Republic or Slovakia. In Belgrade, however, it would be at home, a conspicuous hybrid between, for example, the now demolished Embassy of the Federal German Republic and New Belgrade's Block 22 neighborhood. Both examples share some key features with their counterpart in Prague, including slender *brise-soleils* and "pliers" holding the structure in place, all executed in exposed concrete. In technological terms, the building appeared to be an instance of semi-prefabrication, which was indeed often used in Yugoslavia, hybridizing a cast-on-site load bearing structure and a façade constructed with small-scale prefabricated elements and a curtain-wall for the envelope. Of course, I could not be sure. But my gut instinct wasn't wrong – a few months later I accidentally saw a Facebook post, crediting the design to a forgotten Belgrade architect, Jovan Jovanović, and identifying 1974 as the year of construction. The building's previous owner, the Chemopetrol-Benzina petrochemical company, had sold the building to the Czech Social Security Administration, which allowed the newspaper to reveal the name of the architect, but not other details of its construction.[1] Praguers suggestively nicknamed the building "Drákulov" for its unusual silhouette reminiscent of a gothic castle. To this day I have not fully uncovered the details of its provenance: the Social Security Administration keeps it classified for security reasons. Other archival sources have been destroyed or lost or disorganized for decades, a common condition of post-socialism in both post-Yugoslav and post-Czechoslovak countries. **[Fig. 1]**

I went to Prague via Bratislava, to study and compare the development of Yugoslav and Czechoslovak mass housing in second half of 20th century.[2] Based on the long history of interactions and cooperation between the two countries,

1 Kateřina Menzelová, "Drákulov Změnil Majitele," *euro*, November 6, 2002, https://www.euro.cz/archiv/drakulov-zmenil-majitele-808066, accessed January 5, 2020.

2 *The research Mass Housing of (Czecho)Slovakia: Housing Developments in the Second Half of 20th Century and the Role in the European and Global Exchange of Technologies* has been done within scholarships Action Austria – Slovakia, Co-operation in Science and Education, supervisor Ľubica Vítková (2014-2015) and *Industrial Housing of (Czecho)Slovakia: Post-War Housing Production - Origins, Technology and Methodology of Housing for the Masses* within the The National Scholarship Programme of the Slovak Republic for the Support of Mobility of Students, PhD Students, University Teachers, Researchers and Artists, supervisor Henrieta Moravčíková (2017).

Fig. 1

Architect Jovan Jovanović, Former building of the Chemopetrol-Benzina Company, today Czech Social Security, popularly named Drákulov, Kobilisy, Prague, 1974-1979 (Photo: Jelica Jovanović, 2015)..

I expected to find that technology transfers went from the more developed to the less developed economy, i.e. from Czechoslovakia to Yugoslavia, as had indeed been the case throughout the late 19th and the first half of the 20th centuries.[3] As it turns out, the assumption was wrong: not only did Yugoslavia develop its own path to mass housing by the 1960s, just like Czechoslovakia had done somewhat earlier in the century, but my research uncovered an unexpected direction of technological transfer, from Yugoslavia to Czechoslovakia and to other Second World countries.[4] Considering that for decades Czechoslovakia was more advanced in terms of industrial and infrastructural development, that it had expertise built through a strong network of schools of technology, and the history of knowledge transfers between the two countries, it would have been expected for Czechoslovakia to export to, rather than import expertise from Yugoslavia. However, it was the Yugoslav construction companies and their architects who participated in Czechoslovakia's post-war architectural production, not the other way around.[5] After the collapse of Yugoslavia in the 1990s, this entire segment of the country's architectural culture went into oblivion. Contours of the wider story have been uncovered recently, most notably the extensive Yugoslav projects in the countries of the Non-Aligned Movement (NAM), which followed a more visible vector of export given the role of Yugoslavia in the movement. In contrast, projects completed in Eastern Europe completely vanished from memory.[6] However, as I have found out, they were not forgotten in their host countries like Slovakia: the architectural imports from Yugoslavia, as my colleagues assured me repeatedly, survived as common knowledge both among the professionals and the historians.[7]

This paper maps out a number of projects in Czechoslovakia realized by Yugoslav construction companies from the 1960s to the 1980s, and offers a preliminary insight into their modes of operation. The account is inevitably incomplete, largely due to insufficient archival records, which suffered greatly during the so-called post-socialist transition in both former countries. Despite limited archival sources, however, the coverage of these projects in Czechoslovak professional periodicals allowed me to catalog no less than fifty of them originating mostly in Serbia, as well as a few from other parts of Yugoslavia. Interviews with the surviving protagonists and contemporaries of these collaborations,

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3 Tanja Damljanović, *Češko-srpske arhitektonske veze 1918-1941* (Czech-Serbian architectural connections 1918-1941) (Belgrade: Republički zavod za zaštitu spomenika kulture, 2004), 9-11 and 49-73.

4 Kimberly Elman Zarecor, *Manufacturing a Socialist Modernity: Housing in Czechoslovakia*, 1945-1960 (Pittsburgh: University of Pittsburgh Press, 2011), 224-295.

5 There are instances of industrial equipment imports from Czechoslovakia, which is often connected with construction of entire industrial facilities, i.e. for glass production or vinegar production, however, no planning or design documentation has been retrieved yet. See Arhiv Jugoslavije [Archive of Yugoslavia, hereafter AJ], Belgrade, Fond KPR: Kabinet predsednika Republike, folder 1-5-b-19.

6 Dubravka Sekulić has written extensively about this phenomenon, following the case of the largest and most prominent Yugoslav construction company, Energoprojekt. Other cases include the story of Hotel Babylon in Baghdad (Vladimir Kulić, "Building the Non-Aligned Babel: Babylon Hotel in Baghdad and Mobile Design in the Global Cold War," *ABE Journal: Architecture beyond Europe* 6, 2014, http://journals.openedition.org/abe/924) and the experimental housing in Angola (Jelica Jovanović, "From Yugoslavia to Angola: Housing as a Postcolonial Technical Assistance. City Building Through IMS Žeželj Housing Technology," *Architektura & Urbanizmus* 53, no. 3-4 (2019): 170-181).

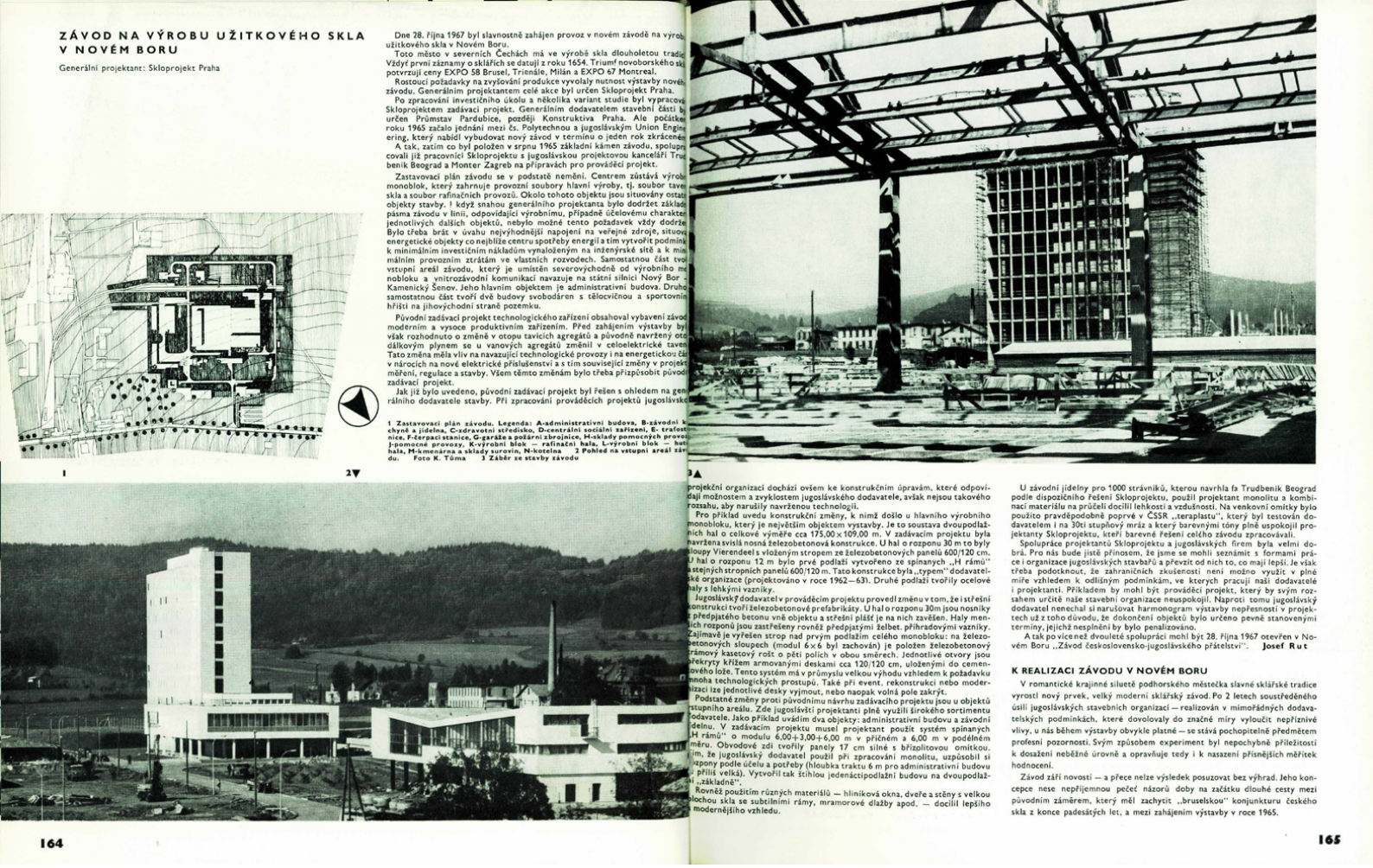
7 I thank my colleague Martin Zaiček for these insights.

including the leading Slovak architects Iľja Skoček, Bohuslav Pernecký and Anna Pernecká, further allowed me to flesh out some of the details, pointing to a peculiar transnational division of labor, in which local architects were typically responsible for the overall design, and Yugoslav companies provided the design development, technological know-how, construction services, and materials. In comparison to the export of design services to non-aligned countries, those to the socialist world were much more limited, which contributed to their lower visibility in professional circles.[8] Nevertheless, they were significant enough to contribute to a growing body of knowledge about the exports of architecture from Eastern Europe during the Cold War. The recent groundbreaking scholarship has uncovered the wide extent of such exports to Africa, the Middle East, and South Asia.[9] In contrast, this paper points to other routes based on the cooperation within the socialist world, but nevertheless across a geopolitical division, the one that separated the non-aligned Yugoslavia and the Warsaw Pact-member Czechoslovakia.

The internationalization of architecture and urbanism in socialist countries was intricately connected with the infrastructural development of the post-colonial and post-imperial South and East - a geography in which Yugoslavia was deeply involved. However, if the exports, for example, to Angola should be considered post-colonial development, the question is how to characterize the exports to Czechoslovakia. Having in mind the building types constructed there, such as industrial and healthcare facilities, this particular exchange can be understood as a contribution to continued industrial and infrastructural development. In addition, it served as the settlement of Yugoslav debts incurred in the interwar and early postwar periods, due in part to the nationalization of Czechoslovak companies in Yugoslavia and the loans for industrialization taken by the new socialist government. The internationalization of Yugoslav architecture was always conditioned by the specific bilateral relations with the country in question, which often significantly inflected the more general Cold War bloc relations. It went in many directions, but it was always deeply intertwined with the country's foreign policy as well as internal affairs. The resulting exchanges often complicate the common assumptions about the center and periphery, as well as the canon of architectural and technological history monopolized by the West, from which the proverbial underdogs such as Yugoslavia are usually excluded. The development of the Yugoslav construction sector and the dissemination of its products challenge many ideas entrenched in architectural history, which teaches of great technological leaps as the only historically relevant

8 Architectural design provided the smallest share in construction exports abroad. Of the companies that engaged in design services Energoprojekt held a 90% share of total exports, most of it to NAM countries (Nigeria, Peru, Zambia, Uganda, Gabon, Iraq, Morocco, Algeria, Burma, Guinea, Cyprus. Tucakov. Cfr. Miloš Jarić, *40 godina građevinarstva Socijalističke republike Srbije* (Forty years of construction industry of the Socialist Republic of Serbia) (Belgrade: Izgradnja, 1987), 250-251.

9 Most notably, Łukasz Stanek's groundbreaking book traces the exports from socialist Eastern Europe to the recently decolonized world; see: Łukasz Stanek, *Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War* (Princeton and Oxford: Princeton University Press, 2020). Other notable case-studies include Christina Schwenkel's work about the architectural exports from East Germany to Vietnam. See her forthcoming book *Building Socialism: The Afterlife of East German Architecture in Vietnam* (Durham, NC: Duke University Press, 2020).



ZÁVOD NA VÝROBU UŽITKOVÉHO SKLA V NOVÉM BORU

Generální projektant: Sloprojekt Praha

Dne 28. října 1967 byl slavnostně zahájen provoz v novém závodě na výrob užitkového skla v Novém Boru.

Toto město v severních Čechách má ve výrobě skla dlouholetou tradic Vždyť první záznamy o sklářích se datují z roku 1654. Triumf novoborského sk potvrzují ceny EXPO 58 Brusel, Triennale, Milán a EXPO 67 Montreal.

Rostoucí požadavky na zvyšování produkce vyvolaly nutnost výstavby nové závodu. Generálním projektantem celé akce byl určen Sloprojekt Praha.

Po zpracování investičního úkolu a několika variant studie byl vypracov Sloprojektem zadávací projekt. Generálním dodavatelem stavební části b určen Průmstav Pardubice, později Konstruktiva Praha. Ale počátke roku 1965 začalo jednání mezi čs. Polytechnou a jugoslávským Union Engine ering, který nabídl vybudovat nový závod v termínu o jeden rok zkrácené

A tak, zatím co byl položen v srpnu 1965 základní kámen závodu, spolupr covali již pracovníci Sloprojektu s jugoslávskou projektovou kanceláří Tru benik Beograd a Monter Zagreb na přípravách pro prováděcí projekt.

Zastavovací plán závodu se v podstatě nemění. Centrem zůstává výrob monoblok, který zahrnuje provozní soubory hlavní výroby, tj. soubor tave skla a soubor rafinačních provozů. Okolo tohoto objektu jsou situovány ostat objekty stavby. I když snahou generálního projektanta bylo dodržet základ pásma závodu v linii, odpovídající výrobnímu, případně účelovému charakte jednotlivých dalších objektů, nebylo možné tento požadavek vždy dodrže Bylo třeba brát v úvahu nejvýhodnější napojení na veřejné zdroje, situov energetické objekty co nejblíže centru spotřeby energií a tím vytvořit podmín k minimálním investičním nákladům vynaloženým na inženýrské sítě a k min málním provozním ztrátám ve vlastních rozvodech. Samostatnou část tvo vstupní areál závodu, který je umístěn severovýchodně od výrobního m nobloku a vnitrozávodní komunikací navazuje na státní silnici Nový Bor Kamenický Šenov. Jeho hlavním objektem je administrativní budova. Druhá samostatnou část tvoří dvě budovy svobodáren s tělocvičnou a sportovním hřištěm na jihovýchodní straně pozemku.

Původní zadávací projekt technologického zařízení obsahoval vybavení závod moderním a vysoce produktivním zařízením. Před zahájením výstavby by však rozhodnuto o změně v otopu takzvaných agregátů a původně navržený otc dálkovým plynem se u vanových agregátů změnil v celoelektrické tavení. Tato změna měla vliv na navazující technologické provozy i na energetickou čá v nárocích na nové elektrické přísluženství a s tím související změny v projekt měření, regulace a stavby. Všem těmto změnám bylo třeba přizpůsobit původ zadávací projekt.

Jak již bylo uvedeno, původní zadávací projekt byl řešen s ohledem na gen rálního dodavatele stavby. Při zpracování prováděcích projektů jugoslávsk

1 Zastavovací plán závodu. Legenda: A-administrativní budova, B-závodní k chyně a jídelna, C-zdravotní středisko, D-centrální sociální zařízení, E- trafost nice, F-čerpací stanice, G-garáže a požární zbrojnice, H-sklady pomocných provo J-pomocné provozy, K-výrobní blok — rafinační hala, L-výrobní blok — hut hala, M-kmenárna a sklady surovin, N-kotelna 2 Pohled na vstupní areál záv du. Foto K. Tůma 3 Záběr ze stavby závodu

projekční organizací dochází ovšem ke konstrukčním úpravám, které odpovídají možnostem a zvyklostem jugoslávského dodavatele, avšak nejsou takového rozsahu, aby narušily navrženou technologii.

Pro příklad uvedu konstrukční změny, k nimž došlo u hlavního výrobního monobloku, který je největším objektem vystavby. Je to soustava dvoupodlažních hal o celkové výměře cca 175,00 × 109,00 m. V zadávacím projektu byla navržena svislá nosná železobetonová konstrukce. U hal o rozponu 30 m to byly sloupy Vierendeel s vloženým stropem ze železobetonových panelů 600/120 cm. U hal o rozponu 12 m bylo prvé podlaží vytvořeno ze spínaných „H rámů" stejných stropních panelů 600/120 m. Tato konstrukce byla „typem" dodavatelské organizace (projektováno v roce 1962—63). Druhé podlaží tvořily ocelové haly s lehkými vazníky.

Jugoslávský dodavatel v prováděcím projektu provedl změnu v tom, že i střešní konstrukci tvoří železobetonové prefabrikáty. U hal o rozponu 30m jsou nosníky s předpjatého betonu vně objektu a střešní plášť je na nich zavěšen. Haly menších rozponů jsou zastřešeny rovněž předpjatými želbet. přihradovými vazníky. Zajímavě je vyřešen strop nad prvým podlažím celého monobloku: na železobetonových sloupech (modul 6×6 byl zachován) je položen železobetonový rámový kasetový rošt o pěti polích v obou směrech. Jednotlivé otvory jsou překryty křížem armovanými deskami cca 120/120 cm, uloženými do cementového lože. Tento systém má v průmyslu velkou výhodu vzhledem k požadavku mnoha technologických prostupů. Také při event. rekonstrukci nebo modernizaci lze jednotlivé desky vyjmout, nebo naopak volná pole zakrýt.

Podstatné změny proti původnímu návrhu zadávacího projektu jsou u objektů vstupního areálu. Zde jugoslávští projektanti plně využili širokého sortimentu dodavatele. Jako příklad uvádím dva objekty: administrativní budovu a závodní jídelnu. V zadávacím projektu musel projektant použít systém spínaných „H rámů" o modulu 6,00+3,00+6,00 m v příčném a 6,00 m v podélném směru. Obvodové zdi tvořily panely 17 cm silné s břízolitovou omítkou. Jelikož se jugoslávský dodavatel použil při zpracování monolitu, uzpůsobil si rozpony podle účelu a potřeby (hloubka traktu 6 m pro administrativní budovu a přibližně velká). Vytvořil tak stihlou jedenáctipodlažní budovu na dvoupodlažní „základně".

Rovněž použitím různých materiálů — hliníková okna, dveře a stěny s velkou plochou skla se subtilními rámy, mramorové dlažby apod. — docílil lepšího a modernějšího vzhledu.

U závodní jídelny pro 1000 strávníků, kterou navrhla fa Trudbenik Beograd podle dispozičního řešení Sloprojektu, použil projektant monolitu a kombinací materiálu na průčelí docílil lehkosti a vzdušnosti. Na venkovní omítky bylo použito pravděpodobně poprvé v ČSSR „teraplastu", který byl testován dodavatelem i na 30ti stupňový mráz a který barevnými tóny plně uspokojil projektanty Sloprojektu, kteří barevné řešení celého závodu zpracovávali.

Spolupráce projektantů Sloprojektu a jugoslávských firem byla velmi dobrá. Pro nás bude jistě přínosem, že jsme se mohli seznámit s formami práce i organizace jugoslávských stavbařů a převzít od nich to, co mají lepší. Je však třeba podotknout, že zahraničních zkušeností není možno využít v plné míře vzhledem k odlišným podmínkám, ve kterých pracují naši dodavatelé i projektanti. Příkladem by mohl být prováděcí projekt, který by svým rozsahem určitě naše stavební organizace neuspokojil. Naproti tomu jugoslávský dodavatel nenechal si narušovat harmonogram výstavby nepřesností v projektech už z toho důvodu, že dokončení objektů bylo určeno pevně stanovenými termíny, jejichž nesplnění by bylo penalizováno.

A tak po více než dvouleté spolupráci mohl být 28. října 1967 otevřen v Novém Boru „Závod československo-jugoslávského přátelství". Josef Rut

K REALIZACI ZÁVODU V NOVÉM BORU

V romantické krajinné siluetě podhorského městečka slavné sklářské tradice vyrostl nový prvek, velký moderní sklářský závod. Po 2 letech soustředěného úsilí jugoslávských stavebních organizací — realizován v mimořádných dodavatelských podmínkách, které dovolovaly do značné míry vyloučit nepříznivé vlivy, u nás během výstavby obvykle platné — se stává pochopitelně předmětem profesní pozornosti. Svým způsobem experiment byl nepochybně příležitostí k dosažení neběžné úrovně a opravňuje tedy i k nasazení přísnějších měřítek hodnocení.

Závod září novostí — a přece nelze výsledek posuzovat bez výhrad. Jeho koncepce nese nepřijemnou pečeť názorů doby na začátku dlouhé cesty mezi původním záměrem, který měl zachytit „bruselskou" konjunkturu českého skla z konce padesátých let, a mezi zahájením výstavby v roce 1965.

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path of development, in turn assuming that transfers are only possible from the more to the less developed regions. This paper aims to challenge some of those notions and to add another layer to the expanding scholarship of "other" modernisms and modernities and the circulation of architecture, technology, and labor within them. [Fig. 2]

Yugoslavia and Czechoslovakia: a brief history of the relationship

The intense relationship between the regions that would comprise the future states of Yugoslavia and Czechoslovakia dates to the beginning of the 19th century. It was shaped both by the shared imperial framework of the Austro-Hungarian Empire and the emerging Pan-Slavic sentiments. Among the first officially trained architects to arrive in Serbia during its emancipation from the Turkish rule in the mid-19th century was the Czech Jan Nevole, who designed one of Belgrade's first historicist buildings and who taught at the Engineering school, influencing generations of architects and irreversibly changing architectural design in Serbia.[10] After Bosnia was occupied by Austria-Hungary in 1878, another Czech, Karel Pařík, arrived in Sarajevo and designed some of the city's most recognizable buildings, including the historicist City Hall.[11] After World War I, Czechoslovakia and The Kingdom of Yugoslavia (originally founded as

Fig. 2

Glass factory, Nový Bor, Czech Republic, n.d. Construction: KMG Trudbenik (Source: *Architektura ČSR*, 1968, 165-166).

10 Mirjana Roter Blagojević, "Jan Nevole, prvi moderni arhitekta u Beogradu (Jan Nevbole, the first modern architect in Belgrade)," *Limes Plus* 2 (2013): 129-148.

11 Branka Dimitrijević, "Arhitekt Karlo Paržik" (PhD diss., University of Zagreb, 1989), http://www.karloparzik.com/Disertacija.html, accessed 4.6.2020.

the Kingdom of Serbs, Croats, and Slovenes) emerged as new states built on the ashes of old empires, soon joining a political alliance known as the Little Entente to rebuff the restoration of the Habsburg dynasty, as well as Hungarian revanchism. Cultural cooperation was also intense, maintained in part through the Pan-Slavic Sokol movement, which had been founded in Prague in the mid-19th century. Sokol Halls were built throughout interwar Yugoslavia in support of the shared Pan-Slavic sentiments.[12] **[Fig. 3]**

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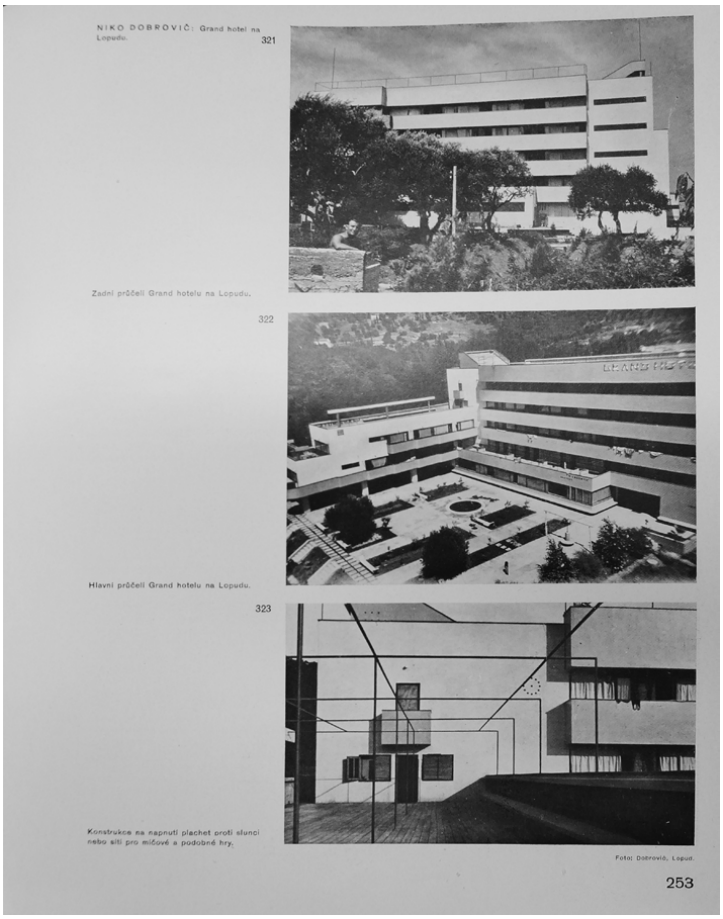

With Bohemia being the most industrialized region of the Habsburg Empire, the newly founded Czechoslovakia naturally emerged as an important industrial nation. In contrast, some of the Empire's least industrialized areas became parts of Yugoslavia, which also came to encompass the even less developed lands formerly under the Ottoman rule.[13] While in interwar Czechoslovakia functionalist architecture blossomed and mass production emerged in the Bat'a company towns, Yugoslavia's shift to modernism was slower and uneven, and traditional techniques and crafts continued dominating construction. It was natural that Czechoslovakia would become a significant education center for Yugoslavia's future architects and engineers, including some of the most prominent modernists.[14] Typically, architecture students from Serbia and Bosnia attended the Czech Technical University in Prague (ČVUT), while those from Slovenia and Croatia went to the Academy of Fine Arts.[15] Czech architects, in turn, practiced in Yugoslavia throughout the first half of the 20th century. For example, Vladimir Karfik, born in Idrija (Slovenia), who spent his interwar career as the architect of the Bat'a company, designed buildings not only for the company's headquarters in Zlín, but also in its subsidiary industrial towns, such as Borovo in Croatia. Similarly, Jan Dubový became one of the founding members of GAMP - Group of Architects of the Modern Movement, Belgrade's first group of modernist architects founded in 1928.

The warm relationship continued after World War II. On May 21st, 1946, soon after the prime minister Josip Broz Tito's first official visit to Czechoslovakia

12 Vladana Putnik, *Arhitektura Sokolskih domova u Kraljevini SHS i Kraljevini Jugoslaviji* (The architecture of Sokol houses in the Kingdom of Serbs, Croats, and Slovenians and the Kingdom of Yugoslavia) (Beograd: Filozofski fakultet Univerziteta u Beogradu, 2015), 22-49.

13 Alfons Von Halkowich, *Die Eisenwerke Osterreich-Ungarns* (The Ironworks of Austria-Hungary) (Wien: s.e., 1911).

14 These included Nikola Dobrović, Jan Dubovy, Momir Korunović, and the brothers Muhamed and Reuf Kadić.

15 Damljanović, *Češko-srpske arhitektonske veze 1918-1941*, 73.

Fig. 3

Architect Nikola Dobrović, Grand Hotel, Lopud, Dubrovnik, Croatia, 1934-1936. (Source: *Architektura - spojené časopisy Stavba, Stavitel, Styl*, 1939, 253).

(one of his first official trips abroad), the newly established Federative People's Republic of Yugoslavia and the Republic of Czechoslovakia signed *the Agreement on Friendship, Mutual Aid and Peaceful Cooperation*.[16] Economic relations continued the established pattern. Czechoslovak industry, still in private hands at the time, viewed Yugoslavia as a source of cheap ore and a place to absorb the depreciated industrial equipment.[17] In turn, a substantial part of the Yugoslav Five Year Plan was based on the assumption that Czechoslovakia will provide the industrial equipment and training, a part of which was intended for the construction sector. Several special agreements were signed in this respect, directly tying the fulfillment of Yugoslav Five Years Plan to the imports from Czechoslovakia.[18] Architectural connections continued as well: a team of Czech architects designed the new Railway Station in Sarajevo, whereas Prague-educated Luděk Kubeš arrived in Skopje in 1947 to design the city's first postwar master plan and a number of modernist buildings.[19]

However, by mid-1948 everything suddenly changed, and the two countries began moving in opposite directions. In February, the communist coup placed Czechoslovakia into a firm alliance with the Soviet Union, whereas in June, Yugoslavia—previously the most reliable Soviet ally—was expelled from the socialist orbit and forced on its own independent path. In the ensuing crisis, the Czechoslovak and Polish communist leaderships served as especially ardent proxies for the Soviets, launching repeated attacks against the Yugoslav leadership for their alleged betrayal of communism. Diplomatic relations were frozen, not to be reestablished until after the death of Stalin and the Czechoslovak communist leader Klement Gottwald, both of which occurred in March 1953. It took until September 1954 for the Czechoslovak ambassador to return to Belgrade, and another six months for the Yugoslav envoy to arrive in Prague. Nevertheless, it would take almost two more years for Yugoslavia to restore its diplomatic relations with the USSR, and the comparably fast rapprochement with Czechoslovakia should likely be understood as testament to past friendship.

By 1955, Yugoslavia's negotiating position was different. The leadership was eager to set aside the dispute with Czechoslovakia, especially since the much-needed resources for development were cheaper and easier to obtain in the Warsaw Pact countries. However, Eastern Europe was no longer seen as the main partner as in the meantime, Yugoslavia established friendly relations with the West, in turn receiving substantial amounts of military and technical aid. Concurrently, it also established strong diplomatic connections with the Middle East and Northern Africa. Owing to the postwar reconstruction and ambitiously

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16 *Ugovor o prijateljstvu, uzajamnoj pomoći i saradnji u miru između FNRJ i Čehoslovačke Republike* (Agreement on friendship, mutual assistance and cooperation in peace between the FPRY and the Czechoslovak Republic), AJ, Fond Prezidijum Narodne skupštine FNRJ 1943-1957, folder 15-15-264.

17 Slobodan Selinić, *Jugoslovensko – čehoslovački odnosi 1945-1955* (Yugoslav-Czechoslovak relations 1945-1955) (Beograd: Institut za noviju istoriju Srbije, 2010), 98-147.

18 Selinić, *Jugoslovensko – čehoslovački odnosi*, 135-143.

19 Sofija Stojanovska, "Arhitekt Ludek Kubeš (1913 – 1996)," *Makedonska Arhitektura*, https://marh.mk/архитект-лудјек-кубеш-1913-1996/ accessed June 4, 2020.

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planned development, Yugoslavia's construction sector grew in size and scale and modernized extensively. The future Non-Aligned Movement was already on the rise, expanding the networks of cooperation even further South and East. Tito's journey to India in late 1954 attracted the attention of the leadership in Prague in the context of the post-Stalinist thaw and the opening towards the emerging postcolonial world.[20] By that time, Yugoslav construction companies had already established their presence abroad. Their first major foreign construction site opened in the Latakia Port in Syria in October 1952 by Pomorsko građevinsko preduzeće from Split, later joined by Trudbenik from Belgrade. Other sites in Syria, as well as in Turkey, Greece, Egypt, India, Lebanon, Pakistan, and Paraguay followed by 1954.[21] Tito, the greatest advocate of the Yugoslav economy, began his "journeys of peace" in 1953.[22] The managers of large enterprises often joined him on these visits to directly negotiate trade deals. By 1969, Yugoslav construction companies had sites in forty countries across the world, of which 45,8% were in Europe (28,1% Western and 17,7% Eastern), 16% in Asia, and 38,2% in Africa.[23] [Fig. 4]

20 Selinić, *Jugoslovensko – čehoslovački* odnosi, 644.

21 At first, the *Federal Administration for Investment Construction* oversaw these 'investments abroad', which was later transferred to other bodies with the reforming of the administration. See Inventar (Inventory), AJ, Fond 187: Savezna uprava za investicionu izgradnju, folders: 10 and 11.

22 Most were to Africa, Asia and South America, totaling 169 visits to 92 countries between 1944 and 1980. Radina Vučetić and Pol Bets, eds., *Tito u Africi. Slike solidarnosti* (Tito in Africa. Images of solidarity) (Belgrade: Muzej Jugoslavije, 2017), 19.

23 Mara Adžić, ed., *25 godina građevinarstva socijalističke Jugoslavije* (Twenty years of the construction industry of socialist Yugoslavia) (Belgrade: Tehnika, 1970), 215

Fig. 4
Factory construction site in Mladá Boleslav, Czech Republic, n.d. (Source: Museum of Science and Technology, Belgrade).

This kind of international engagement was beneficial for several reasons. First, it helped resolve the problem of continuous employment in the construction industry, which had built its capacities during the postwar reconstruction, but could not rely on the steady flow of large-scale investments inside the country. Second, it provided access to hard currency, which became especially necessary after the 1948 severing of Yugoslavia's ties with the socialist world and its system of economic coordination and solidarity, later formalized through the founding of the Comecon. Third, work in the less competitive markets in the developing world allowed Yugoslav companies and state institutions to build expertise they lacked, such as bidding in the international arena, securing bank guarantees, and administration. This, in turn, allowed them to build competitiveness for expansion into other markets, necessary to balance payments in foreign trade and service foreign debts. In that sense, entering the Czechoslovak market was especially beneficial because Yugoslavia's debt to it was still high.[24]

Reversing the roles: Yugoslav architecture in Czechoslovakia

Leafing through the post-war issues of the Prague-based journal *Architektura ČSR*, as well as other professional periodicals published in Czechoslovakia, an unusual phenomenon becomes apparent in the mid-1960s: Yugoslav architecture suddenly reappears in them after the hiatus of two decades. Even before the 1948 break, the coverage of Yugoslav architecture in Czechoslovakia was sporadic. Belgrade's *Grupa arhitekata modernog pravca* (Group of Architects of the Modern Direction) exhibited its work in Prague in 1929, but it received scant attention from the much more radical and prolific functionalists in Prague, Brno, and Bratislava.[25] In the late 1930s, villas and hotels in the city of Dubrovnik designed by the former Czech Technical University student Nikola Dobrović received some attention, as did Jože Plečnik's oeuvre.[26] After the war, *Architektura ČSR* published an article on "Tito's Yugoslavia," which included designs for a housing neighborhood in Jesenice, a typified school designed by the Planning Institute of Ljubljana, and a report on the Pioneers' City in Zagreb. After the 1948 break even such sporadic coverage vanished; an exception that only reinforced the enmity was an article about a housing block in Skopje designed by the Czech architect Luděk Kubeš, which avoided even mentioning the word "Yugoslavia," instead locating the project in "Macedonia."[27] In the following years, Yugoslav architecture was completely banished from the pages of Czechoslovak journals, while Polish and Czechoslovak representatives, serving as Soviet

24 Selinić, *Jugoslovensko – čehoslovački odnosi*, 644-645; *Adžić*, *25 godina građevinarstva socijalističke Jugoslavije*, 214-224.

25 Damljanović, *Češko-srpske arhitektonske veze*, 72. Around the same time, the journal *Stavba* published a series of articles about Belgrade architecture, all written by architects from Belgrade. See Stavba (Prague) VII (1929): 177-182.

26 Oldřich Starý, "Domy pro chudé," *Architektura - spojené časopisy Stavba, Stavitel, Styl*, (1939): 253; Anon., "Josef Plečnik, učitel a mistr. K jeho 70. narozeninám," *Architektura - spojené časopisy Stavba, Stavitel, Styl*, no. 4 (1942), 57-66.

27 Luděk Kubeš, "Obytnė domy ve Skoplji v Makedonii," *Architektura ČSR*, no. 8 (1949): 238.


architektura
v zahraničí

ARCHITEKTURA V JUGOSLÁVII

MARIE BENEŠOVÁ

Je tomu již rok, co jsme navštívili Jugoslávii, abychom si prohlédli architekturu současnou i historickou. Naše cesta vedla přes Bělehrad, Sarajevo, Dubrovník, Šibenik, Rijeku do Záhřeba, kde za pomoci kolegů ze záhřebské fakulty architektury jsme se mohli seznámit jak s prostředím, tak tvůrčími architektonickými problémy nejlépe a vzhledem v srovnání celého zájezdu nejzevrubněji.

Jugoslávské prostředí, tak jak jsme se s ním bezprostředně shledali, je příjemné. Spolupůsobí tu stálá přízeň počasí a milí lidé, obzvláště k nám, posuzováno s ohledem na národnost. Vlastnosti prostředí, formovaného přírodou a lidmi, jsou příznačné i pro architekturu jak historickou, tak soudobou.

Architektura však prozrazuje ještě více, co ani tak krátký styk s lidmi neprozradí. Je to jakási uvolněnost, neokázalost a neformálnost, které jsou zároveň vlastní i lidem, kteří s námi jednali.

Obecným znakem tamnější soudobé tvorby je tvůrčí individuálnost, i když ani tam nelze vyloučit sledování módních vzorů a představ. Je však zajímavé, že mnoho z takových konceptů je jakoby přesazeno dobře do domácí půdy.

Mluvíme-li často o syntetizujících procesech tvorby, které se projevují v péči o krásné, řekněme naplno estetické dořešení a vyznění všech složitých vztahů v architektuře, pak lze říci, že zřídka se s takovými projevy setkáváme u nás, avšak často jsme je nalezli v Jugoslávii. Výtvarnost je převažujícím znakem a domníváme se, že by tu architektura dosáhla ještě vyšších kvalit, kdyby úsilí typologické bylo ve stejné úrovni se schopností dát dispozici výtvarný výraz. A ještě jedinečnost a chuť k novotvarům jsou vlastností, s nimiž se setkáváme téměř na každém kroku.

Všechny tyto znaky, ústící v poměrně vysoké výtvarné hodnotě, jsou pochopitelné, když uvážíme, že mnoho ze zhlédnutých staveb bylo vytvořeno s velkou zkušeností v mnohaletém ovládání výtvarného působení železobetonových a ocelových konstrukčních systémů, i když nových nebo odvážných rozponů.

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654 Studentský domov námořní školy v Dubrovníku 655 Arch. Pantović: Hotel Slavie v Bělehradě 656, 657 Valetrh v Bělehradě (gen. proj. arch. Pantović) 658 Dům inženýrského syndikátu v Bělehradě 659 Nový Bělehrad: obytné domy 660 Nový Bělehrad, výškový obytný dům ve stavbě 661 Pomník Jiřího Dalmatince, stavitele katedrály v Šibeniku 662 Bodové obytné domy sídliště ve Rijece 663 Hotel Marian ve Splitu 664 J. Neidhardt: Nová filosofická fakulta v Sarajevě 665 Věžový dům na náměstí Republiky v Záhřebu

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proxies, actively opposed the Yugoslav professional associations' ascension to the international bodies such as the International Union of Architects.[28] [Fig. 5]

Although the political relations thawed in the mid-1950s, it took another decade for the reestablishment of more intense architectural connections. The turning point was a seven-page long, lavishly illustrated article "Architecture in Yugoslavia" by the architect Marie Benešová, written after a study trip for her column "Architecture abroad" in *Architektura ČSR*.[29] It covered a series of recent projects in Belgrade, Rijeka, Zagreb, Ljubljana, and Sarajevo. From thereon, Yugoslav developments were featured often, most notably the development of the Adriatic coast and the restoration of historical cities,[30] the post-earthquake reconstruction of Skopje,[31] and the new developments in Belgrade,[32] including the international competition for the new Opera house.[33] The interest in Yugoslav architecture was genuine: in the 1960s Yugoslavia emerged as a hotspot of modern architecture and it became known for experimentation with various architectural and urban typologies on a large scale. Around the same time and with increasing frequency, construction companies from Yugoslavia

28 Tamara Bjažić Klarin and Marcela Hanáčková, "Networking into the International Union of Architects (UIA) – Poland vs. Yugoslavia," in *Transnational Networking Practices of Central and Southeast European Avant-garde*, ed. Ljiljana Kolešnik (Zagreb: Institut za povijest umjetnosti i Filozofski fakultet Sveučilišta u Zagrebu, 2014), 26-28.

29 Marie Benešova, "Architektura v zahraničí: Architektura v Jugoslavii (Architecture abroad: architecture in Yugoslavia)," *Architektura ČSR*, no. 5 (1964): 332-338.

30 Budimir Pervan, "Urbanistický ústav Dalmácie," *Architektura ČSR*, no. 2 (1969): 113-119.

31 Saša Sedlar, "Skopje urbanistické problémy rekonstrukce," *Architektura ČSR*, no. 6 (1967): 365-369.

32 K. Pašek, "Bělehrad," *Architektura ČSR*, no. 10 (1972): 503-504.

33 Anon., "Výsledky soutěže na budovu Bělehradské opery," *Architektura ČSR*, no. 4 (1971): 156.

Fig. 5

Marie Benešová, "Architektura v zahraničí: Architektura v Jugoslavii (Architecture abroad: architecture in Yugoslavia)," *Architektura ČSR*, no. 5 (1964): 332.

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were increasingly credited for various buildings all over Czechoslovakia, either as developers or collaborators in the design process, especially on the interior design. **[Fig. 6]**

The appearance of these companies was conditioned by several factors: the loans the Czechoslovak government took from international creditors, the agreements it had with the government in Belgrade, and the capacities these companies had at their disposal at the time. The architectural typologies they covered ranged from industrial and healthcare facilities to tourist infrastructure—mostly balneal, but also urban hotels. Additional typologies, such as administration, education, and residential buildings, were usually subsidiary to those mentioned above. Few of the companies advertised these developments in their catalogs, which ensured that they stayed under the radar of the professional scene in Yugoslavia. One reason was the relatively utilitarian nature of many of the projects, which were often stripped of unnecessary details, modular and prefabricated to ensure easy construction. This likely led to their perception as unremarkable, generic architecture that could not compete with the high-profile achievements back home. Moreover, many of these projects were usually designed by the specialized Czechoslovak offices such as Zdravoprojekt or Štátny projektový a typizačný ústav, and then only developed

Fig. 6

Architect Ľudovít Jendreják, Administration building of the Transportation Company (also known as the Chemapol), Ružinov, Bratislava, 1972-1973. Construction: Komgrap, chief architect Milanka Lukić (Photo: Jelica Jovanović, 2015).

for the construction by Yugoslav companies and their architectural offices. Even the interior designs, which were often authored entirely by Yugoslav architects, received little attention back home, whereas in Czechoslovakia they were highly valued, due to access to better materials and furniture that Yugoslav companies had to offer.[34] If the thriving modernist scene in Czechoslovakia easily ignored its inferior peers in Yugoslavia between the wars, by the late 1960s the tables appeared to have turned and the asymmetry of interest was largely reversed.

Yugoslav companies and their construction sites in Czechoslovakia: new experience for hardened veterans

As of 1965, Yugoslav companies began appearing in Czechoslovakia under the common banner of the Unioninženjering business association, initially established by the Yugoslav People's Army to facilitate work abroad.[35] The timing was crucial for this arrival. Czechoslovakia's gradual liberalization in the 1960s caused difficulties as local companies struggled to keep up with the demands of the ever-expanding industrial economy. As a result, many construction sites would remain unattended for a long time: construction would begin, but the lack of funding would bring it to a temporary halt before the completion.[36] Eventually, Czechoslovakia's political leadership decided that important projects, especially those in the lucrative branches of economy, had to be finished as soon as possible, even if it meant that construction companies had to be brought from abroad. The Yugoslav companies were among the first to arrive because these efforts coincided with Yugoslavia's own reform of 1963-65 and the resulting shift to market economy. Italian and Austrian companies were also engaged in various projects, either in the construction or the supply of the materials, thus further intensifying the international collaboration. Besides favorable prices, Yugoslav companies had the advantage of their government vouching for them through bank guarantees, bilateral agreements with Czechoslovakia, trade deals, and favorable loans negotiated as part of cooperation agreements. Furthermore, because of the country's peculiar political position within the Cold War geographies, Yugoslav companies had easy access to materials and equipment from both sides of the Iron Curtain, which became a challenge for Czechoslovak companies, especially after the Soviet invasion of 1968. In the 1960s labor circulation in Europe was regulated by bilateral agreements, which removed

34 Il'ja Skoček, interview with the author, Bratislava, June 1, 2015.

35 Unioninženjering was also known as Union Engineering in documentation. *Adžić, 25 godina građevinarstva socijalističke Jugoslavije*, 165. Business associations in the field of construction started appearing to represent a variety of companies: architectural (or any other) design, construction, production of materials. The associations operated with two goals: representing companies of a certain region or republic, or a sector, often aimed at better market presence either in the country or abroad. Officially, they were regulated by the *Law on Association and Business Cooperation*, promulgated by the decree of the President of the Republic on 2nd of June 1960 and published in *Službeni list FNRJ* (Official Gazette of the FPRY) (Belgrade: s.l., 1960), 3. The law regulated various forms of associations for the purpose of business and technical cooperation, the formation of chambers for individual areas of the economy, as well as cooperatives, unions and cooperation. These associations were the next step towards formalization of the enlargement and consolidation of the pauperized sector of construction, which took place during 1950s. Adžić, *25 godina građevinarstva socijalističke Jugoslavije*, 158-167.

36 Bohuslav Pernecký and Anna Pernecká, interview with the author, Pieštany, June 20, 2015; Aco Arizanović, interview with the author, Trenčianske Teplice, April 7, 2017.

the obstacles for work within Europe for Yugoslav construction companies. Although rarely designing for the markets of Eastern Europe, architects in Yugoslav construction companies did contribute to the design culture of Czechoslovakia. By the mid-sixties they were already very confident about the application of the prestressing technology and prefabrication and they used this knowledge in the development of their designs. Besides the materials and components with visible stamps of origin, the architectural features of some of these buildings are often the only way of identifying them as the products of Yugoslav teams. Unusually thin slabs and columns, protruding brise-soleils, contemporary structural facades, and a variety of cladding are some of the subtle details characteristic of this import architecture, which was neither fully local, although designed locally, nor fully foreign, although developed through importing foreign expertise and technology. These details were just enough for these collaborations to stand out from the rest of the built environment.

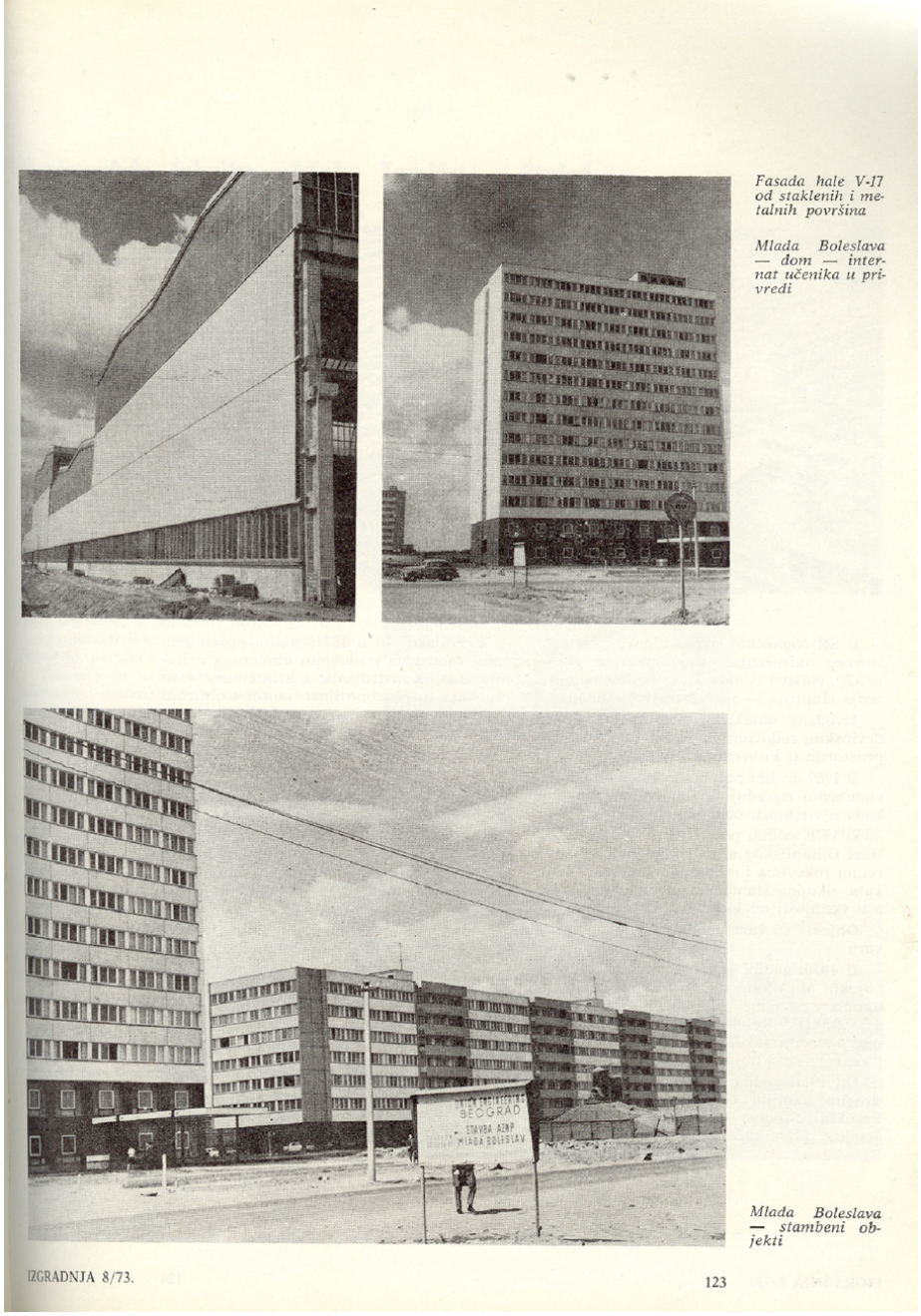
Among the Yugoslav construction companies, those based in Serbia held the largest share of the Czechoslovak market. In general, Serbian companies produced on average around 40% of work abroad, followed by those from Croatia with 25-30%.[37] The most visible enterprises and associations were KMG Trudbenik, GK Komgrap, GP Neimar, GP Rad, and Unioniženjering. The data about the activities of other companies are often scarce, sometimes amounting to nothing more than small side notes in paid journal advertisements such as *Izgradnja* or *Arhitektura urbanizam*. However, for the oldest and largest construction companies it is relatively easy to trace their projects abroad even if their archives no longer exist, because they consistently invested in the promotion, either through paid advertisements, or through articles in important annual reviews and thematic journal issues. These companies were originally established by the state to address the particular issues of post-war reconstruction and development: the construction of roads, electrical power plants, the reconstruction of cities, city reconstruction, etc. From the start, many of them developed their own proprietary technologies, which afforded a degree of technological independence, in turn increasing competitiveness on the international market. They prospered especially after the Federal Assembly passed the *Resolution on the Prospective Development of the Building Sector* in 1957, which encouraged investments in scientific research. A building boom across Yugoslavia around the same time gave further boost to research and technological development, especially in the field of mass housing and urban development. In the case of non-aligned countries, this kind of technological emancipation was used to pursue the policy of non-alignment and to further disseminate technologies and knowledge in many acts of post-colonial solidarity. In other markets, including Eastern Europe, it provided a competitive advantage, enabling better offers and more affordable prices to the benefit of both parties.

37 Adžić, *25 godina građevinarstva socijalističke Jugoslavije*, 215

The Construction company Napred (Građevinsko preduzeće Napred) was founded in 1948 as the construction company of the Yugoslav People's Army, with the predominant goal of dealing with the Army's housing construction. It championed the cutting edge IMS Žeželj pre-stressed prefabricated technology, even outsourcing its high capacity production line of prefabricated elements to other companies. It was also known for employing the movable formwork technology when it became available at the beginning of 1960s, and for the construction of large-span industrial halls. At its peak, the company had around 3,600 employees. It became active in Czechoslovakia in 1968 through either the Unioninženjering or Montinvest associations. The Construction Combine Komgrap (Građevinski Kombinat Komgrap), the oldest construction company in Yugoslavia, was founded in September 1945 and tasked with the reconstruction of the country. For many years it worked on rebuilding and redeveloping housing and public spaces in downtown Belgrade. Later on, the company specialized in the construction of industrial, tourist, and civic infrastructure. By the end of the 1980s it had 11,000 employees in 9 organizational units, six factories, and cybernetic and design centers. Montinvest was founded in 1961 as a business association of companies working in the field of construction, finishing, and installation works. During the 1970s the associations' business abroad flourished. In Czechoslovakia, its most important clients were Technoexport and Strojexport.[38]

Of all the Yugoslav construction companies, the most active in Czechoslovakia was the Combine of prefabricated construction Trudbenik (Kombinat montažne gradnje Trudbenik), established in 1947. It started exporting as early as 1952, in part to keep up with the payroll, as the company grew fast from 429 employees in 1947 to 6,500 in 1987. It constantly invested in new equipment, expertise, and development of products and technologies. Its chief building method was prefabrication, specializing in the construction of industrial plants and silos, as well as mass housing. In the field of housing the company developed and applied its own eponymous prestressed panel system, Trudbenik, including a closed-circuit production line with the capacity of 1,200 housing units per year. Over time, as the company acquired better equipment and its production capacities grew larger and more versatile, it began specializing in volumetric and large-span construction, particularly through the technology of prestressing. The company was able to produce and transport several types of girders with the maximum span of 40m, and it owned the equipment to manipulate construction elements weighing up to 90t. Owing to the modernization of technology and equipment, by the 1960s KMG Trudbenik developed several typified designs for industrial plants, which might have been the selling point for Czechoslovak investors and the reason behind such strong presence of KMG Trudbenik in the development of their industrial capacities. [Fig. 7] Due to the extent of work, in 1973 KMG Trudbenik signed a self-management agreement with another Yugoslav company, GP Rad, to build together several

38 "History," Montinvest, http://www.montinvest.co.rs/about_us/history.103.html, accessed June 7, 2020.



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factories in Czechoslovakia, including an artisan glassworks plant in Nový Bor, a plate glass production plant in Teplice, and an extension of the Škoda car factory in Mladá Boleslav. This was a common occurrence, even for the projects in Yugoslavia: if there were not enough workers, if the deadlines could not be met, or if additional equipment was needed, construction companies often joined forces, which was enabled by the aforementioned *Law on Associations*.[39] From magazine articles we can surmise that a third company was involved in these developments, Monter from Zagreb. All three were working under the auspices of Unioninženjering. However, so far no contract has been found in the documentation, so the details of this three-way collaboration remain unknown due to the differences of the legal practice of self-managed contracting in different Yugoslav republics.[40]

Fig. 7

Buildings in Mladá Boleslav, Czech Republic: Hall V-17 of the Škoda factory, Boarding School and mass housing. Featured in the journal *Izgradnja*, no. 8 (1973), special issue celebrating the 25th anniversary of KMG Trudbenik.

39 The contract of these two companies was printed en masse and deposited at the National Library of Serbia in Belgrade and Matica Srpska in Novi Sad, offering rare insight into the process. See *Samoupravni sporazum o medjusobnim odnosima u udruženom radu radnika osnovnih organizacija udruženog rada "KMG Trudbenik" – Beograd i "GP Rad" – Beograd u organizacionim jedinicama u Čehoslovačkoj*. Beograd: "KMG Trudbenik", "GP Rad", 1974.

40 Adžić, *25 godina građevinarstva socijalističke Jugoslavije*, 205.

Although generally positively predisposed, Yugoslav policy makers were often slow to follow up on the needs of these companies and the dynamics of international market. Despite the fact that such companies would bring 100% of the net profit back to the country, Yugoslav commercial banks were still reluctant to support them, asking for deposits of up to 80% of the value of the given bank guarantees. The Federal Chamber of Commerce was established in support of the businesses, opening many foreign branches (in Czechoslovakia active until as late as 1992), but they were slow to respond and meet their needs.[41] Eventually, due to the scope of endeavors, separate agreements were signed for companies working in Libya, Czechoslovakia and FR Germany, and a specialized department within the Chamber was established. There was a lack of legal support, prompting the Chamber to address that as well and to start translating documents, advising, data collecting and counselling to avoid bad contracts. On the other hand, from the onset, the official bodies of the Federal Administration for Investment Construction and Federal Chamber of Commerce worked to prevent and sanction bad practices and disloyal competition.[42] Nevertheless, the state stayed aside also because self-management was in full swing: the companies could directly bargain, bid, and actively search for jobs on international market, so the state was often unwanted in these processes, which were considered a business secret and a problem for self-managers to resolve on their own. [Fig. 8]

The official attitude towards work abroad was that the Yugoslav legislation applied at the foreign construction sites. Even abroad, full time employees were also supposed to be proud participants in the self-managing process, rather than mere wage earners.[43] At least on paper, the construction sites of the Yugoslav companies in Czechoslovakia promulgated self-management and inscribed it in the contracts and agreements. The bulletins of the GP Hidrogradnja, as well as the documentation of the GP Rad, KMG Trudbenik and GK Komgrap all state that the workers' councils existed, met, and practiced self-management within their units abroad. This practice stood in sharp contrast with the case of Energoprojekt, the most famous case of a Yugoslav construction company active abroad, which has received the lion's share of historiographic attention. According to Dubravka Sekulić's research, Energoprojekt generally suspended the self-managing process abroad under the pretense of improving efficiency and competitiveness.[44] In contrast, the workers of Yugoslav companies in Czechoslovakia continued to participate in self-management in their units at home, because only full-time employees with a minimum of six months of employment could be sent abroad. Working conditions were also highly regulated: depending on the season, working time varied between seven and nine

41 Arhiv Srbije (Archive of Serbia, hereafter AS), Fond Privredne komore Jugoslavije (Commercial Chamber of Yugoslavia), folders 1232 and 1325.

42 Adžić, *25 godina građevinarstva socijalističke Jugoslavije*, 214-222.

43 Adžić, *25 godina građevinarstva socijalističke Jugoslavije*, 192-213.

44 Dubravka Sekulić, Katarina Krstić, Andrej Dolinka, *Three points of Support: Zoran Bojović* (Belgrade: Museum of Contemporary Art, 2013), 184.

Celkový pohled na budovu Centrotexu a Výzkumného ústavu

CENTROTEX

PZO a Výzkumný ústav plánování a řízení národního hospodářství

Investor: FMZO, Centrotex
Generální projektant: KPÚ Praha
Autoři projektu: Václav Hilský, Otakar Jurenka
Generální dodavatel: INGRA, Jugoslávie
Celkový obestavěný prostor: 138 000 m³
Projekt: 1972
Realizace: 1978

Soubor budov je situován na západní straně náměstí Hrdinů v Praze na Pankráci proti budově Nejvyššího soudu, kde prostor náměstí dominujícím způsobem ukončuje.

Staveniště bylo velmi omezené. Na západní straně je stará zástavba a na východní straně stanice metra. Hlavní objekt Centrotexu o 18 podlažích je umístěn na jediném volném místě mezi nimi. Vedle hlavního objektu je situována budova Výzkumného ústavu plánování a řízení národního hospodářství o sedmi

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hours per day, workers knew in advance the exact date of their arrival and departure, and the transportation, accommodation, and food were organized by the company, usually in prefabricated barracks moved from site to site. In case the housing had to be rented, a fixed price would be deduced from the monthly salary, or some other arrangements would be agreed on in contract. In general, the employees were very interested to go abroad, since the salaries were much higher, up to three times in the case of Czechoslovakia in comparison to the salaries at home.[45]

There were typically seven models of legal entities in this process: a detached (stand-alone) section/construction site of the company, a joint section/site shared with another commercial company, a stand-alone foreign company owned by a Yugoslav one, a foreign company established in partnership with another Yugoslav construction company, a mixed type of company abroad, a foreign franchise, and operation via business associations.[46] The modalities

Fig. 8

Architects Václav Hilský and Otakar Jurenka, Centrotex Building, Prague, 1972-1978 Investor: FMZO, Centrotex. Construction: Ingra Association, Zagreb. (Source: Architektura ČSR no. 6 (1979): 250).

45 Aco Arizanović, interview with the author, Trenčianske Teplice, April 7, 2017.

46 Radovan Perović, ed., *Pravilnik o organizaciji i načinu poslovanja GK Komgrap u inostranstvu* (Handbook on the organization and business of GK Komgrap abroad) (Belgrade: Biro za informacije u propagandu GK Komgrap, 1975), 25-27

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of work abroad were flexible and scalable. Undertaking complete jobs was the most common and most usual in the developing countries. Undertaking parts of developments on international biddings, direct negotiations and contracting with investors, and the design and construction supervision were the practices most common in the Second World. In Western Europe, the most common modality was to take charge of only certain phases in project development, either in collaboration with or through subcontracting to local companies, or even through leasing entire sections (carpenters, rebar workers, brick layers). The reason was that many West European countries stipulated local partnerships and banned foreign companies from competing individually; this, in turn, is why much of the work done by Yugoslav companies in Western countries remains unknown, with the exception of West Germany.[47] Many contemporaries claimed - without explaining the specifics - that the directors of construction companies preferred the latter forms of cooperation, since allegedly it was easier for them to manipulate the accounting and hide the profits.[48] Such corrosive practice in the West apparently started relatively early on, and it was concealed in the details of the self-management process, foreign affairs, and formal and informal relations.[49] **[Fig. 9]**

Conclusion

The economic crisis in Yugoslavia in the 1980s eventually led to the dismembering of the country in the following decade, which in turn enabled the radical transformation of ownership through wholesale privatization of the economy. As a result, most of the construction companies covered in this text no longer exist, casualties of a mass destruction of communal wealth under predatory

47 Adžić, *25 godina građevinarstva socijalističke* Jugoslavije, 217-220

48 Bogdan Budimirov, interview with the author, Zagreb, February 13, 2015; Archer, 41-45.

49 Rory Archer, "'It was better when it was worse': blue-collar narratives of the recent past in Belgrade," *Journal Social History* 43, no. 1 (2018): 41-45.

Fig. 9

Architect: Milan Šavlík, Krym Hotel (after restoration), Trenčianske Teplice, Slovakia, 1974-1976. Construction: Neimar, Belgrade (Photo: Jelica Jovanović, 2017).

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capitalism.[50] However, the material remnants of their work are still present, scattered not only throughout the former Yugoslavia, but also in many other parts of the world. In today's Slovakia and Czech Republic—themselves heirs to a partitioned former socialist state—material traces of the architectural exchanges with Yugoslavia can still be recognized in specific façade treatments, interior design, or built-in components and materials, such as Sigurnost glass plates and Končar escalators. In some cases, the original dedication plaques identifying the designers and builders are all that remains recognizable of the buildings' original shapes after the extensive renovations carried out by new owners.

50 Historian Marija Obradović describes these processes to an extensive detail in her book suggestively titled *The Chronicle of a Transitional Cemetery*. See Marija Obradović, *Hronika tranzicionog groblja. Privatizacija društvenog kapitala u Srbiji 1989-2012. Ekonomsko-istorijska analiza* (A chronicle of transitional graveyard. Privatization of social capital in Serbia 1989-2012. Economic-historical analysis) (Belgrade: Nova srpska politička misao i Inistitut za noviju istoriju Srbije, 2017).

Fig. 10

A detail of the interior of the Krym hotel: the original glass door made by Sigurnost, Pančevo, Serbia, kept after restoration (Photo: Jelica Jovanović, 2017).

And yet, these seemingly ephemeral traces testify to a much larger story on a scale that forces us to reconsider the recent architectural history of Europe. From the perspective of the architectural exchanges between Yugoslavia and Czechoslovakia, not only the presumed hierarchies of the Cold War world, but of modernity in general, have to be dissolved, pointing to the many "lateral" exchanges and peculiar micro-histories with large local effects. At the same time, the story also eludes the usual Cold War geographies, owing as much to the geopolitics of the period as to the prior and subsequent territorializations between historical empires, 'Central Europe', 'Mittel-Europa', South, East, and South-East Europe, and so on. Furthermore, the petrified narratives of the 'developed' and 'un(der)developed' are also reshuffled, as demonstrated by the constantly shifting positions of the two countries in their architectural exchanges, in which they alternated in their roles between 'exporters' and "importers". This paper offers only the first attempt at mapping such shifts, inviting additional research and deeper interpretations as a way of further dissolving the apparent monolith of modern architecture. [Figs. 10-11]

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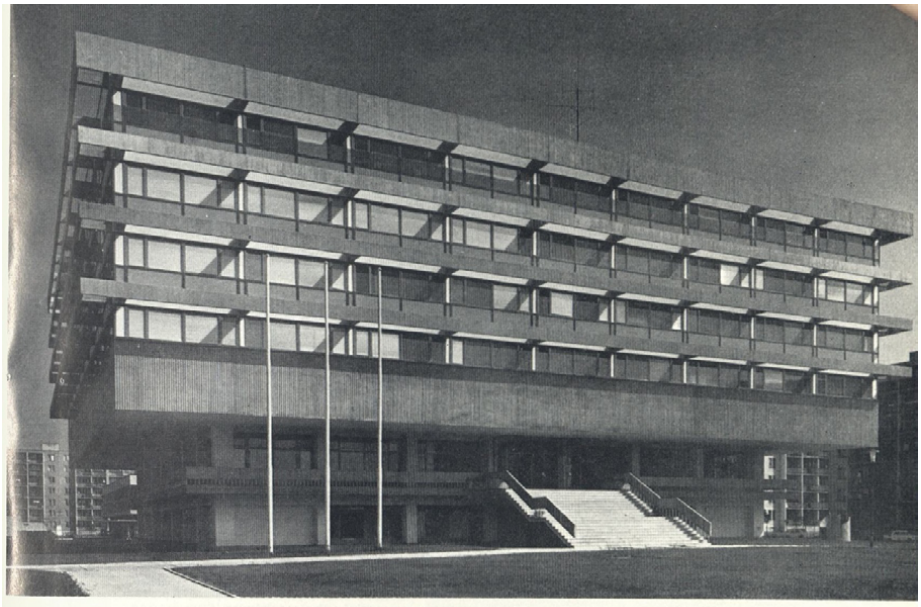

Celkový pohled

BUDOVA PODNIKŮ ZAHRANIČNÍHO OBCHODU BRATISLAVA - RUŽINOV

Gener. projektant urbanisticko-architektonickej a objemovej štúdie: „Projektová organizácia spoločenských stavieb — Bratislava 4. ateliér"
Autori:
FERDINAND KONČEK
ĽJA SKOČEK
ĽUBOMÍR TITL

Spracovateľ vykonávacieho projektu a dodávateľ stavby:
„KOMGRAP" — Beograd
Autori:
MILAN KOROLIJA — stav. časť
MILANKA LUKIĆ — interiér

m² — 12 400
m³ — 47 000
Celkový náklad — 64,000 000, — Kčs

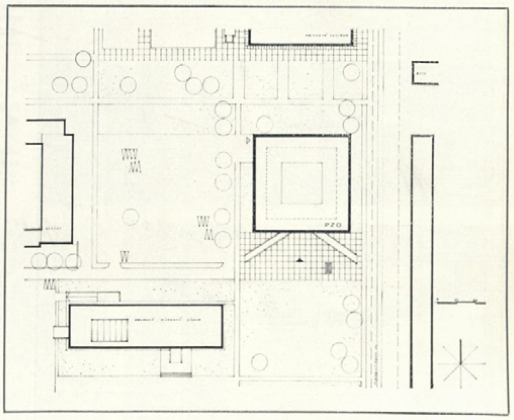

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Fig. 11

Architects Ferdinand Konček, Ľubomir Titl, and Il'ja Skoček, Building of the Foreign Trade Enterprise (Petrimex), Ružinov, Bratislava. Construction: GK Komgrap, Milan Korolija, chief architect, Milanka Lukić. Interior design (Source: *Architektura ČSR*, no. 6 (1973): 277-279).

Appendix: Construction sites of companies most frequently featured in the architectural press in Czechoslovakia[51]

	building/site	place	architect	year	investor
GK Komgrap	Foreign trade enterprise	Bratislava	Project organization for social buildings - Ferdinand Konček, Ľubomír Titl, Iľja Skoček; Milan Korolija, chief architect, Milanka Lukić, interior design	1973	Foreign trade enterprise
	Administrative building of Foreign trade ministry	Ružinov, Bratislava	Ľudovít Jendreják, Milanka Lukić	1972/ 1973	Foreign trade ministry
	Orthopedic clinic of the Bulovka Hospital	Prague	Zdravoprojekt Praha: Vladimír Černický	1975/ 1978	VHMP - VUS
	Traumatology hospital	Prague	-	-	-
	Hotel Koruna	Prague	-	~1989	*Interhotely Praha*

Table 1: Construction Sites of the GK Komgrap Construction Company

	building/site	place	architect	year	investor
GP Napred	engines factory	Jablonec	-	-	-
	steel tempering hall	Strakonice	-	-	-
	petrochemistry	Záluží in Most	-	-	-
	Jawa motorcycle factory	Záluží in Most	-	-	-
	housing	Nitra	-	-	-
	housing	Karlovy Vary	-	-	*Československé štátne kúpele*
	Balneotherapy center	Piešťany	Zdravoprojekt Bratislava: Viktor Uhliarik, Jozef Schuster; interior design: Ch. Tursunov	1969-1974	Československé štátne kúpele
	house of culture	Piešťany	*Zdravoprojekt Bratislava: V. Uhliarik, J. Schuster; interior design: Ch. Tursunov*	*1969-74*	*Československé štátne kúpele*
	cellulose factory	Ružomberok	-	-	-
	hotel Papiernik	Ružomberok	-	-	-
	Hotel Forum	Bratislava	Julian Hauskrecht	1989	Čedok Praha, Interhotely Bratislava via Strojexport
	Motol university hospital	Prague	-	-	-

51 Architektura ČSR (Praha: Klub Architektů, 1939-1990); Architektura urbanizmus (Bratislava: Ústav stavebníctva a architektúry SAV, 1960-2015); Projekt: Revue slovenskej architektúry (Bratislava: Spolok architektov Slovenska 1955-1990).

Table 2: Construction Sites of the GP Napred Construction Company

	building/site	place	architect	year	investor
KMG Trudbenik and GP Rad [1)]	factories of artisan glass-works	Nový Bor	Skloprojekt	1965-1968	
	flat glass production	Teplice	Skloprojekt**		
	Škoda car factory extension	Mladá Boleslav			*Automobilové závody národní podnik, AZNP*

Table 3: Construction Sites of the KMG Trudbenik and GP Rad Consortium

	building/site	place	architect	year	investor
KMG Trudbenik	extension of the Tatra truck company	Kopřivnice			
	car parts factory	Trmnica*			
	Karosa factory of car bodies	Vysoke Myto			
	Avia factory for airplane parts production	Prague			
	steelworks	Kladno			
	color TV screens' factory	Valašské Meziříčí			
	PET packaging plant	Mosna[2)]			
	Dimitrovka chemical industry	Bratislava			
	Motol university hospital	Prague			
	Tešnov hotel	Prague			
	workers' hostel	Prague			
	municipal center	Kopřivnice			
	hotel	Kopřivnice			
	Tatra educational facility	Kopřivnice			
	Škoda hotel	Mladá Boleslav			*Automobilové závody národní podnik, AZNP*
	workers' hostel	Mladá Boleslav			*Automobilové závody národní podnik, AZNP*
	170000m2 of housing	Mladá Boleslav			*Automobilové závody národní podnik, AZNP*

1) Monter, Zagreb, was a likely subcontractor.

2) Name cited from the source.[52] The actual toponym is unclear.

52 Trudbenik: preduzeće za projektovanje i izvođenje montažnih i opštegrađevinskih radova: 1947-1977 (Trudbenik: company for the design and prefabricated and general construction: 1947-1977) (Belgrade: KMG Trudbenik, 1977), n.p.

Table 4: Construction Sites of the KMG Trudbenik Construction Company

	building/site	place	architect	year	investor
Montinvest	chemical plant	Litvínov	-		Technoexport
	Hotel Forum	Bratislava	Julian Hauskrecht	1989	Čedok Praha, Interhotely Bratislava via Strojexport
	hospital	Kadaň	*Zdravoprojekt Praha*		
	electric furnace in Poldi steelworks	Kladno			*Foreign trade enterprise*
	section of the chemical complex	Neratovice			Technoexport
	ethylene production plant	Most			*Technoexport*
	city hospital	Most			
	chemical plant	Záluží			*Technoexport*
	car factory Avia	Prague			
	Bulovka Health Centre	Prague	*Zdravoprojekt Praha*		
	glass works	Jablonec	*Skloprojekt*		
	glass works	Nový Bor	*Skloprojekt*		
	Hotel Sanssouci	Karlovy Vary	Zdravoprojekt Praha: Jiří Martínek		*Československe štatne kupele*

Table 5: Construction Sites of the Montinvest Business Association

**Data by analogy, further confirmation needed*

Archives

AJ: Arhiv Jugoslavije, Beograd (Archive of Yugoslavia, Belgrade)

AS: Arhiv Srbije, Beograd (Archive of Serbia, Belgrade)

MNT: Muzej nauke i tehnike u Beogradu (Museum of Science and Technology in Belgrade)

Bibliography

Adžić, Mara, ed. *25 godina građevinarstva socijalističke Jugoslavije* (Twenty years of the construction industry of socialist Yugoslavia). Belgrade: Tehnika, 1970.

Anon. "Josef Plečnik, učitel a mistr. K jeho 70. narozeninám." *Architektura - spojené časopisy Stavba, Stavitel, Styl*, no. 4 (1942), 57-66.

Anon. "Výsledky soutěže na budovu Bělehradskė opery." *Architektura ČSR*, no. 4 (1971): 156.

Archer, Rory. "'It was better when it was worse': blue-collar narratives of the recent past in Belgrade." *Journal Social History* 43, no. 1 (2018): 30-55.

Bjažić Klarin, Tamara, and Marcela Hanáčková. "Networking into the International Union of Architects (UIA) – Poland vs. Yugoslavia." In *Transnational Networking Practices of Central and Southeast European Avant-garde*, edited by Ljiljana Kolešnik, 26-28. Zagreb: Institut za povijest umjetnosti i Filozofski fakultet Sveučilišta u Zagrebu, 2014).

Damljanović, Tanja. *Češko-srpske arhitektonske veze 1918-1941* (Czech-Serbian architectural connections 1918-1941). Beograd: Republički zavod za zaštitu spomenika kulture, 2004.

Jarić, Miloš. *40 godina građevinarstva Socijalističke republike Srbije* (Forty years of construction industry of the Socialist Republic of Serbia). Beograd: Izgradnja, 1987.

Dimitrijević, Branka. "Arhitekt Karlo Paržik." PhD diss., University of Zagreb, 1989, http://www.karloparzik.com/Disertacija.html.

Jovanović, Jelica. "From Yugoslavia to Angola: Housing as a Postcolonial Technical Assistance. City Building Through IMS Žeželj Housing Technology." *Architektura & Urbanizmus* 53, no. 3-4 (2019): 170-181.

Kubeš, Luděk. "Obytnė domy ve Skoplji v Makedonii." *Architektura ČSR*, no. 8 (1949): 238.

Kulić, Vladimir. "Building the Non-Aligned Babel: Babylon Hotel in Baghdad and Mobile Design in the Global Cold War." ABE Journal: Architecture beyond Europe 6, 2014, http://journals.openedition.org/abe/924

Menzelová, Kateřina. "Drákulov Zmênil Majitele." *euro*, November 6, 2002. https://www.euro.cz/archiv/drakulov-zmenil-majitele-808066

Montinvest. "History." Accessed June 7, 2020. http://www.montinvest.co.rs/about_us/history.103.html.

Obradović, Marija. *Hronika tranzicionog groblja. Privatizacija društvenog kapitala u Srbiji 1989-2012. Ekonomsko-istorijska analiza* (A chronicle of transitional graveyard. Privatization of social capital in Serbia 1989-2012. Economic-historical analysis). Belgrade: Nova srpska politička misao i Inistitut za noviju istoriju Srbije, 2017.

Pašek, K. "Bělehrad." *Architektura ČSR*, no. 10 (1972): 503-504.

Perović, Radovan, ed. *Pravilnik o organizaciji i načinu poslovanja GK Komgrap u inostranstvu* (Handbook on the organization and business of GK Komgrap abroad). Belgrade: Biro za informacije u propagandu GK Komgrap, 1975.

Pervan, Budimir. "Urbanistický ústav Dalmácie." *Architektura ČSR*, no. 2 (1969): 113-119.

Putnik, Vladana. *Arhitektura Sokolskih domova u Kraljevini SHS i Kraljevini Jugoslaviji* (The architecture of Sokol houses in the Kingdom of Serbs, Croats, and Slovenians and the Kingdom of Yugoslavia). Beograd: Filozofski fakultet Univerziteta u Beogradu, 2015.

Roter Blagojević, Mirjana. "Jan Nevole, prvi moderni arhitekta u Beogradu (Jan Nevbole, the first modern architect in Belgrade)." *Limes Plus* 2 (2013): 129-148.

Schwenkel, Christina. *Building Socialism: The Afterlife of East German Architecture in Vietnam*. Durham, NC: Duke University Press, 2020.

Sedlar, Saša. "Skopje urbanistickė problėmy rekonstrukce." *Architektura ČSR*, no. 6 (1967): 365-369.

Sekulić, Dubravka, Katarina Krstić, and Andrej Dolinka. *Three points of Support: Zoran Bojović*. Belgrade: Museum of Contemporary Art, 2013.

Selinić, Slobodan. *Jugoslovensko – čehoslovački odnosi 1945-1955* (Yugoslav-Czechoslovak Relations 1945-1955). Beograd: Institut za noviju istoriju Srbije, 2010.

Starý, Oldřich. "Domy pro chudė." *Architektura - spojené časopisy Stavba*, Stavitel, Styl, (1939): 253

Stanek, Łukasz. *Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War*. Princeton and Oxford: Princeton University Press, 2020.

Stojanovska, Sofija. "Arhitekt Ludek Kubeš (1913 – 1996)." *Makedonska Arhitektura*, https://marh.mk/архитект-лудјек-кубеш-1913-1996/ accessed June 4, 2020.

Trudbenik: preduzeće za projektovanje i izvođenje montažnih i opštegrađevinskih radova: 1947-1977 (Trudbenik: company for the design and prefabricated and general construction: 1947-1977). Beograd: KMG Trudbenik, 1977.

Von Halkowich, Alfons. *Die Eisenwerke Osterreich-Ungarns* (The Ironworks of Austria-Hungary). Wien: s.e., 1911.

Vučetić, Radina and Pol Bets, eds. *Tito u Africi. Slike Solidarnosti* (Tito in Africa. Images of solidarity). Belgrade: Muzej Jugoslavije, 2017.

Zarecor, Kimberly Elman. *Manufacturing a Socialist Modernity: Housing in Czechoslovakia, 1945-1960*. Pittsburgh: University of Pittsburgh Press, 2011

Interviews:

Aco Arizanović, retired employee of Neimar construction company, Trenčianske Teplice, April 07, 2017.

Bogdan Budimirov, architect, Zagreb, February 13, 2015.

Bohuslav Pernecký and Anna Pernecká, architects, Pieštany, June 20, 2015.

Il'ja Skoček, architect, Bratislava, June 1, 2015.

Mojca Smode Cvitanović

Tracing the Non-Aligned Architecture: Environments of Technical Cooperation and the Work of Croatian Architects in Kumasi, Ghana (1961-1970)

Non-Aligned Movement, Kwame Nkrumah University of Science and Technology, Technical Cooperation, Modern Architecture, Postcolonial Architecture

/Abstract

Focusing on the work of a group of Croatian i.e. Yugoslav architects in Ghana, the paper explains the nature of technical cooperation as a model of temporary international contract work in relation to the specificities of the environment built consequently. It concentrates on the engagement of Miro Marasović as the head of the Kwame Nkrumah University of Science and Technology Architects Office, later the Development Office, from 1961 to 1964. As its contextual framework, the paper addresses bilateral technical cooperation as a form of international communication and exchange, the practices of the Non-Aligned Movement, and the interrelations of the pre- and post-independence generation of modern architecture in Africa.

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https://doi.org/10.6092/issn.2611-0075/10450 | ISSN 2611-0075

Introduction

At the end of 2019, almost 50 years after the last architect from Yugoslavia left Kumasi, the author of this text was greeted on the Kwame Nkrumah University of Science and Technology Campus with "Dobar dan, kako ste?" (Croatian for "Good afternoon, how are you doing?"). This greeting by professor John Owusu Addo, one of the most respected and well-known architects in Ghana, reflected the attitude towards the expertise originating in a faraway country a long time ago, which still evokes warm memories. What Prof. Addo referred to was his direct collaboration with the group of Croats led by the architect Miro Marasović, working as staff of the Kwame Nkrumah University of Science and Technology (KNUST) Development Office[1] in Kumasi, Ghana, from 1961 to 1970. Their arrival in Kumasi came about through the procedures of bilateral technical cooperation between Yugoslavia and Ghana.

Even before the formal establishment of the Non-Aligned Movement in 1961, Yugoslavia had used global technical cooperation networks as a vehicle for its "soft diplomacy" towards the emerging and so-called Third World.[2] Consisting for the most part of two forms of transfer unfolding in opposite directions - on the one hand sending experts to rather long-term contract work at host locations and on the other providing scholarships for the education of the "developing" world citizens in Yugoslavia - technical cooperation had its long-term pragmatic goals. However, taking place at the level of society's everyday life, it is precisely the contacts established by technical cooperation that materialized the idea of "friendship" shared in this case with the Non-Aligned Movement members, the concept introduced and maintained at the level of high politics.[3] A transcendent idea of friendship between states thus found its more effective support in friendship between individuals, which largely determined the self-perception of the Yugoslav society within the international context.

Following the activity of the working group consisting of architects Miro Marasović, Nikša Ciko, Berislav Kalogjera and Nebojša Weiner, and a structural engineer Zvonimir Žagar, focusing on their tasks and duties as employees of the KNUST Development Office, this paper aims to set up an argument on

1 The name Development Office used in the text is the current name of the body (formerly Architects Office) introduced in 1964/65, and (colloquially) used by the protagonists.

2 Even though the Movement itself was formalized at the Belgrade Conference in 1961, the idea of the non-alignment had been present in international politics significantly earlier. Its bearers were the states that, regarding the Cold War opposed military-political options, took the "third" position. The appearance of Yugoslavia in such a political encirclement was to some extent a specificity, being a European country that identified itself as a part of the Third World community. The reasons for this could be tracked back to the events of 1948 when, by being excluded from the Information Bureau of the Communist Parties, it remained a socialist country outside the scope of the Eastern Bloc. Finding allies was then realized outside the borders of Europe being a consequence of a "mixture of need, ambitions, circumstances and decolonization that opened up hitherto non-existent countries, which turned Yugoslavia towards the Third World and made it the personification of the Non-Aligned Movement." Tvrtko Jakovina, *Treća strana Hladnog rata* (The third side of the Cold War) (Zaprešić: Fraktura, 2011), 31-32. The other important consequence of its separation from the Eastern Bloc was the introduction of self-management in 1950, through a basically economic law with far-reaching impacts on the society.

3 The concept of socialist internationalism through friendship is well known and could be applied to different levels of social discourse. The orientation of Yugoslav friendship policy towards non aligned countries, among others, could be witnessed by the Friendship Park in Belgrade established in coherence with Movement's founding conference. The concept of friendship was, expectedly, evident within the demagogy of the bilateral technical cooperation procedures (as will be shown by the quotation hereinafter).

several levels. First, it reveals the relationship between technical cooperation as a specific form of work, and the built environment as its product. Viewed within the historical context of decolonization as an unstable condition of tensions between different stakeholders – the former colonial and still present British interests, the aspirations of the newly sovereign Ghana, and the agency of Yugoslavia as the emerging subject on the developing world's market, the paper presumes the modes of technical cooperation as negotiating practice. When reflected through architecture, as the negotiation of knowledge and approach, an ultimate negotiation of power can be brought to light, stratified and readable from the transculturally envisioned and subsequently formed environment. Furthermore, the capacity of negotiating expertise of different origins as a practical skill together with the skills in architectural design formed the two sides of the same coin. The very point could be extracted from the recommendation letter written by the University Vice-Chancellor, Robert Patrick Baffour to Miro Marasović upon the completion of his service. By emphasizing the range of investment and intervention aimed at obtaining the new capacity of the campus and highlighting Marasović's merit, Baffour addresses KNUST as "one of the most beautiful universities in Africa and certainly the biggest in expanse and most comprehensively planned of all."[4] Doubtlessly, the background of such a success depended on an adequate expert's profile.

Another level of argument traced in the background of this case study is posed within the recent discourse on the work of architects from socialist countries in the geopolitical context of the Third World. It reveals the elements of the distinction between Yugoslavia, as a self-managed member of the Non-Aligned Movement and the countries on the Eastern Bloc. Firstly, it addresses the question of the discontinuity of "socialist modernism" and the "freedom of the work" under socialist regimes. Whereas architects from other socialist countries notably considered their work in Ghana to be an alternative to their work at home,[5] the present case suggests otherwise. By reaching a level of freedom towards material and ideological constraints, Croatian architectural culture of the late Fifties enabled the development of individual creativity, at the same time referring to the experiences of the West. The resulting conjuncture simultaneously implied connections with contemporary architectural trends in the world and the acceptance of international modernist culture. Given the technological and organizational conditions, that was achieved only as a one component of a wider practice, but it left significant impacts on architectural design.[6] Hence the work of Croatian architects in the particular case relied on a more straightforward course of continuity. The same could be said about the freedom of architectural work after the decentralization according to the practice of self-management.

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4 Letter of recommendation from Robert Patrick Baffour to Miro Marasović, published in Koprojekt (Zagreb: Koprojekt, unknown year).

5 Łukasz Stanek, *Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War* (Princeton and Oxford: Princeton University Press, 2020), 64, 93.

6 Žarko Domljan, "Poslijeratna arhitektura u Hrvatskoj (Postwar architecture in Croatia)," *Život umjetnosti*, no. 10 (1969): 21.

As the head of his own architectural office in Croatia, Marasović is a telling example in that regard.[7] Secondly, from the Yugoslav point of view, the question of socialist internationalism either as an ultimate political goal or the socialist testing ground, acquired an additional level of political meaning. The involvement in the Non-Aligned Movement, in this case supporting the ideological bond between Tito and Kwame Nkrumah, highlighted the importance of technical cooperation of architects working in a higher educational organization.

The paper focuses on the Ghanaian work of Croatian architects at different contextual levels: the course of technical cooperation seen from the Yugoslav perspective, the ambivalence of the pre- and post-independence architectural expertise seen from its socio-political and disciplinary positions, and the particular design process. The extensive descriptions of two most significant, recently re-evaluated architectural realizations thereby demonstrate the synergy of various factors, contained among all in the specific collaboration between John Owusu Addo and Miro Marasović.

This theme is closely linked to the recent debates about the nature of colonial and postcolonial networks of architectural expertise, especially the part of it regarding the trajectories of the socialist world. In that sense, it strongly relies on the work of Łukasz Stanek, significant for its pioneering merits in the evaluation of the practices originating in the "other side" of the Cold War division, and their emancipation in the historiographical discourse by positioning on an equal dialectical level with the work of their capitalist counterparts. By addressing the same protagonists and their achievements described in this paper, Stanek's recent book provides a direct view of their position within a broader domain, fundamental for understanding its locus on a global scale.[8] In that sense, this research can be seen as an extension of the network of agents already partly uncovered by other researchers dealing with the export of architectural knowledge.[9] At the same time, it can be viewed as part of the recent scholarship on the cultural practices linking socialist Yugoslavia with the developing nations, including the research on the mobility of architecture.[10]

The paper is a result of a long-term research including archival research of the fonds within the Croatian State Archives in Zagreb, the Archives of Yugoslavia in Belgrade and the archive of the KNUST Development Office in Kumasi, as well as a collection of interviews with the protagonists, their collaborators, professional successors and members of their families. Finally, it is a result of the

7 On the organization of architectural profession in postwar Croatia see Melita Čavlović, "Utjecaj transformacija arhitektonske profesije na arhitekturu Zagreba 1945.-1961. (The Influence of transformations of architectural profession on the architecture of Zagreb 1945-1961)" (PhD diss., Zagreb: University of Zagreb, 2017).

8 Stanek, *Architecture in Global Socialism*.

9 First of all the referenced work of Ola Uduku and Hannah Le Rough regarding phenomena of "tropical architecture". Although not directly referenced, the research benefited by the ideas developed by Tom Avermaete, Iain Jackson, Johan Lagae, Ayala Levin, Muhammad Ijlal Muzaffar, Ikem Stanley Okoye, Kim De Raedt, among others.

10 This includes the work of Catherine Baker, Ljubica Spasovska, Mila Turajlić, Bojana Videkanić, Radina Vučetić, among others. In the field of architectural history, see: (I.a.) Dubravka Sekulić, "Constructing a Non-aligned Modernity: The Case of Energoprojekt," in Unfinished Modernizations: Between Utopia and Pragmatism, eds. Maroje Mrduljaš and Vladimir Kulić (Zagreb: Croatian Architects' Association, 2012), 122-133; and (I.a.) Vladimir Kulić, "Building the Non-Aligned Babel: Babylon Hotel in Baghdad and Mobile Design in the Global Cold War," *ABE Journal*, no. 6 (2014), doi: 10.4000/abe.924.

academic visit to the Kwame Nkrumah University of Science and Technology granted by the University of Zagreb. The work of Croatian architects at KNUST is also one of the multiple case studies analysed within the doctoral dissertation entitled "Croatian Architects' Modalities of work in the Countries of Africa and Southwest Asia 1950-1991" by the same author.

Technical cooperation between Yugoslavia and developing countries

Technical cooperation as a form of international communication emerged at the global scene after World War II. War-torn and in need of an urgent modernization, Yugoslavia first appeared as a recipient of technical assistance from the United Nations agencies as well as from more developed countries of the West. In the mid-1950s, classified as a medium developed country,[11] it became a donor of technical assistance to the developing world. While the Yugoslav foreign policy was taking a new turn, after breaking up with the Soviet Union and other countries of the Eastern Bloc, that will soon, geopolitically speaking, join forces within the non-alignment concept, Yugoslav universities were witnessing an influx of foreign students.[12] In the earliest period of the 1950s the majority of scholarships were granted to the citizens of Asian countries, and later on, after Africa's independence, their geographical range radically expanded. At the same time, the processes of transfer of Yugoslav experts for the purpose of contract work in developing countries began to accelerate. Their recruitment by means of international multilateral agreements started in 1951, when the first Yugoslavs were put at the disposal of the OUN.[13] The first technical assistance experts recruited through bilateral state agreements were sent to Ethiopia in 1954.[14] A systematically organized transfer of experts as a model of technical assistance to developing countries was initiated in 1960, when the first competition was announced for that purpose.[15] Consequently, following the establishment of the Non-Aligned Movement, their numbers vastly multiplied.

The professional structure of expertise channelled through technical cooperation was diverse. Its purpose was, in general, to temporarily compensate for the shortage of qualified staff young nations were faced with after independence. Focusing on basic economic and social sectors, such as agriculture, fishery, forestry, education and health, technical cooperation covered a wide range

11 The classification of Yugoslavia within mid-developed countries was stressed within the reports of the Technical Assistance Departments (e.g. *Annual Report of the Department of Technical Assistance of the People's Republic of Croatia* (Zagreb: Department of Technical Assistance of the People's Republic of Croatia, 1962), 1, HR-HDA-1727, Croatian State Archives, Zagreb).

12 Dragomir Bondžić, "Školovanje studenata iz zemalja u razvoju kao deo spoljne politike Jugoslavije 1950-1961 (The education of students from developing countries as a part of foreign policy of Yugoslavia 1950-1961)," *Annales* 24, no. 4 (2014): 640.

13 *Technical and Scientific Cooperation of Yugoslavia with the Developing Countries* (Belgrade: Federal Department for International Scientific, Educational, Cultural and Technical Cooperation, 1973), 23, HR-HDA-1727, Croatian State Archives, Zagreb.

14 *Technical and Scientific Cooperation*, 4.

15 *Problems of the Human Resources Section of the Department of Technical Assistance of the Socialist Republic of Croatia* (Zagreb: Department of Technical Assistance of the Socialist Republic of Croatia, 1964), 2, HR-HDA-1727, Croatian State Archives, Zagreb.

of professions linked to the specific requirements and determined according to specific development criteria. Architecture and urban and physical planning earned a significant place in the range of disciplines provided under the technical cooperation programs.[16]

Work contracts were usually signed for a period of two to three years and were linked to a particular position in state administration bodies, schools, hospitals, or other kinds of public organizations. Profiles of experts had to be assessed as adequate both professionally and politically in line with the importance of positions they were to occupy in recipient countries. Before traveling abroad, experts got prepared by, among other things, getting acquainted with the language and culture of the host country, but also received instructions on proper behaviour in terms of respecting the foreign policy of the state itself. In occasional instances where experts gave priority to their own interests instead, by an inadequate attitude either towards working or social aspects of life, they were severely criticized.[17] "Such behaviour is generally detrimental to our country's reputation. This phenomenon should be eliminated. Competent authorities should evaluate each candidate in accordance to objective criteria. We are aware that all our experts working in foreign countries are, in some way, our ambassadors and what is observed through their work is nothing less than our entire community. This issue is particularly delicate in the developing countries, which look at us as their sincere friends and expect from our experts much more than from those coming from the capitalist states, ready to turn our failures in their own advantage."[18] The quotation from the Report of Human Resources Section within Zagreb-based Department of Technical Assistance of the Socialist Republic of Croatia addresses two relevant issues. On the one hand, an idealism of "friendly" relationship towards the recipient country, and on the other, a pragmatism evident from the attitude towards "capitalist" competition on the open market of the world longing for modernization. Yugoslav experts had to incorporate both. Therefore, in addition to the exemplary behaviour in terms of their moral and professional qualities, acting for the benefit of Yugoslav companies engaged in economic activities throughout the region was more than welcome.[19] However, technical cooperation and business deals were interconnected, and this nature of their relationship was considered self-understood, and was never latent. The number of experts transferred from Yugoslavia as technical assistance to the developing world varied over time, from just a few per year in the 1950s to

16 The "soft diplomacy" of disciplines covered by technical cooperation had its conceptually close parallel of "cultural diplomacy" recognized by scholars and summed up in the work by Bojana Videkanić. See Bojana Videkanić, *Nonaligned Modernism: Socialist Postcolonial Aesthetics in Yugoslavia, 1945-1985* (Montreal & Kingston – London – Chicago: McGill-Queen's University Press, 2019).

17 Social aspects of life abroad often required expenses some of the individuals were unwilling to accept "for personal reasons".

18 *Problems of the Human Resources Section*, 20.

19 Which, for instance, was possible for experts employed at high positions in government bodies.

several hundreds at the end of the 1960s.[20] The number of awarded scholarships, inducing transfers in the opposite direction, was even larger.[21] Changes in trends of technical cooperation were accompanied by the institutional adaptation of its organization. In general, the period from 1945 to 1961 was marked by the introduction of practices and the formalization of technical cooperation procedures which took place within various state administration bodies. The Federal Department for International Technical Cooperation was founded in 1961 as an umbrella institution in charge of a wide scope of technical cooperation activities including collaboration with the international organizations, countries of the Western and Eastern Bloc, and the developing countries. The Federal Department was subsequently joined by the affiliated organizations at the level of republics.[22] Despite the subsequent reorganizations of their structures, variations in scopes of their services, and changes in titles over time, those institutions were operative until the disintegration of Yugoslavia in 1991. Through bilateral and multilateral agreements, Yugoslavia received, as well as provided technical assistance for almost half a century, and its involvement in that field gained international recognition.

Croatian architects in Kumasi

The appointment of Miro Marasović as head of the KNUST Development Office in 1961 was closely related to the common political views and strong relations between Yugoslavia and Ghana. Bilateral relations between the two countries were formalized in 1959. Already in the same year a request for professionals in architecture and urban planning was sent by the Ghanaian side as part of technical cooperation.[23] In the context of the Cold War, the Yugoslav president Tito and the Ghanaian President Kwame Nkrumah shared a common worldview, formally approved by joining the Non-Aligned Movement at its founding conference in Belgrade, in September 1961. Several months earlier, in spring of the same year Tito had visited eight African countries including Ghana on a trip aboard the Seagull, a navy training ship used as an official president's yacht - itself well-known in the context of non-alignment due to its role in several

20 According to the reports of the Republic's Department of Technical Assistance, 771 experts from Yugoslavia had been sent to the developing countries until 1962, while solely in 1969 their number reached approx. 400. From the end of the 1960s, a downward trajectory will ensue (*Information on Technical Cooperation with Developing Countries* (Zagreb: Republic Department for Technical Cooperation of the Socialist Republic of Croatia, 1970), table 1; *Technical and Scientific Cooperation*, 4 – HR-HDA-1727, Croatian State Archives, Zagreb).

21 Besides the Federal Department for International Technical Cooperation, the Federal Commission for Cultural Relations with Foreign Countries was an institution in charge of the scholarship policy. The highest number of scholarships annually awarded to foreign citizens (generally citizens of the developing countries) was approx. 700 in 1964. Since the early 1970, the number of annually awarded scholarships, with large fluctuations, will amount to about 200 (*Scholarship of Cadres from Developing Countries* (Belgrade: Federal Department for International Technical Cooperation, 1971), appendix 3; *Technical and Scientific Cooperation*, 15 – HR-HDA-1727, Croatian State Archives, Zagreb).

22 Relevant for this research, Department of Technical Assistance of the People's Republic of Croatia was founded in 1962.

23 *Urban Planners for Ghana – Letter to Republican Committees* (Belgrade: Association of Project Organizations of Yugoslavia, 1959), SR-AJ-233, Archives of Yugoslavia, Belgrade.

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important diplomatic missions.[24] As part of the Ghanaian protocol, he visited the location of the University in Kumasi.[25] It can be assumed that the arrival of experts to work on further development of the University, which used to be a college until then, was arranged by an agreement reached on that very occasion. An official Bilateral Agreement on Economic and Technical Cooperation between the two nations was signed in October.[26] At the same time, other arrangements for transferring expertise in the field of architecture were being made as part of technical assistance,[27] and Yugoslav companies were starting to export their products and services to Ghana.[28] **[Fig. 1]**

The appointment of Miro Marasović as an expert for the required task was justified from the political as well as professional standpoint. During the World War II he had taken part in the national liberation struggle. As an active participant of the country's postwar reconstruction, he worked at the Department of Technical Works in Split as well as in the Ministry of Construction of the People's Republic of Croatia as an Assistant Minister. From 1951 on, he gained experience in running his own architectural design bureau. Clearly he matched the profile of an expert with exceptional qualifications in multiple fields. Consequently, one may wonder what his motivation was to leave, albeit temporarily, the position of the head of a productive architectural bureau in Zagreb, and accept a post in Ghana. However, it can be argued that the contractual experts in developing countries enjoyed a better living standard and income then in the early 1960s Yugoslavia,

24 Tvrtko Jakovina, *Simbol mira, pokreta i Tita* (The Symbol of Peace, the Movement and Tito), www.avant-garde-museum.com/en/The-Symbol-of-Peace-the-Movement-and-Tito~no4307/ accessed May 25, 2020).

25 Radina Vučetić and Paul Betts, *Tito u Africi: Slike solidarnosti* (Tito in Africa: Picturing solidarity) (Beograd: Muzej Jugoslavije, 2017), 32.

26 *List of agreements on scientific, technical, educational and cultural cooperation concluded by the SFRY with developing countries*, HR-HDA-1727, Croatian State Archives, Zagreb.

27 Starting from 1962, a group of Yugoslav architects, Branislav Prošić, Dušan Milenković, Milenko Poznanović and Miroslav Nikolić worked as members of the team of the Architectural and Engineering Secretariat at the Office of the President in Accra. See Branislav Prošić, Dušan Milenković, Milenko Poznanović, and Miroslav Nikolić, *Report on the work of the group of architects in Ghana – Information to the Federal Department for International Technical Cooperation*, 1964, SR-AJ-208, Archives of Yugoslavia, Belgrade.

28 Regarding construction services, Split-based Pomgrad built the port of Sekondi while Centroprojekt Zagreb designed the adjacent military base. Zagreb-based Ingra built several food processing plants whose architectural design was signed by Zvonimir Pavešić etc.

Fig. 1

Yugoslav president Tito visiting KNUST in 1961. On the left – Engineering Laboratories building by James Cubitt (Source: Vučetić and Betts, *Tito u Africi*, 32).

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and the nature of their tasks was in many ways challenging. [29] In frequently offered the opportunity of work on projects of strategic significance, which would not have been possible through their practice in Yugoslavia.[30] Expanding expertise internationally was therefore a reasonable choice.

Miro Marasović worked as the head of the KNUST Development Office from 1961 to 1964. Upon his invitation he was joined by two other Croats, Nikša Ciko who arrived to Kumasi in 1962 and worked in the Office until 1968, and Berislav Kalogjera, who provided technical assistance from 1963 to 1965. After Marasović's departure, the team of the Development Office was joined by the architect Nebojša Weiner and the structural engineer Zvonimir Žagar. They both arrived in 1965, for the purpose of design and construction supervision of the Unity Hall building whose drawings for construction were outsourced to Marasović's Zagreb-based bureau. Weiner continued to work in the Office until 1970. After a year working in the Office, Žagar joined the academic staff of the KNUST Faculty of Architecture's

29 The experts who worked under bilateral technical cooperation agreements were generally financed by the host countries. Only in exceptional cases their work expenses were borne by Yugoslavia.

30 Regarding construction works, since the great momentum of the postwar reconstruction in Yugoslavia started to weaken, a shift towards the foreign market was a logical decision.

Fig. 2

Graduation ceremony at KNUST – in the front from left to right, John Owusu Addo, Miro Marasović, and Nikša Ciko (Source: Z. Ciko private archive).

Fig. 3

Berislav Kalogjera at his Development Office drawing table – sectional perspective drawings for Chancellor's Residence on the back panel (Source: Z. Ciko private archive).

Department of Building Technology where he taught until 1970. [Figs. 2-3] The professional experience of individual members of the Croatian group was diverse. Marasović went to Ghana as an already experienced and renowned expert. Kalogjera, who had an open-ended employment contract in the Split-based Urban Planning Institute of Dalmatia, interrupted only during his stay in Ghana, came as an already well established architect and urban planner. Ciko, Weiner and Žagar obtained their university degrees in the second half of the 1950s, and their work in Ghana gave them an opportunity to gain experience which was to a large extent formative and crucial. Later on, in the second half of the 1960s, Ciko and Weiner themselves obtained head positions of the Development Office.[31]

Tropical interpolation

The process of dissemination of modern architecture in many African states can generally be determined in two phases coinciding with the two postwar decades; the first still linked to the colonial political relations of the 1950s, and the second to the sovereign period of young nations in the 1960s. The architecture of the first phase was, consequently, homogeneous because of the origins of its protagonists, mostly experts and companies coming from the respective European metropoles, while the architecture of the second phase was considerably more heterogeneous.[32] Consequently, it could be expected that this difference reflected on the design approach. The first phase generally involved architects and companies with international experience, specialized for particular areas. The architects who joined them in the second phase encountered the specificities of the local traditions as well as the extreme climate more or less for the first time. It is therefore logical to assume that their reaction methodologically relied on the development and adaptation of their knowledge acquired within the context of their own home architectural cultures. Moreover, as "ambassadors" of the country that declared itself "friendly", the particular transfers of Yugoslav expertise acquired an extended ideological purpose of 'aiding' the young nations by sharing specific knowledge as welfare. Resulting from the presence of various spheres of influence, further deviations from that process were diverse and complex. The aim to clarify their nature through elaboration of the specific case study is inherent to the structure of this work.[33]

31 From 1961 onwards, the Development Office was headed by Miro Marasović (1961-1964), John Owusu Addo (1964-1965), Ernst Blaser (1965-1967), Nikša Ciko (1967-1968), Nebojša Weiner (1968-1970). After the departure of Nebojša Weiner, the Office was taken over by Jan Skokanek.

32 Ola Uduku, *Postwar African Modernism*, lecture, vimeo.com/25342667 (May 23, 2016). The process of the after-independence modernization of Ghana through architecture that "cannot be reduced to a sum of European "modernisms" was approached in a work by Łukasz Stanek. See Łukasz Stanek, "Architects from Socialist Countries in Ghana (1957-67): Modern Architecture and its *Mondialization*," *Journal of the Society of Architectural Historians* 74, no. 4 (2015): 416-442.

33 The divergence in approaches as a result of the particular modality of the architect's work, e.g. technical cooperation which involved a long-term stay at the location and developing projects through international communication, and in contrast, modalities in which the projects were "exported" or rather "transmitted" from the home design bureaus, was analysed within the above mentioned dissertation thesis.

The dissemination of modern architecture in Africa was in many cases driven by a tabula rasa approach, even in the postcolonial context. For Croatian architects in Kumasi, this was not the case. The scope of their work consisted of interventions within the area of the former College of Technology, designed and to a large extent constructed in the previous decade. The qualities of the urban layout of the College as well as the architectural solutions of its individual buildings, signed by British architects James Cubitt and Kenneth Scott, classified the particular educational complex among the canonical examples of "tropical modernism" whose significance far exceeds Ghana's borders. It has been considered as one of the crucial components determining a specific, overall approach to architectural design in the tropics.[34]

At the turn of the decade, the College of Technology acquired its University status, named after the first president of the Republic, Kwame Nkrumah University of Science and Technology.[35] In line with the ambitions of the new nation, the investment in education got increased. In that particular case, this was demonstrated by an increase in student numbers, an introduction of new curricula and a new momentum in the overall construction at the campus. Made under Marasović and conceived as a superposition on James Cubitt's plan, a new urban layout of the campus implied multiple increases in its capacity. The guidelines of the plan were used as a basis for various architectural projects.

The first generation of architecture and planning at the Kumasi College of Technology: "tropical architecture"

The College of Technology in Kumasi was established in 1952 as an Anglophone affiliate of the University of London. After a short period of provisional construction using prefabricated elements that should have enabled the early completion of its educational function,[36] its spatial development and control of the initial phase of its construction were entrusted to James Cubitt's office, whose engagement was later complemented by the work of Kenneth Scott.[37] Both architects were educated in the United Kingdom and, together with Jane Drew, Maxwell Fry, Lindsay Drake and Denys Lasdun, were the most prominent architectural figures in the 1950s Ghana.[38]

Cubitt's plan introduced the distinctive spatial determinants of today's campus. Situated on an approximately sixteen square-kilometres of undulating land, about seven kilometres away from the city of Kumasi, it was composed of

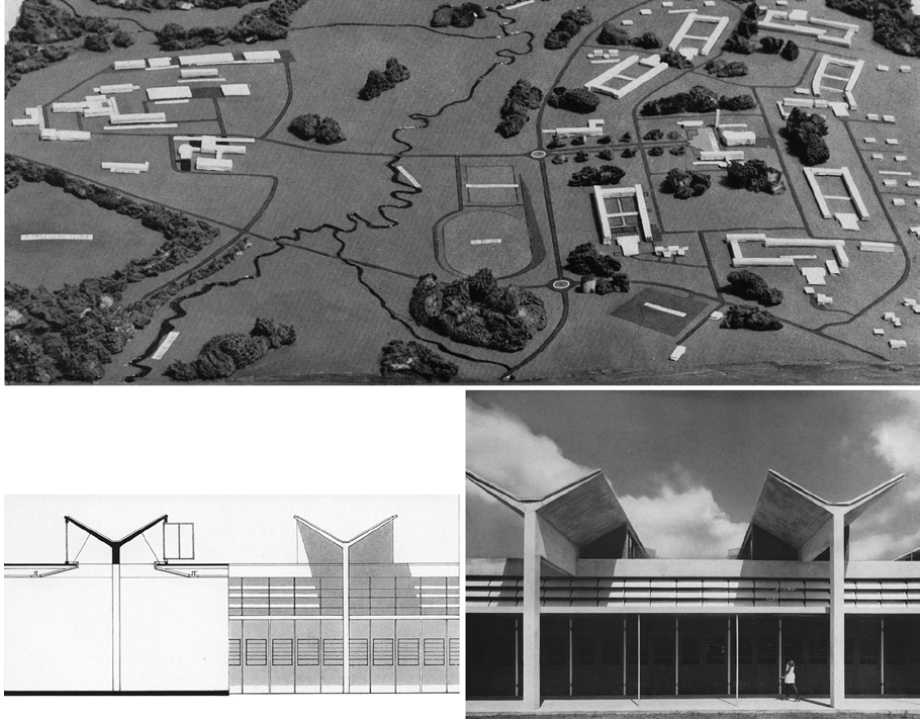
34 In that sense, the selection of campus buildings among the works illustrated in publications by Maxwell Fry and Jane Drew (ref. 39) is perhaps the most indicative.

35 After the overthrow of Nkrumah in 1966 his name was removed from the name of the University, turning the Kwame Nkrumah University of Science and Technology (KNUST) into the University of Science of Technology (UST). In 1998, Nkrumah's name got rehabilitated and was reintroduced in the name of the institution.

36 Jean Adjei, *Change in trend of architectural style on Kwame Nkrumah University of Science and Technology campus* (BSc thesis, Kumasi: KNUST, 2005), 15.

37 Ola Uduku, *Tropical Ivory Towers: A Critical Evaluation of Design Symbolism and Practical Aspirations of the West African University Campuses in their Fifth Decade* (Mexico City: Docomomo 11th International Conference, 2010).

38 Udo Kultermann, *New Architecture in Africa* (New York: Universe Books, 1963), 16.



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modern buildings scattered throughout landscaped lawns and tropical flora.[39] The plan divided the campus territory into three areas of different functional and structural characteristics, intended for the faculty buildings, the student accommodation with the majority of accompanying social and cultural content, and the housing for the academic staff. A number of completed buildings including lecture halls, student halls of residence, and the well-known building of the Engineering Laboratories, were some of the particular models defining the concurrent disciplinary discourse of "architectural tropicality."[40] [Fig. 4]

A large number of investments directed by the British government to the West African colonies in that particular period built a knowledge system and enabled its subsequent dissemination in professional circles, with an emphasis on the methodological specificities of the design approach in the tropical areas. "Fry and Drew's definition of tropical architecture was of a regional style attuned to the people, materials and climate of a zone. In practice, the emphasis was on climate… The climatic response worked at two levels, in siting of buildings, and in their sectional treatment… The most influential and common element of tropical architecture was a cross-sectional form which responded to sun and wind. The basic arrangement for many buildings was a flat roofed, rectangular block, one room wide with an open access corridor. The long, glazed elevation was oriented towards the north or south, with louvres, canopies or balconies used to control solar ingress, and pivoting or louvre windows used to admit breezes."[41] In addition to the precise description of its common elements, from a conceptual

39 George William Kofi Intsiful, *The architecture of the Kwame Nkrumah University of Science and Technology campus in Kumasi*, www.mudonline.org/aat/2007_documents/AAT_Intsiful_paper%20web-based%20publication_architecture%20KNUST.pdf, accessed August 01, 2014.

40 The AA School of Tropical Architecture – department and design course persisting from 1954 to the beginning of the 1970s at the Architectural Association School of Architecture in London, and simultaneously published design manuals, were among the dominant bearers of that discourse. Cfr. Maxwell Fry and Jane Drew, *Tropical Architecture in the Humid Zone* (London: Batsford, 1956); Maxwell Fry and Jane Drew, *Tropical Architecture in the Dry and Humid Zones* (London: Batsford, 1964).

41 Hannah Le Roux, "Modern Architecture in Post-Colonial Ghana and Nigeria," *Architectural History* 47 (2004): 366.

Fig. 4

James Cubitt, Kumasi College of Technology, 1950s – Masterplan, Engineering Laboratories (Source: Kultermann, *New Architecture in Africa*, 97, 103).

standpoint, an experiential impulse should be emphasized. The space of an extreme climate was modified by architecture into a comfortable space of living, using gradual transitions of semi-permeable partitions, controlling light and rain, and directing flow of air. For instance, student halls of the residence designed according to Cubitt's layout of the campus could be perceived in sequences, without the intention of a complete spatial perception of their composition. By forming a leveled transition from the exterior of the artificial nature, the protected space of an inner courtyard, the covered space of an open access corridor and the enclosed space of a room, space is treated through the experience of its various temperatures, shades, humidity and airflows. At the same time, climate factors were addressed by "low-tech" solutions performed by the architectural elements and designs themselves, without relying on mechanical air conditioning and electricity. Although some of the elements contained hints at local cultural heritage – for instance the perforated screen walls referring to traditional fabrics, or even containing expressive motives, perhaps the most evident in the roof design of the Engineering Laboratories – visual appearance was rarely the priority motivating force behind the architectural concept. Rather, it was a subsequent result of the derivation of climatic conditions of the site.

The second generation of architecture and planning at the Kwame Nkrumah University of Science and Technology: hybridization of approaches

After Ghana declared its independence in 1957, the development of this higher education institution as well as its architectural assembly coincided with a period of significant prosperity. The new aspirations were followed by an organizational change in its development planning, and in 1958 its own Development Office was established.[42] In 1961 the College acquired its University status. As an agency reporting to the Development Committee of the University Council, the Development Office was in charge of carrying out the construction activities within the assembly. Its staff was made up of architects, quantity surveyors, structural engineers, technicians and other officials. Its number of employees was not constant and was needs based. The requirements for project documents were sometimes too large to be carried out within the Office and were therefore outsourced, whereby the Office acted as the managing, supervisory and corrective authority.[43] During Marasović's leadership from 1961 to 1964, and onwards, the ethnic structure of the Development Office was diverse and included highly educated staff of Ghanaian origin.

As a synthesis of Marasović's work, a ten-year projection master plan of the campus was produced by the Development Office in 1964. Describing its basic guidelines, Marasović wrote that "the program of increasing capacity of the

42 Correspondence with John Owusu Addo, 2014.

43 Nebojša Weiner, *Mr. Weiner's handing over notes to Mr. Jan Skokanek* (Kumasi: Development Office, 1970), Nebojša Weiner private archive.

dormitories from 2000 to 5000 students was impossible to achieve following the concept of existing low-rise construction composed in a system of large rectangles. High-rise building is inevitable, moreover it is approved by the fact that multi-storied blocks were already constructed at the University. The (new) construction consists of two phases: adding new accommodation blocks to the existing halls of residence, with which they form an organic and functional unity by common entrance and existing common public spaces, and constructing new free-standing accommodation blocks with its own public content. The newly built blocks of the first phase architecturally enrich the entire area by its surfaces and verticality, both in panoramic and singular vistas. A free-standing dormitory for 450 students, containing all the necessary common facilities, is an element of the second phase of realization of the planned capacity of the University."[44] The quoted description is more a manifesto than a reflection of spatial facts. A look at the campus layout reveals that it was perfectly possible to supplement the content with lower construction. The decision to build in height, however, required greater technological and material readiness. The previously constructed four low-rise students' halls of residence whose architectural layout was outlined by Cubitt's plan, namely Independence Hall, Queens Hall, Republic Hall and University Hall, had got their high-rise complements by the "first phase" elements of the new plan conceived and constructed as their Annexes. Of the eight planned second phase students' halls of residence, only two were realized, the Unity Hall and the Africa Hall, the latter with only half the capacity. [Figs. 5-6-7]

Even though it is evident from Cubitt's plan that the colonial government was ready for an investment covering a generously sized area, artificial landscaping, import of building materials and quality architectural solutions, Marasović's plan relied on a comparable financial impulse. The technologically demanding[45] construction of dormitories as "an architectural response to the tropical climate of the campus in an attempt to take advantage of the cool breeze and ensure effective land use"[46] gave priority to the architectural ideal over the doubtlessly limited technological means. Finally, the solution of the Development Office was accepted despite possible secondary concerns, which both developers and architects must have been aware of. Despite a clear architectural justification, the social stimulus of a young nation undoubtedly gave impetus to the decision to build the new layer of the campus vertically. One could speculate whether the same decision was intended, both at the architectural and symbolic level, to differentiate the layer of the second generation from the previous one.

What could be observed as a general characteristic of both the masterplan and the individual architectural designs is, firstly, respect for the existing architecture, and secondly, a slightly stronger emphasis on the visually expressive

44 Map of projects by Miro Marasović in Ghana, M. Berček Gomboš private archive.

45 Regarding the available building technology, it is important to emphasize that the particular construction site of the Unity Hall, a nine-storey high concrete building, did not include the presence of the crane (Conversation with Nebojša Weiner and Zvonimir Žagar, 2012).

46 Correspondence with John Owusu Addo, 2014.

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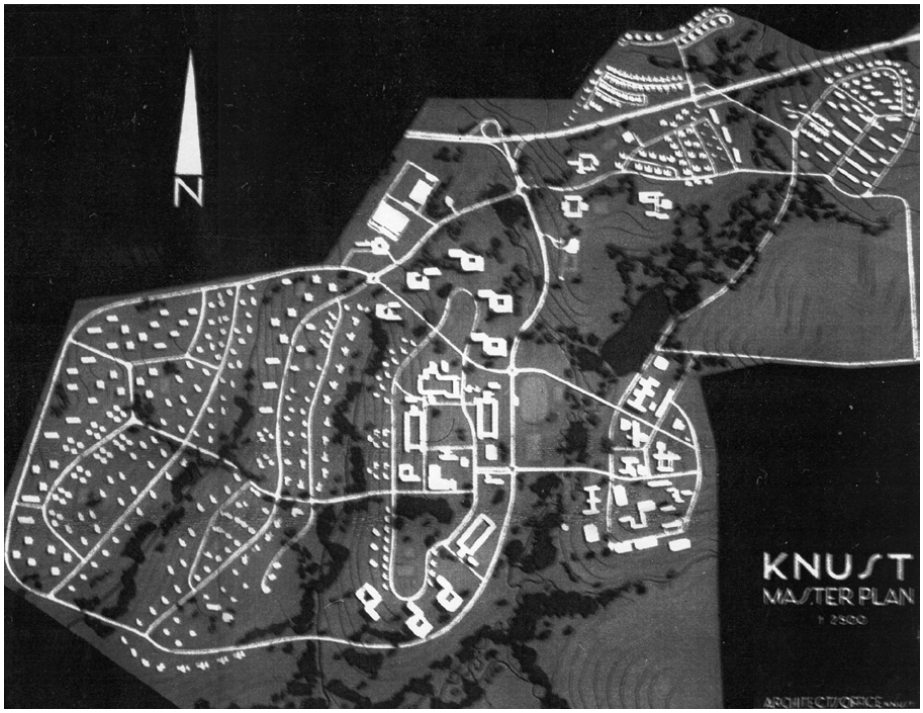

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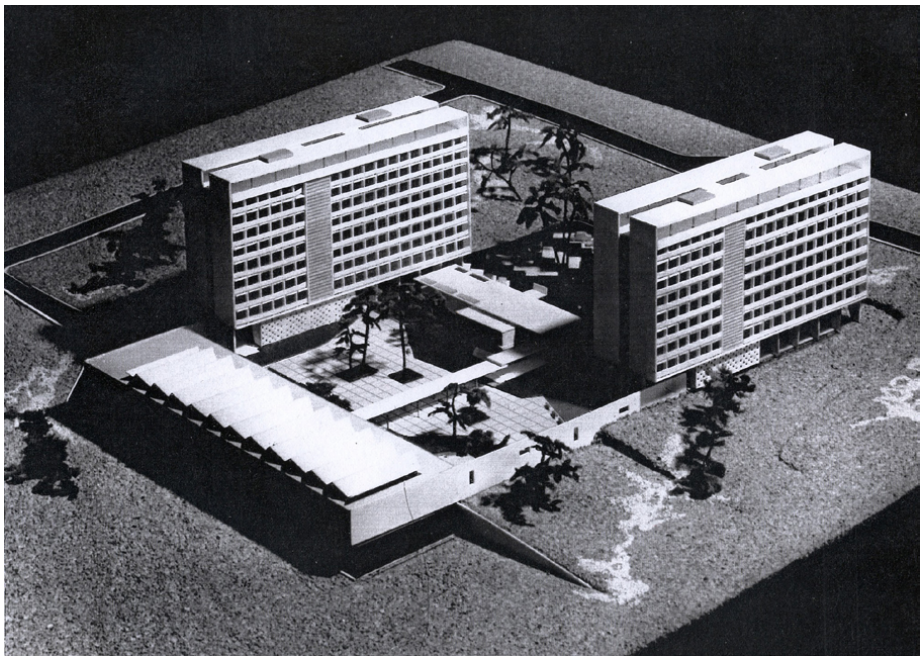

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Fig. 5

The high-rise Annex of the low-rise Hall (Source: M. Berček Gomboš private archive).

Fig. 6

Development Office under Miro Marasović, KNUST Campus Masterplan, 1964 (Source: M. Berček Gomboš private archive).

Fig. 7

Miro Marasović and John Owusu Addo, Unity Hall – a model of a dormitory for 450 students, 1964 (Source: M. Berček Gomboš private archive).

appearance. Regarding the first, forming "the organic and functional unity" between the strata of the palimpsest, as described by Marasović, was supported by a number of direct conceptual references to his predecessor. Regarding the second, even though the qualities of "panoramic and singular vistas" could be recognized in both concepts, one might claim that Marasović's paradigm remained at the level of the geometric composition vocabulary. The aspects of the climate were addressed well, but the "diagrammatic" treatment of the climate itself was not the initial premise within the design process.[47] The further analysis of the two most important buildings at the campus designed by Marasović, The Unity Hall and the Senior Staff Club House, corroborates this view.[48]

As a new-generation dormitory type, the Unity Hall model was to achieve its eight-fold application within the central area of the campus.[49] Considering its basic social function, the climate-responsive performance of the building was a logical and necessary basis for the design. As conceptualized by the Masterplan, the type was defined by the modern composition of "public" horizontal and "private" vertical elements. Partly expressively related to an uneven terrain of their outskirts, the common ground floor facilities formed a rectangular courtyard, referring to the older generation of halls outlined by Cubitt's plan. The private accommodation units were set within eight elevations of two slipped vertical blocks. Beside the fact that its blocks referred to the model defined by the previously constructed Annexes of Halls 1, 2, 3 and 4, the Hall 5 applied a more rational communication system. While the vertical Annexes could be fully perceived through the previously quoted description of a general approach to architecture in the tropics by Hannah Le Roux, as "flat roofed, rectangular blocks, one room wide with an open access corridor…", for the purpose of increasing floor plan efficiency, the corridors of the new building were conceived as central communications within the two rooms wide elevations. Ventilated at their ends as well as throughout the staircase membranes, the central corridors were treated as an open space, enabling the cross ventilation of rooms.

The Unity Hall project was a result of a collaboration between Miro Marasović, a well-experienced Croatian architect, and John Owusu Addo, a British-educated Ghanaian architect significantly versed in architectural design in the tropics.[50] While Marasović was credited as the chief designer, Owusu Addo was credited as the project architect in charge of its preliminary design drawings devised

47 This difference could also be interpreted through the overall change in trends in architecture of 1950s and 1960s.

48 Their produced Docomomo fiches provide the fact of their current evaluation. See: Ola Uduku, "Modernity Architecture and the Higher Education in Ghana: Initiating the Documentation and Recording of the KNUST University Campus in Kumasi," in Timely Teaching: Education Idealism and Modern Architecture (Manchester: Manchester University, 2018): 123-134).

49 Referred to also by the names Hall 5 and Continental Hall.

50 John Owusu Addo attended Regent Street Polytechnic (1952-57), now University of Westminster, and studied Tropical Architecture at the AA (1963-64) in London. See: Correspondence with John Owusu Addo and Charles Kofi Bosumprah, 2019).

at the KNUST Development Office.[51] Construction drawings were produced in Marasović's architectural office in Zagreb, under the leadership of the architect Marta Berček Gomboš, and the structural design at the University of Zagreb Faculty of Civil Engineering, under the leadership of Professor Veselin Simović. Quantity surveying and equipment for the building were provided by the British, and the construction was carried out by Swiss and Italian companies, with local subcontractors. The architectural supervision was entrusted to Nebojša Weiner, and the structural supervision to Zvonimir Žagar who arrived in Ghana particularly for that purpose. The building was made of reinforced concrete, and the construction materials, carefully selected, of high quality and resistant to the climate conditions, were for the most part British imports. Wooden furniture was of local production.[52]

The nature of this particular mode of work apparently required significant leadership skills to coordinate the expertise, including interests, coming from various sides. In that sense, not only Marasović's competences but also his commitment were evident. However, he must have been aware of his lack of experience in the domain of tropical climate and this is where John Owusu Addo successfully stepped in. While Marasović's responsibilities included the integrity of its architectural as well as urban-planning scale, Owusu Addo was responsible for the project development ensuring the performative quality of the hitherto unique building type. That included, for instance, the already mentioned ventilated central corridors of the room-blocks, and the kitchen unusually positioned below the level of the dining room, to enable the comfort of cross ventilation of the entire publicly used building's ground floor area.[53] The final touch was subsequently given by construction drawings from Marasović's Zagreb bureau, visited by the Ghanaian architect in the course of their completion. The preparation of project documents in a language initially unfamiliar to Marasović, including application of British design standards ended with satisfactory results.[54] Finally, the Unity Hall building could be described as a successful correspondence between Owusu Addo's "tropicality" and an architectural culture of international modernism closer to Marasović's professional habitus.[55] [Figs. 8-9-10-11-12]

"Modernist approach performed through abstraction, transparency and spatial polyvalence"[56] is apparent at the Senior Staff Club House. Located in the middle of the university staff housing area, the building was designed by Marasović in

51 Conversation with John Owusu Addo, 2019. The project documents were signed by Marasović as "senior architect" and Owusu Addo as "architect in charge". See: Unity Hall project documents, KNUST Development Office Archive, Kumasi).

52 Conversation with Zvonimir Žagar, 2012, 2020.

53 Conversation with John Owusu Addo, 2019.

54 In that regard, support by John Owusu Addo was helpful and generous. Cfr: Conversation with J. Owusu Addo, 2019).

55 As already mentioned in the introduction of the paper, the "internationalization" of Croatian architecture of late Fifties directed its trends in line with the world's achievements. The new "aesthetic orientation" consequently led to the conceptual purity of form, the reduction in the use of materials, the integrity of the structural elements within the conceptual totality of the design etc. Cfr. Domljan, "Poslijeratna arhitektura u Hrvatskoj", 21.

56 As synthesized by Žarko Domljan in a canonical text regarding paradigmatic works of Croatian architecture of the period. Cfr. Domljan, "Poslijeratna arhitektura u Hrvatskoj", 21.

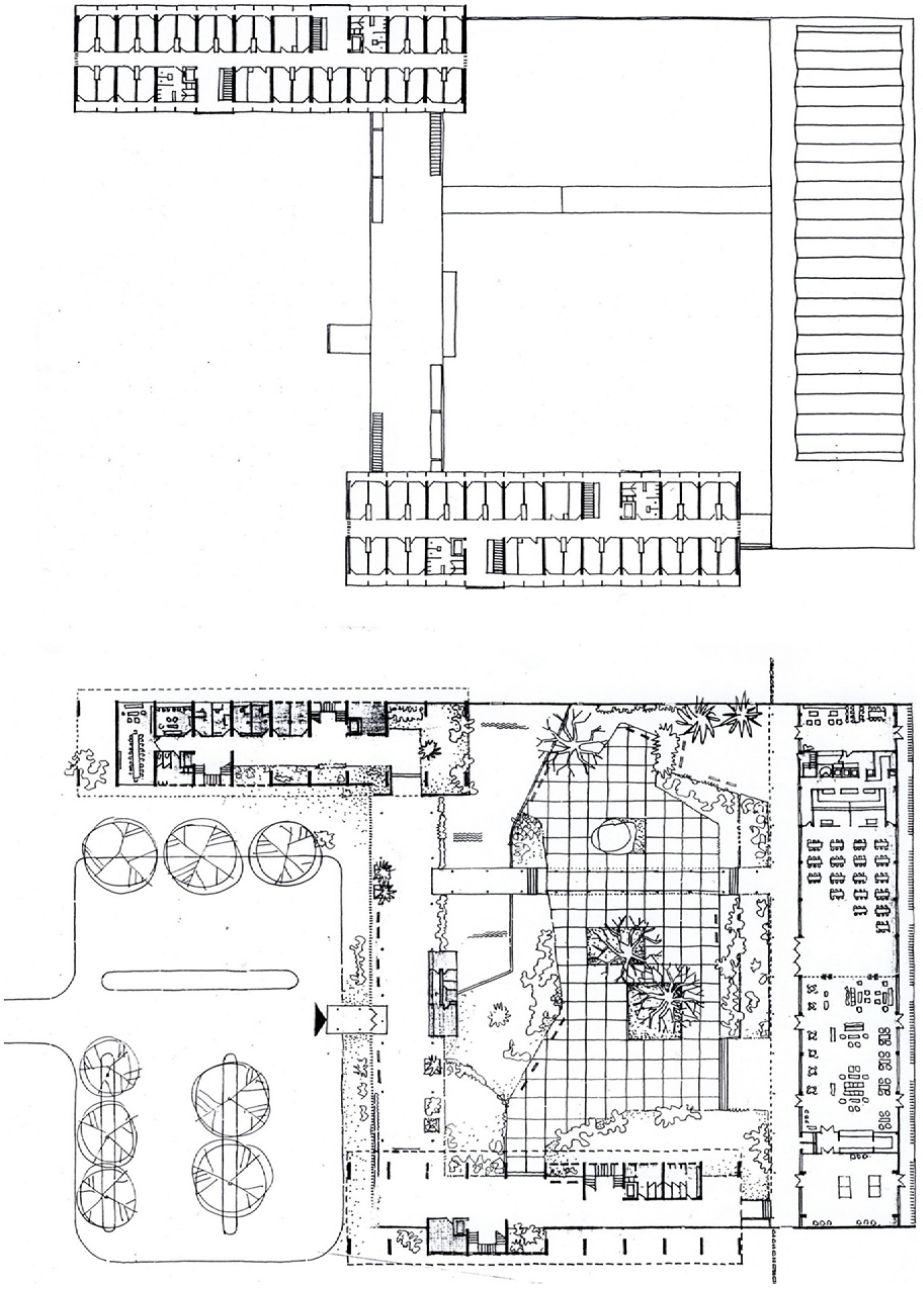

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Fig. 8

Miro Marasović and John Owusu Addo, Unity Hall – ground floor plan, typical elevation plan, 1964/project – 1968/construction (Source: M. Berček Gomboš private archive).

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Fig. 9

Miro Marasović and John Owusu Addo, Unity Hall, 1964/ project – 1968/construction (Source: Author).

Fig. 10

Miro Marasović and John Owusu Addo, Unity Hall, 1964/ project – 1968/construction (Source: Author).

Fig. 11

Miro Marasović and John Owusu Addo, Unity Hall, 1964/ project – 1968/construction (Source: Author).

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collaboration with Nikša Ciko.[57] The nature of Ciko's participation in the Senior Staff Club House project could be perceived as analogue to the one of Owusu Addo on the Unity Hall. Moreover, in this case too, Marasović must have relied on his collaborator's advanced knowledge on the climate performances of buildings in tropical areas. Ciko had arrived in Ghana even before Marasović. Starting in 1960, he worked as a member of the Public Works Department, later the Ghana National Construction Corporation in Accra. Upon Marasović's invitation, in 1962 he joined the team in Kumasi, where he accomplished a considerable part of his own architectural design work.[58] By mentioning Ciko's "tropical

57 The project documents were signed by Marasović as the "chief university architect" and Ciko as "architect in charge". After Marasović left the Development Office, the position of the "chief university architect" was entrusted to John Owusu Addo, which is registered in the documentation, although, according to the claim of the architect himself, this does not enter the realm of authorship. Cfr. Senior Staff Club House project documents, KNUST Development Office archive, Kumasi; Conversation with John Owusu Addo, 2019.

58 Even though formalized by a bureaucratic procedure of technical cooperation, Ciko's departure from Yugoslavia was a result of his own initiative which ultimately led to a permanent emigration. Cfr. Biographical notes, Zdenka Ciko private archive; Correspondence with Zdenka Ciko 2014).

Fig. 12

Miro Marasović and John Owusu Addo, Unity Hall, 1964/project – 1968/construction (Source: Author).

experience in Ghana before joining the University staff" in his subsequent letter of recommendation, Marasović will emphasize its relevance.[59]

The Senior Staff Club House was composed of two partially overlapping rectangular volumes whereby the upper one "hovers" above the lower one, complemented by the third element, a light prefabricated pergola. The composition was set on a base defining the building's ground level perimeter in contrast to the uneven terrain of the green area at the site. This example featured Le Corbusier's "principles of modern architecture" practically in all the five points. A reinforced concrete skeleton construction freed the ground floor of a two-storey building turning it into the active part of the exterior, at the same time enabling the free plan and continuous fenestration to the upper elevation. The roof deck of the lower, ground-level volume was treated as a usable space of the terrace. Unique at the campus by its composition, the building was also innovative in the domain of its climate solution evident in the design of its upper cube. Stretched between the floor and the ceiling, divided by a uniform rhythm of precast concrete vertical profiles, instead of glazing, which was to be expected in the moderate climate, the continuous strip of the outer plane was covered by a transparent canvas. The "mosquito proofing" surface flanked the "enclosed veranda", a continuous narrow transitory area positioned along all four sides of the cube. Between the veranda and the central interior space, another transparent partition was positioned, glazed, with elements to allow the circulation of the air. Completely transparent and organized centrally with the staircase in its centre the "bel étage" of the Senior Staff Club House thus kept the firmly defined boundaries of its outer volume.[60] On the other hand, the dominant climate aspect of the ground elevation was a publicly accessible deep shaded area. The well-balanced dynamic set of volumes, based on the intellectual premises that could have been conceptually related to the practices of Croatian modernism, thus found its climate response in the tropics. [Figs. 13-14-15-16-17]

The discussions above clearly indicate the issue of authorship in relation to the technical cooperation as a mode of work. While the authorship of individual buildings could be defined at the conceptual level, their project documentation development and construction supervision generally were much less under author's control. Designed within specific international circumstances, where the duration of the individual involvement often did not exceed the course of the construction (which sometimes prevented engagement at all stages of the project and particularly on construction supervision) it may be more accurate to attribute the authorship to the particular architect's office itself. But, to the contrary, in most cases, the actual nature of the design work was not bureaucratized to such an extent to restrict the creativity of the discipline. The authorship of the buildings was known and respected, which fits the character of the unique architectures it materialized.

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59 Letter of recommendation from Miro Marasović to Nikša Ciko, Zdenka Ciko private archive.

60 The part of the roof above the staircase originally allowed sunlight.

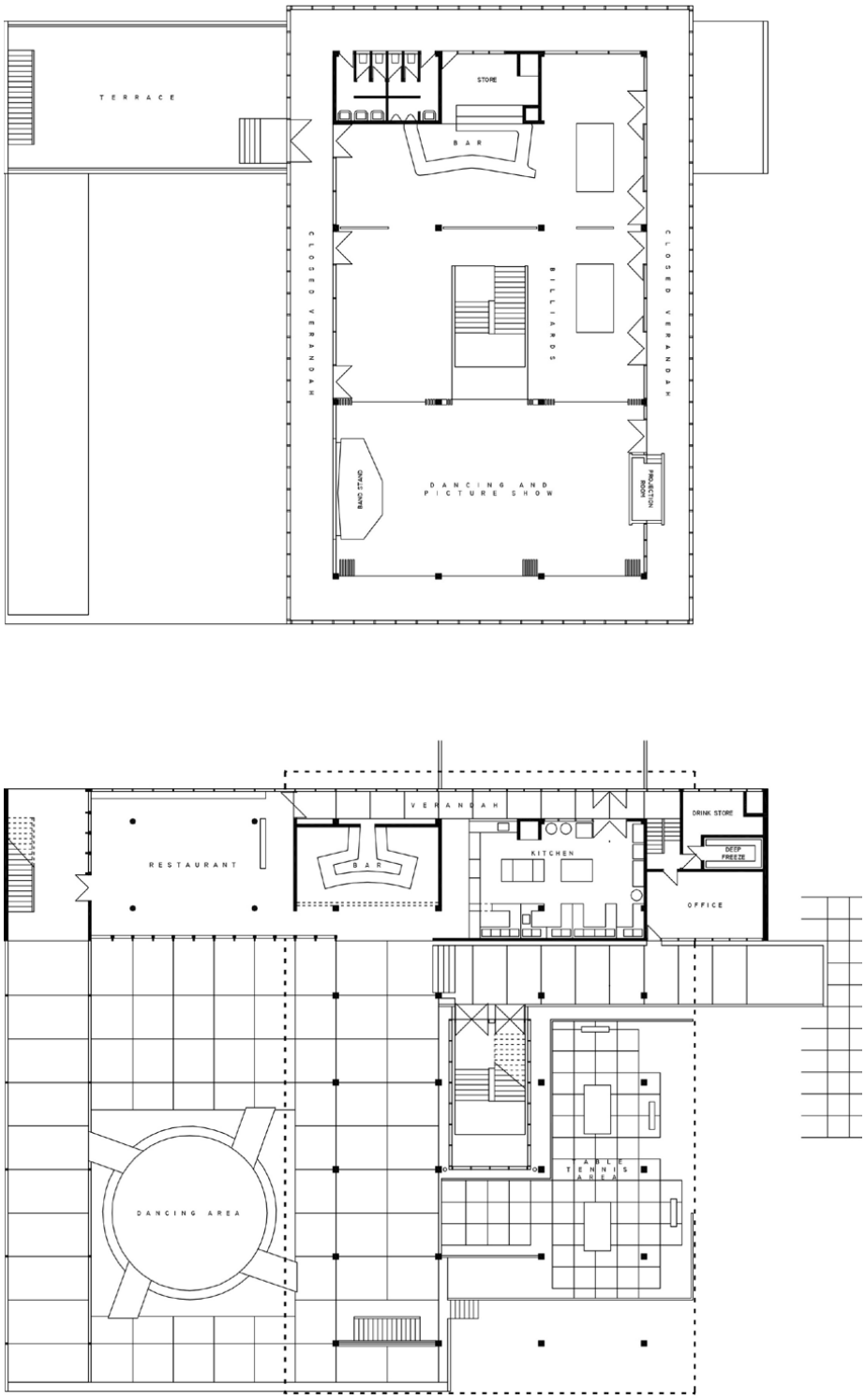

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Fig. 13

Miro Marasović and Nikša Ciko, Senior Staff Club House, 1965 – ground floor plan, first floor plan (Source: author according to the documentation of KNUST Development Office archive).

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Fig. 14

Miro Marasović and Nikša Ciko, Senior Staff Club House, 1965 (Source: Z. Ciko private archive).

Fig. 15

Miro Marasović and Nikša Ciko, Senior Staff Club House, 1965 (Source: Author).

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The works of the Croatian architects within the KNUST university campus were numerous. Besides the two buildings described above, Miro Marasović designed the academic staff apartments, an unbuilt university hospital, and a reconstruction of the stadium bleachers, because the pre-existing bleachers' canopy had collapsed just upon his arrival.[61] Africa Hall, a female dormitory designed in accordance with the Unity Hall model, but with single room wide blocks and therefore having half of its capacity, was designed by Nikša Ciko. Berislav Kalogjera was in charge of several urban planning studies, and made designs for the academic staff bungalows, the Chancellor's Residence[62] and the main University entrance.[63] Nebojša Weiner was the author of the Faculty

61 The folded shape of the new canopy referred to the form of roof of the Unity Hall's common facility area. Cfr. Conversation with John Owusu Addo, 2019).

62 Considering that the chancellor of KNUST was Kwame Nkrumah himself, the house was designed with the intention to accommodate the President during his visits to the University. Due to the recent reconstruction, its original form is currently unrecognizable.

63 Designed as reference to the Ashanti stool, the project goes in line with many examples of the post-independence practices recalling elements of local traditions. Though, the notable height and slender proportions of its construction shift the area of its perception on a more abstract level. Its structural project was signed by Arup. Cfr. Conversation with Nebojša Weiner and Zvonimir Žagar, 2012).

Fig. 16

Miro Marasović and Nikša Ciko, Senior Staff Club House, 1965 (Source: Author).

Fig. 17

Miro Marasović and Nikša Ciko, Senior Staff Club House, 1965 (Source: Author).

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Fig. 18

Miro Marasović, KNUST Stadium (Source: Author).

Fig. 19

Berislav Kalogjera, KNUST University Entrance (Source: Author).

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Fig. 20

Berislav Kalogjera, Chancellor's Residence, 1966 (Source: sites.eca.ed.ac.uk/aapwd, accessed November 17, 2017).

Fig. 21

Nikša Ciko, Africa Hall, 1967 (Source: Author).

Fig. 22

Nikša Ciko, Africa Hall, 1967 (Source: Author).

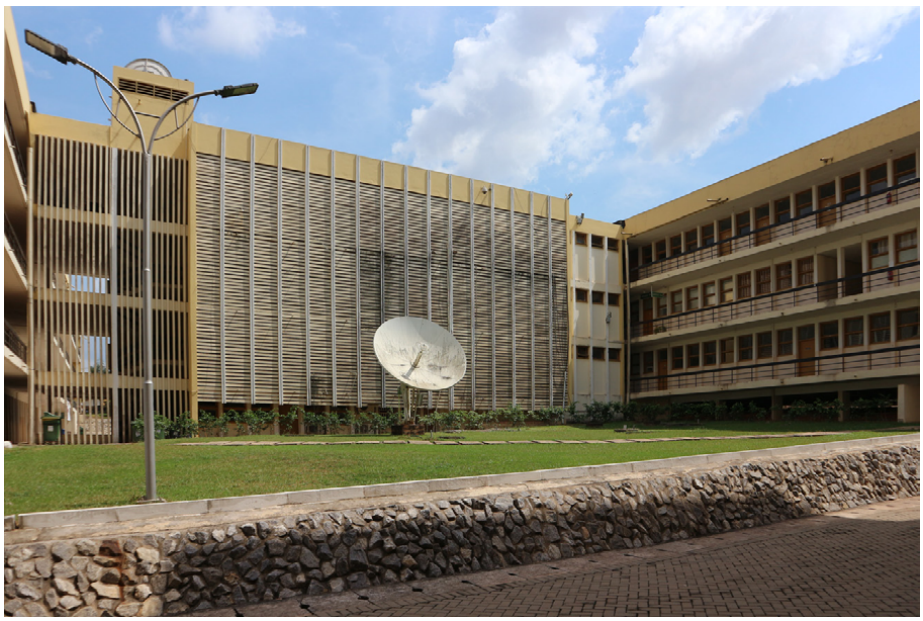

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Fig. 23

Nebojša Weiner, Faculty of Pharmacy extension, 1970 (Source: Author).

Fig. 24

Zvonimir Žagar, Building Technology Workshop, Faculty of Architecture – lamella roof structure (Source: Author).

of Pharmacy's extension, considered to be the last modernist building at the campus.[64] By some of his structural design solutions, the engineer and professor Zvonimir Žagar also contributed to the architectural palimpsest of the campus. The lamella roof structure of the Building Technology Workshop was constructed with students' participation, as part of the course he led at the Faculty of Architecture.[65] [Figs. 18-19-20-21-22-23-24]

Besides the architectural models materialized in the immediate physical environment, the necessary adjustment was to be made in terms of norms and building standards, design guidelines and professional literature, application of specific materials and products, as well as the organization of the construction process itself, mainly inherited from the British. The architectural superposition of the new generation, derived from the conceptual understanding of the previous one, ultimately made the KNUST campus a set of different approaches to architectural design in the tropics, amalgamated within a harmonious structure of the assembly.

A similar amalgam was apparent among the staff of the KNUST Faculty of Architecture, which at the time became the site of a specific radical pedagogy. Recognized by the local political and professional circles as a potent pan-African research and education centre for architecture, it was reorganized in line with London's previously developed course, thus becoming an internationally renowned institution.[66] The issue of its possible effects on the concurrent development of the campus itself is yet to be analyzed, though the mutual influence of the Faculty and the Development Office could be assumed.[67] Apart from the unquestionable informal impact of the progressive education programme on the staff of the Office within the same University institution, the facts that some of the professionals including John Owusu Addo and Zvonimir Žagar subsequently became employees of both bodies, and some minor cross-assignments sporadically occurred, corroborate the idea of their tighter interconnectedness.[68] Moreover, the Development Sub-Committee, an advisory body for development activities at the campus, included professional members of the Faculty.[69] After the fall of Nkrumah's Ghana, the school lost its international prominence.

64 Adjei, Change in trend of architectural style, 23.

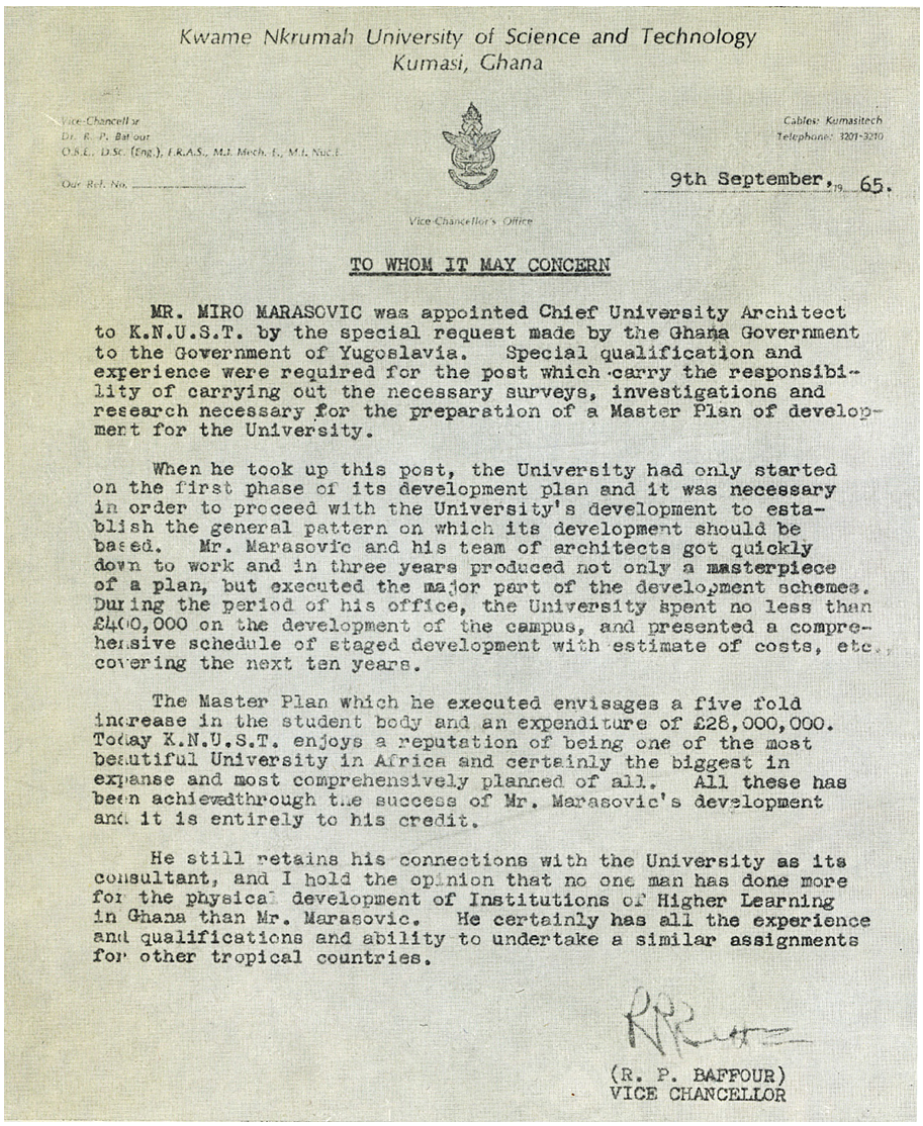
65 Correspondence with Zvonimir Žagar, 2020.

66 The reconstruction of the curriculum was carried out by Otto Koenigsberger, the head of the London's AA School of Tropical Architecture. Cfr. Ola Uduku, "Modernist architecture and 'the tropical' in West Africa: The tropical architecture movement in West Africa 1948-1970," *Habitat International* 30, no. 3 (2006): 400.

67 Even though recent reviews on the subject to some extent cast light on its potentials (radical-pedagogies.com/search-cases/f01-school-of-architecture-kumasi, accessed May 25, 2020), the relevance of this conjuncture in educating future generations of architects in Ghana, and in Africa, still awaits its scholarly elaboration.

68 For instance, Weiner's participation in the Faculty-led programmes. Cfr. Biographical notes, Nebojša Weiner private archive.

69 Weiner, *Mr. Weiner's handing over notes*, 1.



Kwame Nkrumah University of Science and Technology
Kumasi, Ghana

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9th September, 19 65.

Vice-Chancellor's Office

TO WHOM IT MAY CONCERN

MR. MIRO MARASOVIC was appointed Chief University Architect to K.N.U.S.T. by the special request made by the Ghana Government to the Government of Yugoslavia. Special qualification and experience were required for the post which carry the responsibility of carrying out the necessary surveys, investigations and research necessary for the preparation of a Master Plan of development for the University.

When he took up this post, the University had only started on the first phase of its development plan and it was necessary in order to proceed with the University's development to establish the general pattern on which its development should be based. Mr. Marasovic and his team of architects got quickly down to work and in three years produced not only a masterpiece of a plan, but executed the major part of the development schemes. During the period of his office, the University spent no less than £400,000 on the development of the campus, and presented a comprehensive schedule of staged development with estimate of costs, etc., covering the next ten years.

The Master Plan which he executed envisages a five fold increase in the student body and an expenditure of £28,000,000. Today K.N.U.S.T. enjoys a reputation of being one of the most beautiful University in Africa and certainly the biggest in expanse and most comprehensively planned of all. All these has been achievedthrough the success of Mr. Marasovic's development and it is entirely to his credit.

He still retains his connections with the University as its consultant, and I hold the opinion that no one man has done more for the physical development of Institutions of Higher Learning in Ghana than Mr. Marasovic. He certainly has all the experience and qualifications and ability to undertake a similar assignments for other tropical countries.

(R. P. BAFFOUR)
VICE CHANCELLOR

Reciprocity of international experience

The question of the degree to which the specific Ghanaian experience informed the domestic practice upon the architects' return understandably captures interest. How this reflected on the careers of Croatian architects is, in this case, less perceptible in terms of design methodology and more in determining their subsequent career paths. Starting in Ghana, one could notice their repetitive involvement in the complex context of international communications. Consequently, this lead to an accumulation of knowledge in this specific working field, which over time became visible in the Croatian architectural design practice.

Though he never went back to the tropics, soon after his return from Ghana, Miro Marasović left his design practice and took over the coordination of the UN development projects in Yugoslavia and abroad.[70] Berislav Kalogjera's success-

Fig. 25
Letter of recommendation from Robert Patrick Baffour, the first Vice-Chancellor of Kwame Nkrumah University of Science and Technology, to Miro Marasović (Source: Koprojekt).

70 Physical Development Plans for the South and the Upper Adriatic Region funded by the UN in Yugoslavia in 1960s and 1970s, and a subsequent UN project in Hungary.

ful career also included his work with the UN programs.[71] Nebojša Weiner coordinated large scale, complex design projects made by international teams.[72] As members of shorter term consultant missions, Kalogjera and Weiner both repeated their assignments in the framework of international technical cooperation.[73] Nikša Ciko's subsequent emigration to Australia ended his relationship with the Croatian practice. By returning to the Zagreb Faculty of Civil Engineering, Zvonimir Žagar's professional development further evolved in the academic context, where his practical experience of pedagogical and scientific work in Ghana directly continued. [Fig. 25]

Conclusion

Though never completed, the successive contributions of architects of different backgrounds ultimately formed a structurally and architecturally consistent university ensemble. Specific approaches to the postwar modern architecture in the tropics, in this case, took on the nature of an amalgam within which the participation of Croats was permeated, layered and complex. Just as its simplified segregation from the totality is not possible, so the totality itself is strongly tied to its contributions. This is exactly the distinctiveness of the observed modality of technical collaboration, which intrinsically integrated architects into the professional and social environment of the particular country. Therefore, it is not surprising that Marasović finally got the accreditation "to undertake similar assignments for other tropical countries,"[74] a qualification rarely seen in the Croatian architectural practice.

Apart from the highly acclaimed results from the discipline's autonomy perspective, the analysed case study of this particular mode of work indicates issues related to its socio-political implications. Firstly, within the recent discourse on the work of architects from socialist countries in the geopolitical context of the Third World, it reveals the practices characteristic of the Non-Aligned alliance. Secondly, it reveals how Yugoslavia politically treated its Non-Aligned partners outside diplomatic protocols, displaying a relationship where exporting the globally dominant expertise was faced with other dominant powers, whereas its continuous and deliberate emphasis on equality as an ideological statement was desirable. Finally, even though the results of activities of highly qualified experts undoubtedly contributed to the country's reputation, it demonstrates that the ultimate stratum of collaboration was a clearly apolitical, exclusively professional platform - the platform where success depended on the quality of the individual work and which enabled a common ground for interactions and even encouraged friendships.

71 Collaborations on the UN-sponsored Physical Development Plan for the South Adriatic Region and leading Mediterranean Regional Activity Centre within the framework of the UN Environment Programme.

72 Babin Kuk tourist hotel complex in Dubrovnik, an outcome of the UN-sponsored Physical Development Plan for the South Adriatic Region.

73 Kalogjera in Cyprus, Weiner in Zimbabwe and Cuba.

74 Letter of recommendation from Robert Patrick Baffour to Miro Marasović.

The need for foreign personnel in developing countries was most stressing right after their independence, which was regularly and effectively accommodated by Yugoslavia, in line with its own political interests. The change in trends of technical cooperation, however, occurred in the early 1970s as a result of the events on both sides. In Yugoslavia, the living standard improved. The developing world, on the other hand, suffered a number of political and economic crises causing social instability. The generational shift and decentralization of Yugoslavia further weakened the integrity of the non-alignment policy, which lost its enthusiasm, proved to be less pragmatic than expected. This redirected technical cooperation towards partners who were able to secure economically and socially stable conditions for assignments. Yugoslav experts, who were exceptionally well received in the developing world, are nonetheless still well remembered.

Thanks to

Prof. John Owusu Addo, Mrs. Zdenka Ciko, Mr. Nebojša Weiner, Prof. Zvonimir Žagar, Mrs. Marta Berček Gomboš, Prof. George William Kofi Intsiful, Mr. Charles Kofi Bosumprah, Mr. Charles Arnaud Nana, Melita Čavlović and Marina Smokvina.

Bibliography

Adjei, Jean. *Change in Trend of Architectural Style on Kwame Nkrumah University of Science and Technology Campus*. BSc thesis, Kumasi: KNUST, 2005.

Bondžić, Dragomir. "Školovanje studenata iz zemalja u razvoju kao deo spoljne politike Jugoslavije 1950-1961 (The education of students from developing countries as a part of foreign policy of Yugoslavia 1950-1961)." *Annales*, vol. 24, no. 4 (2014): 637-648.

Čavlović, Melita. *Utjecaj transformacija arhitektonske profesije na arhitekturu Zagreba 1945.-1961*. (The influence of transformations of architectural profession on the architecture of Zagreb 1945-1961). PhD diss., Zagreb: University of Zagreb, 2017.

Domljan, Žarko. "Poslijeratna arhitektura u Hrvatskoj (Postwar architecture in Croatia)." *Život umjetnosti*, no. 10 (1969): 3-45.

Fry, Maxwell and Jane Drew. *Tropical Architecture in the Humid Zone*. London: Batsford, 1956.

Fry, Maxwell and Jane Drew. *Tropical Architecture in the Dry and Humid Zones*. London: Batsford, 1964.

Intsiful, George William Kofi. *The Architecture of the Kwame Nkrumah University of Science and Technology Campus in Kumasi*. www.mudonline.org/aat/2007_documents/AAT_Intsiful_paper%20web-based%20publication_architecture%20KNUST.pdf, accessed August 01, 2014.

Jakovina, Tvrtko. *Treća strana Hladnog rata* (The third side of the Cold War). Zaprešić: Fraktura, 2011.

Jakovina, Tvrtko. *Simbol mira, pokreta i Tita* (The symbol of peace, the movement and Tito). www.avant-garde-museum.com/en/The-Symbol-of-Peace-the-Movement-and-Tito~no4307/, accessed May 25, 2020.

Kulić, Vladimir. "Building the Non-Aligned Babel: Babylon Hotel in Baghdad and Mobile Design in the Global Cold War." *ABE Journa*l, no. 6 (2014), doi: 10.4000/abe.924.

Kultermann, Udo. *New Architecture in Africa*. New York: Universe Books, 1963.

Le Roux, Hannah. "Modern Architecture in Post-Colonial Ghana and Nigeria." *Architectural History*, vol. 47 (2004): 361-392.

"Radical Pedagogies", radical-pedagogies.com/search-cases/f01-school-of-architecture-kumasi/, accessed May 25, 2020).

Sekulić, Dubravka. "Constructing a Non-aligned Modernity: The Case of Energoprojekt." In *Unfinished Modernizations: Between Utopia and Pragmatism*, edited by Maroje Mrduljaš and Vladimir Kulić, 122-133. Zagreb: Croatian Architects' Association, 2012.

Stanek, Łukasz. "Architects from Socialist Countries in Ghana (1957-67): Modern Architecture and its Mondialization." *Journal of the Society of Architectural Historians*, vol. 74, no. 4 (2015): 416-442.

Stanek, Łukasz. *Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War*. Princeton and Oxford: Princeton University Press, 2020.

Uduku, Ola. “Modernist Architecture and “the Tropical” in West Africa: The Tropical Architecture Movement in West Africa 1948-1970.” *Habitat International*, vol. 30, no. 3 (2006): 396-411.

Uduku, Ola. *Tropical Ivory Towers: A Critical Evaluation of Design Symbolism and Practical Aspirations of the West African University Campuses in their Fifth Decade*. Mexico City: Docomomo 11th International Conference, 2010.

Uduku, Ola. *Postwar African Modernism*. Lecture, vimeo.com/25342667, accessed May 23, 2016.

Uduku, Ola. “Modernity Architecture and the Higher Education in Ghana: Initiating the Documentation and Recording of the KNUST University Campus in Kumasi.” In *Timely Teaching: Education Idealism and Modern Architecture*, 123-134. Manchester: Manchester University, 2018.

Videkanić, Bojana. *Nonaligned Modernism: Socialist Postcolonial Aesthetics in Yugoslavia, 1945-1985*. Montreal & Kingston – London – Chicago: McGill-Queen’s University Press, 2019.

Vučetić, Radina and Paul Betts. *Tito u Africi: Slike solidarnosti* (Tito in Africa: picturing solidarity). Beograd: Muzej Jugoslavije, 2017.

Koprojekt. Publication of the Association of Project Organizations of Croatia, Zagreb: Koprojekt, unknown year.

Archives

Croatian State Archives, Zagreb. Fund 1727, Republic Department for International Scientific and Technical Cooperation. Cooperation with Developing Countries (HR-HDA-1727).

Archives of Yugoslavia, Belgrade. Fund 208, Federal Department for International Technical Cooperation (SR-AJ-208); Fund 233, Association of Project Organizations of Yugoslavia (SR-AJ-233).

KNUST Development Office archive, Kumasi.

Marta Berček Gomboš Private Archive.

Zdenka Ciko Private Archive.

Nebojša Weiner Private Archive.

Correspondences

John Owusu Addo, 2014, 2019.

John Owusu Addo and Charles Kofi Bosumprah, 2019.

Zdenka Ciko, 2014.

Zvonimir Žagar, 2020.

Conversations

John Owusu Addo, 2019.

Nebojša Weiner, 2012.

Zvonimir Žagar, 2012, 2020.

Lea Horvat

Housing Yugoslav Self-Management: Blok 5 in Titograd

Mass housing, Self-management, Montenegro, Socialism, Mileta Bojović

/Abstract

Self-management was one of the ideological foundations in socialist Yugoslavia. The paper argues that Blok 5 (1977–1984) — a mass housing settlement in Titograd, Montenegro, designed by Mileta Bojović — can be considered one of the theoretically and practically most enduring examples of self-management in Yugoslav mass housing. The concept can be traced from the urbanist blueprint, to the project proposal, the flexible floor plans and (over)stretched facades — exploring varying depths and levels of innovation. Furthermore, it outlines key differences between Yugoslav and Western Marxist understandings of agency, highlights frictions between different stakeholders in the construction process and explores the diverging post-socialist afterlives of self-management.

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Her research interests lie at the intersection of housing, socialist built environment, feminism, everyday life, and popular culture in (post-)socialist Yugoslavia.

https://doi.org/10.6092/issn.2611-0075/10608 | ISSN 2611-0075

Why Blok 5?

> I am moving to the smelly Blok 9 with my mom. That is a new ugly neighborhood built just behind Blok 5 where I live right now & Blok 5 is the best place ever on the planet.[1]

In the contemporary novel *Jana, just temporary in the Blok 9* by Sonja Ražnatović, a teenage girl from Podgorica mourns the move from an apartment in a highrise of the mass housing estate Blok 5 to an unfinished post-socialist Blok 9. Although the walking distance between Blok 5 and Blok 9 is barely 15 minutes, they seem to be worlds apart. Jana's contempt for Blok 9, a post-socialist urban development in Podgorica, is partly rooted in the trauma of her parent's divorce. It is however, also provoked by the contrast between socialist and post-socialist housing models.[2] On the one hand, the Blok 9 represents a "settlement without image & soul." As the narrator tells us, it suffers from a lack of meaningful public spaces as, "no kids hang out in front of the buildings with their bikes & skates, or play tennis in the recesses between the entrances… [n]o girls walk around in groups." On the other side, the "joyful, colorful, lively, optimistic" Blok 5 is Jana's idealized home.[3] Even with a dose of novelistic exaggeration, Blok 5 still enjoys a considerable reputation in Podgorica and resists the all-too-common stigmatization of mass housing estates.

A significant part of Blok 5's success story lies in an expedient legacy of self-management built in the project from the very beginning. Using Blok 5 as the specific case study, I discuss how self-management, an inherent ingredient of Yugoslav socialism, translated to the field of architecture, and more narrowly, mass housing, past the "golden era" of the 1960s and closer to late socialism.[4] By unraveling the entanglement of investors, architects, construction firms, as well as past and present residents, I make the case for a more sympathetic assessment of both late socialist architecture and self-management. **[Fig. 1]**

Why is Blok 5 so interesting for the study of self-management? Before the Second World War, Podgorica was a sleepy little town in provincial Montenegro. When in 1944 Yugoslav partisans liberated this shrunken, heavily damaged city, only 6 207 inhabitants were left.[5] The provincial town got a new name — Titograd — and the status of Montenegro's capital. By 1991, when the last all-Yugoslav census took place, the city had undergone a massive process of modernization and had grown to the size of 117 875 inhabitants — 18 times more

1 Sonja Ražnatović, *Jana, samo privremeno u Bloku 9* (Cetinje: OKF, 2016), 12. All translations are mine, if not otherwise stated.

2 For a more comprehensive analysis of post-socialist quarters in Podgorica and the example of City Kvart see Sonja Dragović, "From block to city, and back: post-1989 transformation of residential neighbourhoods in Podgorica," in *Three Decades of Post-Socialist Transition: Conference Proceedings*, eds. Nebojša Čamprag and Anshika Suri (Darmstadt: TUprints, 2019), 326-340.

3 Sonja Ražnatović, *Jana, samo privremeno u Bloku 9* (Jana, only temporarily in Block 9) (Cetinje: OKF, 2016), 13-14.

4 Hannes Grandits and Holm Sundhaussen, "Jugoslawien in den 1960er Jahren: Wider einen teleologischen Forschungszugang," in *Jugoslawien in den 1960er Jahren. Auf demWeg zu einem (a)normalen Staat?*, ed. Hannes Grandits and Holm Sundhaussen (Wiesbaden: Harrasowitz, 2013), 7.

5 Danilo Burzan, *Istorija Podgorice. Kronologija događaja* (History of Podgorica. Chronology of events) (Sektretarijat za kulturu i sport glavnoga grada Podgorica, Podgorica, 2016), 473.

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than in the aftermath of the Second World War.[6] Blok 5 was a certain crescendo of socialist modernization — the biggest mass housing project in Montenegro's capital up to that date. In 1975, an anonymous concourse for a mass housing neighborhood, departing from the urbanist design by Vukota Tupa Vukotić, was announced. **[Fig. 2]** The winner was Mileta Bojović, a 34 years old Montenegrin architect trained in Belgrade and France. The thirteen slabs and towers constituting Blok 5 in the west part of Titograd were built between 1977 and 1984. The Self-Managed Interest Group for Housing Titograd (*Samoupravna interesna zajednica stanovanja — SIZ Titograd*), identified as the main investor throughout the historical material, was an essential organ of self-management in the realm of housing since mid-1970s which pooled resources from the labor organizations, organized both concourse and the process of construction.[7]

Fig. 1

Blok 5, central area, undated. (Source: Mileta Bojović's personal collection)

Fig. 2

Blok 5, undated. (Source: Mileta Bojović's personal collection)

6 Burzan, Istorija Podgorice, 473–474.

7 Strictly speaking, the investor were workers financing the construction through their salaries, but here the term will be used for SIZ, the instance which collected and managed financial contributions.

Blok 5 was designed and built in a period when self-management was allegedly already in a downward spiral.[8] Situated in Yugoslavia's smallest republic, the complex did not get much attention beyond Titograd and it is still rather under-researched. A rich and ongoing engagement of both architect and the project with the concept of self-management is vital to the understanding of the project. Mileta Bojović was (and still is) very vocal and articulate about Blok 5's commitment to the idea of socialist self-management. I argue that the theory of Yugoslav self-management contributed to the architect's design in several aspects — most importantly to the understanding of the resident as an active member of the society whose agency is fostered through flexible apartment layouts and expressed in daring architectural forms. Finally, a peculiar afterlife of the estate highlights the long-lasting architectural legacy of self-management.

My analysis of the importance of Blok 5 for the architecture and legacy of self-management is predominantly based on archival materials, observations on the current state of the buildings, and the insights provided by the architect in a number of conversations I had with him and interviews published elsewhere. The analysis moves from an overarching conceptual and theoretical base as articulated in the competition entry, to the interpretation of plans and forms, and finally to the post-socialist afterlife of the neighborhood to tell the story of ups, downs, successes, unresolved conflicts, and unexpected turns in the history and present of the architecture in its relationship to self-management.

In terms of methodology, I am relying on a combination of 'thick description' and close reading. As famously outlined by Clifford Geertz, 'thick description' starts with a "general bewilderment", but not "intellectually empty-handed."[9] Educated guess, a mixture of assumptions and knowledge, is indispensably intertwined with the process of describing: we need to know in order to see. Geertz's plea "not to generalize across cases but to generalize within them" clearly states the value of a case study to the thick description.[10] Instead of entering a rather abstracted realm of large-scale models and theories, a case study grounds the concept more specifically in a context. Close reading is an interpretive practice "alert to the details of narrative structure" developed within the US-American school of New Criticism in the 1930s and 1940s.[11] It can be transposed to architecture in order to grasp the nuances on the level of the project, to pay attention to details such as phrasing in the main project and drawing details in the plans. By focusing on one case study I intend to explore the essential role of self-management in the realm of socialist mass housing in Yugoslavia — in enhancing the architecture's human aspects, while at the same time creating visually compelling built environments.

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8 Vladimir Unkovski-Korica, "Self-management, Development and Debt: The Rise and Fall of the 'Yugoslav Experiment'," in *Welcome to the desert of post-socialism: radical politics after Yugoslavia*, eds. Srećko Horvat and Igor Štiks (London: Verso, 2015), 21—44.

9 Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973), 26—27.

10 Ibid.

11 Jonathan Culler, *Literary Theory: A Very Short Introduction* (Oxford: Oxford University Press, 2000), 51.

Architectures of self-management

Until the outbreak of war in 1991, self-management constituted one of the key ingredients of Yugoslavia's homegrown variant of socialism. After the Tito-Stalin break in 1948, Yugoslav Party leaders were searching for alternative forms of socialism in order to counter the effective alienation from the USSR and other socialist countries. This resulted in the development of the Yugoslav 'third way' which had internal and external structure: in foreign policy leading to the Non-Aligned Movement peaking in the 1960s, and the concept of workers' self-management. "Social self-management extended rights of participation and management from the workplace to a myriad of social institutions and local self-government, passing authority, at least in theory, from career officials to elected groups of experts and citizens," writes Vladimir Unkovski-Korica, emphasizing the centrality of the workplace for participation.[12] In essence, workers became *de facto* owners of their workplaces, entitled to direct involvement in decision making processes in regard to planning and structuring of production. Although the practice of self-management stayed limited to Yugoslavia, the concept was extensively discussed as a theory and sparked a vivid interest among leftist parties across the world.[13]

Self-management was a dynamic concept which was restructured several times over the decades between the 1950s and the end of Yugoslavia. As a result of the market liberalization reforms in 1964 and 1965, enterprises and factories gained increasing autonomy and responsibility for investments; the reforms fostered the idea that, "workers share the destiny of their products" and, accordingly, get a fair share in company's profit.[14] However, first weak spots of the reform soon became visible: a rising unemployment rate, but foremost the growing influence of banks. As Unkovski-Korica shows, self-management was from early on "part of the regime's attempt to legitimize Yugoslavia's turn to the West" and economical liberalization.[15]

The 1974 Yugoslav Constitution introduced the term "associated labor" (*udruženi rad*) together with the Basic Organization of Associated Labor (*Osnovna organizacija udruženog rada*) as the basic arena of self-management, replacing the previous scale more strictly defined by the workplace (factory or firm). As a result, the relationships between organs of self-management formed a differentiated and complicated "contractual economy," characterized by slow, cumbersome bureaucratic procedures and blurred jurisdictions.[16] At the same

12 Vladimir Unkovski-Korica, *The Economic Struggle for Power in Tito's Yugoslavia: From World War II to Non-Alignment* (London and New York: Tauris, 2016), 13.

13 Benedetto Zaccaria, "Learning from Yugoslavia? Western Europe and the Myth of Self-Management (1968–1975)," in *Planning in Cold War Europe: Competition, Cooperation, Circulations* (1950s-1970s), eds. Michel Christian, Sandrine Kott, Ondrej Matejka (Berlin, Boston: De Gruyter, 2018), 234.

14 Dušan Bilandžić, *Historija Socijalističke Federativne Republike Jugoslavije: glavni procesi 1918-1985* (History of the Socialist Federative Republic of Yugoslavia: main processes 1918-1985) (Zagreb: Školska knjiga, 1985), 310–313.

15 Unkovski-Korica, *The Economic Struggle for Power in Tito's Yugoslavia*, 71.

16 Branislav Jakovljević, *Alienation Effects: Performance and Self-Management in Yugoslavia*, 1945-91 (Ann Arbor: University of Michigan Press, 2016), 13.

time, the comprehensive delegate system relied on the participation of several million elected citizens.[17]

Self-management started in the factories and was rather "slowly transmitted" to the field of urban planning and architecture.[18] Architects offered a variety of ideas for a self-managed built environments, from exhibition models[19] to radical techno-utopian propositions.[20] Most importantly, self-management incited institutional restructuring, turning from centralized, state institutions to smaller self-managed enterprises and research institutes.[21] Accordingly, Yugoslav mass housing apartments, the "most desired product of self-managed socialism," came in astonishingly diverse shapes and forms, bearing little resemblance to series implemented nationwide in most European socialist countries at the time.[22]

With the exception of a short initial period of centralized housing budgets (1945–1954), public housing was financed by the workers through a decentralized system of mandatory (*doprinos*) and voluntary contributions (*samodoprinos*).[23] Through a form of taxation—a percentage of their salary—workers were directly involved in funding public projects and infrastructure in their communities. The firms would purchase apartments and the workers were eligible to apply for occupancy through their workplace. In this way, the system offered tools for redistribution — workers with higher salaries would contribute more, while, in theory, those in need would get an apartment. In 1976, a new instrument of self-management was established: a Self-Managed Interest Group that would bring together interested parties (enterprises acquiring apartments for their employees, planners, construction firms, local municipality), define their obligations in a self-managing contract, pool investments, commission or purchase buildings, and distribute apartments among the workplaces. One such creation, the Self-Managed Interest Group for Housing Titograd, was the main investor for Blok 5.[24] While the conglomerates of this kind made large-scale projects possible in the first place, the dense entanglement of interests fostered bureaucratic nuisance and frictions stemming from an unclear division

17 Bilandžić, *Historija Socijalističke Federativne Republike Jugoslavije*, 446–447.

18 Zdenka Vasić, "Samoupravno planiranje (Self-managed planning)," *Urbanizam Beograda* 8, no. 37 (1976): 20.

19 Vjenceslav Richter built a 3D model of self-management shown at the Palazzo del Lavoro in Turin 1961. Vladimir Kulić and Maroje Mrduljaš, *Modernism In-Between: The Mediatory Architectures of Socialist Yugoslavia* (Berlin: Jovis, 2012), 43.

20 Another project by Richter, an utopian organization of dwelling into immense ziggurats, envisioned them as self-managing units, with an assembly hall (capacity: 6 000 people) for a "referendum-plebiscitary" decision making. Cfr. Vjenceslav Richter, *Sinturbanizam* (Synthesis Urbanism) (Zagreb: Mladost, 1964), 87.

21 Cf. comprehensive research activities at the Housing Center founded in the 1970s by the Institute for the Testing of Materials in Belgrade. Kulić and Mrduljaš, *Modernism In-Between*, 28–29; Mrduljaš, "Architecture for a Self-Managing Socialism," 48—50.

22 Mrduljaš, "Architecture for a Self-Managing Socialism," 48.

23 For a more detailed account on the housing policy prior to 1976 see Shaun Topham, "Housing Policy in Yugoslavia," in *Housing Policies in Eastern Europe and the Soviet Union*, ed. John A. A. Sillince (Abington: Routledge, 1990), 402—439.

24 Others were of military background — Yugoslav People's Army (JNA) and the Army Postal Service.

of responsibility among its actors.[25] In theory, employees had a right to housing, but in practice their rights were met with varying (construction) speed: while some enterprises purchased plenty apartments for their workers, others were not as eager to fulfill their responsibilities.[26] Nevertheless, the scope of mass housing construction in socialist Yugoslavia remains impressive: more than 3.6 million dwelling units were built between 1945 and 1983, more than 70% of the housing stock.[27] Considering the starting point of socialist Yugoslavia in 1945 — a predominantly rural country with heavily damaged housing stock and poor urban infrastructure — the self-management approach to housing was indisputably providing palpable results.

Financing was an a continuously contentious issue. Already in 1957, Edvard Kardelj, the chief architect of the self-management system, linked the increasing autonomy of local communities (*m(j)esne zajednice/stanovanjske skupnosti*) to the mobilization of private funds and argued for a solid self-participation with occasional help of the commune.[28] Disputes between construction firms, municipalities, and enterprises regarding construction costs were followed by tensions between municipalities and local communities around the payment for housing maintenance. After the economic reform in 1965 and market reconfiguration, Kardelj acknowledged the growing "problem of financing" in the neighborhoods, but did not offer any definite answers beyond a vague remark on the need for a flexible, context-dependent distribution of financial burden between local communities and municipalities.[29] Changes surrounding the new constitution in 1974 laid ground for a transformation in the role of the planners from the "main agents" to the "expert services for the subjects of planning".[30]

Theoretically articulated and introduced in a "top-down spirit," Yugoslav self-management was not without internal contradictions from its very beginnings.[31] Serious misconducts and abuse of power in everyday self-management are well-documented.[32] The subject was never exactly the individual. S/he became one by being a worker and engaging in the self-managing units at the workplace or in the local community; the status had to be activated through the process designed "to harness but also channel and limit popular participation."[33]

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25 Cf. the critically acclaimed Split 3, a neighborhood built in the 1970s on the Adriatic coast, and the role of the Enterprise for the Construction of Split (*Poduzeće za izgradnju Splita*) in planning and building process. Even this success story was not devoid of frictions between architects, construction firms, and investors, as architect Frano Gotovac vividly recalled. Višnja Kukoč, "Split 3," in *Soseske in ulice: Vladimir Braco Mušič in arhitektura velikega merila,* ed. Luka Skansi (Ljubljana: MAO, 2016), 92—165; Vesna Perković Jović, *Arhitekt Frano Gotovac* (Architect Frano Gotovec) (Split: Sveučilište u Splitu, 2015), 124—129.

26 For example, Jugovinil, a major Yugoslav plastics factory based in Split, purchased just three apartments in the period of five years (1965–1969). Slobodan Bjelajac, *Bespravna stambena izgradnja u Splitu: sociološka studija* (Illegal housing construction in Split: a sociological study) (Split: Urbanistički zavod Dalmacije, 1970), 54.

27 Topham, "Housing Policy in Yugoslavia," 403—407.

28 Edvard Kardelj, *Problemi naše socialistične graditve. Knjiga V* (Problems of our socialist construction. vol. V) (Ljubljana: Državna založba Slovenije, 1963), 91.

29 Edvard Kardelj, *Problemi naše socialistične graditve. Knjiga VII* (Problems of our socialist construction. vol. VII) (Ljubljana: Državna založba Slovenije, 1968), 274.

30 Vasić, "Samoupravno planiranje," 20–21.

31 Unkovski-Korica, "Self-management, Development and Debt," 23.

32 Bilandžić, *Historija Socijalističke Federativne Republike Jugoslavije*, 449—450.

33 Unkovski-Korica, "Self-management, Development and Debt," 25.

Decentralization and self-management also "strengthened horizontal struggles between republics at the expense of vertical struggles between the state as employer and the working class," a tension that escalated in the context of the nationalist crisis of the so-called Croatian Spring and eventually led to the deepening of the "confederalising federalism."[34]

Nevertheless, the example of Blok 5 shows not only one imperfect and oscillating variety of implemented self-management, but also serves as a proof for its vitality in late socialism and beyond, contrary to the models constructing the period between 1976 and 1991 as the most faulty and dysfunctional period in the development of socialist self-management[35] characterized by the "widening gap between practice and theory."[36]

Ideal commitment to self-management

The urbanist solution by Vukota Tupa Vukotić, produced in 1975 as a base for the Blok 5 concourse, was diligently planned and implemented, did not bring much fresh air into the concept of a mass housing estate. The outline of the neighborhood did not significantly depart from the already heavily criticized and largely abandoned commonplaces of high modernist planning. However, the plan still made more space for the crucial infrastructure for a self-managing commune — public amenities provided on the level of the local community such as an elementary school, kindergarten, community health center, lush and plentiful green surfaces, and small shops on the ground floor of apartment buildings.

The common practice in Yugoslavia of organizing architectural competitions for a vast array of projects paralleled the spirit of self-management by opening up the realm of design to a wide range of professional agents and ideas. Instead of a centralized institution designing major projects, the competitive framework fostered a diversity of projects and more architects could participate. Bojović named his competition entry *Praxis*. Already the entry title gives important clues about the theoretical scaffold and sets out a very specific stage for Blok 5.

In Yugoslav context, *Praxis* was first and foremost known as a group of Marxist philosophers set out to push Yugoslav socialism more to the left. Starting in 1964, they published an eponymous journal and cultivated ties with western Marxists, culminating in famed summer schools on the island of Korčula, a unique Cold War meeting point for European Marxists. Henri Lefebvre, Herbert Marcuse, Erich Fromm and Jürgen Habermas met not only Yugoslav philosophers like Rudi Supek, Zagorka Golubović, Gajo Petrović and Mihailo Marković, but also intellectuals from other socialist countries. Similar to the ideological reassortment of socialist Yugoslavia after 1948, *Praxis* followed the ideas of early Marx and, with a pinch of existentialism, sought for a humanist socialism

34 Unkovski-Korica, *The Economic Struggle for Power in Tito's Yugoslavia*, 223.

35 Unkovski-Korica, "Self-management, Development and Debt", 38-42.

36 Rory Archer, "Imaš Kuću — Vrati Stan. Housing Inequalities, Socialist Morality and Discontent in 1980s Yugoslavia," *Godišnjak za društvenu istoriju* 20, no. 3 (2013): 120.

resistant to alienation, based on a new validation of the individual asking for a radically democratized self-management. In effect, this made them "Marxist heretics in a socialist country whose hallmark has been the rejection of Marxist dogma."[37] From the perspective of the Yugoslav League of Communists, the Praxis group, although fairly heterogeneous and confined to the academia, posed a possible threat to the ideological authority of the ruling apparatus. In the context of growing authoritarianism emerging as a response to the events of the Croatian Spring in 1971 (a call for more decisive decentralization, but also inextricably connected with nationalist positions and separatism), the Praxis movement was repressed in the 1970s.[38] The publication of Yugoslav issue of *Praxis* ended in 1975, several university professors from the group were suspended and eventually lost their jobs.

Choosing the name *Praxis* for a competition entry in the very year of the practical *Praxis*-ban, was bigger than a casual *homage*; Bojović sent a clear message and aligned his project with Marxist humanism.[39] Not surprising in the context of the peculiarly liberal Yugoslav variant of socialism, this provocative statement did not stand in the way of winning the competition. Born in the hilly northern Montenegro, Bojović studied architecture in Belgrade, moving to Paris in 1964 to continue his education — first at the architectural practice of Jean Faugeron in Nancy (1964–1969), then at the Institute for Urbanism in Paris (1967–1969). As Henri Lefebvre's doctoral student in the 1970s, he was well-informed about Western Marxism and urban sociology. His dissertation project at the Paris X Nanterre University, *Urbanism and Architecture in Yugoslavia between Self-Management and the Withering Away of the State*, was devoted to his ongoing focus — the possibilities of a self-managing architecture. Although the thesis remained unfinished and Bojović returned to Montenegro in 1978, his work continued to be dedicated to self-management. His abandonment of pure theory, partly motivated by external circumstances (Lefebvre's retirement), opened a path for more applications in praxis, most thoroughly in Blok 5. "To offer a project solution which enables, within the conditions of our economical, social and cultural development, to realize basic propositions of social self-managing orientation in the domain of housing" was prominently placed among main project goals of Blok 5.[40]

One could interpret commitment to *Praxis* in its literal meaning — of practice (in this case, of housing). This would also mean close contact with future residents, as initially imagined by the architect, an unalienated building model, *Praxis* members would argue. As Bojović stated in the project description, "Conducting preliminary surveys, including future residents in the planning (which unfortunately did not take place this time) and implementation stages of the building

37 Gerson S. Sher, *Praxis. Marxist Criticism and Dissent in Socialist Yugoslavia* (London and Bloomington: Indiana University Press, London, 1977), xi.

38 Cf. Bilandžić, *Historija Socijalističke Federativne Republike Jugoslavije*, 438–445.

39 Mileta Bojović, conversation with author, February 26, 2019 .

40 Main project, Republički Zavod za Urbanizam i Projektovanje, Podgorica.

process, as well as creating conditions for active relationship towards built environment, all produce conditions under which residents truly effect the formation of their lived space."[41]

In order to include prospective residents more substantially in the planning process, they have to be known before the construction starts. Through the reform of financing structure for mass housing in the 1970s, the conglomerate of interested investors pooled the funds and commissioned apartments (or purchased them on the market) to be distributed among a number of employees. Therefore, it was possible to tailor the process in order to make the connection between prospective residents and architects. This approach was wholeheartedly supported by Yugoslav urban sociologists who made a case for a decisive centering of the "known user" in the construction process as a crucial gesture of humanization.[42]

The term 'user' is a commonplace of modern architecture. As Adrian Forty showed in his critical vocabulary of modern architecture, "user" in a sense of an unknown, abstract, universal resident, was an approximation based on the average demographic characteristics, popular in European welfare states in the late 1950s and 1960s.[43] Forty interprets the inflation of the term as a part of the architect's self-understanding as a contributor to the (underprivileged) citizens, while actually working for the state.[44] Departing from the context of the French welfare state after the Second World War, Nicole Rudolph showed how, following the rise of urban sociology, the designation "user" was replaced by the term "inhabitant", encapsulating in the process more agency for the residents.[45] A category of the "known user" in Yugoslav socialism was in a way a middle ground between Forty's 'user' and Rudoph's 'inhabitant': it could be used as a parameter in decision on the general size and type of apartments, but it could, as in the case of Blok 5, be interpreted as a request for more thorough communication with individual residents.[46]

At the core of the conflict between the architect and the investor lies the question of the subject. If we transpose the concept of a state that has to wither away (the bottom-up self-organizing intended to disperse the power structures on the top) to architecture, does it mean that the architects will be ultimately replaced by residents? While Bojović definitely sees the resident as a key interlocutor, in the vision of the existent socialism the 'associated labor' or the initiator of the project has the last word.

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41 Ibid.

42 Dušica Seferagić, *Kvaliteta života i nova stambena naselja* (Life quality and new residential settlements) (Zagreb: Sociološko društvo Hrvatske, 1988), 89-90.

43 Adrian Forty, *Words and Buildings: A Vocabulary of Modern Architecture* (London: Thames&Hudson, 2000), 312.

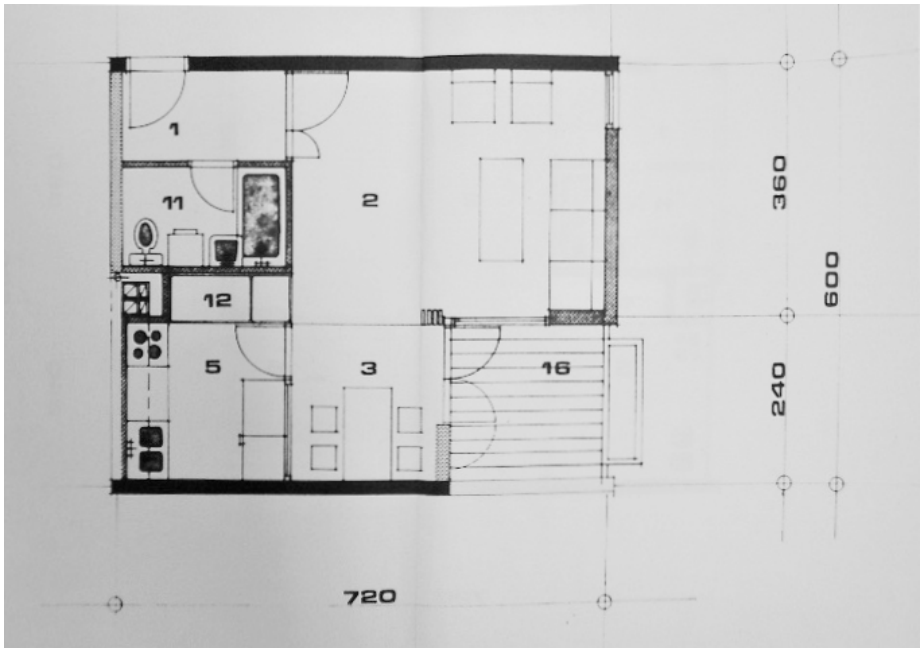
44 Forty, *Words and Buildings*, 314.

45 Nicole C. Rudolph, *At Home in Postwar France: Modern Mass Housing and the Right to Comfort* (Oxford and New York: Berghahn, 2015), 151.

46 This approach was followed in Split 3 — the Enterprise for the Construction of Split surveyed interested workplaces to get an idea of preferred apartment features and sizes. Poduzeće za izgradnju Splita, *Split 3: problematika, analiza, dileme* (Split 3: problems, analysis, dilemmas) (Split, 1973), 49-50.

Layout

If one is to single out the aspect of the project for Blok 5 most committed to the core values of self-management, it would be the apartment floor plans. Through the reduction of load-bearing walls to the necessary minimum—a skeletal structure—the majority of partitions became optional and flexible. This was visually articulated in the drawing of layout types, as the examples of a *garconniere* and a 2-and-a-half-bedroom apartment show. [Figs. 3-4]



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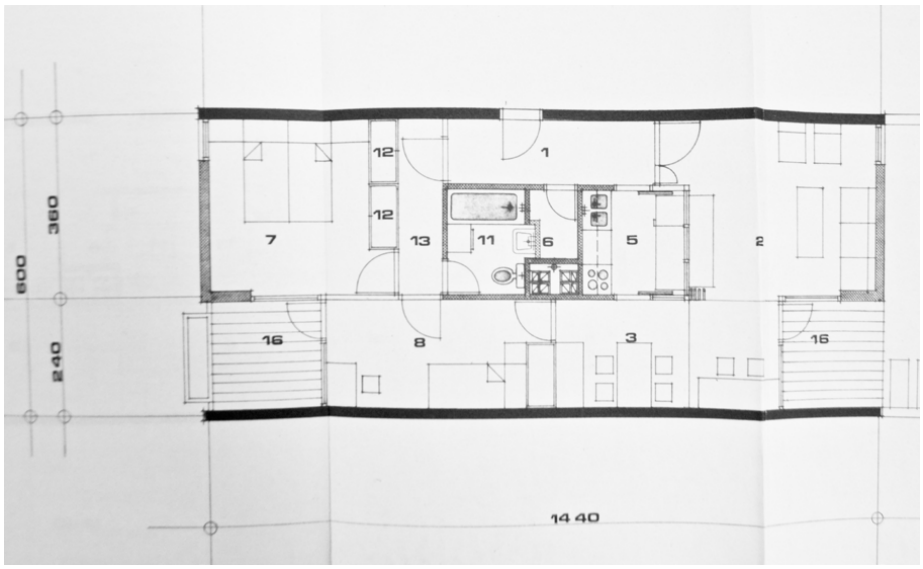

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The walls around the bathroom were hatched in the plans, while other spatial divisions were drawn with thin lines, which indicated that they were the architect's suggestion rather than a definite outline.[47] Unspecified bedroom names

Fig. 3
Garçonnière G', building D3, 1978. (Source: State Archives of Montenegro, Podgorica)

Fig. 4
Two and a half room apartment D 1/2, building D3, 1978. (Source: State Archives of Montenegro, Podgorica)

47 Apartment layouts G1 and D 1/2 in Blok 5, building D3, August 1978, SO-Titograd-19786, box 126, SO Titograd fonds, State Archives of Montenegro, Podgorica, Montenegro.

('room 1' and 'room 2' in the two and a half room apartment) instead of the usual children's room and spousal room gave residents freedom to designate rooms as they wished. Only the shift in flooring — parquet in all rooms except kitchen, entrance, and bathroom (finished in ceramic tiling) — suggested where the architect divided, for example, the kitchen from the dining area. The apartments did not follow the ascetic formula of *Existenzminimum* — bathtubs instead of showers in the bathroom, a built-in wardrobe in smaller apartments or walk-in closets in bigger rooms allowed for greater spatial comfort.

The aim of "maximum flexibility" was enhanced by the use of the structural spans of 580 cm, which were unusually large in residential architecture in Titograd.[48] This span provoked resistance from construction companies (according to Bojović "literally everybody who worked in this field in Montenegro"),[49] but it was crucial to enable considerable spatial flexibility for the residents. Spatial flexibility was a common modernist trope that by the mid-century mutated into the visions of total flexibility in a variety of 1960s techno-utopias, such as those by Yona Friedman and the Situationist Constant Nieuwenhuys. The latter had been in close contact with Lefebvre, Bojović's supervisor, and it is plausible that Bojović's radical explorations of flexibility were in part galvanized by his training in France. Such pushing of structural limits could also be interpreted more broadly as an unavoidable effort in pursuit of a self-managing built environment. Or, as Bojović commented recently: "My starting point was that all the building materials had to be used functionally, that the structure had no elements that did not contribute to its stability. Let's say that I wanted all members of society and all parts of the house to be active and functional."[50]

Following the earlier, simpler mass housing systems such as Jugomont's JU-59, JU-60, and JU-61, the push for flexibility in design emerged as a pan-Yugoslav phenomenon also explored in other contemporaneous instances, such as the housing estates Blok 19a and Cerak-Vinogradi in Belgrade.[51] We see the same trend in Blok 5 where in just one building with two hundred and twenty four apartments (D3 in the north-west corner of Blok 5), twenty seven different layouts were employed, spanning from a 36,78 m^2 *garçonnière* to a 116,16 m^2 four-room-apartment. A two-room-apartment appeared in no less than six variations, predominantly differing in orientation and a portion of terrace or *loggia*.[52] Due to "total typification of the structural system," and design's partial reliance on traditional construction methods, however, "the building was still compatible

48 Main project, Republički Zavod za Urbanizam i Projektovanje, Podgorica.

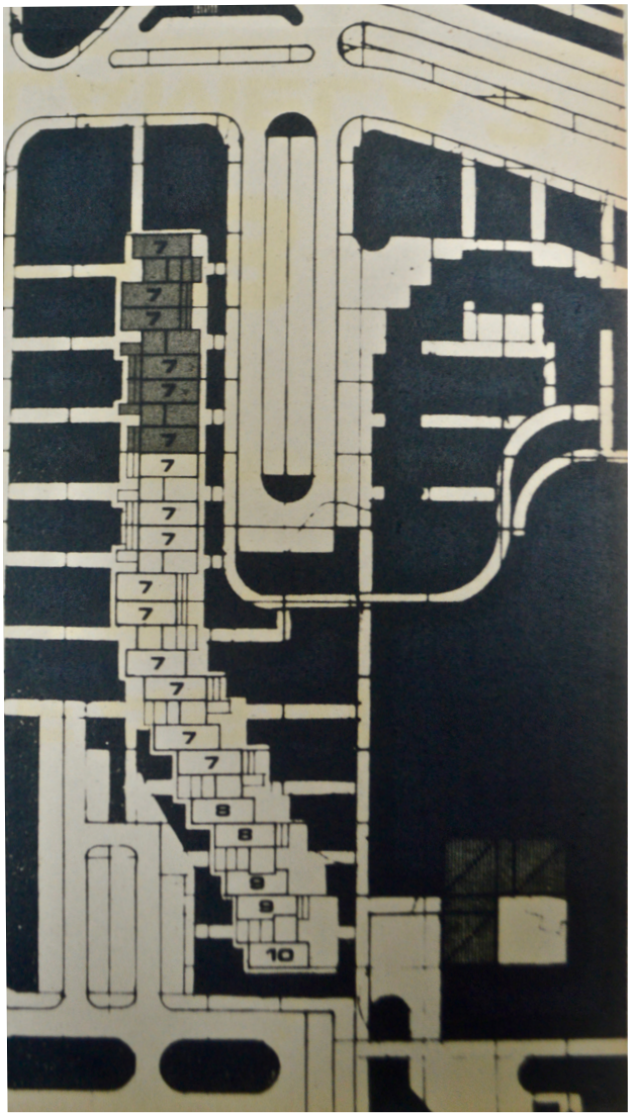
49 Sonja Dragović, "Budite realni — tražite nemoguće! Razgovor s autorom arhitektonskog rješenja Bloka 5: arh. Mileta Bojović (Be realistic — ask for the impossible! A talk with the author of the Blok 5 architectural solution: arch. Mileta Bojović)," in *Pristup izradi planskog dokumenta: Učešće javnosti u planiranju Bloka 5 u Podgorici*, ed. Milica Vujošević, Jelena Rabrenović and Sonja Dragović (Podgorica: KANA, 2017), 24.

50 Ibid.

51 Tamara Bjažić Klarin, "Housing in Socialist Yugoslavia," in *Toward a Concrete Utopia: Architecture in Yugoslavia*, 1948—1980, ed. Martino Stierli and Vladimir Kulić (New York: MoMA, 2018), 95.

52 List of layout types in Blok 5, building D3, "Stanovi (struktura i površine) [Apartments (Layouts and Surface Areas)]," 3 January 1979, SO-Titograd-19786, box 126, SO Titograd fonds, State Archives of Montenegro, Podgorica, Montenegro.

with prefabrication employed in mass housing."[53] By allowing coexistence of prefabricated and hand-crafted construction, Bojović acted as a mediator "between the pragmatic means and the ethical goals of socialist modernization."[54] Thereby, he assumed the role and responsibility for considering both the capacities of the local construction industry as well as the overall economical situation.



Bojović's offer to to assist in adapting the plans for specific family situations was ultimately not communicated to future residents due to the rejection by the Self-Managed Interest Group for Housing. Siding with Bojović, local press wholeheartedly embracing "the idea of an open apartment, a flexible space where the particularities of the solution are left to the user" and expressed regret that this approach was "unacceptable" to the Interest Group.[55] This friction can be seen as a case of disrupted communication and conflicting interests between different actors in the process of self-managed building. Unlike the architect, the Interest Group was not willing to put additional effort into the already administratively burdensome process and, as a consequence, the full unfolding of the open plan was obstructed in practice. However, according to Bojović, some residents indeed reached out and he made adjustments to their apartments.[56] One could say that, within the framework of informal "economy of favors," they were awarded for their initiative.[57] In turn, self-management in this case did not mean withering away of the architect.[58] On the contrary, the architect was more present than ever and the process of design was envisioned as a closer, more focused collaboration between residents and architects, connected with a necessary loosening of the hierarchies between experts and practitioners.

Form as a metaphor of self-management

Blok 5 still stands out in the cityscape of Podgorica, not least because of its striking facades. Through asymmetric, visually rich, relief-like fronts they com-

53 Main project, Republički Zavod za Urbanizam i Projektovanje, Podgorica.

54 Maroje Mrduljaš, "Architecture for a Self-Managing Socialism," in Toward a Concrete Utopia: Architecture in Yugoslavia, 1948—1980, ed. Martino Stierli and Vladimir Kulić (New York: MoMA, 2018), 41.

55 Slobodan Vuković, "Stan po mjeri čovjeka (A man-sized apartment)," *Pobjeda*, 4236, February 4, 1979, 3.

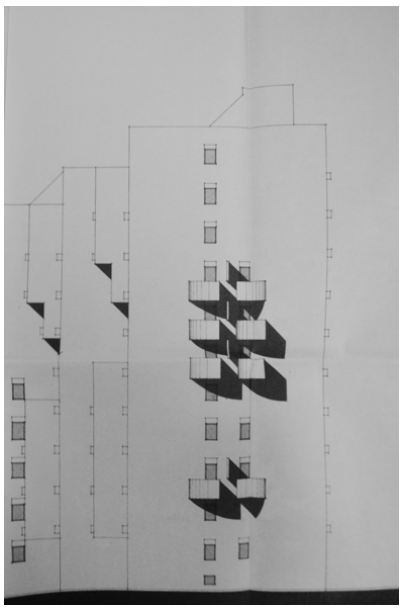
56 Mileta Bojović, conversation with author, February 26, 2019 .

57 Cf. Alena Ledeneva, *Russia's Economies of Favours: Blat, Networking and Informal Exchange* (Cambridge: Cambridge University Press, 1998).

58 Cf. Cerak-Vinogradi housing estate (1977–1987) and similar dedicated presence of architect Milenija Marušić in the development of customized flexible-plan schemes for various family structures and scenarios.

Fig. 5

Building D3, 1978. (Source: State Archives of Montenegro, Podgorica)



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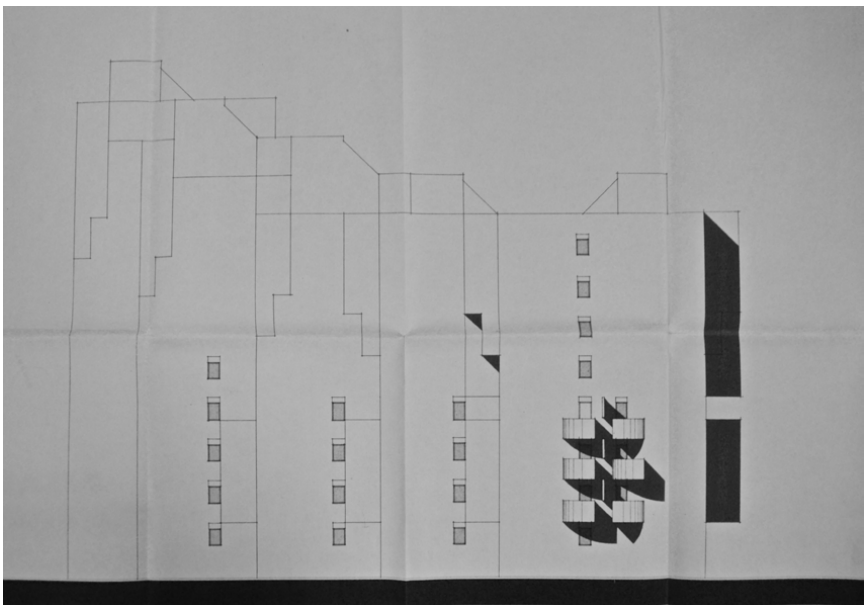

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municate a symbolical image of diversity and individuality, a counterpart to the still lingering and pervasive stereotype of mass housing estates as monotonous and repetitive. Metaphorical and speculative explorations of self-management proliferated in Yugoslav techno-utopian projects of the 1960s: their main strength was speculative, radical spatial thinking.[59] However, even the realized projects were more often than not quite ambitious and visually distinguished, despite all their unavoidable imperfections and hybrid results.[60]

To explore the dense imagery of self-management in Blok 5, I will take a closer look at just one building — a randomly selected slab named D3 in the northwestern part of Blok 5 **[Fig. 5]**. The height of the building varies between seven floors on the northern, and ten on the southern side. No two house fronts were designed identical or symmetrical in regard to any axis — balconies with the layout of a quarter of a circle and rectangular niches bring ongoing visual dynamics into the picture.[61] A thin wall partition between the balconies on the same level gave some privacy to the residents. A provision was made for three pairs of balconies on the north façade, while on the south facade, the balconies start on a higher floor (in comparison to the north façade) and the distance between balcony clusters has two instead of one floor. Again, they were arranged in a manner that did not follow a legible, uniform pattern of symmetry or mathematical order. The same principles — variations, expressive plasticity — can be found on the west and east house front. **[Figs. 6-7]**

59 Cf. theoretically ambitious, sophisticated unrealized projects such as Vjenceslav Richter's *Sinturbanizam* and later works, as well as Andrija Mutnjaković's experimental housing projects. In Western Europe, Situationist International worked on the emancipation of the individual in a similar techno-utopian ductus. Maroje Mrduljaš, Vladimir Kulić, "Richters Synthurbanismus. Die erweiterte Synthese: Urbanismus, Kunst, Politik," in *Ein rebellischer Visionär: Retrospektive Vjenceslav Richter*, ed. Gudrun Danzer (Graz: Neue Galerie Graz and Universalmuseum Joanneum, 2018), 68—69.

60 Some notable examples built in the 1970s and 1980s include the mass housing estate BS-3 in Ljubljana, the formal richness and urbanist innovativeness of Split 3 on the Adriatic coast, the variations of New Belgrade blocks (19A, 61-64), and the terraced settlement Đuro Đaković in Sarajevo.

61 Projects for north and south facade in Blok 5, building D3, November 1978, SO-Titograd-19786, box 126, book 5, SO Titograd fonds, State Archives of Montenegro, Podgorica, Montenegro.

Fig. 6
D3, north facade, 1978. (Source: State Archives of Montenegro, Podgorica)

Fig. 7
D3, south facade, 1978. (Source: State Archives of Montenegro, Podgorica)

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The facade design seems to tell a story of ideal-typical self-management. A daring construction with protruding consoles could stand for materialized concept of efforts necessary in a society shaped by all of its members. In accordance with the ideals of community, equity, and social welfare in socialism, everyone carries the burden of the system and is actively involved in the process [Fig. 8]. Bojović's construction was increasingly perceived as too risky; the final permission came only after an intra-Yugoslav arbitrage process in which Macedonian engineers, leading Yugoslav experts for earthquake-resistant construction, gave the green light.[62] The construction site also passed the unexpected test of the 1979 earthquake without significant problems. However, minor concessions to the doubts of local architects and engineers were made — the height of the towers was reduced by four floors, the slabs lost 1–2 floors in the final version.[63]

It is important to note that the resistance to Bojović's initiative did not come from the politicians, but from his colleagues. As he puts it: "The concept of Blok 5 in the self-managing system required a major spatial intervention, against what could have resulted in monotony, die-cutting, prefabrication, and formal simplification. In other words, it could have meant forcing buildings, apartments, and residents all into the same mold. My ambitions were contrary to all that. I wanted to individualize the structures and to produce distinctive buildings and neighborhoods. Luckily, this vision was accepted and supported, but not by my colleagues – builders, planners, and architects – but by politicians. It was a paradox of sorts that the politicians in the era of self-managing socialism were more progressive, more advanced than the rest of us, whether users, urban designers, or planners."[64] Together with other examples from socialist urbanities,

62 Dragović, "Budite realni — tražite nemoguće," 24.

63 Ivan Jovićević, "Blok 5 u Podgorici — istorijat i značaj (Block 5 in Podgorica — history and meaning)," in *Pristup izradi planskog dokumenta: Učešće javnosti u planiranju Bloka 5 u Podgorici*, ed. Milica Vujošević, Jelena Rabrenović and Sonja Dragović (Podgorica: KANA, 2017), 15.

64 Dragović, "Budite realni — tražite nemoguće," 20.

Fig. 8

D3, east facade (detail), 1978. (Source: State Archives of Montenegro, Podgorica)

this case sheds a new light on the allegedly politically hindered agency of professionals under socialism.[65]

The fine balance between the individual and the collective—one of the socialism's core issues—was found in the idea of unity in diversity, a recognition of both variations in households and the need to incorporate them into a bigger whole. As Shaun Topham observes, "such an elaborate system [self-management in the realm of housing] requires strong participation all round to make it work."[66] The architect pushed the limits of the materials and technologies available not for the sake of the experiment or to break records, but in order to offer maximum flexibility and comfortable spaces to the future residents. Through their contributions, workers stretched their financial resources and financed such ambitious construction projects. The future residents were expected to act as active members of the community. In this case, it was the self-managing agency in charge of coordinating such actions, the SIZ, fell short of the ambitions.

Furthermore, the architect made an effort toward a fair distribution of space among residents. Ground floor apartments were compensated for the possible lack of privacy through access to gardens in front of the building. The niches and balconies were distributed as evenly as possible; if an apartment did not have a balcony on the north or south, it got a niche.[67] Diversity did not go hand in hand with inequality, as was sometimes the case in the context of Yugoslav mass housing.[68]

However, varied facades were not co-created with the residents as a micro-unit in self-management, but were entirely a product of the architect's design. One of the imaginable alternatives would be the inclusion of future residents in the final works, or, as proposed by Andrija Mutnjaković in his speculative project for one of New Belgrade's neighborhoods, a fortunate union of "personal joy and engagement of individual means."[69] The example of Blok 5 makes clear how self-management in practice can dive to different depths, and can fill in the space between a consequent *laissez faire* ethos in regard to the residents and the authoritative presence of the architect.

From the 1990s through the present, the facades ultimately acquired unforeseen additions. Many buildings got suprastructures (*nadogradnje*) — additional floors, enclosures of balconies etc. The slender dividing walls between balconies on the north facade in all but one case lost their initial function of subtle sight

65 Cf. Brigitte Le Normand, *Designing Tito's Capital: Urban Planning, Modernism, and Socialism in Belgrade* (Pittsburgh: University of Pittsburgh Press, 2014) and Virág Molnár, *Building the State: Architecture, Politics, and State Formation in Post-War Central Europe* (Routledge: Abingdon and New York, 2013).

66 Topham, "Housing Policy in Yugoslavia," 417.

67 Mileta Bojović, conversation with author, February 26, 2019.

68 Archer, "Imaš kuću — vrati stan," 121.

69 Andrija Mutnjaković, *Biourbanizam* (Biourbanism) (Rijeka: Izdavački centar Rijeka, 1982), 143.

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protection and plastic articulation; they became incorporated in apartments as an outer wall **[Figs. 9-10]**. Some of the balconies on the highest level got a roof and a series of plastic window frames of varying sizes were added. As Dubravka Sekulić states in the case of Belgrade, the practice of *nadogradnje*, at least in the early post-socialist period, was embraced "equally by those hunting for profit and by those following vital interests."[70] Worried about the structural stability of the buildings and with a continuing sense of responsibility for Blok 5, Bojović appeared on public TV at his own initiative to warn against such interventions, but to no avail.

Commenting on the informal construction in Kaluđerica, the biggest informal settlement in former Yugoslavia, Džokić, Neelen, and Milikić pose a provocative dilemma — "is Kaluđerica the top or the bottom of the philosophy and practice

Fig. 9

D3, north facade, February 2019. (Photo: Lea Horvat)

Fig. 10

D3, west facade, February 2019. (Photo: Lea Horvat)

70 Dubravka Sekulić, "Legitimacy and the Extralegal: Expanding the Thin Line Between Legal and Illegal in the Densification of Post-Yugoslav Cities," in *Nadogradnje: Urban Self-Regulation in Post-Yugoslav Cities*, ed. Sven Quadflieg and Gregor Theune (Weimar: M Books, 2015), 135.

of self-management, acclaimed in Yugoslav times?"[71] In a way, such "making do" was essential to Yugoslav socialism in general and widely tolerated by the government — from informal housing to labor migration to Western Europe.[72] From this point of view, the interventions and the initiative of the builders may be understood as an afterlife of the zest of action, the drive of the ongoing revolution self-management was so eager to spark. Spectacular facades with cubic niches which jut out were questioned already during the construction period as a potentially overstretched and therefore dangerous element. With additional, unforeseen weight, the danger is growing and an additional weight is put on the infrastructure.

Overstretching, pushing its own limits in order to be an active part of the whole society, an ideal essentially shaped by the self-managing ethos underwent a significant neo-liberal turn in the post-socialist period. The limits were not pushed for the society or community, but for the individual to prosper and profit, in direct and violent opposition to the ideals of solidarity and social welfare in socialism. Still, the buildings absorbed this unplanned activity quite successfully — up to this date without deadly victims and dramatic collapses — socialist mass housing proves to be much more resilient and durable than its harshest critics expected.

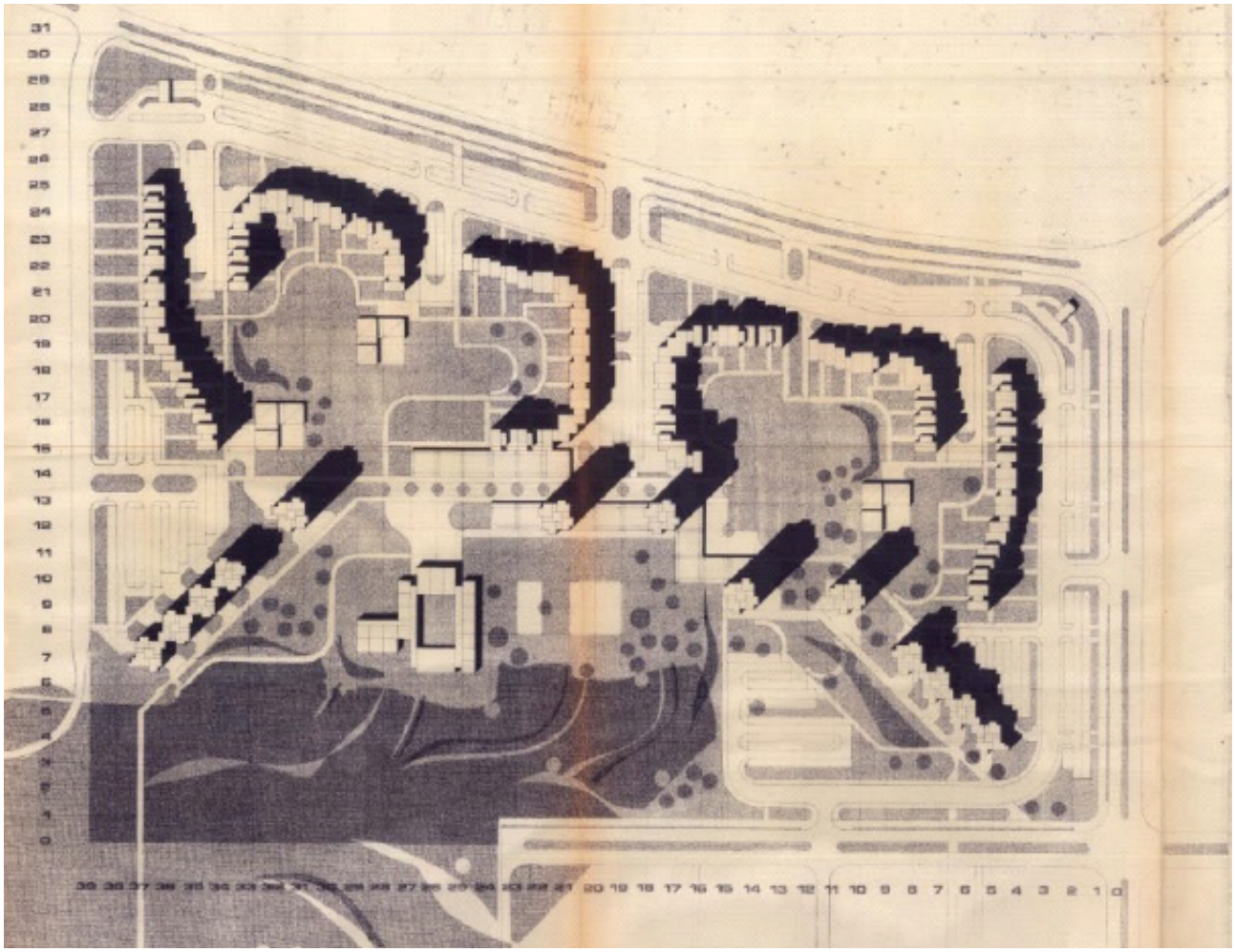
According to the architect, the building scape of facades should be reminiscent of the mountainous landscape so characteristic of Montenegro. Uneven massifs, variations in height and width, dramatic peaks and recesses do indeed bear resemblance with the topography of the mountains. Bojović's other projects — like Grudska Mahala in Nikšić, Montenegro — also contain a strong regionalist note and take local architectural heritage into account. Nurturing regionalist tendencies was in tune with the growing decentralization of Yugoslavia and the idea that republics could largely be self-managed was pushed even further in the 1974 constitution.

At the same time, dramatic "concrete baroque" was rather common in major mass housing estates across Yugoslavia, such as the "Sails" in the Bloc 63 in New Belgrade and "Cruiser Ship" in Split 3.[73] Finally, a comparable formal ductus was also found on the international architectural scene; most prominently articulated in Habitat 67 by Moshe Safdie and its exclusive elite apartments. Titograd as a capital of the smallest republic was at the same time peripheral enough to nurture its own tradition of informal, anonymous architecture and central enough to have a palpable connection with the national and global developments. As in the case of the prominent Montenegrin architect Svetlana Kana Radević and her work between Philadelphia, Tokyo, and Montenegro,

71 Ana Džokić, Marc Neelen (Stealth. Unlimited) and Nebojša Milikić, "Kaluđerica From Šklj to Abc: A Life in the Shadow of Modernisation," in *Unfinished Modernisations: Between Utopia and Pragmatism*, eds. Maroje Mrduljaš and Vladimir Kulić (Zagreb: Udruženje hrvatskih arhitekata, 2012), 291.

72 Michel de Certeau, *The Practice of Everyday Life* (Berkeley and Los Angeles: University of California Press, 1988), 29—42.

73 Tanja Damljanović Conley and Jelica Jovanović, "Belgrade Residential Architecture 1950-1970: A Privileged Dwelling for a Privilege-Free Society," in *Unfinished Modernisations: Between Utopia and Pragmatism*, eds. Maroje Mrduljaš and Vladimir Kulić (Zagreb: Udruženje hrvatskih arhitekata, 2012), 302.



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Bojović's path from Montenegro to Belgrade, Paris and back "contravenes the dichotomies of centre and periphery," and establishes "the architect as a mediating force across societal registers."[74] Radević's and Bojović's remarkable paths and multifarious projects effectively counter a stereotypical perception of Montenegro as poor, static backwater of Yugoslavia, a periphery of periphery, and showcase the transformative potential of self-management (especially) in decentralized regions.

To be continued?: self-management in post-socialist times

In recent years, Blok 5 became a showplace and a contested arena for citizens exercising their spatial rights and agency. Although the urbanist solution for Blok 5 did not bring striking innovations in the spatialization of self-management, it created a solid base and standard equipment for self-management on the level of the commune. Its most distinctive feature was a generously sized Mediterranean park-forest in the southern part [Fig. 11]. When, in 2017, plans to build a 22-storey skyscraper in the park-forest of Blok 5 were announced, locals vocally protested against the project. Under the motto "The block is ours! It's up

Fig. 11

Detailed urbanist plan for Blok 5 by Vukota Tupa Vukotić, 1976. (Source: Milica Vujošević, Jelena Rabrenović, Sonja Dragović (eds.), *Pristup izradi planskog dokumenta: Učešće javnosti u planiranju Bloka 5 u Podgorici*, 2017, 14.)

74 Anna Kats, "Svetlana Kana Radević (1937-2000)," *The Architectural Review*, March 13, 2020, https://www.architectural-review.com/essays/reputations/svetlana-kana-radevic-1937-2000/10046572.article

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to you, too!" (*Blok je naš! I ti se pitaš!*), a small local NGO KANA ("Who if not the architect") started a campaign to bring more transparent, accessible information about the project to the citizens, to encourage residents to know their rights and make use of them, and to facilitate a more participative debate.[75] **[Fig. 12]** The ties to socialist heritage go far beyond symbolic tribute to Svetlana Kana Radević. KANA explicitly evokes the legacy of self-management and combines it with the concept of collaborative, communicative planning articulated in the 1990s by Anglo-American urban planners Patsy Healey and Judith Innes.[76] The main goal of KANA's involvement in Blok 5 — "activation of participants in the planning process"[77] — echoes the transition from an individual to a self-managing subject. As distinguished from NIMBY-ism in the West which usually departs from private interests and fears of homeowners, KANA self-identified as a part of "the movement for preservation of the public good", and continuously grounded protests in the protection of public space and common good from deregulated privatization. Despite the restricted scope, the protest was

75 Milica Vujošević, "Učešće javnosti u urbanističkom planiranju — primjer Bloka 5 u Podgorici (Public participation in urban planning — the case study of Block 5 in Podgorica)," in *Pristup izradi planskog dokumenta: Učešće javnosti u planiranju Bloka 5 u Podgorici*, ed. Milica Vujošević, Jelena Rabrenović and Sonja Dragović (Podgorica: KANA, 2017), 41—70.

76 Vujošević, "Učešće javnosti u urbanističkom planiranju — primjer Bloka 5 u Podgorici," 50.

77 Vujošević, "Učešće javnosti u urbanističkom planiranju — primjer Bloka 5 u Podgorici", 48—51.

Fig. 12
Pop-up information point established in Blok 5 by members of the NGO KANA, 2017. (Source: KANA private collection)

by no means a depoliticized issue confined to the micro-level of neighborhood: it connected the local issue with the problem of deregulated, uncontrolled capitalism and proliferation of private interests which endanger the public good by cutting it into commodifiable pieces.

The skyscraper project was ultimately ditched, at least in part due to the intense resistance by the local community. The residents of Blok 5 recognized the value in the initial project and decided to stand in defense of it. The organized and interconnected community has its roots in the socialist self-management and, as the protests of locals in Blok 5 demonstrate, can again be activated under certain circumstances. Even though the principles of self-management were the least elaborate and inventive on the level of urbanism, they nevertheless left a productive legacy which can be used as a template for resistance.

Conclusion: Real legacy of ideal self-management

Self-managed built environment does not have a uniform, singular appearance. It is rather a set of variables, a wide spectrum of possible outcomes. One of them, Blok 5, entails a set of self-managing instruments: from the declarative or symbolic self-management reflected by the facade, the organizational scaffolding of the existing socialism, the organization of construction, to the self-management conveyed in terms of Western Marxism as freedom and agency of the individual in the encouragement to include future residents to design their own floor plans.

While the state promised to wither away with the advancement of self-management, the path of Blok 5 shows that the architect did not necessarily have to disappear as well. On the contrary, the architect seemed to be more present, to extend his work both to the pre- and post-construction phase, into the engagement with prospective residents. In Blok 5, two conflicting understandings of the primary subject of self-management collided. On the one hand, the architect, inspired by the ideas of Western Marxism around Henri Lefebvre, who sees the urban subject as "the individual member of a given social group," clearly identifies the individual resident as an important figure.[78] On the other hand, he does ask for more channeled engagement from them and sets the limits of the common good (the well-being of the whole — building, neighborhood) to their interference and therefore adds a more decisively socialist touch. However, the context of homegrown self-management was paramount to the very existence of Blok 5. Bojović left for France as a young professional who received his architectural training in socialist Yugoslavia. His return to Montenegro is in part an acknowledgement of the framework of socialist self-management as *conditio sine qua non* for a mass housing project of such scale and ambition, which would not be imaginable in France at the time.

78 Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Oxford and Cambridge: Blackwell, 1991), 40.

As Barbara Jančar-Webster noted in her case study analysis of environmental self-management in Yugoslavia during late socialism, "localization" ("the project is contained within well-defined local boundaries") was among key ingredients for a successful project.[79] The modest size of Titograd and its peculiar position on the map of Yugoslavia — a peripheral center — made it possible to narrow down the protagonists to a manageable scale. The versatile engagement of the architect, his persistence in navigating local conflicts and limitations posed by the investor, significantly shaped traces of self-management in the project. At the same time, it went largely unnoticed beyond Montenegro and accelerated the process of forgetting.

While self-management in both theory and practice undisputedly had built-in flaws, it also produced a noteworthy, livable space. Learning from early, more schematic Yugoslav mass housing projects, Blok 5 could build on and avoid some of their shortcomings. Therefore, self-management of the late socialism was not broken beyond repair — it managed to convey and execute a project on a such scale. Finally, many of the built-in self-managing features could be or already were activated in post-socialist period, led by either individuals or small, mobilized groups. The inner walls can still be (re)moved, the basis for an organized collective action can still take place. And it was, going in both directions — benefiting the community and the collective as a whole and emphasizing individual advancement. The legacy of self-management built in Blok 5, with all its unevenness, continues to offer a meaningful incitements to self-organization.

79 Barbara Jančar, "Ecology and Self-Management: A Balance-Sheet for the 1980s," in *Yugoslavia in Transition: Choices and Constraints*, ed. John B. Allcock, John J. Horton, and Marko Milivojević (Oxford: Berg, 1992), 345.

References

Archer, Rory. "Imaš kuću — vrati stan. Housing inequlities, socialist morality and discontent in 1980s Yugoslavia." *Godišnjak za društvenu istoriju* 20, no. 3 (2013): 119—39.

Bilandžić, Dušan. *Historija Socijalističke Federativne Republike Jugoslavije: glavni procesi 1918-1985* (History of the Socialist Federative Republic of Yugoslavia: main processes 1918-1985). Zagreb: Školska knjiga, 1985.

Bjažić Klarin, Tamara. "Housing in Socialist Yugoslavia." in *Toward a Concrete Utopia: Architecture in Yugoslavia, 1948—1980*, edited by Martino Stierli and Vladimir Kulić, 90—95. New York: MoMA, 2018.

Bjelajac, Slobodan. *Bespravna stambena izgradnja u Splitu: sociološka studija* (Illegal housing construction in Split: a sociological study). Split: Urbanistički zavod Dalmacije, 1970.

Burzan, Danilo. *Istorija Podgorice. Kronologija događaja* (History of Podgorica: Chronology of events). Podgorica: Sektretarijat za kulturu i sport Glavnoga grada Podgorica, 2016.

de Certeau, Michel. *The Practice of Everyday Life*. Berkeley and Los Angeles: University of California Press, 1988.

Culler, Jonathan. *Literary Theory: A Very Short Introduction*. Oxford: Oxford University Press, 2000.

Damljanović Conley, Tanja and Jelica Jovanović. "Belgrade Residential Architecture 1950-1970: A Privileged Dwelling for a Privilege-Free Society." In *Unfinished Modernisations: Between Utopia and Pragmatism*, edited by Maroje Mrduljaš and Vladimir Kulić, 298—311. Zagreb: Udruženje hrvatskih arhitekata, 2012.

Dragović, Sonja. "From block to city, and back: post-1989 transformation of residential neighbourhoods in Podgorica." *In Three decades of post-socialist transition: conference proceedings*, edited by Nebojša Čamprag and Anshika Suri, 326–340. Darmstadt: TUprints, 2019.

Dragović, Sonja. "Budite realni — tražite nemoguće! Razgovor s autorom arhitektonskog rješenja Bloka 5: arh. Mileta Bojović (Be realistic — ask for the impossible! A talk with the author of the Blok 5 architectural solution: arch. Mileta Bojović)." In *Pristup izradi planskog dokumenta: Učešće javnosti u planiranju Bloka 5 u Podgorici*, edited by Milica Vujošević, Jelena Rabrenović, and Sonja Dragović, 17—26. Podgorica: KANA, 2017.

Džokić Ana, Marc Neelen (Stealth. Unlimited), and Nebojša Milikić. "Kaluđerica From Šklj to Abc: A Life in the Shadow of Modernisation." In *Unfinished Modernisations: Between Utopia and Pragmatism*, edited by Maroje Mrduljaš and Vladimir Kulić, 276—91. Zagreb: Udruženje hrvatskih arhitekata, 2012.

Forty, Adrian. *Words and Buildings: A Vocabulary of Modern Architecture*. London: Thames&Hudson, 2000.

Geertz, Clifford. *The Interpretation of Cultures*. New York: Basic Books, 1973.

Grandits, Hannes and Holm Sundhaussen. "Jugoslawien in den 1960er Jahren: Wider einen teleologischen Forschungszugang." In J*ugoslawien in den 1960er Jahren. Auf demWeg zu einem (a)normalen Staat?*, edited by Hannes Grandits and Holm Sundhaussen, 3—14. Wiesbaden: Harrasowitz, 2013.

Jakovljević, Branislav. *Alienation Effects: Performance and Self-Management in Yugoslavia*, 1945-91. Ann Arbor: University of Michigan Press, 2016.

Jančar, Barbara. "Ecology and Self-Management: A Balance-Sheet for the 1980s." In *Yugoslavia in Transition: Choices and Constraints*, edited by John B. Allcock, John J. Horton, and Marko Milivojević, 337—64. Oxford: Berg, 1992.

Jovićević, Ivan. "Blok 5 u Podgorici — istorijat i značaj (Block 5 in Podgorica — history and meaning)." In *Pristup izradi planskog dokumenta: Učešće javnosti u planiranju Bloka 5 u Podgorici*, edited by Milica Vujošević, Jelena Rabrenović, and Sonja Dragović, 13—16. Podgorica: KANA, 2017.

Kardelj, Edvard. *Problemi naše socialistične graditve: Knjiga V* (Problems of our socialist construction. vol. V). Ljubljana: Državna založba Slovenije, 1963.

Kardelj, Edvard. *Problemi naše socialistične graditve: Knjiga VII* (Problems of our socialist construction. vol. VII). Ljubljana: Državna založba Slovenije, 1968.

Kats, Anna. "Svetlana Kana Radević (1937-2000)." *The Architectural Review*, March 13, 2020. https://www.architectural-review.com/essays/reputations/svetlana-kana-radevic-1937-2000/10046572.article

Kukoč, Višnja . "Split 3." In *Soseske in ulice: Vladimir Braco Mušič in arhitektura velikega merila*, edited by Luka Skansi, 92—165. Ljubljana: MAO, 2016.

Kulić, Vladimir, Maroje Mrduljaš, and Wolfgang Thaler. *Modernism In-Between: The Mediatory Architectures of Socialist Yugoslavia*. Berlin: Jovis, 2012.

Ledeneva, Alena. *Russia's Economies of Favours: Blat, Networking and Informal Exchange*. Cambridge: Cambridge University Press, 1998.

Lefebvre, Henri. *The Production of Space*. Translated by Donald Nicholson-Smith. Oxford and Cambridge: Blackwell, 1991.

Main project with technical report for Blok 5. "Stambeni objekti E1, B1, C1, G1 i C3 — Blok 5 — Titograd. Glavni projekat — Tehnički izvještaj." 1980, PG-80-03B. Archives of the Republic Institute for Urbanism and Spatial Planning (RZUP), Podgorica, Montenegro.

Molnár, Virág. *Building the State: Architecture, Politics, and State Formation in Post-War Central Europe*. Routledge: Abingdon and New York, 2013.

Mrduljaš, Maroje. "Architecture for a Self-Managing Socialism." In *Toward a Concrete Utopia: Architecture in Yugoslavia*, 1948—1980, edited by Martino Stierli and Vladimir Kulić, 40—55. New York: MoMA, 2018.

Mrduljaš, Maroje and Vladimir Kulić, "Richters Synthurbanismus. Die erweiterte Synthese: Urbanismus, Kunst, Politik." in *Ein rebellischer Visionär: Retrospektive Vjenceslav Richter*, edited by Gudrun Danzer, 60—85. Graz: Neue Galerie Graz and Universalmuseum Joanneum, 2018.

Mutnjaković, Andrija. *Biourbanizam* (Biourbanism). Rijeka: Izdavački centar Rijeka, 1982.

Le Normand, Brigitte. *Designing Tito's Capital: Urban Planning, Modernism, and Socialism in Belgrade*. Pittsburgh: University of Pittsburgh Press, 2014.

Perković Jović, Vesna. *Arhitekt Frano Gotovac* (Architect Frano Gotovec). Split: Sveučilište u Splitu, 2015.

Poduzeće za izgradnju Splita. *Split 3: problematika, analiza, dileme* (Split 3: problems, analysis, dilemmas). Split, 1973.

Ražnatović, Sonja. *Jana, samo privremeno u Bloku 9* (Jana, only temporarily in Block 9). Cetinje: OKF, 2016.

Richter, Vjenceslav. *Sinturbanizam* (Synthesis Urbanism). Zagreb: Mladost, 1964.

Rudolph, Nicole C. *At Home in Postwar France: Modern Mass Housing and the Right to Comfort*. Oxford and New York: Berghahn, 2015.

Seferagić, Dušica. *Kvaliteta života i nova stambena naselja* (Life quality and new residential settlements). Zagreb: Sociološko društvo Hrvatske, 1988.

Sekulić, Dubravka. "Legitimacy and the Extralegal: Expanding the Thin Line Between Legal and Illegal in the Densification of Post-Yugoslav Cities." In *Nadogradnje: Urban Self-Regulation in Post-Yugoslav Cities*, edited by Sven Quadflieg and Gregor Theune, 126—39. Weimar: M Books, 2015.

Sher, Gerson S. *Praxis. Marxist Criticism and Dissent in Socialist Yugoslavia*. London and Bloomington: Indiana University Press, 1977.

SO Titograd fonds, SO-Titograd-19786, box 126. State Archives of Montenegro, Podgorica, Montenegro.

Topham, Shaun. "Housing Policy in Yugoslavia." In *Housing Policies in Eastern Europe and the Soviet Union*, edited by John A. A. Sillince, 402—439. Abington: Routledge, 1990.

Unkovski-Korica, Vladimir. *The Economic Struggle for Power in Tito's Yugoslavia: From World War II to Non-Alignment*. London and New York: Tauris, 2016.

Unkovski-Korica, Vladimir. "Self-management, Development and Debt: The Rise and Fall of the 'Yugoslav Experiment'." In *Welcome to the Desert of Post-Socialism: Radical Politics After Yugoslavia*, edited by Srećko Horvat and Igor Štiks, 21—44. London: Verso, 2015.

Vasić, Zdenka. "Samoupravno planiranje (Self-managed planning)." *Urbanizam Beograda* 8, no. 37 (1976): 20—21.

Vujošević, Milica. "Učešće javnosti u urbanističkom planiranju — primjer Bloka 5 u Podgorici (Public participation in urban planning — the case study of Block 5 in Podgorica)." In *Pristup izradi planskog dokumenta: Učešće javnosti u planiranju Bloka 5 u Podgorici*, edited by Milica Vujošević, Jelena Rabrenović and Sonja Dragović, 43—70. Podgorica: KANA, 2017.

Vuković, Slobodan. "Stan po mjeri čovjeka (A man-sized apartment)." *Pobjeda*, February 4, 1979.

Zaccaria, Benedetto. "Learning from Yugoslavia? Western Europe and the Myth of Self-Management (1968–1975)." In *Planning in Cold War Europe: Competition, Cooperation, Circulations* (1950s-1970s), edited by Michel Christian, Sandrine Kott, and Ondrej Matejka, 213—35. Berlin and Boston: De Gruyter, 2018.

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The Highway of Brotherhood and Unityas a Cross-Cut into the Yugoslavian Epic

Highway of Brotherhood and Unity, Socialist Federative Republic of Yugoslavia, Highway construction, Landscape architecture, Nation-building

/Abstract

The Highway of Brotherhood and Unity - the motto of Yugoslav Communists - may help us decode the multiple layers of meaning interlocked in the built environment. Undoubtedly, the construction of the Highway was organic to national cohesion. Built by brigades of young volunteers, the Highway allowed a one-day trip across Yugoslavia: an experiential approach of the common motherland by which 'federalism' acquired a concrete dimension.

From an architect's viewpoint, our contribution lays claim to a project-oriented approach to the Highway as a coherent built-up form, posing new technical problems, yet orienting urban change and opening up a whole range of narratives. To do that, we oscillate back and forth actual construction of the Highway - combining engineering, landscape design, urbanism and architecture - and its role as a catalyst of new collective perceptions and behavioural patterns. The Highway provided the centre of gravity for a far-reaching cross-cultural venture, a large-scale collective work of art.

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https://doi.org/10.6092/issn.2611-0075/10116 | ISSN 2611-0075

Introduction

Only just recently, *The Guardian* praised Belgrade postwar architecture, epitomised by Genex Tower and Konjarnik pyramids, two brutalist icons transcending the realm of architecture.[1] In fact, they testify with their presence the "poleogenetic" role of the Highway of Brotherhood and Unity, which brought about urban additions in most cities along its route.[2] At the same time, the exhibition *Toward a Concrete Utopia* held at the Museum of Modern Art in New York marked a turning point in the documentation of the architectural and artistic achievements of socialist Yugoslavia. The catalogue dedicated a chapter to the motto 'brotherhood and unity:' coined by Yugoslav Communists fighting Nazi occupation and, as such, seized by the leaders of the new nation. In fact, this hendiadys bridged the gap between the ideals rooted in the revolutionary *epos* and a shared set of values projecting distinct traditional ethnicities towards "the universalizing juggernaut of socialist modernisation."[3] Coincidentally, from 2017 to 2019, Croatian artist Davor Konjikušić extolled the Highway of Brotherhood and Unity as a *topos* of past and present collective identity. Displaying photos texts, archival material, objects and videos, Konjikušić intertwined the manifold memories embedded in the Highway project, purported as an open metaphor of the nation-building process.[4]

Inaugurated in 1963, the Highway of Brotherhood and Unity outlived the fall of Yugoslavia as A3 motorway. This 1,100-km-long infrastructure of federalism lined up Ljubljana, Zagreb, Belgrade and Skopje. The geometry, technicalities and aesthetics of road construction harmonised along the route, alternating natural sceneries of great beauty: alpine Slovenia, lowlands along the Sava River, the vast plains of Croatia and fertile Vojvodina, the hills of Serbia, impervious Macedonia.[5] In a one-day drive, the Highway offered a live diorama of the common motherland. Significantly, in 1967, Belgrade architect Milorad Macura referred to a ten-hour drive across the country to praise the variety of Yugoslavian landscapes.[6] Some year earlier, *Arhitektura Urbanizam*, a magazine published by the Union of Architects of Yugoslavia, dedicated a special focus on Highway

1 Ivana Šekularac, "Former Yugoslavia's brutalist beauty-a photo essay," *The Guardian*, 31 October 2019, accessed July 1, 2020, https://www.theguardian.com/artanddesign/2019/oct/31/former-yugloslavia-brutalist-beauty-a-photo-essay.

2 The term poleogenetic refers to processes at the origin urban life, occurred among archaeologists and experts of urban development in late antiquity, and among historians of early-Medieval cities. Some critics have commented on Henri Pirenne's "poleogenetic argument" expressed in Henri Pirenne, Medieval Cities. *Their Origins and the Revival of Trade* (New York: Doubleday, 1956).

3 Vladimir Kulić, "Building Brotherhood and Unity: Architecture and Federalism in Socialist Yugoslavia," in *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980*, eds. Martino Stierli and Vladimir Kulić (New York: MoMA, 2018), 29.

4 The traveling exhibition entitled *Autocesta/The Highway* was held at the following venues: Šira Gallery, Zagreb 2017; Vetrinjski dvor, Maribor 2018; Artget Gallery, Belgrade 2018; Salon Galić Gallery, Split 2019.

5 The southern section from Skopje to the Greek border followed the old route along the Vardar river valley to reach the plain of Thessaloniki, used for ages by nomads, invaders, caravans of pilgrims and merchants.

6 Milorad Macura, "Tuge i ushiti pejzaža (Landscapes' sadness and elation)," *Arhitektura Urbanizam*, no. 56-57 (1967): 46.

construction as a key agent of modernisation whose significance went well beyond technical achievement.[7]

In economic terms, the Highway was to foster the take-off of basic industry and domestic tourism. The realization of the work itself equally challenged engineers, architects and urban planners, as well as young volunteers who shared the actual experience of labour on the construction site with peers from all over Yugoslavia, thus interlacing nation building with state-led training. Taming topography and nature entailed major landscape works, marking the emergence of landscape design as a new field of expertise. In its subsequent phases, Highway of Brotherhood and Unity radically changed drivers' perception of Yugoslavia while also shaping its popular culture and social habits for years to come.

Taking a cue from Konjikušić's approach, this contribution argues that the Highway of Brotherhood and Unity unified Yugoslavia in concrete and symbolic terms. It tied many design disciplines that normally work on different scales, while consolidating a coherent national narrative, a synthesis between a geo-political area and its distinctive landscape components, modern transport systems, socialist town planning, modernist architecture, as well as avant-garde art. At a very early stage, in 1950, the Highway contributed to the emergence of abstract art in sharp contrast with socialist realism.

The highway site in the making of history

Building on Jozo Tomasevich's work,[8] historian Saša Vejzagić argued that the Highway withstood the Yugoslav–Soviet split of 1948, followed by the economic crisis of the so-called 'Informbiro period'[9] when Yugoslavia opened a dialogue with Western Powers (1948-1955).[10] In reality, highway construction endured three subsequent phases: the early years of extreme centralisation of state bureaucracy, when the country was subservient to USSR; the 1950s opening towards the West, and the international rise of Yugoslavia in the Non-Aligned Movement, begun with the Bandung Conference in April 1955 and reinforced with the Belgrade Conference in September 1961.

The first section of the Highway from Belgrade to Zagreb opened in 1950. Despite military threat and the economic crisis, Yugoslavia managed to build 382 km with the contribution of 200,000 volunteers of the Youth Work Actions (Omladinske Radne Akcije), a movement dating back to the revolution period still active after World War II in major reconstruction sites. At such critical juncture,

7 Svetislav Stajević, "Naši putevi (Our roads)," *Arhitektura Urbanizam*, no. 3 (1960): 6; Macura, "Tuge i ushiti pejzaža" 46.

8 Jozo Tomasevich, "Immediate Effects of the Cominform Resolution of the Yugoslav Economy," in *War and Society in East Central Europe*, vol. X, ed. Wayne Vuchinich (New York: Columbia University Press, 1982).

9 The Yugoslav for Cominform.

10 Saša Vejzagić, "The importance of Youth Labour Actions in Socialist Yugoslavia (1948-1950): a Case Study of the Motorway Brotherhood-Unity" (Master of Arts diss., Central European University in Budapest, 2013), 11.

with so very few vehicles available,[11] the Highway became a nation-building tool *par excellance*.[12]

In 1958, the 80-km route from Ljubljana to Zagreb became operational. The sections from Paraćin to Niš (Serbia) and from Negotino to Demir Kapija along the Vardar gorge (Macedonia) begun in 1959, requiring embankment works to protect the sites from river floods. The following year, in 1960, works started along the stretches from Niš to Grdelica and from Demir Kapija to the Gevgelija border. In 1962 though, the sections Skopje-Titov Veles and Belgrade-Paraćin were still missing, the latter crossing a highly developed region, including large coal-mines, iron and steel plants, metal factories, large and small producers of building materials, textile and food-processing industries.

A 1963 report by International Bank for Reconstruction and Development (IBRD) discloses a western-oriented perspective on Yugoslavia's transport policy, laying emphasis on its key geo-political role.[13] Physical features dictated the NW-SE orientation of main routes of communication. The Central Highway, as the IBRD called the Highway, from Italy and Austria to Greece via Belgrade was also to carry West European motor traffic, joining the Adriatic Highway (Jadranska Magistrala).[14] The IBRD report did include some relevant figures. The share of highway traffic in Yugoslavia had increased from about 7% in 1957 to 15% in 1962. From 1956 to 1962, the country had invested heavily in transportation and communications, accounting for about 20% of gross capital expenditures, more than doubling the funds allocated to highways. The expansion of transport-related industries had not been long in coming: from 1955 to 1963 the total number of motor vehicles more than quadrupled (from 61,000 to 278,000), private cars increased from about 13,000 to nearly 100,000. The expansion of highway freight traffic was equally impressive, increasing from 7% of total freight traffic in 1957 to 15% in 1962. Between 1958 and 1962, domestic truck output increased from 4,200 to 7,000 (with no imports in 1962); in the same period, the production of private cars grew from 2,720 to 20,000 (yet 15,200 cars were still to be imported in 1962).[15]

The Central Highway was to form the backbone of federal Yugoslavia, running through the richest agricultural area of Vojvodina and industrialised Croatia and Slovenia. Its catchment area encompassed about one-half of the country's economy and one-third of the population. Completion of the Highway was to facilitate

11 In 1947, Yugoslavia had only 10,984 motorcycles, 6,634 passenger automobiles, 751 buses, 13,922 trucks and 1, (170 registered vehicles Cfr. *Jugoslavija 1918-1988: Statistički godišnjak* (Statistical annual of Yugoslavia), Belgrade: Savezni Zavod za Statistiku, 1989), 286.

12 Vejzagić, "The importance of Youth Labour Actions in Socialist Yugoslavia," 71.

13 International Bank for Reconstruction and Development (IBRD), "Appraisal of a Highway project in Yugoslavia," Technical operations projects series; n. TO 367a, International Bank for Reconstruction and Development, International Development Association, 7 June 1963, http://documents1.worldbank.org/curated/en/850631468177844374/pdf/multi0page.pdf

14 The Adriatic Highway was to stretch on the Eastern coast connecting the main ports on the Adriatic Sea. Its construction began in 1954, with the aim of developing an efficient transportation system that might foster territorial cohesion from previously disconnected regions. See Melita Čavlović, "Constructing a Travel Landscape: a Case Study of the Sljeme Motels Along the Adriatic Highway," *Architectural Histories*, no. 6 (1) (2018): 3, http://doi.org/10.5334/ah.187.

15 IBRD, "Appraisal of a Highway project in Yugoslavia," 7.

Yugoslavia's exports, particularly of agricultural products highly demanded in neighbouring countries. The Highway integrated the European trunk lines network, and could also attract foreign tourism as an increasingly relevant factor of the national payment budget. The IBRD report considered that the loan was to improve the conditions for road transport in Yugoslavia and that both Highways "well planned, technically sound" were to "yield a good economic return on the investment from lower transportation and maintenance costs alone."[16]

In 1963, after completion of the missing sections, the Highway of Brotherhood and Unity was finally ready. Unexpectedly, this coincided with a devastating earthquake at Skopje, the designated junction with the Adriatic Highway, therefore a future hub for long-distance trade between Western Europe, the ports of Northern Europe and the Middle East.[17] As part of the "socialist scaffold," the Central and Adriatic highways played a major role in defining the roadmap to modernisation, structuring Yugoslavia international identity as if embedded in its strategic geographical role.[18]

Young Yugoslavs on the highway site

The Highway of Brotherhood and Unity was part of the first Five Year Plan (1947-1951) modelled on Soviet precedents. This implied fast-paced industrialisation and rural collectivisation, in view of overcoming the economic and technological gap among regions and increasing people's welfare. During these crucial years, Yugoslavia made extensive use of Youth Work Actions, whose origin dated back to the partisan resistance.[19] In the aftermath World War II, young volunteers repaired war damages, in compliance with the motto "there will be no rest as reconstruction is under way" ("dok traje obnova nema odmora").[20] From the local to the federal levels, young volunteers from all over Yugoslavia played a decisive part in the construction of railways, roads, industrial plants and public buildings. In 1946, their mobilisation was re-oriented, as Youth Communist Organization proposed the Central Committee volunteering labour actions. These included construction of the 302-km Brčko-Banovići railway,[21] the Šamac-Sarajevo line,[22] parts of New Belgrade,[23] sections of the Highway of Brotherhood and Unity, and the railway from Doboj to Banja Luka, which started

16 Ibid., 16.

17 Čavlović, "Constructing a Travel Landscape," 3.

18 Kimberly E. Zarecor, "What Was So Socialist about the Socialist City? Second World Urbanity in Europe," *Journal of Urban History*, Vol. 44 (I) (2018): 95-117.

19 Stefanović, *Svitanja na rukama* (Dawns on hands) (Beograd: Export-press, 1969).

20 Ibid., 11.

21 Meant to transfer coal from Bosnia to Vojvodina and bread from Vojvodina to Bosnia, the railway started in March 1947 and inaugurated eight months later, on 7 November when a coal train left Brčko mine heading to Belgrade.

22 Josip Krulić, *Storia della Jugoslavia dal 1945 ai nostri giorni* (History of Yugoslavia from 1945 until present day) (Milano: Bompiani, 1999), 63. In the construction of the Šamac-Sarajevo railway, 1073 volunteers received basic education, whereas 1000 'popular universities', 2,216 'houses of culture' and 3,000 groups of 'amateurs' reached 68% of the villages. In addition, 10,491 moving library trucks reached 81.9% of the smallest settlements.

23 From 1 April to 2 December 1948, 49,800 young men and women (318 brigades) worked on the construction site of New Belgrade. Jovan Golubović, *Beograd - grad akcijaša* (Belgrade - a city of action) (Belgrade: Gradska Konferencija SSO Beograd, 1985), 20.

in 1951. During the First Five Year Plan, 319.000 young men and women worked on major infrastructure sites. In total, over 1 million young Yugoslavs participated in over 70 projects.[24] Some actions also involved members of the national army, as well as foreign idealists. As a result, young Yugoslavs became such by building their motherland in concrete terms, and building up skills as future working citizens; for some, sharing intensive training also meant learning to read and write, before embracing a collective learning-by-doing experience. In this respect, the architect Svetislav Stajević considered a great social benefit bringing together rural and urban youth from all over the country, "as they get to know each other without any intermediation while becoming familiar with modern technology. Many boys and girls, particularly from the most backward regions – acquire new skills by attending various courses of popular technique until then unknown to them."[25]

In line with Marxist thought, Croatian sociologist Rudi Supek celebrated "action" as the most dynamic form of human life, aimed at "production or work performance, reshaping the nature or creating means for life." Action could also serve non-productive objectives, such as erection of great monuments of culture, or "humanization of nature."[26] Fast-track acculturation went hand in hand with embracing the credo of the Yugoslav Communist League, namely the conviction that the party differed from Soviet communism because the country had been liberated by local partisans (not only by the Red Army), and Yugoslav communists had come to power with little external help. It would be misleading to consider Youth Work Actions as agents of a homogeneous and long-lasting activity. When, along with the industrial take-off, self-management prevailed, they lost their economic drive yet continued to disseminate the party's ideology. Saša Vejzagić considered Youth Work Actions as a separate world inside Yugoslavia: a politicized youth organization functional to all economic, social and ideological frameworks of the time. However, the massive participation of Youth Work Actions turned the Highway of Brotherhood and Unity into a nation-building epos, speeding up the construction process even if increasing its costs.

According to historian and ethnologist Reana Senjković, construction the Highway started in 1946, employing wage labourers. As the workforce was not sufficient, that year only 2% of works achieved completion.[27] According to Momčilo Stefanović instead, in 1946, the highway site opened near Zagreb with workforce including young volunteers, soldiers and labour brigades from the Popular Front.[28] In 1947, however, works on site were under way in Serbia

24 Vejzagić, "The importance of Youth Labour Actions in Socialist Yugoslavia," 24.

25 Stajević, "Naši putevi," 8.

26 Rudi Supek, *Omladina na putu do bratstva. Psihosociologija radne akcije* (Youth on the way towards brotherhood. Psycho-sociology of a Work Action) (Belgrade: Mladost, 1963), 7; Vejzagić, *The importance of Youth Labour Actions in Socialist Yugoslavia*, 19.

27 Reana Senjković, *Svaki dan pobjeda. Kultura omladinskih radnih akcija* (Every day a victory. The culture of the Youth Work Actions) (Zagreb: Institut za etnologiju i folkloristiku, 2016), 131.

28 Momčilo Stefanović, *Svitanja na rukama*, 23.

(entrusted to Belgrade contractor Auto-put and Yugoslav Yugo-put, which eventually merged) and Croatia (entrusted to Novi-put, Vijadukt and Gradis). Postwar reconstruction in Belgrade and Zagreb slowed down the works, which covered only 8% of the total route using blocks of concrete or stone, according to the different kind of landscape. When, in 1948, USSR and Cominform imposed an economic blockade on Yugoslavia, Youth Work Actions mobilised to support building companies. Since only 200 machines were available for the total route, almost 40,000 people worked in shifts to substitute a technical equipment that never arrived. Youth brigades started working on the Highway site on the 1st of April 1948 and at the end of the year, 30% of the highway was complete. They reshaped landscape in an unprecedented way: undertaking excavations and laying down the rails for the service line feeding the construction sites, carrying out reclamation works in marshy areas.[29] In Slavonia, youth brigades had to break through the forest with no mechanical means. Despite all difficulties, it took three years to complete the section from Belgrade to Zagreb.

Documentary evidence shows that young Yugoslav volunteers (the majority from rural areas) shared a pre-military training. For many, Youth Work Actions were as a sort of vocational school. An educational programme, including both pre-military training and alphabetization, paralleled construction works. Stefanović reports that nearly 20,000 young volunteers working at the highway learned how to read and write while, at the end of the railway works, their number doubled. Construction work was a training by itself. Initially, volunteers learned from local people. Later on, 90,000 young men and women, mainly from rural areas enrolled and completed a professional training, which allowed them to find a job. In 1948, the People's Youth of Yugoslavia, in coordination with the Federal Work Bureau, planned to employ 14,117 non-students either in the mining sector, or in heavy, light or military industry.[30] This turned the rural youth who survived war into a modern industrial community. When volunteering at the highway site, they came across a lifestyle until then unknown: hot showers twice a day, prefabricated dormitories and modern canteens with plenty of food. In addition, since the 1950s, Youth Work Actions animated their socio-cultural life with cinema, theatre, and libraries. Empowered by this socialist lifestyle, they marked an unbridgeable break with previous generations.[31]

In 1949, Autoput contractor was converted into a Youth Work Organization in charge of providing raw building materials, technical equipment and expertise, as well as voluntary workforce. The first section between Zagreb and Belgrade opened in 1950. Symbolically marking the reunification of Serbia and Croatia,

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29 18 million cubic metres of soil were used to build berms.

30 Reana Senjković, "Uvod," in *Omladinske Radne Akcije: dizajn ideologije* (Youth Work Actions: ideology design), eds. Sanja Bachrach Krištofić and Mario Krištofić (Zagreb: Umjetnička organizacija Kultura umjetnosti, 2017), 9.

31 According to Andrea Matosević, this profound gap between generations may be well epitomised by a picture given in the novel Mladi graditelj (Young Builder) by Gustav Krklec. The author describes a veiled Muslim woman in Bosnia dragging her mule away from the road along which a lorry with building material was passing, eventually covering her with dust. Cfr. Andrea Matosević, "Omladinske radne akcije: kontinuiteti i odmaci iz iskustva akcijasa (Youth Work Actions: continuity and departures from the experiences), *Traditiones*, no. 44/3 (2015), 101, doi:10.3986/Traditio2015440305.

the most conflicting republics, it also linked the two most populated urban areas. The second section from Ljubljana to Zagreb was built by 54,000 volunteers and completed in 1958. The section from Belgrade to the south was completed in 1963.

The Highway on display

Propaganda activities by Youth Work Actions have recently rekindled momentum among scholars, particularly in the field of historical research. In 2012, the Yugoslav Archive in Belgrade organized the exhibition entitled *We Build the Railroad – the Railroad Builds Us. Youth Work Actions in Yugoslavia 1946-1951*.[32] In parallel, two additional exhibitions stressed the impact of art and design in shaping the popular culture shared by Yugoslav youth. With a focus on media, these exhibitions made extensive use of published and archival material, disclosing a number of dedicated periodicals, radio stations, exhibitions run by Youth Work Actions, as well as foreign accounts, providing useful insights into the information chain from the building sites to the broader public. While newspapers like *Borba* and *Politika* reported daily from the building sites, it is interesting to note that each brigade had its own daily bulletin. Youth Work Actions on the Šamac-Sarajevo railroad, for example, published *Borba na omladinskoj pruzi* (Fighting on the youth line); those working along the Highway published *Bratstvo i jedinstvo, list omladinskih radnih brigada na gradnji autoputa Beograd- Zagreb* (Brotherhood and unity, a journal of Youth Brigades working on the construction of the Belgrade-Zagreb highway). Volunteers working at the Banja Luka-Doboj railway, issued the international publication *Youth Railway*. In 1946 and 1947, this involved prominent figures like Edward P. Thomson and the Danish Gert Petersen, who took part in the working campaigns and contributed to give a positive impression of socialist Yugoslavia in Western countries. This material provides a useful insight into the information chain from the building sites to the broad public, showing how infrastructure, architecture and urbanism became fundamental element of the nation-building narrative.[33] It was not just about reporting the progress of works in a bulletin, or disseminating propaganda leaflets to attract more volunteers. This body of material shows how Highway infrastructure became a fundamental element of the nation-building narrative.

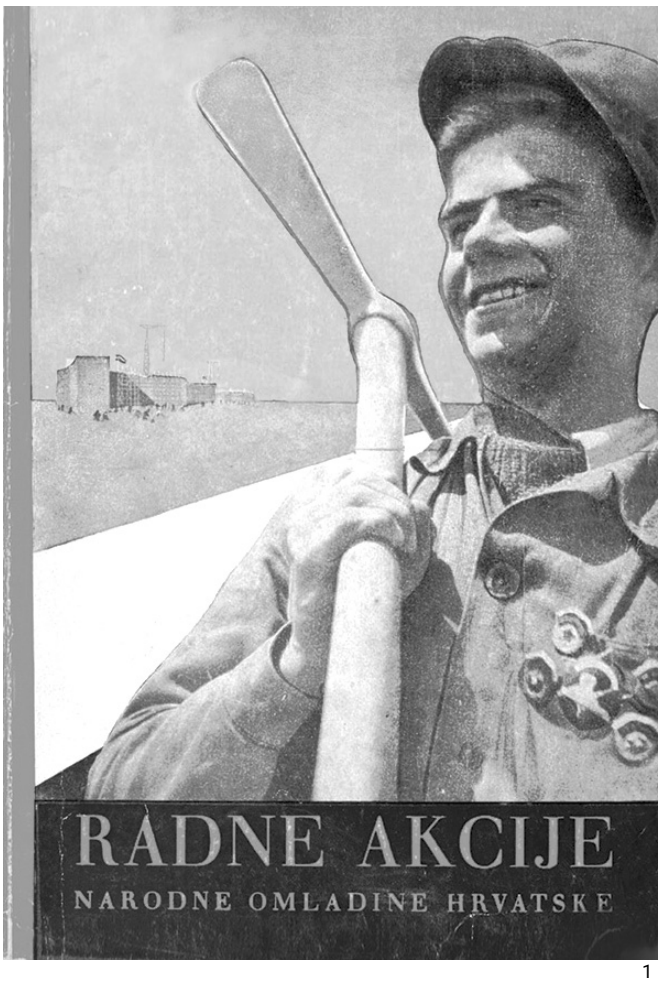
The exhibition *Youth Work Actions: Designing Ideology* held in Zagreb in 2017 focused on art and visual media documenting the pioneering effort undertaken by Youth Work Actions, often blurring the boundary between propaganda and

32 Cfr. Ivan Hofman, *Mi gradimo prugu - pruga gradi nas. Omladinske Radne Akcije u Jugoslaviji 1946-1951. Katalog izložbe* (We build the railroad - The railroad builds us. Youth Work Actions in Yugoslavia 1946-1951. Exhibition Catalogue) (Belgrade: Arhiv Jugoslavije, 2012).

33 Tea Sindbæk Andersen, "Tito's Yugoslavia in the making," in *Machineries of Persuasion. European Soft Power and Public Diplomacy During the Cold War*, ed. Óscar J. Martín García and Rósa Magnúsdóttir (Berlin-Boston: De Gruyter, 2019) 113-120.

art, eventually marking the shift from Socialist Realism to more abstract forms of expression.[34]

As early as 1950, two simultaneous exhibitions in Belgrade and Zagreb celebrated completion of the Highway by opening the way to abstract art: its endorsement to present an infrastructure of national importance sanctioned the decline of Socialist Realism.[35] The "record-breaking youth" called *udarnici* (shock-workers) became a symbol of socialist modernisation, of the transformative power of physical labour as a collective reaction to the lack of machineries.[36] [Fig. 1]



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The exhibition dedicated to the Highway aimed at arousing an emotive response from visitors, projecting them into a fluid space framed by slender structures, a compositional whole suspended between the concrete and symbolic dimension of the subject, that visitors themselves would animate as stepping into the country of the future. This was like browsing a kind of storyboard, which anticipated the actual visual journey: "It featured diverse display techniques leaning on fully painted walls and murals, creating a sense of filling all 360 degrees of the visual field [...] experiencing plastic reality not just by visually, but physically."[37]

These exhibitions led to the establishment of the Exat 51 group, including architects, artists and designers who embraced abstract art advocating for the synthesis of all visual arts.[38] Precisely for this reason, the exhibitions in Belgrade and Zagreb may rightfully be included among the founding moments that marked the emergence of Yugoslavia in the international cultural debate.

Recently, art historian Ana Ofak explored a number of related exhibitions held from 1949 to 1950, which revived the Bauhaus abstract imagery by displaying

34 Clearly, each artistic expression had a specific purpose. To impress the rural population, Agitprop travelling groups mainly used leaflets, with short, incisive slogans and colourful posters resembling pre-WWII propaganda. Bachrach Krištofić and Krištofić, *Omladinske radne akcije: dizajn ideologije*.

35 Ana Ofak, *Agents of Abstraction* (Berlin: Sternberg Press, 2019).

36 From an ideological point of view, Yugoslav *udarnici* may be traced back to the phenomenon of the soviet shock-workers. According to American historian Lewis Siegelbaum, 'shock work' (*udarnichestvo*) originated during the Russian Civil War and acquired a new meaning in 1927-28, when isolated groups of factory workers organised brigades to fulfil tasks beyond their assignments. These ranged from reducing absences, avoiding alcohol, exceeding their production quota to reduce costs. See Lewis Siegelbaum, *Strakhanovism and the Politics of Productivity in the USSR*, 1935-1941 (Cambridge: Cambridge University Press, 1988), 40. In the Yugoslavia of the 1950s though, still and eminently rural country, shock workers were not active in the industrial sector, which was facing a critical juncture, also due to war damage.

37 Ana Ofak, *Agents of Abstraction*, 117.

38 Exat is the acronym for Eksperimentalni Atelje, meaning Experimental Atelier. The group, active only until 1956, was founded in 1951 in Zagreb by architect and designer Bernardo Bernardi (1921-1985), architect Zdravko Bregovac (1924-1998), painter Ivan Picelj (1924-2011), architect Zvonimir Radić (1921-1985), architect and designer Božidar Rašica (1912-1992), architect and sculptor Vjenceslav Richter (1917-2002), painter and sculptor Aleksandar Srnec (1924-2010), architect Vladimir Zarahović and painter Vladimir Kristl (1923-2004). In their manifesto, the members embraced Abstract Art advocating for the synthesis of all visual arts.

Fig. 1

Front-cover of the 1949 book *Radne Akcije Narodne Omladine Hrvatske*. The image is a collage by the famous artist Ivan Picelj representing an *udarnik*, a young 'shock-worker' who took part in the Highway construction. Ivan Picelj was a major artist working for the 1950 Exhibition of the Highway Brotherhood and Unity where this image was shown epitomizing the ideals of a smiling and working youth.

collages, murals, monochrome geometric shapes and grids (and socialist values), thereby marking a distance from USSR.[39] From the artistic point of view, these exhibitions adapted Moholy-Nagy's theory of "vision in motion" according to the audience, either laying emphasis on socio-political aspects for the local public, or promoting industrial production abroad.[40] Ideologically closer to the East yet seeking economic help from the West, Yugoslavia started a "waltzing," which left room for the coexistence of heterogeneous artistic movements.[41]

The Highway on display may also indicate the attempt by architect and sculptor Vjenceslav Richter and his circle to bring the large public closer to abstract art, thus removing its original stigma of art for art's sake. Looking at the photos of the exhibition *The Highway of Brotherhood and Unity* we clearly understand that the artistic intent had to cope with financial constrain, and with the possibility of dismantling and reassembling the exhibition display with some flexibility according to the space available. The idea of combining a slender structure, a large-mesh display grid and suspended elements well fit the bill.[42] However, some of these exhibitions corresponded to defining institutional moments.[43]

Following all these examples, the Yugoslav pavilion designed by Vijenceslav Richter for the Brussels 1958 World's Fair, celebrated for its synthesis between art and architecture, marked the swan song of a long-standing experimentation, paralleling the crisis between Yugoslavia and USSR. Likewise, the exhibition *The Highway of Brotherhood and Unity* was not a major shock for Yugoslavia, it rather showcased the emancipatory use of abstract art to voice emancipation of the youth involved in Highway site.

Cross-cultural triggers (artists, architects and the rise of landscape design)

Along with young workers, the highway site also gathered a number of technical experts and young artists, who were to document and interpret the epic of the moment. They were usually political prisoners or students from technical universities.[44] Youth Work Actions, however, also included some young Yugoslavs who were to start their professional career as architects in the mid-1950s. In 1947, for example, Mihajlo Mitrović took part in the building of the

39 The more politically charged exhibitions included the *Highway of Brotherhood and Unity and Antifascist Women's front of Yugoslavia*, both held in Zagreb in 1950. Some exhibitions organised as part of international fairs at Trieste (1947), Milan (1948), Brussels (1948), Paris (1948), Stockholm (1949), Vienna (1949), Hannover (1949), Paris (1949), Chicago (1949). In 1950, Stockholm hosted again a Yugoslav exhibition, mainly displaying exportable goods.

40 A synonym for simultaneity and space-time whirl to represent a future projection of reality and arousing an active involvement of the viewer. Cf. László Moholy-Nagy, *Vision in Motion* (Chicago: Paul Theobald, 1947).

41 Ofak, *Agents of Abstraction*, 200.

42 This was the case of the entrance of the exhibition including works by the internationally-renown Croatian photographer Tošo Dabac: shortly before, the same photos had been on display in the Yugoslav pavilion at Stockholm.

43 The 1947 Trieste exhibition, for example, preceded the establishment of Fairs Committee, which began to operate with the Brussels Pavilion of 1948, backed by the Chamber of Commerce and not the more ideologically biased Ministry of Foreign Affairs, not so favourable to the exhibition of export products.

44 Vejzagić "The importance of Youth Labour Actions in Socialist Yugoslavia," 43.

Šamac-Sarajevo railway line. While working on site, Mitrović and his colleague Radivoje Tomić from the Belgrade Faculty of Architecture took part in a 20-day-long competition and eventually built the station at Zenica, an industrial town about 70 km north of Sarajevo (1947).[45]

In 1950, Croatian architect Fedor Wenzler (1925 - 2008) described his competition project for a staging post along the Highway. Launched in 1949, the competition invited co-participated teams from Belgrade and Zagreb. The staging post was intended as a tourist settlement at some distance from the highway, consisting of a cluster of buildings set along a parallel road: a restaurant, a hotel with sport facilities, car-service and gas station, a police station and a two-floor roadman's house allowing a visual control over the highway. The project also included a monument dedicated to the Youth Work Actions: a realistic representation of a group of muscular workers pushing a wagon, visible along the highway from all directions.[46] The significance of this project lays in the novelty of the design theme and originality of the proposal. In fact, rather than just a petrol station, design teams were challenged to envisage a small village for motorists to stop over in a fine natural-artificial tract of their national landscape, reminded of its epics by the presence of the monument. [Fig. 2] In 1960, the journal *Arhitektura Urbanizam* celebrated the construction of the Highway as a key agent of modernisation.

"Those white bands, often double with a central green divider, decorated with signs communicating through colours and symbols, those curved and swinging lines, entangling inextricably and lowering one above the other at crossing points, become fibers of the heart of modern life."[47]

Adapting to topography and enhancing the forms of nature, the motorway route challenged architects, urban planners and landscape designers to envisage the combination of artificial and natural landscape beyond purely technical solutions; from the widest construction elements down to the smallest details like edges and scarps.

Their scope is vast. An entire orchestra of spatial effects, roads many kilometres long, curved lines, the concave and convex effect, the sudden change from the curved to the linear shape, a bridge, a viaduct, an overpass, can become unforgettable plastic phenomena in the landscape. Infrastructural nodes with two or more levels are primarily engineering objects constructed in a strictly rational manner. However, they may also offer great plastic possibilities.[48]

Construction of the highway paralleled the emergence of a new environmental sensibility. Architectural journals voiced this growing interest among architects, who showed a renewed bond with nature, in full awareness of the exceptional value

45 "Putnička železnička stanica u Zenici na Omladinskoj pruzi Šamac-Sarajevo (Travellers' train station in Zenica on the Šamac-Sarajevo railroad)," *Arhitektura*, no. 8-10 (1948), 39-40.

46 Fedor Wenzler, "Stanica na autoputu 'Bratsvo-jedinstvo' (A stop on the Brotherhood and Unity Highway)," no. 9-10, Arhitektura urbanizam (1950): 35-37.

47 Macura, "Autoput," 5.

48 Ibid.

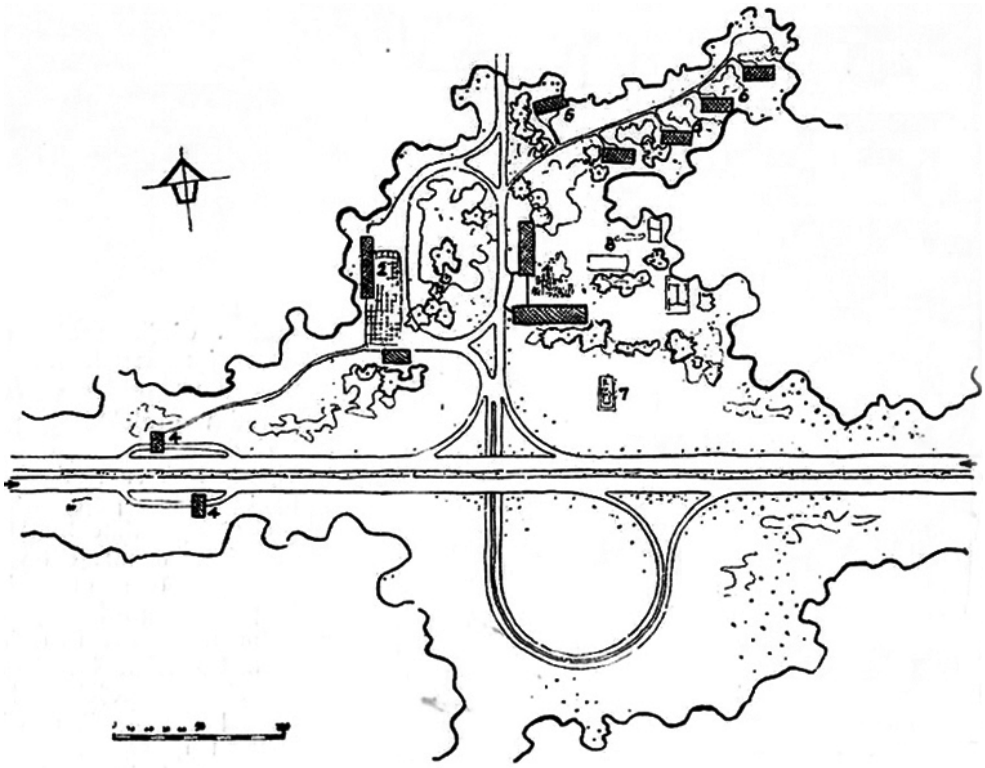

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Fig. 2

Project entry by Fedor Wenzler and other students for a staging-post along the Highway of Brotherhood and Unity. On the top the scheme which includes the main pavilion with restaurant and hotel, a car-service, a police station and a cluster of bungalows in the sheltering woodland.
The bottom picture shows a maquette for the monumental sculpture representing youth workers building the Highway. (Source: Urbanizam i arhitektura, no. 9-10 (1950): 35-37.)

of the landscape of Yugoslavia. Back from the 1967 Congress of the International Union of Architects in Prague, Milorad Macura wrote a fine essay, wishing that architecture might revive its long-established dialogue with the forms of nature.

> The variety of forms, vegetation and landscapes of Yugoslavia is extraordinary rich: all the landscapes of Europe are to be found in less than 256,000 km^2. In a ten-hour drive, you may cross the endless plains of Vojvodina, the pleasant slopes of Šumadija, the wonderful canyons of Sandžak, the wooded mountains of Montenegro, the karst landscapes

> and the magic of Lake Skadar - a materialization of the fantasy – and reach the treasure of the southern Adriatic coast. The Dalmatian islands and the medieval cities the Plitvice lakes, the Triglav mountain, the pearls of Ohrid, the cities of Jaice, Đerdap, are just some examples of the variety of the Yugoslav landscape, but they are also a testimony of its value.[49]

Aleksandar Krstić, considered the first Yugoslav landscape architect, raised the problem of landscape design in the proximity of roads. As a trained agronomist, he argued that the greenery should not be confined to a mere ornament, becoming instead a functional element of the road: protecting it from erosion, providing a safe driving experience with the use of certain trees and, even more important, enhancing driving as an aesthetic experience. The effect of driving through "elongated parks" was to improve the existing landscape, continuously catching drivers' attention without changing the "dominant character" of the area. [50] Krstić's approach shows how the highway became a specific design problem entailing a three-dimensional, even artistic ability to orchestrate the visual perception of the existing context. Along the same line, architect Marjan Bohinec wished for more collaboration between architects, landscape architects and engineers, so that they might integrate their complementary expertise in the early stage of the design process. In order to achieve an effect pleasing to the eye, Bohinec suggested a methodology which implied a geometric system of projections and a study of the details of the highway sections in a scale 1:10. The methodology, elaborated by German architects, was called "spatial perspective" and "gradient models".[51] Comparing German and Yugoslav design methods and results, Bohinec criticized the lack of intentional composition of the landscape along the Ljubljana-Zagreb road, which was highly praised for its technical features. Referring to Germany, where highway construction had achieved excellent results, Bohinec identified some fundamental design criteria, claiming that highway aesthetics design was particularly important for surrounding areas, as "the acknowledgeable beauty of a road is never rooted into his geometry."[52]

Grafting settlements and architecture onto the Highway

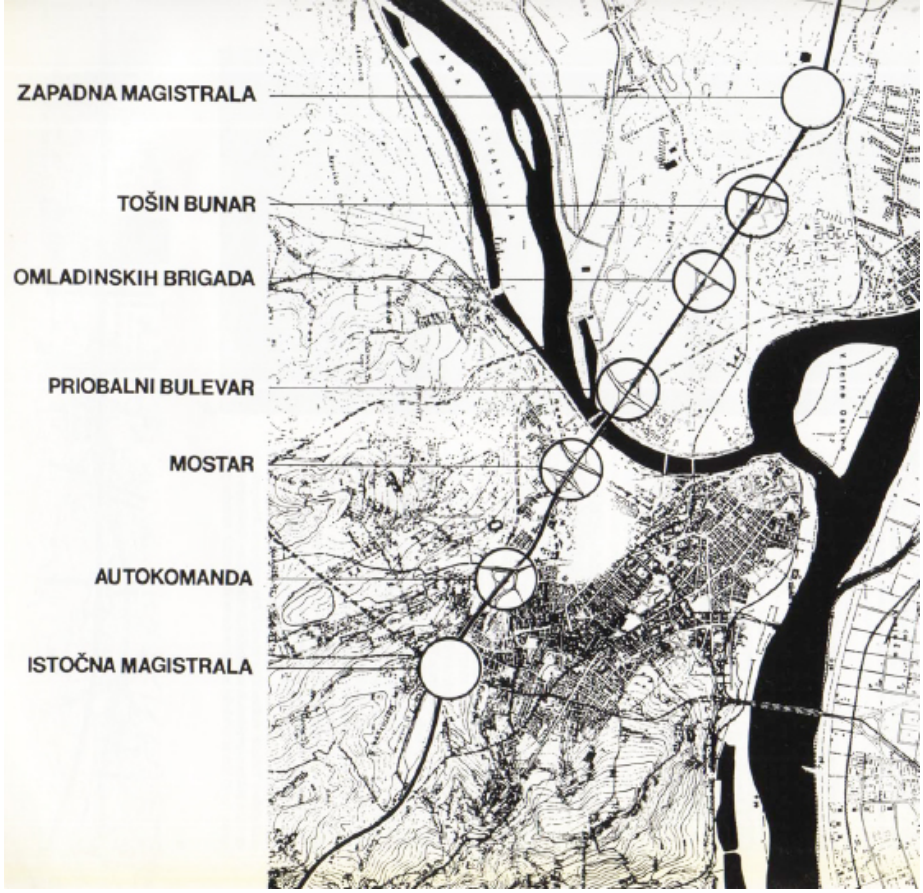
The role of the Highway of Brotherhood and Unity began to change after 1960. The third issue of *Arhitektura Urbanizam* (1960) included an article by Milorad Macura dedicated to the Highway, suggesting that harmonisation between landscape and modern infrastructure might provide a new testing ground for architectural design. In the following years, debates about landscaping paralleled design of new settlements along the highway sections approaching the main

49 Milorad Macura,"Tuge i ushiti pejzaža," 46.

50 Aleksandar Krstić, "Obrada predela duž saobraćajnica (Landscape design along the roads), *Arhitektura Urbanizam*, no. 56-57 (1969): 85.

51 Marjan Bohinec, "Urbanističko-arhitektonski elementi pri projektovanju i izgradnji autoputeva – povodom autoputa Ljubljana-Zagreb (Urban and architectural elements in the design and construction of highways - on the Ljubljana-Zagreb Highway)," *Arhitektura Urbanizam*, no. 3 (1960): 38.

52 Ibid.



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urban centres. Reaching four of the six federal capitals, the Highway became a trigger for urban projects. Its route, however, did not cross Ljubljana and Zagreb, but it did cut through Belgrade, integrating its multi-polar urban structure with a new element onto which urban additions and new centres were to graft.

The Highway reached Belgrade on the left bank of Sava River, crossing Studentski Grad (Students' Town) and the centre of New Belgrade. On the opposite bank, it ran tangent to the historic centre, following the layout defined by the 1950 Master Plan and confirmed in the New Belgrade Master Plan (1962). Passing through the city, the road met a rough topography, to which it partly adapted. [Fig. 3]

To the west of New Belgrade, where the plan envisaged an industrial settlement equipped with hospitals and recreation centres, the Highway crossed Bežanijska Kosa plateau at 97.60 meters MSL, losing altitude southward to reach 73.30 m in the central area of New Belgrade, the administrative and representative capital of socialist Yugoslavia. New Belgrade featured a regular grid hierarchically organised by a central axis stretching from the new railway station to the Federation Palace on the right bank of the Danube. The Highway crossed at right angles this representative enfilade, funneling long-distance traffic in a trench to allow for the continuity of pedestrian paths of the central *raion*.[53]

After the epic years of the brigades of volunteers, the Highway became an experimental design field calling for a multidisciplinary approach, involving figures from a consolidated field of expertise, such as architects and engineers, and others from emerging disciplines, such as landscape architects.

Fig. 3
General scheme of the Highway across Belgrade with its main junctions marked with magnifying circles. From the top down are the four junctions in New Belgrade and the three main in the historical part. Scheme by Branislav Jovin. (Source: Arhitektura Urbanizam, no. 61-62 (1970):23.)

53 Originated from the French *rayon*, the term *raion* was used in Soviet town planning to designate the smallest administrative entity, a district. The word *raion* is equivalent to the serbo-croatian *reon* or *rejon*.

4 5

A number of competition projects for the most complex urban junctions bear evidence to the contribution made by Yugoslav architects to shape the modernist townscape of the Highway across the federal capital. These competitions date back to 1960, when the Highway was still under construction. One of these concerned the interchange with three arterial roads in the narrow valley between Vračar and Topčider Hills, rendered even more complex by the presence of the railway and of a small river. The project by architect Branislav Jovin and engineer Jovan Katanić, in collaboration with Mihajlo Maletin and Sonja Baljozović, won the first prize among twenty nationwide participants. Katanić, who worked for the enterprise Auto-put and developed also the plan for the Adriatic Highway in the Kotor Bay (Montenegro), and Jovin fully exploited the physical features, proposing a new square called Mostar, half way through the difference in height between the railway (76 m MSL) and the uppermost level of the existing city (100 m MSL).[54] They imagined a system of public spaces at different levels reaching out to the surrounding area, thereby turning Mostar into the centre of the *raion*.

Jovin confirmed his ability to integrate technical and figurative aspects at Autokomanda, a major looped interchange 1.5 kilometres south of downtown Belgrade. This was a system of highway-related services including covered parking, commercial units, gas station and car selling shops, which Jovin arranged around a public core grafted onto infrastructure. Separating vehicles and pedestrians, once again he articulated terraces, commercial areas and public parks at different levels, so that infrastructure could become part of the historical urban fabric. [Figs. 4-5]

Fig. 4

Detail maquette of Mostar's Junction in Belgrade with the pedestrian plaza crossing the Highway and linking different topographic levels (Source: Urbanizam Beograda no.1 (1969): 4.)

Fig. 5

Maquette of the Highway's western section entering New Belgrade. (Source: Arhitektura Urbanizam nn.41-42 (1966): 22.)

54 Branislav Jovin, "Detaljni urbanistički plan za izgradnju auto-puta kroz Novi Beograd (Detailed urban plan for the construction of the highway through New-Belgrade)," *Arhitektura Urbanizam*, no. 41-42 (1966): 22-23.

In both projects of Mostar and Autokomanda, Jovin envisaged high-rise buildings as a figurative complement of the infrastructural node. At Mostar square, he chose the highest spot to design a terraced hotel tower for 300 people, thus emphasising the "gateway effect" suggested by topography. In addition, the complex was to include the diverse activities forming the core of the *raion*.[55] These were to form an articulated basement, namely a system of terraces facing onto a public plaza open towards the confluence. Further south, another tower of 65 metres was to signal Autokomanda info centre.[56] Unlike most European cities, where the highway represented a foreign body, in Belgrade, the Highway of Brotherhood and Unity provided new urban additions with a physical and symbolic continuity. Mostar and Autokomanda identified two major nodes and, as such, the best locations for clustering public functions accesses by car from all over the country.

Following this same principle, other *raion* centres grafted onto the highway, such as that of Dušanovac (along the eastern section) and the *raion* centre of Blok 34 in New Belgrade, both designed by Stojan Maksimović as multi-functional complexes for a large user base defining visual landmarks along the route.[57] [Fig. 6]

The introduction of high-rise buildings at the entrance of New Belgrade dates back to the 1961 pan-Yugoslav competition for New Belgrade's III *raion*, an area of 6,98 ha at the westernmost edge of the city. The project by Mihajlo Mitrović interpreted the idea of a monumental gateway proposing four towers rotated 45-degrees raising from a common basement. Stojan Maksimović proposed linking the existing swimming pool and Studentski Grad, grouping buildings and open-spaces near the residential blocks (1966). Nonetheless, these terraced buildings complied with the "artistic expression of the content" achieved by adopting pitched roofs, contributing to the overall highway panorama.[58]

A few kilometres south, Dušanovac raion centre appeared as an "inhabited plinth" cast in between the Highway and Ustanička Ulica, one of Belgrade's major thoroughfares.[59] The architectural configuration responded to the programme (a hotel, a cultural centre and parking adjacent to an existing department store) with a sequence of 10-floor-high towers set over a common basement, giving the effect of a continuous facade.

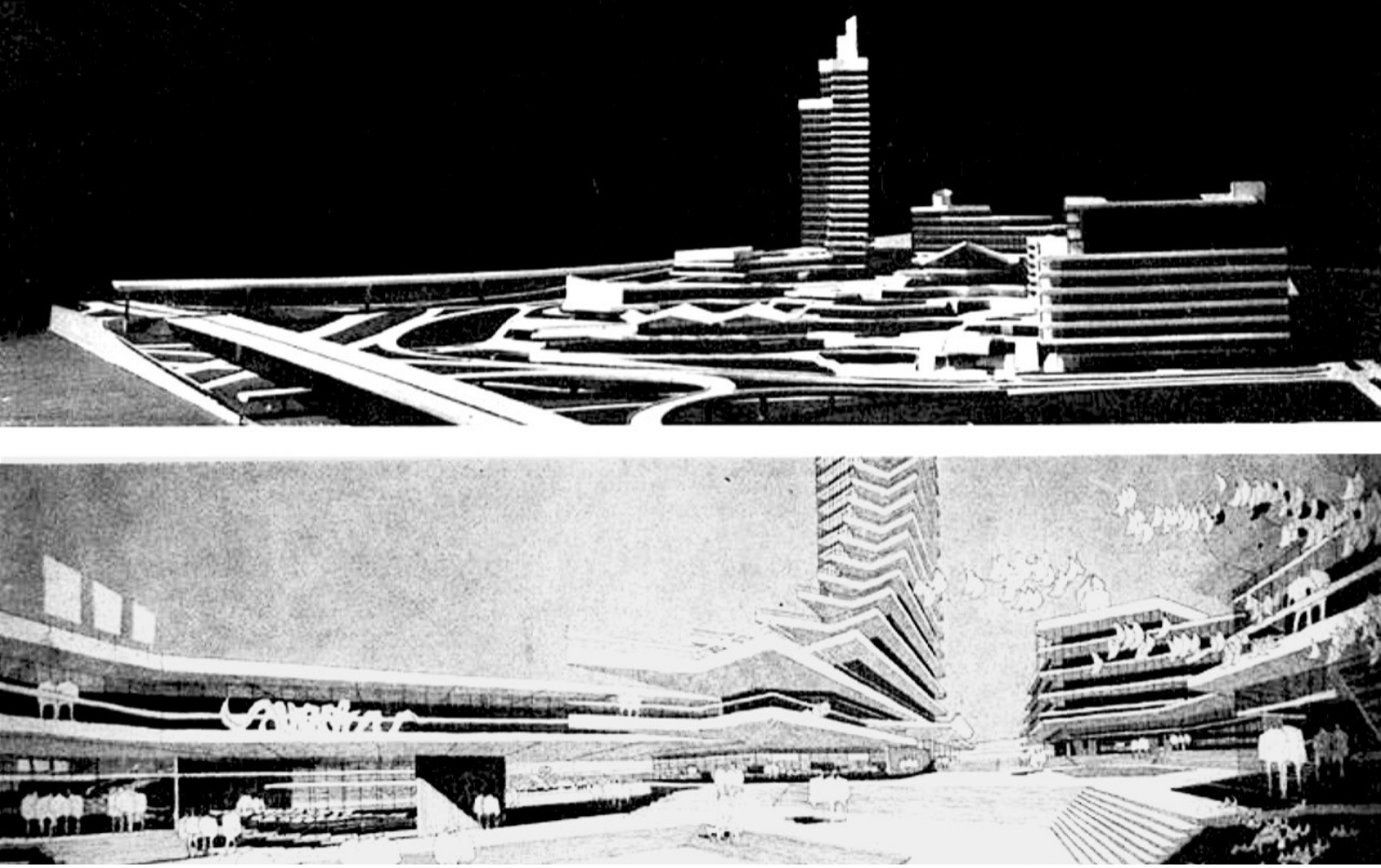
55 The plan included a youth centre, an art gallery, the local administration offices, a bank, a garage, a community house, a canteen, a meeting room, a club for council members, a wedding hall, raion's local parliament and relative offices. Cfr. Braislav Jovin, "Studija za urbanističko rešenje rejonskog centra Mostar u Beogradu (Study for the urban plan of the regional centre Mostar in Belgrade)," *Arhitektura Urbanizam*, no. 41-42 (1966): 67.

56 Branislav Jovin, "Auto-put kroz Beograd (The highway through Belgrade)," *Urbanizam Beograda*, no. 1 (January 1969): 3.

57 Architect Stojan Maksimović was in charge of both projects. In the case of Dušanovac, experts from other fields collaborated in the designing process, particularly concerning hydraulics, and energy engineering, whereas in the project for New Belgrade, Milica Jaksić elaborated the final design.

58 Milica Jakšić, "Novi Beograd - III rejonski centar (The New Belgrade Raion III Centre)," *Urbanizam Beograda*, no. 12 (1971): 14.

59 Stojan Maksimović, "Detaljni urbanistički plan dela rejonskog centra na Dušanovcu (Detailed urban plan of Dušanovac's raion centre), *Urbanizam Beograda*, no. 10 (1970): 4-5.



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The three pyramidal towers of Konjarnik hill identified another landmark South-East of Belgrade at the crossroads between the Highway and Revolucija boulevard (today Kralja Aleksandra boulevard), which was then starting to take shape. As from the architects' reports, the site required a careful balance between the programme and the context. The siting on a gently sloping green resulted in a contrast between horizontal blocks and high-rise. The cluster of pyramidal shaped towers set on the highest available spot monumentalised the natural topography, whereas those down the valley and near the highway resembled cubic masses. Seen from the highway when entering the city, the whole complex was to mark Belgrade's southern gate.[60]

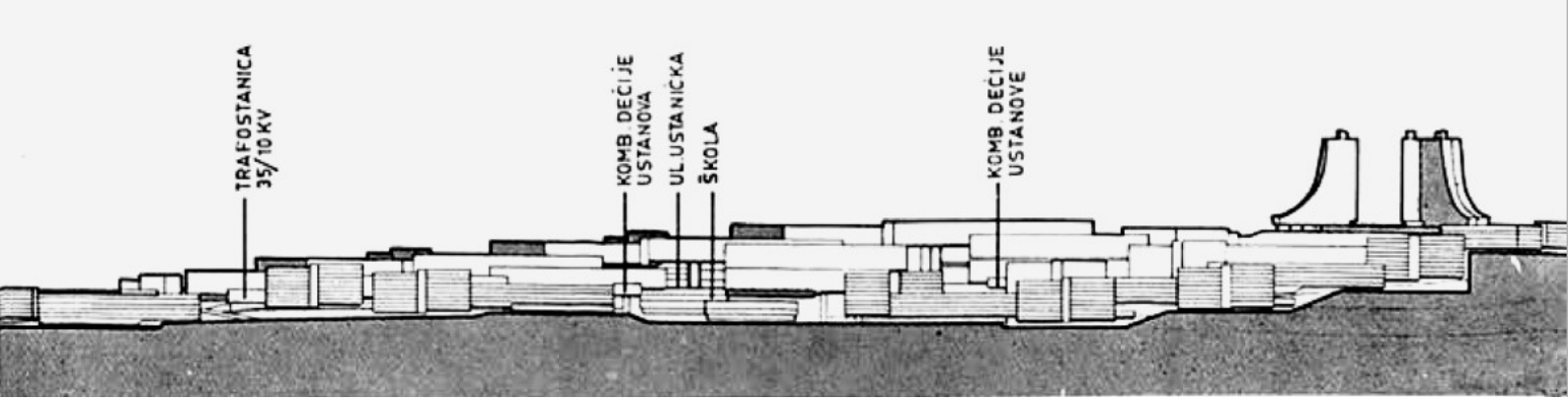
The majority of these projects, however, remained on paper, except for the city gates and the pedestrian path at Mostar junction. Still today, driving inbound from South-East, the three pyramids of Konjarnik act as a counterpoint of Mihajlo Mitrović's Genex Tower, after Yugoslavia's premier trading company, the so-called Western Gate. Designed in 1970 and built by a company called Rad from 1977 to 1980,[61] this iconic couple of high-rise reach 140-metres with its top rotunda. Pairing up two buildings differing physically and functionally, Mitrović avoided the mix of residential and office use, experimenting with a new solution for high-rise. Lifting the two buildings upon concrete arches, Mitrović created a seemingly unitary facade framing a view of city.

Fig. 6

Model and drawing by Jovin and Kaludjerić of the competition entry for Mostar/s raion centre in Belgrade along the Highway (Source: Arhitektura Urbanizam, no. 41-42 (1966):67)

60 Milica Janković, "Detaljni urbanistički plan stambenog naselja Konjarnik u Beogradu (Konjarnik's residential neighborhood detailed urban plan)," *Arhitektura Urbanizam*, no. 41-42 (1966): 51.

61 Aleksandar Kadijević, Mihajlo Mitrović. *Projekti, graditeljski život, ideje* (Mihajlo Mitrović. Projects, a builder's life, ideas) (Belgrade: Muzej Nauke i Tehnike-Muzej Arhitekture, 1999), 70.



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Crossing Belgrade, drivers would enjoy the new skyline, leaving them the impression of a city of skyscrapers. Appearing from afar, brutalist buildings along the Highway tended to achieve a plastic effect, as 'modern milestones' qualifying the simple act of driving as a nation-building experience [Fig. 7].

Highway of Brotherhood and Unity ramblings at Zagreb

Unlike Belgrade, where new urban additions appeared one after the other in rapid sequence, at Zagreb the Highway shifted its route over time, thereby manifesting its poleogenetic power in a more indirect way. From 1950 to 1958, the Highway ran along the Sava riverbank but, in 1977, it was rerouted northward, closer to the city centre.[62] The Highway crossed Zagreb parallel to the Sava river, the railway line, and the newly established Proleterskih Brigada street (today Vukovarska street) across the suburban area of Trnje. From 1977 to the late 1990s, the Highway moved back to South, for a better connection with the airport and the highways heading to Dalmatia.

Some plans and competition projects - in absence of a specific literature – may help us focus how the Highway oriented Zagreb's urban development. The 1940 plan by Vladimir Antolić identified Vukovarska street as a centre for Trnje, a low-density fabric of illegal and semi-rural detached houses. The road section of the "street in a city without streets" was that of a boulevard (almost as wide as the Highway) fitting the physical representation of both the centre of the city and the Republic.[63] In fact, a few years after the end of World War II, this became the largest building site of postwar Croatia, including housing and office buildings among the most original reinterpretations of Le Corbusier's work. As from the 1955 competition, the City Hall was to be built along Vukovarska street. However, as Neven Šegvić put it, this was "the beginning of the Gods' fall."[64] In 1955, Božica and Kazimir Ostrogović won the first prize. At the same time, Zdenko Sila and Zdenko Kolacio drafted a proposal for a new North-South urban axis as the functional and symbolic core of Zagreb, marking a clean break with the custom of entrusting the design of different buildings to different architects.

62 Vanja Radovanović, "Kako smo gradili autoput (How we built the Highway)," *Pogledaj.to*, November 7, 2014, http://pogledaj.to/drugestvari/kako-smo-gradili-autoput/

63 Vedran Ivanković, "Moskovski boulevard - Ulica grada Vukovara u Zagrebu 1945.-1956. godine (Moscow boulevard - Zagreb city street between 1945 and 1956)," *Prostor: a journal of architecture and urban planning*, vol. 14, no. 2 (32): 186, 192.

64 Neven Šegvić, "Stanje stvari – jedno viđenje (1945-1985) (The state of things - one vision)," *Arhitektura*, no. 196-199 (1986): 123.

Fig. 7
Detail of the cross-section through Konjiarnik complex showing the functional organization of the plynth onto which rise the three towers

This 400-m-wide esplanade alternating squares and public buildings for a total of 2,5 km was a cohesive composition of neatly designed masses and voids, stretching from the historical ring-park of Zrinjevac to the new City Hall, and further on to the Sava riverbank. One of the new squares marked the intersection with the Highway, locally entrenched yet following the ground level elsewhere to form a fine boulevard.

The lack of representative buildings along Vukovarska street (other than the City Hall) contributed to dampen urban development in the East-West direction, encouraging the transfer of the Fair across the Sava river: a resettlement process at the origin of New Zagreb. In this respect, architect Dubravka Vranić pinpointed the new Fair as the "generator of Zagreb's expansion to the south."[65] Eve Blau and Ivan Rupnik rightfully observed that the North-South axis replaced Vukovarska street as the backbone of the modern city, as clearly testified by the tight sequence of public buildings including the Strossmayer Gallery, the Library of Croatian Academy of Arts and Science, the Art Pavillion, the Vatroslav Lisinski Concert Hall and the Museum of Contemporary Art.[66] Its construction begun in 1956 following by the competition entry by Božidar Rašica, who foresaw the centre of New Zagreb as an extension of the Fair. In 1965, Dutch architect Jacob Bakema reinforced this hypothesis, drafting a project for the centre of a new North-South axis.

If the Fair played a poleogenetic role in the building of New Zagreb and the North-South axis organised the modern urban structure, the East-West direction followed by the railway and the Highway marked the set of territorial relations, reaffirming the key role of infrastructures as a national "scaffolding."[67]

The reconstruction of Skopje at the junction between the Central and Adriatic Highways

The search for a figurative expression of new urban landmarks along the Highway cut to the chase with the competition for the reconstruction of the city centre of Skopje, devastated by an earthquake on 26 July 1963.[68] Pondering over alternatives for a comprehensive plan, politicians and local planners kept very clear in mind the city's future role as a junction of the Central and Adriatic Highways. Thus, reconstruction prioritised the road network stemming from the new highway junction to support the functional organization of the city. Among

65 Despite governmental objections construction of the Fair began in 1955, and the following year the complex inaugurated in the presence of President Josip Broz Tito, thus marking the economic and industrial primacy of Zagreb over Belgrade. Dubravka Vranić, "The Zagreb Fair as a Generator of New Zagreb's Planning," *Journal of Planning History*, (January 2020): 22.

66 Eve Blau and Ivan Rupnik, *Project Zagreb: Tradition as Condition, Strategy, Practice* (Barcelona: Actar, 2007), 194.

67 Zarecor, "What Was So Socialist about the Socialist City?," 99.

68 Historically distinguished by her busy trading relations over long distance land routes, Skopje was the capital of the Republic of Macedonia. Its reconstruction in the mid-1960s became a real international laboratory, involving UN aid programs and expertise as well as many famous architects and planners, who left their mark on the Yugoslav architectural debate. Cfr. Ines Tolić, *Dopo il terremoto. La politica della ricostruzione negli anni della Guerra Fredda a Skopje* (After the Earthquake. The Politics of Skopje Reconstruction during the Cold War Era) (Reggio Emilia: Diabasis, 2011), 91.

the many experts involved, Constantinos Doxiadis attached a great importance to the distinguishing regional features, harmonising urban growth and infrastructural development. Skopje was to acquire a linear configuration along the Highway of Brotherhood and Unity extending into the industrial zone of Železara and the Aerodrom district.

The final Masterplan by the local Town Planning Institute (1964) also enhanced the relationship between settlements and infrastructure.[69] The interchange between the Highway of Brotherhood-Unity and the Adriatic Highway, and the new railway junction, were to foster a new level of osmosis between city, region and long-distance destinations.

Yet, the international competition for rebuilding the centre of Skopje opened the way to the quest for a figurative expression of the urban form, complemented by symbolic buildings meant to embody a future collective projection. The interplay between infrastructure and architecture achieved its climax in the proposal by Kenzo Tange, who tried to "urbanize architecture and spatialize the city."[70] Significantly, in accordance with the masterplan, Tange's City Gate corresponded to the Highway and railway access to the centre of Skopje. Tange himself explained the monumentality of the City Gate as an expression of the city's national and international revival in the Balkans empowered by the new junction.[71]

Some tentative remarks

Analysing the paradoxes of highway infrastructure in socialist Yugoslavia, historian Lyubomir Pozharliev considered the Highway of Brotherhood and Unity as the materialisation of Josip Broz Tito's efforts to forge a new identity based on the idea of a common future. Pozharliev argues that the same Highway produced unexpected spin-off effects, reinforcing the gap between regions and creating the precondition for individualisation through individual mobility: favouring the rise of the consumer society, the Highway ended up by undermining the ideological basis of the socialist Yugoslavia, leading to the breakdown of the collective utopia.[72]

From the 1950s to the 1980s, in the prospect of a newly unified country, New Belgrade, New Zagreb and New Sarajevo rose in juxtaposition to the respective historic cores. While experimenting with the *komuna* as an administrative, ideological and spatial entity in view of an industrial society, and with the Soviet concept of *raion* and micro-*raion*, the Highway oriented the spine of new city

69 Saša Sedlar, "Problemi urbanistici della ricostruzione di Skopje (Urban Issues of Skopje's reconstruction), *Umana, rivista di politica e di cultura*, no. 5-6 (1966): 20.

70 Kenzo Tange, "Skopje Urban Plan 1965," *The Japan Architect*, no. 31-2 (1967): 30.

71 Ibid., 35.

72 Lyubomir Pozharliev, "Collectivity vs Connectivity: the Techno-Historical Example of Motorway Peripherization in Former Yugoslavia," paper presented at the 12th Annual Conference of the International Association for the History of Transport, Traffic and Mobility (T2M), 18-21 September 2014, Philadelphia.

centres, clustering state-related monuments and institutions, and shaping distinctive social behaviours.

In the case of Belgrade, the Highway marks the founding act and the geometric order of the "federal" urban addition, sanctioning once for all its extra-territorial significance, as opposed to the historical core.[73] In 1948, architect Nikola Dobrović elaborated the Plan for Greater Belgrade (Regulacijoni Plan Velikog Beograda) in full awareness of how the Highway might boost urban development: "The main backbone of the traffic skeleton and the entire city layout is the city Highway, whose perpendicular length from Bežanijska Kosa to the pass of Mokri Lug is 12 km."[74]

The intersection between the Highway and the central axis stemming from the Federation Palace marked the foundation crossroad of New Belgrade at the confluence of the country's two main rivers, epitomising the universal language of modern architecture[75] or, in the judgement of some, "an un-rooted repetition of the avant-garde."[76] [Fig. 8]

At Zagreb, the Highway reinforced the East-West infrastructural system connecting the city with the Federation, while intertwining with the large mesh grid of the new development areas.

In the case of Skopje, the vital relationship between infrastructure and the urban form was to be re-established, in a dialectic with the Vardar River, Kale citadel, Gazi-baba hill and the Vodno Mountain.

From an architect's viewpoint, this contribution argues that the Highway of Brotherhood and Unity may help us approach "thick descriptions"[77] in what concerns the built environment, turning what appears as infrastructure development into a much broader cross-cultural trigger. Architects and emerging landscape architects built an image of the country as an untamed, bucolic and federalized motherland, shaping in parallel a modern urban scenery with high-rise buildings and clusters of public activities accessible to local and international drivers. Thus, the Highway eventually epitomized the polarization between landscape and the new townscape.

Contradictory, the Highway's domestic significance rekindled momentum in the 1980s, when cross-border shopping for Yugoslavs of varying ethnic, socio-economic and cultural backgrounds became a very common custom.[78] Traveling along the Highway represented for generations of Yugoslav citizens

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73 Liljana Blagojević uses the term "extra-territorial" to stress that New Belgrade was the administrative capital of the Yugoslav federation, financed by federal agencies. Cfr. Ljiljana Blagojević, *Novi Beograd. Osporeni modernizam* (New Belgrade. Contested modernism) (Belgrade: Zavod za udžbenike, 2007), 73.

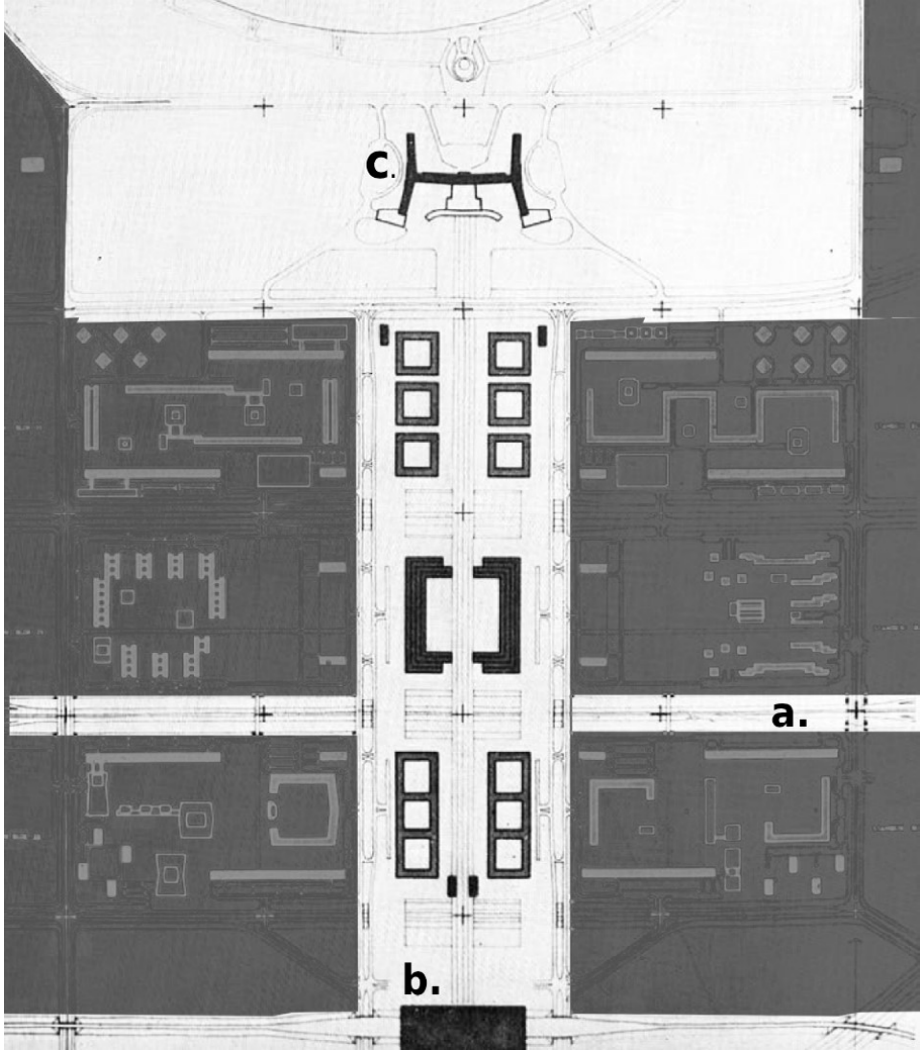
74 Nikola Dobrović, "Konture, razvoj i značaj izgradnje Velikog Beograda (Features, development and building of the Greater Belgrade)," quoted in Blagojević, *Novi Beograd*, 108.

75 Vladimir Kulić, "Building Brotherhood and Unity," 29.

76 Aurelio Cortesi, "Politica e architettura in Jugoslavia, revisionismo e ortodossia (Politics and Architecture in Yugoslavia: Revisionism and Orthodoxy), *Casabella-Continuità*, no. 255 (September 1961): 7.

77 Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973).

78 Maja Mikula, "Highways of Desire. Cross-Border Shopping in Former Yugoslavia 1960s-1980s," in *Yugoslavia's Sunny Side: a History of Tourism in Socialism* (1950s-1980s), eds. Hannes Grandits and Karin Taylor (Budapest: Central European University Press, 2010), 211.



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the country's openness towards the West, a freedom that other Eastern-bloc countries did not experience.

Driving across Yugoslavia

As early as 1945, Josip Broz Tito confirmed the necessity of building the Highway of Brotherhood and Unity. In a speech given in December of the same year, he declared:

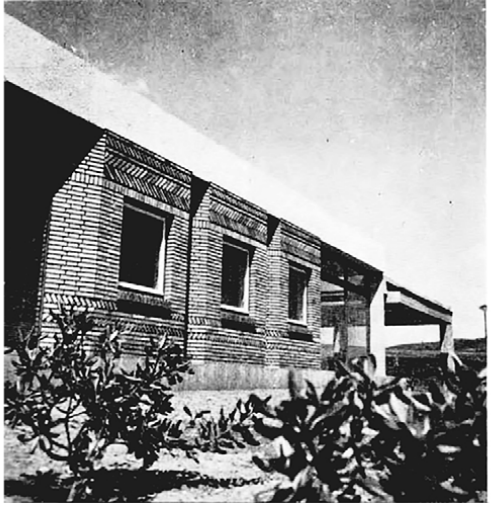
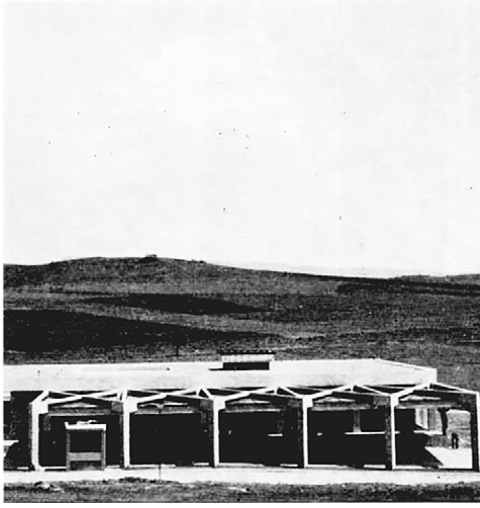
> To become an advanced country, we need to build new and modern roads. First we will start the construction of the Motorway Belgrade-Zagreb and thus link not only two of the most beautiful cities but many of our regions with roads that will be linked to the Motorway […] through work we need to show which steps on what paths will develop new Yugoslavia.[79]

Forty years later, in the 1980s, every worker coming home from Western Germany for the Summer holidays (the so-called *gastarbeiter*), as well as every camper heading to Chalkidiki from North-Western Europe would cross Yugoslavia from Slovenia to Macedonia along the Highway of Brotherhood and Unity, otherwise known as Central Highway.

79 Quoted from Saša Vejzagić, "The importance of Youth Labor actions in Socialist Yugoslavia," 39.

Fig. 8

Caption: Map of Novi Beograd showing the intersection between the Highway (a), the railway (b) and the central axis stemming from the Federation Palace (c)

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On approaching Belgrade, after passing the airport, they could not miss Mitrović's Genex Tower, expressing the power and economic progress achieved by socialist Yugoslavia. Genex Tower also marked the threshold of New Belgrade where the Highway entrenched in between the blocks, eventually reaching Gazela Bridge, built from 1966 to 1970 by Milan Đurić. Looking left, drivers could catch sight of the historical city with the fortress at the confluence of the Sava into the Danube; to the right they could glimpse the new Trade Fair. Yet, at this junction, called Sava's Amphitheater, just before crossing the bridge, the horizontal metal and glass building of the Sava Centar building would have appeared to the drivers. This venue embodied Yugoslavia's international prestige. Built between 1977 and 1979 it stemmed out of Yugoslavia's global network including the World Bank, UNESCO and the Non-Aligned countries, which met there during the ninth Summit in 1989.

Driving on, they would pass Mostar, Autokomanda, Dušanovac, Konjarnik, continuing southwards to reach Niš, Skopje and the Greek border. [Fig. 9]

The Gevgelija customhouse at the border between Greece and Yugoslavia is a work by Mihajlo Mitrović dating back to 1964. This seemingly simple functional building is loaded instead with symbolic meaning, due to the presence of art pieces embedded in a tight texture of exposed bricks of a size smaller than usual. These are replicas of architectural elements of the St. John's Medieval Orthodox Monastery at Kaneo on Lake Ohrid. Conceived as a glass and brick building, the customhouse features an apse-like elevation, a sort "diorama of fragments" anticipating the main destinations in the region.[80]

Recasting art and architecture into spatial narrative hovering between collective and individual experience, lead into original works of architecture, which paralleled Abstractionism and orthodox Modernism. At the turn of the 1960s though, particularly in frontier areas, the first trends toward symbolic meanings came to the fore. In this perspective, Bogdan Bogdanović's visionary idea to "monumentalise" all the national borders acquires even more meaning.[81] Even if never referred explicitly to the Highway of Brotherhood and Unity, we may easily

80 Mihajlo Mitrović, "Zapis o tri moja dela (About three buildings of mine)," *Arhitektura Urbanizam*, no. 66 (1970): 22-27.

81 Belgrade architect Bogdan Bogdanović proposed a couple of monumental milestones that had to mark important events or places across Yugoslavia and in particular the border crossings. The use of the flame as the symbol was meant to overcome the established five-pointed star and marble boards with inscriptions.

Fig. 9

Gevgelija customhouse by Mihajlo Mitrović. (Source: Arhitektura Urbanizam, no.66(1970): 20,27)

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speculate that his *Beleg* monument landmark was to be seen twice, in Slovenia and in Macedonia. For *Beleg*, Bogdanović envisaged "a beautiful marble column with a flame on top: [...] The symbol of flame was born within our Revolution and it is entirely ours. […] Is there, possibly, any better way to mark the gates of our country?"[82] [Figs. 10]

Fig. 10

Bogdan Bogdanović's sketch for the beleg. (Source: *Mali Urbanizam* (Sarajevo: Narodna prosvjeta, 1958), 51).

82 Bogdan Bogdanović, "Belezi (Milestones)," in *Mali Urbanizam* (Sarajevo: Narodna prosvjeta, 1958), 50.

Bibliography

Andersen, Tea Sindbæk. "Tito's Yugoslavia in the Making." *In Machineries of Persuasion. European Soft Power and Public Diplomacy During the Cold War*, edited by Óscar J. Martín García and Rósa Magnúsdóttir, 105-120. Berlin-Boston: De Gruyter, 2019.

Blagojević, Ljiljana. *Novi Beograd. Osporeni modernizam* (New Belgrade. Contested modernism). Beograd: Zavod za Udžbenike, 2007.

Blau, Eve, and Ivan Rupnik. *Project Zagreb. Tradition as Condition, Strategy, Practice*. Barcelona: Actar, 2007.

Bogdanović, Bogdan. "Belezi (Milestones)." In *Mali Urbanizam (Small Urbanism)*. Sarajevo: Narodna Prosvjeta, 1958.

Bohinec, Marjan. "Urbanističko-arhitektonski elementi pri projektovanju i izgradnji autoputeva – povodom autoputa Ljubljana-Zagreb (Urban and architectural elements in the design and construction of highways - on the Ljubljana-Zagreb Highway)." *Arhitektura Urbanizam*, no. 3 (1960): 38.

Čavlović, Melita. "Constructing a Travel Landscape: A Case Study of the Sljeme Motels along the Adriatic Highway." Architectural Histories, no. 6 (1) (2018): 1-14. http://doi.org/10.5334/ah.187.

Cortesi, Aurelio. "Politica e architettura in Jugoslavia: revisionismo e ortodossia (Politics and Architecture in Yugoslavia: Revisionism and Orthodoxy)." *Casabella-Continuità*, no. 255, (1961): 4-23.

Hofman, Ivan. *Mi gradimo prugu - pruga gradi nas. Omladinske radne akcije u Jugoslaviji 1946-195*1. Katalog izložbe (We build the railway - the railway builds us. Youth Work Actions in Yugoslavia 1946-1951. Exhibition Catalogue). Belgrade: Arhiv Jugoslavije, 2012.

Geertz, Clifford. *The Interpretation of Cultures*. New York: Basic Books, 1973.

Golubović, Jovan, ed. *Beograd- grad akcijaša* (Belgrade - a city of action) (Belgrade: Gradska Konferencija, 1985).

International Bank for Reconstruction and Development (IBRD). "Appraisal of a Highway project in Yugoslavia," Report n. TO-367a, 7 June 1963, http://documents1.worldbank.org/curated/en/850631468177844374/pdf/multi0page.pdf

Ivanković, Vedran. "Moskovski Boulevard – Ulica grada Vukovara u Zagrebu 1945.-1956. godine. Arhitektura i urbanizam na razmeđu Istoka i Zapada (Moskva boulevard - Zagreb city street between 1945 and 1956. Architecture and urbanism between East and West)." *Prostor. A Journal of Architecture and Urban Planning*, vol. 14, no. 2 (32): 178-195.

Jakšić, Milica. "Novi Beograd - III rejonski centar (New Belgrade - III raion centre)." *Urbanizam Beograda*, no. 12 (1971): 11-14.

Janković, Milica. "Detaljni urbanistički plan stambenog naselja Konjarnik u Beogradu (Konjarnik's residential neighborhood detailed urban plan." *Arhitektura Urbanizam*, no. 41-42 (1966): 51-52.

Jovin, Branislav. "Detaljni urbanistički plan za izgradnju auto-puta kroz Novi Beograd (Detailed urban plan for the construction of the highway through New Belgrade)." *Arhitektura Urbanizam*, no. 41-42 (1966): 22-23.

Jovin, Branislav. "Detaljni urbanistički plan za izgradnju saobraćajnog trga Mostar (Detailed urban plan for the construction of the Mostar Square)." *Arhitektura Urbanizam*, no. 41-42 (1966): 26.

Jovin, Branislav. "Studija za urbanističko rešenje rejonskog centra Mostar u Beogradu (A study for the urban design of the Mostar Raion centre in Belgrade)." *Arhitektura Urbanizam*, no. 41-42 (1966): 66-67.

Jovin, Branislav. "Auto-put kroz Beograd (Highway through Belgrade)." *Urbanizam Beograda*, no. 1 (January 1969): 1-4.

Kadijević, Aleksandar. *Mihajlo Mitrović. Projekti, graditeljski život, ideje (Mihajlo Mitrović. Projects, a builder's life, ideas)*. Belgrade: Muzej Nauke i Tehnike - Muzej Arhitekture, 1999.

Konjikušić, Davor. "Autocesta/The Highway." https://www.davorko.net/#/autoput-highway/.

Krstić, Aleksandar. "Obrada predela duž saobraćajnica (Landscape design along the roads)." *Arhitektura Urbanizam*, no. 56-57 (1969): 84-89.

Krulić, Josip. *Storia della Jugoslavia dal 1945 ai nostri giorni* (History of Yugoslavia from 1945 until present day). Milano: Bompiani, 1999.

Kulić, Vladimir. "Building Brotherhood and Unity: Architecture and Federalism in Socialist Yugoslavia." In *Toward a Concrete Utopia: Architecture in Yugoslavia 1948-1980*, edited by Martino Stierli and Vladimir Kulić, 26-40. New York: MoMA, 2018.

Macura, Milorad. "Tuge i ushiti pejzaža (Landscapes' sadness and elation)." *Arhitektura Urbanizam*, no. 56-57 (1967): 44-49.

Macura, Milorad. "Autoput (The Highway)." *Arhitektura Urbanizam*, no. 3 (1960): 5.

Matošević, Andrea. "Omladinske Radne Akcije: kontinuiteti i odmaci iz iskustva akcijaša (Youth Work Actions: continuity and departures from the experiences)." *Traditiones*, no. 44/3 (2015): 93-111. doi:10.3986/Traditio2015440305.

Maksimović, Stojan. "Detaljni urbanistički plan dela rejonskog centra na Dušanovcu (Dušanovac's Raion center detailed plan)." *Urbanizam Beograda*, no. 10 (1970): 4-5.

Mikula, Maja. "Highways of Desire. Cross-Border Shopping in Former Yugoslavia 1960s-1980s". In *Yugoslavia's Sunny Side: a History of Tourism in Socialism* (1950s-1980s), edited by Hannes Grandits and Karin Taylor, 211-237. Budapest: Central European University Press, 2010.

Mitrović, Mihajlo. "Putnička železnička stanica u Zenici na Omladinskoj pruzi Šamac-Sarajevo (Travellers train station in Zenica on the Šamac-Sarajevo Railroad)." *Arhitektura*, no. 8-10 (1948), 39-40.

Moholy-Nagy, László. *Vision in Motion*. Chicago: Paul Theobald, 1947.

Ofak, Ana. *Agents of Abstraction*. Berlin: Sternberg Press, 2019.

Pirenne, Henri. *Medieval Cities: Their Origins and the Revival of Trade*. New York: Doubleday, 1956.

Pozharliev, Lyubomir. "Collectivity vs Connectivity: Highway Peripheralization in Former Yugoslavia (1940s–1980s)." *The Journal of Transport History*, vol. 37 (2) (2016): 194-213.

Radovanović, Vanja. "Kad smo gradili autoput (When we built the Highway)." *Pogledaj.to*, 7 November 2014. http://pogledaj.to/drugestvari/kako-smo-gradili-autoput/

Savezni Zavod za Statistiku. *Jugoslavija 1918-1988: Statistički godišnjak*, Belgrade: Savezni Zavod za Statistiku, 1989. http://publikacije.stat.gov.rs/G1989/Pdf/G19892004.pdf.

Sedlar, Saša. "Problemi urbanistici della ricostruzione di Skopje (Urban issues of Skopje's reconstruction)." *Umana, rivista di politica e di cultura*, no. 5-6 (1966): 17-23.

Šegvić, Neven. "Stanje stvari – jedno viđenje (1945-1985) (The state of things - one vision)," *Arhitektura*, nn. 196-199 (1986): 118-128.

Šekularac, Ivana. "Former Yugoslavia's Brutalist Beauty. A Photo Essay." The Guardian, October 31, 2019. https://www.theguardian.com/artanddesign/2019/oct/31/former-yugloslavia-brutalist-beauty-a-photo-essay.

Senjković, Reana. *Svaki dan pobjeda. Kultura Omladinskih Radnih Akcija* (Every day a victory. The culture of the Youth Work Actions). Zagreb: Institut za etnologiju i folkloristiku, 2016.

Senjković Reana. "Uvod." In *Omladinske Radne Akcije: dizajn ideologije* (Youth Labour Actions. Ideology design), edited by Sanja Bachrach Krištofić and Mario Krištofić, 5-14. Zagreb: Umjetnička organizacija Kultura umjetnosti, 2017.

Siegelbaum, Lewis. *Stakhanovism and the Politics of Productivity in the USSR, 1935-1941*. Cambridge: Cambridge University Press, 1988.

Stefanović, Momčilo. *Svitanja na rukama* (Dawns on hands). Belgrade: Export-press, 1969.

Supek, Rudi. *Omladina na putu do bratstva. Psihosociologija radne akcije* (Youth on the way towards brotherhood. Psycho-sociology of the Work Action). Belgrade: Mladost, 1963.

Stajević, Svetislav. "Naši putevi (Our roads)." *Arhitektura Urbanizam*, no. 3 (1960): 6-11.

Tange, Kenzo. "From Architecture to Urban Design." *The Japan Architect*, no. 31-2 (1967): 23-28.

Tange, Kenzo. "Skopje Urban Plan 1965." *The Japan Architect*, no. 31-2 (1967): 28-70.

Tolić, Ines. *Dopo il terremoto. La politica della ricostruzione negli anni della Guerra Fredda a Skopje* (After the earthquake. The politics of Skopje reconstruction during the Cold War Era). Reggio Emilia: Diabasis, 2011.

Tomasevich, Josip. "Immediate Effects of the Cominform Resolution of the Yugoslav Economy." In *War and Society in East Central Europe* vol. X, edited by Wayne Vuchinich, 89-130 (New York: Columbia University Press, 1982).

Vejzagić, Saša. "The importance of Youth Labour Actions in Socialist Yugoslavia (1948-1950): a Case Study of the Motorway Brotherhood-Unity." Master of Arts diss., Central European University in Budapest, 2013.Vranić,

Dubravka. “The Zagreb Fair as a Generator of New Zagreb’s Planning.” *Journal of Planning History*, (January 2020). doi:10.1177/1538513219897052.

Wenzler, Fedor. “Stanica na autoputu Bratsvo-jedinstvo.” *Urbanizam i arhitektura*, no. 9-10 (1950): 35-37.

Zarecor, Kimberly E. “What Was So Socialist about Socialist City? Second World Urbanity in Europe.” *Journal of Urban History*, Vol. 44 (I) (2018): 95-117.

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Constructing the City of Solidarity: Alfred Roth's Elementary School in Skopje

Modernity, Education, Elementary school, Alfred Roth

/Abstract

In 1963, Skopje suffered an earthquake of catastrophic proportions that left the city reduced to rubble. What followed was a case of immense international solidarity. For more than a decade, aid came in abundance from both sides of the Iron Curtain. In a short but intense period of approximately 15 years, the city underwent a process of reconstruction that entirely changed its appearance and the quality of living. In this context, with a strong belief in the importance of high-quality modern education, the Swiss government donated the design, financed the construction and equipped an exemplary school building, designed by Alfred Roth and named after the renowned Swiss pedagogue Johann Heinrich Pestalozzi.

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https://doi.org/10.6092/issn.2611-0075/10412 | ISSN 2611-0075

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Skopje, the city of solidarity

In July 1963, the city of Skopje was struck by an earthquake of catastrophic proportions. It took more than 1.000 lives, more than 3.000 people were injured, while 75-80 % of the built stock was either demolished or damaged beyond repair. What followed the unfortunate event was a case of unprecedented international solidarity. More than 80 countries worldwide gave their donations in many different forms – from the most needed immediate supplies, financial aid, different kinds of intellectual help and expertise, all the way to artworks or architectural design.[1] The trauma of the natural disaster became a trigger for radical transformation. In fact, the previously peripheral city of Skopje, suddenly became a place in which international architects and planners worked side by side with professionals from Macedonia and other parts of former Yugoslavia [Fig. 1].

The position and reputation of Yugoslavia on the global political scene as a founder of the Non-Alligned Movement enabled and led towards immense help and guidance by the United Nations.[2] The UN appointed Ernest Weismann (chief executive of the UN's Housing and Town Planning Section, pre-war CIAM member and Le Corbusier's co-worker in the late 1920s) as a Chairperson of the

1 The news about the earthquake spread immediately and much needed help started to arrive, initially in the form of the most needed supplies (shelters, food, sanitary supplies, financial aid, etc). The type of international aid changed its character according to the changing needs of the city. Countries like the USA, United Kingdom, Scandinavian countries, Switzerland and Poland among others donated temporary and/or permanent buildings, most of which are still in use today. New prefabricated residential settlements started to emerge (Kozle, Vlae, Gjorče Petrov, Deksion, Butel etc.), thus expanding the territory of the city. Cfr. Blagoje Popov, Risto Galić et al. eds., *Skopje, grad na solidarnost* (Skopje, city of solidarity) (Skopje: NIP Nova Makedonija, 1975) and *Skopje 26.07-02.08.1964. Sredba na solidarnosta* (Skopje 26 July-02 August 1964. A meeting of solidarity) (Skopje: NIP Nova Makedonija, 1964).

2 Cfr. Vladimir Kulić, Maroje Mrduljaš, and Wolfgang Thaler, eds., *Modernism In-between: The Mediatory Architectures of Socialist Yugoslavia* (Berlin: Jovis, 2012) and Maroje Mrduljaš and Vladimir Kulić, eds., *Unfinished Modernisations: Between Utopia and Pragmatism* (Zagreb: UHA/CCA, 2012).

Fig. 1

Skopje earthquake: The Railway Station (Source: Museum of the City of Skopje)

International Consulting Team in charge of the reconstruction of Skopje. The Polish urbanist Adolf Ciborowski was appointed project manager of the developing Master Plan. He was joined by a team of local and international experts, including Constantinos A. Doxiadis Associates from Greece, Polservice from Poland, Wilbur Smith from United Kingdom etc. In 1965, at an invited international competition jointly organized by the UN and the Yugoslav government, the Japanese architect Kenzo Tange won the majority of the prize for the reconstruction of Skopje's city center.[3] As of 1964, under the auspices of the UN, Skopje was transformed into a field of international cooperation and testing grounds for many late-modern urban and architectural paradigms. The relatively short but intense period of approximately 15 years brought the undoubtedly most powerful architectural segment within Skopje's recent architectural history. The urgency of the post-earthquake condition of Skopje and the specific phenomenon of rapid construction could be compared to the post-World War II situation in many European cities - the need for rational solutions, the use of industrially produced elements and economical construction methods. However, the ambitions of the UN were high – to promote Skopje as an exemplary global city that will outdo the current antagonism and ideological divisions between the two opposing blocks. They coincided with the ambitions of the Yugoslav authorities – to build a (late) modern city, in line with the major contemporary architectural tendencies, at times completely oblivious of the local social, cultural or economic context.

Rebuilding public education: the condition after the earthquake

The earthquake devastated the city to a great extent. Even though the housing fund suffered the greatest damage (150.000 citizens out of 198.000 became homeless), all public buildings suffered a great deal as well. Almost half of the schools (primary or secondary education) were either demolished or with a questionable possibility for repair.[4] The devastation rendered the basic functioning of many institutions questionable. On the other hand, it created a specific opportunity - the ability to make a thorough assessment of the condition and needs, and plan the city - both the residential settlements as well as all the public facilities that accompanied them. All of this by much higher standards than before.

The process of the post-earthquake renewal of Skopje, which lasted until the early 1980s when all the financial funds had been exhausted, greatly improved

3 More information about the process of post-earthquake renewal of Skopje in Derek Senior, *Skopje Resurgent: The Story of a United Nations Special Fund Town Planning Project* (New York: United Nations, 1970) and Ines Tolic, *Dopo il terremoto: la politica della ricostruzione negli anni della Guerra Fredda a Skopje* (After the earthquake. The politics of Skopje reconstruction during the Cold War Era) (Reggio Emilia: Diabasis, 2011).

4 Before the earthquake there were 34 primary schools in Skopje, with over 36.000 students, many of which had been working in adapted buildings, only partially suitable for the purpose. The school network was unevenly distributed and the gravitational radius was often bigger than 600 m. The earthquake destroyed 14 school buildings; only 2 of the remaining buildings had minor damages, whereas the rest required major repairs. Similar was the condition with the network of secondary schools. Out of the 30 secondary schools, 15 were demolished by the earthquake. More about the extent of damages and the condition after the earthquake in *Skopje, urbanistička studija* (Skopje, urban study) (Skopje: Zavod za urbanizam i arhitektura, 1964), 107, 110 and Popov, Galić et al. eds., *Skopje, grad na solidarnost*, 198-201.

the living standard. Apart from housing, one of the priorities was education.[5] Therefore, significant investments were made, mostly provided by the Fund for Renovation and Construction of the city. The construction of educational facilities, with an almost uninterrupted intensity, lasted throughout the whole period of the post-earthquake renewal. In the first decade (1963-73) the number of primary schools grew up to 160 school buildings, with a capacity of approximately 64.000 students. Many of the buildings were prefabricated or had a temporary character. The spatial distribution of the educational facilities was according to the new city plan. The city center and the newly built residential settlements were equipped first, and later, at the end of the 1970s and early 1980s, the construction of new school buildings spread to the outskirts.

The Johann Heinrich Pestalozzi Elementary School

It was very soon after the earthquake that the Swiss government decided to help the affected city with an elementary school. The federation, the cantons and private citizens helped in rising funds for the construction of a school building and, at certain point, 1.6 million Swiss francs were collected. The City of Skopje provided the building plot, as well as the costs in excess of the amount raised. The joint costs reached amount of 3 million francs.

Shortly before World War II, in the times of the economic crisis and the slowdown in the field of social housing, school architecture was one of the central concerns of the Swiss architectural avant-garde. This question gained even more relevance and intensity following the Second World War, due to the global shortage of educational facilities.[6] Having in mind the strong belief in the importance of high-quality education for the development of young individuals, it was of no surprise that the Swiss government decided to donate the design, finance the construction and to a large extent equip an elementary school that would be named after the famous Swiss pedagogue and educational reformer Johann Heinrich Pestalozzi (1746-1827).[7]

5 Public education as one of the priorities goes in line with the general policy in Yugoslavia after the Second World War. Having in mind the high level of illiteracy (before and immediately after the war) major efforts were directed in the field of education. The condition was different in different parts of Yugoslavia – the percentage of illiteracy was lowest in Slovenia and highest in the regions which had remained longest under Ottoman domination like Macedonia and Bosnia-Hercegovina. As an illustration, before the war, the average percentage of illiteracy in Macedonia was 67.5%; 81.7% of the woman population was illiterate and none of the existing schools were on the native language.
More information in Vera Tomich, *Education in Yugoslavia and the New Reform: The Legal Basis, Organization, Administration and Program of the Secondary Schools* (U.S. Department of Health, Education and Welfare. Bulletin, 1963, No. 20.OE-14089), https://www.eric.ed.gov/?id=ED544059

6 In 1951, the International Union of Architects created the School building commission as a special body that would study the architecture of the educational facilities, chaired by Alfred Roth. By the mid-1950s several exhibitions on the topic were prepared. The reports, studies and recommendations were published by UNESCO and became reference in this field. In July 1957, an International Conference for Public Education was held in Geneva – a joint collaboration of the Bureau International de l'Education and UNESCO. Representatives from more than 70 countries participated the Conference and discussed the present (of the time) and future needs in the field of education and the immediate measures that had to be taken.

7 Johann Heinrich Pestalozzi (1746-1827) was a Swiss social reformer and educator, whose theories laid much of the foundations of the modern education. He believed that the education should be democratic and available to everyone, that every individual has ability to learn and therefore right to education.

The design process started as early as the spring of 1964 and it was awarded to the renowned Swiss architect Alfred Roth (1903-1998).[8] Roth was an architect who throughout his career believed in education as an instrument of both human and social emancipation. At the time, he was teaching at the Technical University of Zürich and had already pursued a career in the field of modern education and school buildings. As early as 1932, at the *Das Kind und seine Schüle* (The Child and his School) exhibition in Zürich, Roth presented his school project where for the first time he introduced the concepts of double-sided lighting, access to indoor staircases instead of corridors, square-shaped classrooms, double-sided ventilation, etc. In 1950 he published the book *The New School - Das Neue Schülhaus - La Nouvelle École*, a pioneering study on school planning and architecture, followed by the 1953 exhibition *The New School* in the Kunstgewerbemuseum in Zürich. The exhibition was based on the same principles as the book: the first part was theoretical and was organized in sections on the communal school planning, the basic pedagogic requirements, the form of the school building, the classroom unit, equipment, rationalization of the construction and art in school. The main part contained examples of school buildings of various pedagogical types and sizes in Switzerland and other countries; and in the hall, a classroom in scale 1:1 was erected and fully equipped.

Given Roth's expertise on educational facilities, it is not a surprise that the Swiss government assigned him the task to designing a school in Skopje. The first agreements between representatives from the City of Skopje and Alfred Roth started already one year after the earthquake, in July 1964. On September 9, 1966, the agreement was officially signed, whereas the construction phase started in 1967 and lasted throughout 1967 and 1968. It was a collaborative effort between the Swiss architect[9] and engineers, the local construction company Beton and the city administration.[10] The school was officially opened on January 12, 1969, the birthday of Pestalozzi, a ceremony attended by high-ranked political figures, among which the Swiss ambassador in Belgrade [Fig. 2].

The building plot of the school is irregular in shape and never reached the full designated area due to unresolved property and legal issues with the neighboring properties. The building plot for the school was assigned by the city of Skopje and coincided with the position of the Elementary School Petar Petrović Njegoš – one of the school buildings demolished in the earthquake. Today, the school is located at n. 3 of Apostol Guslarot Street in Skopje. At its southern and

8 Alfred Roth (1903-1998) was a Swiss architect, member of CIAM and one of the most prominent representatives of the Swiss modern movement. He graduated at the Federal Institute of Technology in Zürich (ETH) at 1926, under the guidance of Karl Moser, who introduced Roth in Le Corbusier's studio. With Le Corbusier, Roth worked on the competition project for the League of Nations Palace in Geneva and later, in 1927 he took under supervision Le Corbusier's houses in Weissenhofsiedlung in Stuttgart. The experience with Le Corbusier put him in touch with the artistic and avant garde community of the pre-World War II Europe. About this period of his life, cfr. Alfred Roth, *Begegnung mit Pionieren* (Beginnings with the Pioneers) (Basel: Birkhäuser, 1973) and Alfred Roth, *Zwei Wöhnhäuser von Le Corbusier und Pierre Jeanneret* (Two houses from Le Corbusier and Pierre Jeanneret) (Stuttgart: Karl Krämer Verlag, 1927).

9 From June 1966 until July 1967, Radomir Lalović, architect from Skopje, worked on the development of the design together with Alfred Roth in his studio in Zürich.

10 Alfred Roth, *The Johann Heinrich Pestalozzi Elementary School*, box 174 (architecture), boxes 175 and 176 (details), in Assembly of Idadija Municipality Fund, Archive of the City of Skopje.

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western side, it is oriented towards streets with low frequency, while on the east and north it borders private properties. The main entrance in the building is at its western side. The school is located in the wider area of the Skopje city center, in the residential settlement Bunjakovec, an important segment of the city built during the 1920s which suffered significant damages in the earthquake.

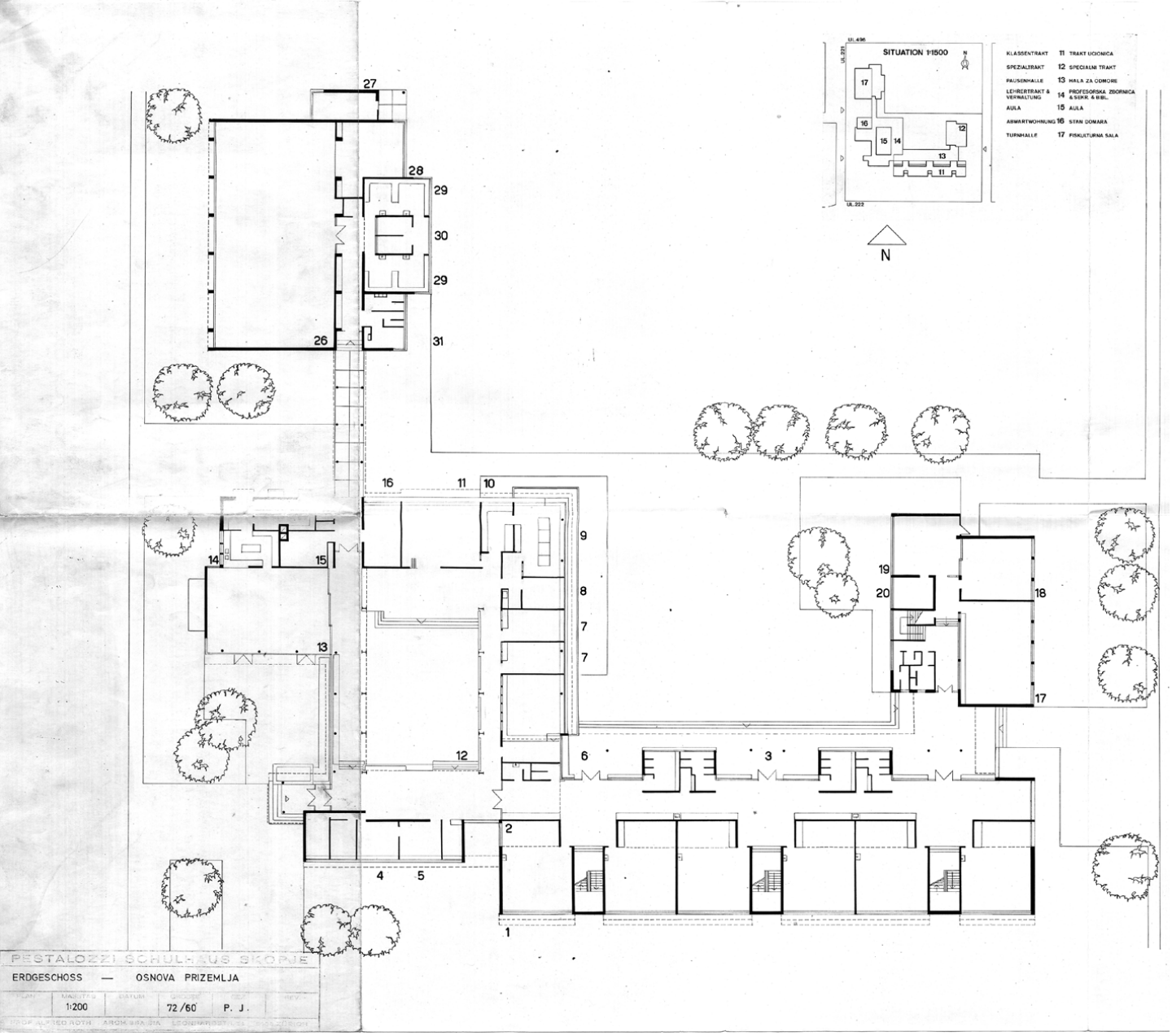
Modern pedagogy principles translated into new spatial organization

Alfred Roth believed that education was an instrument of human and social empowerment. He based his school architecture on the modern principles of education, and it is precisely the principles of Pestalozzi,[11] the great pedagogue and pioneer of modern education, that he incorporated into his schools, thereby shifting the standards for school buildings. With the Johann Heinrich Pestalozzi Elementary School, Alfred Roth introduced his beliefs to Skopje concerning education and an educational facility designed accordingly. Being one of the first public buildings erected in Skopje after the earthquake, Roth's school triggered further research in the field of educational buildings' typology. Moreover, it is important to note that there are very few public buildings of permanent character both designed and fully built in Skopje before the beginning of the 1970s.

11 Pestalozzi strived for education that would build every individual into a healthy, well-developed, complete person, which would be involved and contribute to the society. The school education should be a continuation of the home education; the school and the classroom should provide the same sense of security and intimacy that the child is used to at home; the wider environment should be a vital part of the child's education – these are some of the principles that the Swiss pioneer of modern education set over 200 years ago and are still found valid today. See Alfred Roth, *The New Schoolhouse* (Zürich and Stuttgart: Verlag für Architektur, 1966), 10-12.

Fig. 2

Elementary School Johann Heinrich Pestalozzi, View towards the classrooms (Source: Jovan Popovski, *Skopje 1963-1983* (Skopje: Partizanska knjiga, 1983).)



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Apart from the Archive of the City of Skopje (1966-68), the National Archive (1967-69) and the building for the Communist Party of the Socialist Republic of Macedonia (1968-70), there are only three school buildings with very high architectural quality: Alfred Roth's Johann Heinrich Pestalozzi Elementary School (1967-69), the Mirče Acev Elementary school (1967) by Blagoja Micevski and the Pedagogical High School Nikola Karev (1968-70) by Janko Konstantinov. The last two buildings won in 1967 and 1969 respectively the prestigious award Borba for architectural achievements. Followed by several other school buildings in the early 1970s, they all attempted to introduce new typologies and improve the design of school buildings, leaving behind the linear arrangement of classrooms multiplied along a linear corridor.

Throughout his career Roth tirelessly fought against formalism in architecture, his beliefs and inclination towards functionalism being reflected in his school architecture. According to Roth's understanding, to avoid formalism, the building ought to be a functional response to the pedagogical demands; the design of the building should not serve its own interests, but should derive from the essence - the function it is supposed to satisfy. The internal functioning of

Fig. 3
Elementary School Johann Heinrich Pestalozzi, Ground Floor plan (Source: Archive of the City of Skopje)

the facility ought to be the primary concern, whereas the exterior - its carefully designed visible expression.

Related to this, the Skopje school building is designed as an ensemble consisted of several different detached segments, each corresponding to its function and the specific pedagogical needs: the three-storey classroom wing, the two-storey special room wing (laboratories), the common room building with an aula and the gymnasium. The main functional units are connected either by closed corridors or open, covered porches. Some of the important aspects of the overall spatial organization include a proper orientation of each segment according to the activity taking place inside, good quantity of sunlight, separation of quiet and loud zones, adjustment of the space to the size of the children, close contact of the classrooms with the open space etc. The disposition of the volumes creates the space for sports ground in the middle of the site, accessible for people from the neighborhood **[Fig. 3]**. All these aspects, starting from the size and disposition of the building plot, the disposition of the school building, the flexibility of the space, the desired characteristics of the class unit (size, orientation etc.) are described in Roth's book The New Schoolhouse.[12]

Children in focus, program and space

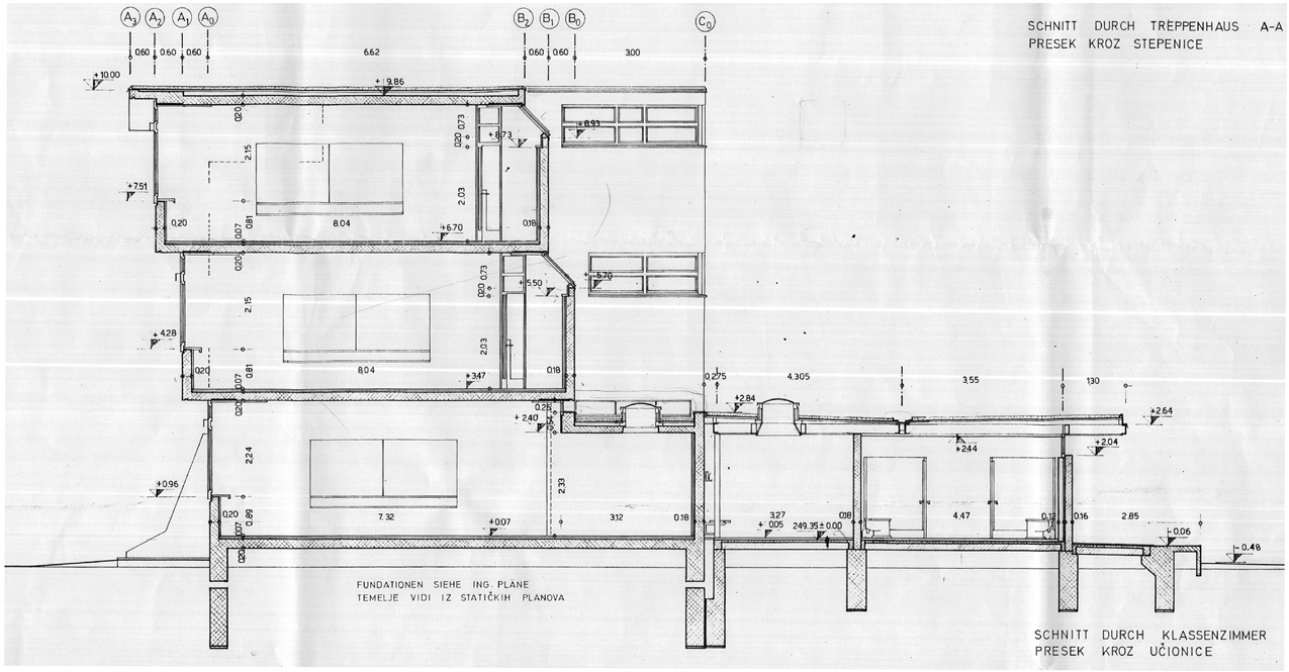
(A.) The Classrooms Wing

The three-story classroom wing is based upon the corridor-less concept of designing school buildings that Alfred Roth introduced as early as 1932.[13] It contains 18 spacious classrooms (8.2x8.2 m), grouped in three groups of two, each with a southern orientation and equal amount of daylight. Each group has a separate staircase (located between two classrooms), a separate entrance and wardrobes, thus avoiding high concentrations of children during the breaks. The main idea of the concept was to eliminate the corridors on the upper levels and to provide the desired double-side lighting and cross-ventilation for the classrooms. The conventional, one-sided light source is considered insufficient. Having in mind the importance of the daylight for children, all the classrooms are oriented towards south; each floor is slightly cantilevered towards south, which enables rear, complementary roof-light from the northern side. This also creates the specific, recognizable profile of the classroom wing **[Fig. 4]**.

According to Roth, the square shaped classroom is better than the rectangle one; it gives larger freedom compared with the long and narrow spaces and enables rational organization and greater flexibility for various configurations, depending on the nature of learning or teaching. Modern education requires maximal differentiation of the space – niches, indentations, and corners;

12 Cfr. Roth, *The New Schoolhouse*.

13 Roth promoted this concept of school building on several occasions: in a competition work from 1932 for a combined elementary and secondary school in Zürich; for the first time implemented at the Holy Spirit Primary School in Berkeley, St. Louis, USA; later in 1961-62 in the Riedhof Schüle in Zürich, and later in Skopje 1965-69. See Alfred Roth, *Alfred Roth: Architect of Continuity* (Zürich: Waser Verlag, 1985), 102



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wherever this is not possible, a larger floor area is needed to compensate for the lack of differentiation and allow flexible teaching.[14] The youngest children need maximum flexibility. Therefore, they are located on the ground floor, in classrooms with an additional hobby alcove and nearest to the schoolyard.

Immediately, from the entrance of the school, it is obvious that the building is intended for children, completely downscaled to their size in the dimensions of the corridors, stairs, entrances etc.

(B.) The special room wing/Laboratories

The two-story wing with laboratories and specialized cabinets is situated on the eastern side of the complex, connected with the classrooms through a covered porch. In this part of the school, Roth literally materializes Pestalozzi's commitment for special education where the children will learn about things through their senses.

The foundation of Pestalozzi's doctrine was that the education of a stable personality should be organic and comprised of three aspects: intellectual (developing the human spirit), physical and moral (raising a confident and responsible person), or, in his words, the development of 'head, heart, and body' should be integrated. If an aspect is missing, the development would be one-sided, and the personality unformed/uncompleted. Therefore, the purpose of education is to release the creative energy of a child; to foster the development of one's inherent abilities through activity, through encouraging manual work and exercises, rather than through exclusively intellectual instructions. The child is no longer

Fig. 4
Elementary School Johann Heinrich Pestalozzi, Section through the classrooms (Source: Archive of the City of Skopje)

14 Cfr. Roth, *The New Schoolhouse*, and Herman Hertzberher, *Space and Learning*. Rotterdam: 010 Publishers, 2008.

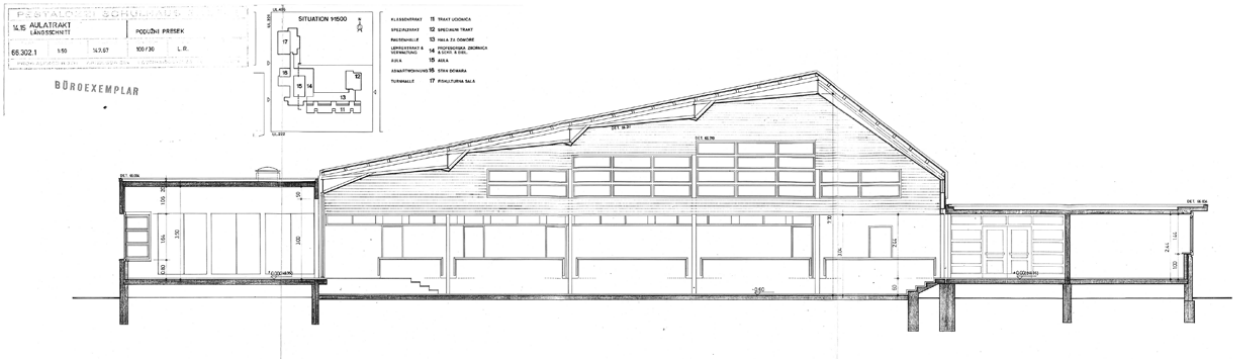
a passive object in the hand of the educator, but an independent and active subject expected to actively participate in the educational process.

This special rooms wing is comprised of a drawing atelier and handicraft room (connected to the kitchen) on the ground floor, two workshops for technical education in the basement, and on the upper floor – two natural science classrooms, both with ascending seats, a large chemistry laboratory and a photo laboratory with a dark room and built-in ventilation.

Roth designed these highly equipped laboratories in order to give children the opportunity to have a real, direct contact with the teaching material, especially in the field of natural sciences. He was deeply convinced that words should not stand before personal observation and reflection. Therefore, the classroom/workshop aims to be a space where different experiences are gained and all the senses are involved in the cognitive process. Much of the equipment installed in this part of the school came as a donation from Switzerland – the wooden parts for the two auditoriums, the equipment for the physics laboratory (a gift from the School for Metal workers in Winterthur) and the complete equipment for the chemistry laboratory (gift from the chemical industry from Basel).

(C.) The Ceremonial Hall - Aula

The multi-purpose hall is located centrally and accessed directly from the main school entrance on the west side. The main element in this section is the large aula, adjacent to which is the refectory with an open kitchen. The possibility for a flexible connection between the aula and the refectory creates an auditorium of up to 1.000 seats. The rest of the program in this segment consists of: the school library with two study rooms, the teacher's offices, a small administration, ambulance and the school-keepers apartment **[Fig. 5]**.



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(D.) The Gymnasium

The Gymnasium is located at the northwest corner of the complex, which through an open, covered passage, is connected to the aula. Besides the gym hall, this part contains the usual auxiliary spaces: dressing rooms, showers, the

Fig. 5
Elementary School Johann Heinrich Pestalozzi, Section through the aula (Source: Archive of the City of Skopje)

prop room and the teacher's office. The gym has been allocated in a separate building in order to allow independent use by the residents of the neighborhood.

(E.) Schoolyard

The disposition of other elements creates a spacious schoolyard in the middle of the site. Given the importance of open space for physical and mental growth, children have the opportunity to interact with nature, with wide areas for play and sports. Although mainly used as a playground (about 1/3 of the total area of the schoolyard is covered by open playgrounds), Roth envisions possible use of the courtyard as an open space for festivities or an open-air classroom [Fig. 6].

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Design, composition and architectural aesthetics

The entire spatial organization of the school is asymmetric and dynamic, due to the division of the program in different volumes, which vary not only by their function, but in the general appearance, structure, elevations etc. Similar as in other buildings divided in parts, one could really comprehend the entire spatial composition only by walking through and around the building.

For Roth, the question of form was not of primary importance, since architecture is not a 'free art', but it is inextricably related with reality and context. The space and the spatial interactions are those which make the basic substance of architecture; and material, construction and form are the means of the design. Hence, the building is ascetically restrictive, in terms of forms and used materials. The idea is conveyed through straight lines, clean surfaces, and use of natural colors of the materials. Color is used as an element of design

Fig. 6
Schoolyard, view towards the aula, 2009 (Authors' Photo)

which emphasizes the basic idea – to provide comfort, to be the background for different happenings.[15] The exterior, mainly in unplastered reinforced concrete, the natural wood, dark grey window-frames create the general picture; color accents are introduced at certain points (yellow, red, blue), both in the interior and on the facade of the building. Inside, the walls are monochromatic, painted neutrally in order to allow the school life to introduce color.

Design and innovation: building materials, structure and technology

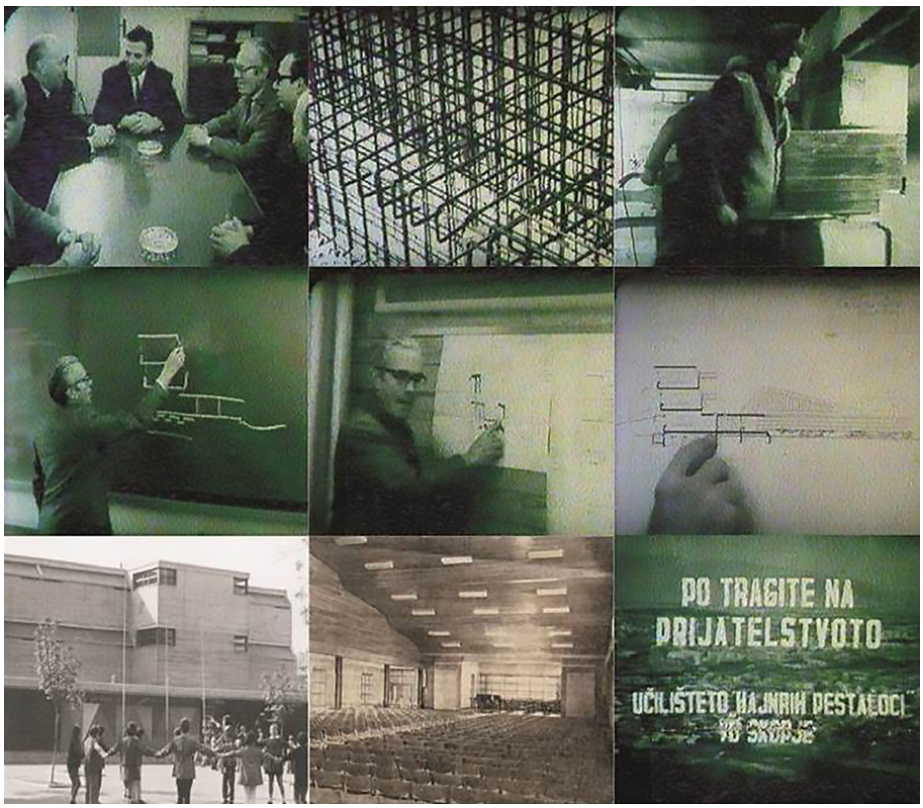
The structure and the materials used in the school fit quite well within the period of building, the second half of the '60s. The dominant building material is reinforced concrete, left unplastered on the outside. The exterior walls are insulated and finished with plastered brick on the inside. Naturally varnished oak wood was commonly used as wall covering in the interior. The ceilings of all activity rooms in their original condition had a partial layer of sound-absorbing sheets, while the floors were covered with terrazzo (corridors, staircases) or linoleum. All the carpentry in the building (doors and windows) was originally wooden; windows were double-sided, wing-to-wing type, with oil-painted wooden frames and inbuilt sun blinds, whereas the doors were often combined with glass.[16] The author's intention, present in other buildings as well, was to maximize the rationality. Using standardized and prefabricated elements, the goal was to create a clean, simple, economical and rational building.

In addition to being up to date with the contemporaneous tendencies in terms of materials, the building has a new seismic structure and a rare, at the time of building pioneering system of foundation. Two different structural systems are dominant in the complex: structural elements from reinforced concrete (in sections A and B - classrooms and laboratories) and steel frames (in sections C and D - the aula and the gymnasium).

The classroom wing is conceived as a completely rigid box, its load-bearing structure entirely made of reinforced concrete. The walls have a hybrid composition – visible reinforced concrete on the outside, thermal insulation and plastered brick on the inner side. What makes this segment of the school unique is the foundation system. For the first time, a full base isolation system was used in the Elementary School Johann Heinrich Pestalozzi to protect the structure from strong earthquakes. The structural engineering part was assigned to K. Hubacher, E. Staundacher and R. Siegenthaler from Zürich. The applied system was developed at the Department of Civil Engineering at the Swiss Federal Institute of Technology and was known as Swiss Full Base Isolation – 3D (FBI-3D)

15 Roth had argued that the problem of color could not be solved simply by providing artists with suitably placed walls for them to paint on. Although in close touch with Le Corbusier's purist aesthetic and Piet Mondrian and the ideas of De Stijl in the avant garde years, Roth's alternative was a third, 'neutral' course. Cfr. *Roth, Alfred Roth: Architect of Continuity*, 15-17

16 Due to the aging and slow but permanent decay of the materials, within the past 50 years, many changes have been done regarding the original materials and equipment.



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System.[17] The whole classroom wing rests upon 54 rubber bearings/cushions (70/70/35 cm), each with load-bearing capacity of 45-50 tons, integrated in a specially designed concrete foundation structure. The main idea behind this experimental system was to extend the predetermined period of oscillation of the building over one second (empirically calculated, the dominant period of oscillation of the Skopje earthquake was 0.1-0.2 sec), thus making the structure almost impervious to stronger earthquakes.[18] These unreinforced rubber bearings have a tolerable horizontal movement so that the weight of the building causes them to bulge sideways (up to 20 cm in both directions towards the fixed, concrete foundation walls). The foundations were covered with thin, removable concrete plates which allow occasional control and repair of the system. It was assumed that during a strong earthquake, the concrete plates would either break or move to allow for the anticipated horizontal movement of the whole structure [Fig. 7].

The earthquake and the extent to which it damaged the city led towards the creation of new awareness and knowledge about earthquake-proof structures.

17 The base isolation system has a long history of development. It is based on the idea that the building could 'float', thus making it almost fully resistant to strong earthquakes. One of the first buildings which followed this experimental concept was Frank Lloyd Wright's Imperial Hotel in Tokyo (1921), using the layer of soft mud as a 'good cushion' that could relieve the earthquake shaking. However, the Pestalozzi school was the first building where laminated and unreinforced rubber bearings were implemented. Later, similar system (GAPEC system) was implemented in a school in the town of Lambesc, near Marseilles (system developed at the Centre National de la Recherche Scientifique in Marseilles). Cfr. Farzad Naeim and James M. Kelly, *Design of Seismic Isolated Structures: From Theory to Practice* (New York: John Wiley and Sons, 1999); Konrad Staudacher, "Protection for structures in extreme earthquakes: Full base isolation (3-D) by the Swiss Seismafloat System," *Nuclear Engineering and Design* 84, no. 3 (February 1985), 343-357 and Nicos Makris, "Seismic isolation: Early history," in *Earthquake Engineering and Structural Dynamics* 48, no. 2 (February 2019), 269-283.

18 Vladimir Simovski, "System for modification and reduction of the seismic and other dynamic forces and isolation of vibrations" (PhD diss., University Ss. Cyril and Methodius in Skopje, 1985).

Fig. 7

Screen captures from the documentary movie *On the Traces of Friendship, Johann Hainrich Pestlozzi School in Skopje*. Directed by Trajče Popov. Vardar Film, 1969.

The system of full base isolation, experimentally implemented on a public building, made this building distinguished, not only locally but internationally as well. This facility is a special contribution of Switzerland to general anti-earthquake research worldwide. Long after the installation, the foundations were regularly tested and maintained by Institute representatives from Zürich. According to the initial approximations, the rubber cushions would have lost their elasticity after 20 years and were to be replaced.[19]

Compared to the classrooms wing, the segment with the laboratories has a regular reinforced concrete structure. The walls have the same composition as in part A, as well as the materials used for the floors and ceilings. Due to the larger spans (approx. 13 m), the segment with the aula is covered with a steel construction. The roof frames have different heights (from 3.40 to 7.80 m), in order to achieve the desired slope. The space between the columns has light infill panels, whereas the roof and large surfaces on the facades were originally covered with asbestos-cement plates, later replaced with fiber-cement cladding panels.

The main structure of the gymnasium hall consists of steel frames. The longer, southern wall was originally covered with asbestos-cement plates (same as in the part with the aula), while on the shorter sides the reinforced concrete wall it remained visible.

Reception of the building and present condition

Since the day of its opening, the school was very well received.[20] Although designed for a smaller number of children (700), at the time of its opening the school had about 900 pupils, and up to 1500 pupils in its most frequent years. Between 1978 and 1988, as a result of the increased number, the school had to operate in three shifts. These large numbers were only partly due to the increased number of children in the municipality, but moreover because of the popularity of the school and the innovations it introduced, both in the spatial arrangement and the teaching process. Following Roth's understanding that the pedagogical process is evolutionary and the building itself is inextricably linked to this development, the school showed great flexibility and potential to adjust to different evolutionary changes occurring in the process of education. Up to this date, with minor interventions and no transformation of the overall spatial structure, it has been able to respond to the changing demands.[21]

19 In one of the most extensive renovation processes conducted since 2008, the Institute of Earthquake Engineering and Engineering Seismology (IZIIS) from Skopje replaced the rubber with neoprene cushions.

20 The school staff speak about the building with special pride, aware of the school building's importance. Valuable information about the building and its functioning was collected in the building and in an interview with the former/retired director of the Pestalozzi school, Mr. Kočo Kostov. The interview took place in 2009, at the time when he was working on a book about the school. His memories, insights and writings were later published. See Kočo Kostov, *Pestalozzi* (Skopje: Ars Lamina, 2014).

21 In the past 50 years, in spite of all the efforts of the school management, the school has not been able to keep up with, and upgrade the original built-in equipment standard. As a result, part of the premises is not used in their full potential. The school needs a thorough assessment of its present condition and future upkeep in order to be able to reach the quality of education that Roth once envisioned.

Since the ‘90s and the breakup of Yugoslavia, Skopje went through another transformation – political, economic, cultural and spatial as well. The scale and the character of construction immediately changed, followed by a process of urban deregulation. Private capital was just emerging and the state was no longer the powerful investor. Within this gap, public interest and public buildings as well were nearly forgotten. Faced with natural ageing of the structure and materials, they also had to face general negligence, at times even open disfavor due to the fact that they were often connected with the previous political system.

Today, nearly 60 years after the earthquake, it seems appropriate (if not belated) to open the question about the values of the building, to make a proper assessment of its condition and to insist upon its future. The proven architectural quality, the great flexibility it has manifested throughout its existence, the intrinsic symbolical value of being connected to the post-earthquake renewal, the influx of knowledge it brought – all ask for better understanding, appreciation and care. The recent global process of re-evaluation of postwar modernism goes in favor of this and other buildings from Skopje’s post-earthquake renewal. Shedding light upon them might be crucial for their spatial and symbolic re-definition, protection form complete devastation and proper use within the contemporary context.

Bibliography:

Hertzberher, Herman. *Space and Learning*. Rotterdam: 010 Publishers, 2008.

Kostov, Kočo, *Pestalozzi*. Skopje: Ars Lamina, 2014.

Makris, Nicos. "Seismic isolation: Early history." In Earthquake Engineering and Structural Dynamics 48, no. 2 (February 2019), 269-283. https://www.researchgate.net/publication/327839319_Seismic_isolation_Early_history

Mrduljaš, Maroje and Vladimir Kulić, eds. *Unfinished Modernisations: Between Utopia and Pragmatism*. Zagreb: Udruženje hrvatskih arhitekata, 2012.

Mrduljaš, Maroje, Vladimir Kulić, and Thaler, Wolfgang, eds. *Modernism In-Between: The Mediatory Architectures in the Socialist Yugoslavia*. Berlin: Jovis, 2012.

Naeim, Farzad, and James M. Kelly, *Design of seismic isolated structures: From Theory to Practice*. New York: John Wiley and Sons, 1999.

Popov, Blagoje, Risto Galić et al., eds., *Skopje, grad na solidarnost* (Skopje, city of solidarity). Skopje: NIP Nova Makedonija, 1975.

Roth, Alfred. *Architect of Continuity.* Zürich: Wasser, 1985.

Roth, Alfred. *Begegnung mit Pionieren* (Beginnings with the Pioneers). Basel: Birkhäuser, 1973.

Roth, Alfred. *The New Schoolhouse. Zürich and Stuttgart:* Verlag fűr Architektur, 1966.

Roth, Alfred. *Zwei Wöhnhäuser von Le Corbusier und Pierre Jeanneret* (Two Houses from Le Corbusier and Pierre Jeanneret), Stuttgart: Karl Krämer Verlag, 1927C

Senior, Derek. *Skopje Resurgent: The Story of a United Nations Special Fund Town Planning Project*. New York: United Nations, 1970.

Simovski, Vladimir. "System for modification and reduction of the seismic and other dynamic forces and isolation of vibrations." PhD diss., University Ss. Cyril and Methodius in Skopje, 1985.

Skopje 26.07-02.08.1964. Sredba na solidarnosta (Skopje 26 July-02 August 1964. A meeting of solidarity). Skopje: NIP Nova Makedonija, 1964.

Skopje, urbanistička studija (Skopje, urban study). Skopje: Zavod za urbanizam i arhitektura, 1964.

Staudacher, Konrad. "Protection for structures in extreme earthquakes: Full base isolation (3-D) by the Swiss Seismafloat System," Nuclear Engineering and Design 84, no. 3 (February 1985), 343-357.

Tomich, Vera. Education in Yugoslavia and the New Reform: The Legal Basis, Organization, Administration and Program of the Secondary Schools. U.S. Department of Health, Education and Welfare. Bulletin, 1963, No. 20.OE-14089. https://www.eric.ed.gov/?id=ED544059

Tolic, Ines. *Dopo il terremoto: la politica della ricostruzione negli anni della Guerra Fredda a Skopje* (After the Earthquake. The Politics of Skopje Reconstruction during the Cold War Era). Reggio Emilia: Diabasis, 2011.

On the Traces of Friendship, Johann Hainrich Pestlozzi School in Skopje. Directed by Trajče Popov. Vardar Film, 1969.

Aleksandra Branislav Jevtović

Contribution of slovenian architect Franc Avbelj and "Planinka" Company To The Development Of Tourism In Serbia: A Case Study of the Urban-Architectural Solution of Kuršumlija Spa

Architecture, Urbanism, Tourism, Žubor Center, Kuršumlija Spa

/Abstract

Throughout the second half of the twentieth century, tourism was gaining mass character worldwide. Nevertheless, in Yugoslavia, the ruling ideology significantly contributed to the transformation of tourism into a mass phenomenon. Through trade unions, union branches and self-governing interest associations for leisure and recreation, tourism became a part of the ruling narrative advocating equal rights for all. The focus of the paper is on the analysis of cooperation between the Planinka company from Kuršumlija in Serbia, as a carrier of tourism in the region and the architect Franc Avbelj from Slovenia, as an expert in designing tourist facilities. In a series of projects created in this cooperation, the urban and architectural design of Kuršumlija Spa and the Medical and Recreational Center Žubor stood out. During its construction, the Žubor Center was the first tourist and healthcare facility of this type in the wider region. The aim of the paper is to point out the interrelation of all participants during these extensive efforts, to present organizational and aesthetic characteristics of these projects and to highlight the immeasurable consequences of the long-standing marginalization of the former republic's construction achievements.

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https://doi.org/10.6092/issn.2611-0075/10158 | ISSN 2611-0075

Introduction

In the first post-war years, the architectural practice of the newly-formed Socialist Yugoslavia was characterized by Socialist Realism, which was formally abandoned as a concept in 1950 at the Counseling of Architects and Urban Planners of Yugoslavia in Dubrovnik, Croatia. During the period which was labelled in historiography as "socialist aestheticism,"[1] the state continued to integrate art and architecture into its mechanisms of control,[2] disguised as creative freedoms, the progress of the entire society and in order to legitimize its own disobedience towards the USSR.[3] While the initial period of the post-war construction was primarily characterized by the reconstruction of residential fund, during the following years and especially in the 1970s, the state immensely invested in the construction of facilities intended to reflect economic prosperity and social progress.[4] During the 1960-1980 period, tourism, i.e. the construction of tourist facilities, stood out as a particularly suitable activity through which it was possible to present both the modernization of society and the idea of social equality.[5] Vice versa, from a sociological point of view, tourism was considered to be an area through which it was possible to identify different social aspects and their interrelations.[6]

Tourism in Socialist Yugoslavia

Although the transformation of tourism into the mass phenomenon was a feature of world scales during the second half of the twentieth century, it is necessary to highlight the contributions of the ruling socialist ideology that enabled and accelerated its emergence in Yugoslavia. In the Yugoslav context, the socialism influenced the emergence of mass tourism by popularising it through its official narrative of social equality and under the slogan "vacation for all."[7] It was noted that the turning point for tourism in Yugoslavia was 1952 and

1 Miloš Perović, *Srpska arhitektura XX veka: od istoricizma do drugog modernizma* (Serbian architecture of the 20th century: from historicism to the second modernism) (Belgrade: Arhitektonski fakultet, 2003), 148-209.

2 Milan Popadić, "Novi ulepšani svet: socijalistički estetizam i arhitektura (New improved world: socialist aestheticism and architecture)," *Zbornik Matice srpske za likovne umetnosti*, no. 38 (2010): 247.

3 Vladimir Kulić, "Architecture and Ideology in Socialist Yugoslavia," in *Unfinished Modernisations: Between Utopia and Pragmatism*, eds. Maroje Mrduljaš and Vladimir Kulić (Zagreb: UHA, 2012), 42.

4 Aleksandar Ignjatović, "Tranzicija i reforme: arhitektura u Srbiji 1952-1980 (Transition and reforms: architecture in Serbia 1952-1980)," in *Istorija umetnosti u Srbiji XX vek*, ed. Miško Šuvaković (Belgrade: Orion Art, 2012), 689-710.

5 Nebojša Antešević, "Arhitektura socijalističkog hedonizma. Turistički objekti moderne arhitekture u SFR Jugoslaviji od 1960. do 1980. (The architecture of socialist hedonism. Tourist objects of modern architecture in the SFR Yugoslavia from 1960 to 1980)," in *Međunarodni simpozij studenata povijesti umjetnosti. 1. Susreti mladih povjesničara umjetnosti u Rijeci 2014. Knjiga sažetaka* (Rijeka: Filozofski fakultet, 2014), 30.

6 Catherine Schmidt, "The Guided Tour: Insulated Adventure," *Urban Life 7*, no. 4 (1979): 441.

7 Igor Duda, "Turizam narodu. Godišnji odmor kao proizvod socijalističke modernizacije (Tourism to the people. Vacation as a product of socialist modernization)," *Čovjek i prostor* 05-06, no. 684-685 (2011): 32.

that tourism during 1952-1953 became "almost a strategic factor for Yugoslav development."[8]

The development of tourism in Yugoslavia had a dual character, reflecting labor rights guaranteed by law on the one hand, and representing a mass profit-oriented industry on the other hand.[9] In the field of workers' rights, the Sixties are considered the milestone during which the vacations "became a part of a new social contract" and a minimum of three-week paid vacation was granted by the Convention no. 132 of the International Labour Organization in 1970.[10] Significant is the statistics which indicates that in 1961 the percentage of the population engaged in agriculture in Yugoslavia was 58%, whereas in 1981 this number was reduced to 27%.[11] This implies the extent to which the urbanisation of Yugoslavia was forced during the observed period, further supporting the thesis that a large percentage of the population found themselves in the environment that had changed on multiple levels and to which they were completely unaccustomed. As Duda stated: "Tourism habits are yet to be created for many."[12]

A key role in creation of those habits was played by mass social tourism managed by trade unions, trade union branches and self-governing interest associations for leisure and recreation.[13] The state contributed by investing in the construction of resorts for students and workers, and by economic benefits for employees as well. Social tourism was considered to be a "good lesson" for all those who were not used to this type of vacation.[14] In the 1980s, tourism became a common practice of everyday life,[15] but during the same period, social resorts also "lost the race" in favor of commercial accommodations.[16] Namely, in the decades immediately after the war, tourism had a highly social and emancipating character, and it was also used as a "tool of ideological propaganda,"[17] while in the 1960s and 1970s it replaced the political dimension with a sustainable one and focused on commercial tourism, following modern

8 Nebojša Antešević, "Socijalistički estetizam u turističkoj arhitekturi Jugoslavije (1960-1980) (Socialist aestheticism in Yugoslav tourist architecture (1960-1980))," in *Arhitektura i urbanizam posle drugog svetskog rata – Zaštita kao proces ili model: zbornik radova*, eds. Vladimir Mako et al. (Belgrade: Zavod za zaštitu spomenika kulture grada Beograda, 2015), 188, 201.

9 Vladimir Kulić, Maroje Mrduljaš and Wolfgang Thaler, *Modernism in-between: The Mediatory Architecture of Socialist Yugoslavia* (Berlin: Jovis, 2012), 180; Antešević, "Socijalistički estetizam u turističkoj," 188, 201.

10 Igor Duda, "Od radnika do turista. Prava, želje i stvarnost socijalnoga turizma u jugoslavenskome socijalizmu (From labourer to tourist. Rights, wishes and reality of social tourism in Yugoslav socialism)," in *Sunčana strana Jugoslavije. Povijest turizma u socijalizmu*, eds. Hannes Grandtis and Karin Taylor (Zagreb: Srednja Europa, 2013), 57.

11 Duda, "Od radnika do turista," 70-71.

12 Duda, "Od radnika do turista," 71.

13 Duda, "Turizam narodu," 29; Duda, "Od radnika do turista," 60.

14 Duda, "Turizam narodu," 31.

15 Duda, "Od radnika do turista," 76.

16 Duda, "Turizam narodu," 32.

17 Antešević, "Socijalistički estetizam u turističkoj," 190.

tourism standards.[18] After the breakup with the Soviet Union, Yugoslavia's tourism potential was directed towards the Western market, in line with its foreign policy.[19] Due to the need for achieving the commercial goals, in this building typology the aesthetic criteria became normative over time.[20]

After the enthusiastic phase of socialist construction, tourism proved to be a far more complex and demanding economic field.[21] As Antešević noted, the construction of tourist facilities, hotels and resorts on the mountains was especially topical in Serbia and Slovenia.[22]

Planinka company as the main carrier of tourism development in Toplica district in Serbia

Planinka company was founded in 1964 as The Working Organization for Natural Health Resorts, Tourism and Hospitality in Kuršumlija, with the aim of developing tourism in the municipality of Kuršumlija.[23] It was created by merging directorates of three resorts located in the territory of this municipality - Prolom, Lukovo and Kuršumlija Spas i.e. by integrating the catering company Ugostiteljstvo from Kuršumlija and climatic-spa medical resort Kuršumlijska Banja (which included Kuršumlija, Prolom and Lukovo Spa).[24] In addition to thermal mineral waters, a special tourist potential was the natural monument Devil's Town, located within this municipality. The company has been operating as a joint-stock company since 1999 and its employees are shareholders of 95% of the capital. Planinka built the overall tourism infrastructure and the superstructure of Prolom, Lukovo and Kuršumlija Spas and, nowadays, it is considered to be the main carrier of tourism development in the area of Toplica district.[25] Besides tourism, catering and medical rehabilitation, the company is also engaged in production of Prolom water.[26]

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18 Duda, "Od radnika do turista," 60; Nebojša Antešević, "Regionalizam u modernizmu vs. turizam u socijalizmu. Rasprava o uticajima regionalizama na arhitekturu modernih turističkih objekata Jugoslavije druge polovine 20. veka (Regionalism in modernism vs. tourism in socialism. A treatise of the influences of regionalism at the architecture of modern tourist facilities in Yugoslavia during the second half of the 20th century)," in *Međunarodni tematski zbornik: Umetnost i njena uloga u istoriji: između trajnosti i prolaznih –izama, posvećen sećanju na prof. dr Miodraga Jovanovića* (1932-2013), eds. Zoran Jovanović et al. (Kosovska Mitrovica: Filozofski fakultet u Prištini, 2014), 499.

19 Igor Tchoukarine, "Jugoslavenski put do međunarodnog turizma. Otvaranje, decentralizacija i propaganda u prvoj polovici 1950-ih (The Yugoslav path to international tourism. Opening, decentralization and propaganda in the first half of the 1950s)," in *Sunčana strana Jugoslavije. Povijest turizma u socijalizmu*, eds. Hannes Grandtis and Karin Taylor (Zagreb: Srednja Europa, 2013), 150; Antešević, "Regionalizam u modernizmu," 496.

20 Antešević, "Socijalistički estetizam u turističkoj," 191.

21 Antešević, "Socijalistički estetizam u turističkoj," 194.

22 Antešević, "Regionalizam u modernizmu," 496.

23 "Planinka Istorijat," Planinka, accessed February 21, 2019, https://www.planinka.rs/istorijat.php

24 Milivoje Maćejka and Radovan Tanasković, *Opština Kuršumlija: turistička monografija i vodič* (Kuršumlija Municipality: tourist monograph and guide) (Niš: Punta, 2008), 25.

25 Marko Gašić, Vladan Ivanović and Goran Perić, "Materijalna baza razvoja turizma na prostoru Topličkog okruga (Material basis for tourism development in Toplica district)," in *Synthesis – International Scientific Conference of IT and Business Related Research* (Belgrade: Singidunum University, 2015), 497.

26 Maćejka and Tanasković, Opština Kuršumlija, 26; "Planinka Istorijat," Planinka, accessed February 21, 2019, https://www.planinka.rs/istorijat.php.

In the founding year of Planinka, economist Đorđe Eraković, born in 1936 in Kuršumlija, was appointed its director. According to him, the newly-formed company was created without any expert analysis and without any plans for work and development. An aggravating circumstance was not only the lack of professional staff, but also the fact that no electricity was still available in Prolom Spa in 1964. On his initiative, the company turned to the Institute for Tourism in Ljubljana for assistance, the main institution of this kind in Yugoslavia.[27]

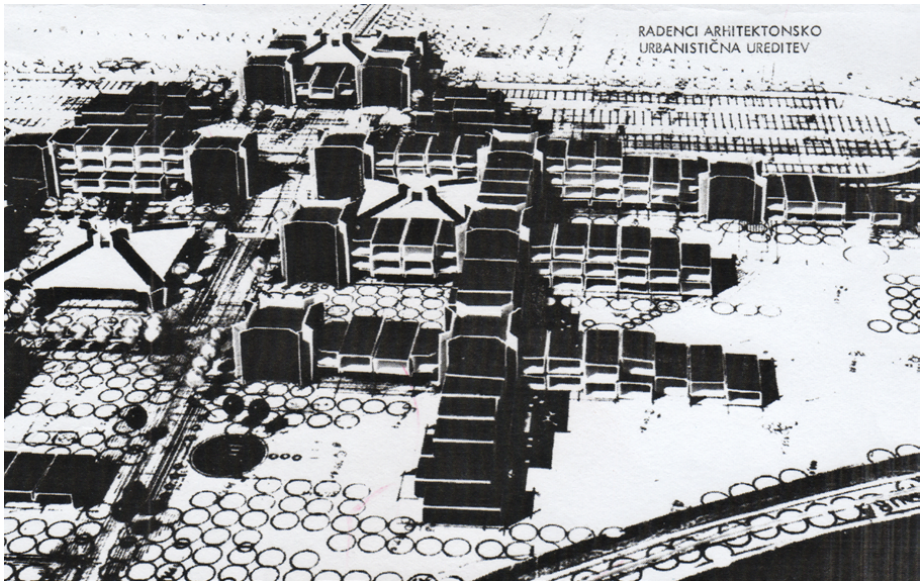
Collaboration between Planinka and the Institute for Tourism in Ljubljana started with production of the Programme for Tourism Development for the area of Kuršumlija municipality with three medical spas. Based on the Development Program, urban plans were drawn up, natural and other resources were recorded and the method of putting those resources into operation was determined. For each architectural object, conditions were defined based on existing demands and statistics, and forecasted trends based on the expected results of the Development Program implementation. As the initiator and investor of these ventures, Planinka did not set specific requirements and guidelines in terms of architectural design of buildings. The orientation of the company was to engage numerous experts and professional institutions in different fields for each facility and investment. According to Eraković, "Nothing was done without extensive research, because we did not have the means to follow the current political tendencies, instead we were led by a safe calculation."[28]

The efforts of Planinka regarding construction of sites for tourist purposes and others, affected the wider area of Kuršumlija municipality and the three surrounding medical spas. The construction of tourist facilities for the company's needs required the construction of infrastructure and other facilities throughout the whole municipality. Due to the spatial disposition of mentioned destinations, these ventures implied considerable investment in a large area and significantly contributed to the overall level of development in the entire area. According to the statistics, in the early Seventies in this area, this was the presence of the activities: agriculture 45%, industry 23%, and catering and tourism only 1.8%, which testifies to the underdevelopment of this area.[29] Infrastructure development and new accommodation facilities also provided a large number of job opportunities for local people. Apart from the undoubted contribution to local urbanisation, efforts of Planinka also resulted in the emancipation of the local population. All employees had the opportunity to cooperate with a large number of experts of different profiles and knowledge. In that way, they were gaining experience for their independent work. According to data from their site, in 1964, the company numbered 60 mostly unskilled workers, whereas nowadays there are 367 workers, 60 of which have university degrees, and "special attention

27 Reuf Bravo and Selma Bravo, *Yugoslav Scientific Research Guide 1970* (Belgrade: Nolit, 1972), 517.

28 Interviews with Đorđe Eraković were conducted in writing form in February 2019 and then verbally in June of the same year in Kuršumlija.

29 *Conceptual Architectural Project of the Medical and Recreational Center in Kuršumlija Spa* (1973), in Planinka Company Archive, Kuršumlija.



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is paid to further education of personnel."[30] According to Eraković, since its establishment, employees of Planinka have been constantly engaged in professional field trips to European countries, vocational training and various seminars. When Motel Rudare was built, its entire staff was undergoing extensive training at the Motel Grosuplje in Slovenia, while workers of carpet factory at Lukovo Spa spent two months on a training course in Pazova.

Architect Franc Avbelj

During the initial collaboration between Planinka and the Institute of Tourism from Ljubljana, Slovenian architect Franc Avbelj was engaged. Within his involvement at the Institute, the architect participated in the creation of a long-term Program for Development of Tourism of Kuršumlija municipality (1966). The collaboration continued until today, resulting in numerous projects in the territory of Kuršumlija municipality **[Fig. 1]**.

Franc Avbelj was born in 1938 in Slovenia and graduated architecture from the University of Ljubljana, in the class of professor Edvard Ravnikar.[31] During his career, he was employed in different companies and in 1998 he founded his own bureau called Art.A Design in Ljubljana.[32] His conceptual designs for tourist facilities include hotel complex at Radenci Spa (1967), Motel Barjak in Ljubljana (1968), Hotel Vič in Ljubljana (1968-1971), a hotel in Dubrovnik (1972) and Hotel Rožnik in Ljubljana (1976). These projects indicate influences of world trends (from Japan, United States of America, United Kingdom) which characterized

30 "Planinka Istorijat," Planinka, accessed February 21, 2019, https://www.planinka.rs/istorijat.php

31 Aleš Vodopivec and Rok Žnidaršić, *Edvard Ravnikar: Architect and Teacher* (Wien: Springer, 2009).

32 Avbelj was born on December 24, 1938. In the 1960/61 school year, he enrolled the Faculty of Architecture at the University of Ljubljana and graduated in 1965. Before founding his own bureau, he worked at the Institute of Tourism in Ljubljana (1965-1967), at the IBT Urban and Architectural Design Company in Ljubljana (1967-1983) and at Interexport Company in Ljubljana (1983-1998). Until now, architect Avbelj's work has not been the subject of historiographical research, and the only available bibliographic units about his work are related to the construction of the Kuršumlija Spa.

Fig. 1

Franc Avbelj, Urban and Architectural Project for Radenci Spa (1967), photography of model (Source: Private archive of architect Franc Avbelj in Ljubljana, Slovenia)

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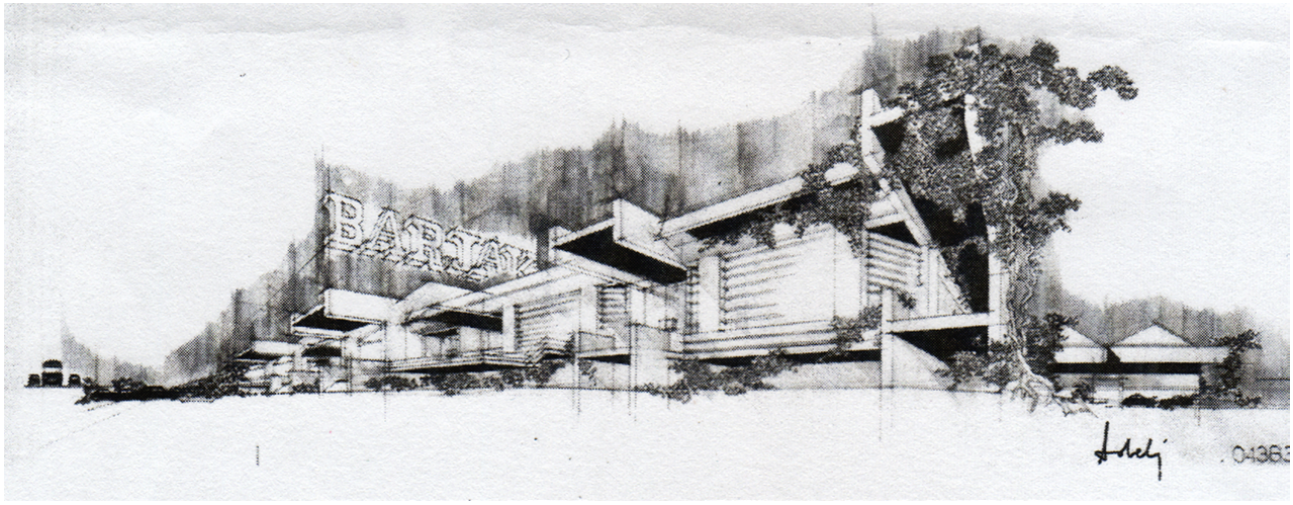

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architectural creativity throughout Yugoslavia during the Sixties and Seventies of the preceding century.[33] Thus, strong aesthetics reflect influences of the brutalism while the influences of structuralism are noticeable in the way the form of objects was articulated through smaller units **[Figs. 2-3]**.

Since 1967, Avbelj lived and worked in Kuršumlija, Serbia, for almost two decades.[34] During his collaboration with Planinka, Avbelj was the author of urban plans for Kuršumlija (1973), Prolom (1978) and Lukovo Spa (1978), whereby the Development Program of Lukovo Spa, with the eastern part of Kopaonik mountain, was developed in cooperation with experts from UNESCO in Paris. The collaboration between Avbelj and Planinka also resulted in numerous architectural projects, among which Hotel Radan in Prolom Spa (1968), Cultural Center in Kuršumlija (construction started during 1974-1975 but was never completed) and the Medical and Recreational Center Žubor in Kuršumlija Spa (1973-1982)

Fig. 2

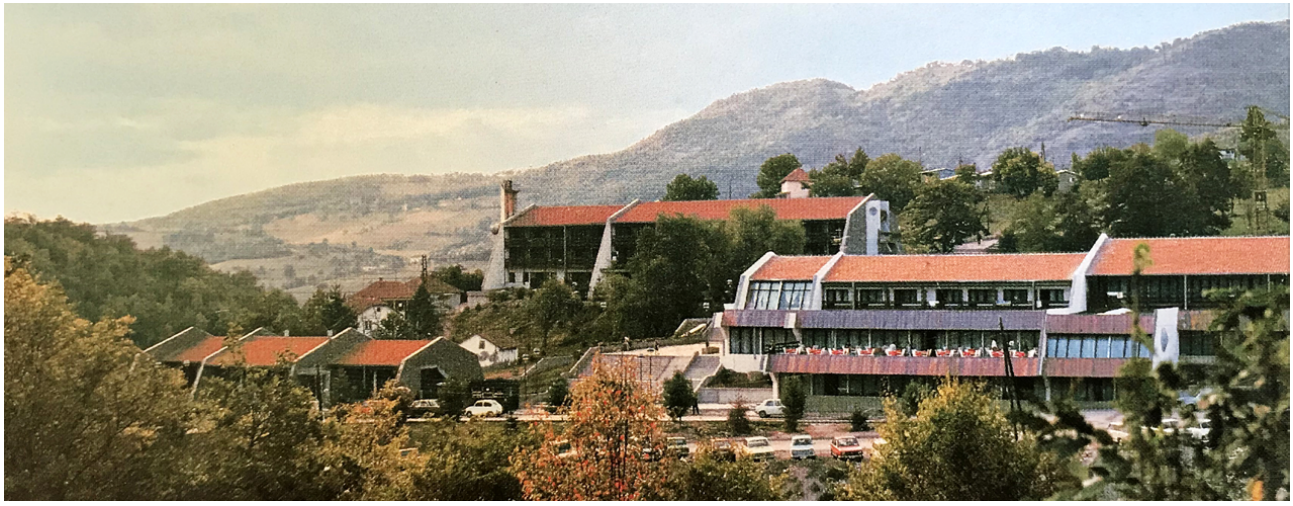
Franc Avbelj, Project for Motel "Barjak" in Ljubljana (1968), perspective sketch (Source: Private archive of architect Franc Avbelj in Ljubljana, Slovenia)

Fig. 3

Franc Avbelj, Unfinished Project for Cultural Center in Kuršumlija (Copyright Aleksandra Jevtović, 2019)

33 Ivan Štraus, *Arhitektura Jugoslavije 1945–1990* (Architecture of Yugoslavia 1945-1990) (Sarajevo: Svjetlost, 1991), 93; Danica M. Stojiljković, "Strukturalizam u arhitekturi Jugoslavije u periodu od 1954. do 1980. godine (Structuralism in architecture of Yugoslavia in the period from 1954 to 1980)," (PhD diss., University of Belgrade, 2017).

34 Dragan Borisavljević, "Slovenac ponovo u Kuršumlijskoj banji (Slovenian again in Kuršumlija Spa)," *Politika*, May 13, 2010, http://www.politika.rs/scc/clanak/134623/Slovenac-ponovo-u-Kursumlijskoj-Banji



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stand out.[35] During the celebration of the company's 16th anniversary, the management of Planinka handed a gold plaque to Avbelj "for his outstanding contribution to the development of Planinka by functional and economical designing of buildings as well as development of urban plans with the most original solutions **[Fig. 4]**."[36]

Urban planning of Kuršumlija Spa

Urban designs for Kuršumlija Spa were prepared by the consulting company Investicijski Biroji Trbovlje (IBT) from Slovenia, in 1970.[37] After the exploration and water capping work was completed, it was determined that the hotel should be moved in the west direction, compared to the original location. The less humid terrain at the displaced location, as well as the possibility of better insolation were the reasons for that decision. Upon deciding to change the location of the intended facility for therapy (H-1), the municipality of Kuršumlija ordered the supplement to the detailed urban plan (1973) which was part of the conceptual project of the Medical and Recreational Center in Kuršumlija Spa from Interexport, a hotel consulting bureau from Ljubljana. The chief designer was Franc Avbelj and this documentation is kept in the archives of the Planinka company in Kuršumlija.[38] Apart from the municipality, Planinka was the main investor of this venture.

The project study contains extensive documentation from the Institute for Balneology and Climatology of Serbia on the analysis of thermal waters and their balneological quality, historical data of the archeological site related to

35 On demand of Planinka, Avbelj also designed: Motel Rudare in Rudare (1974), the annex no. 1 in Prolom Spa (1976), self-service shop in Prolom Spa, Carpet Factory in Lukovo Spa (1976), Motel Jelak in Jelak (1976, unbuilt), a kindergarten Sunce in Kuršumlija (1977-1979) and a hotel in Leposavić (1979, unbuilt).

36 Plaque to architect Franc Avbelj, January 9, 1980, Kuršumlija, in Private Archive of Franc Avbelj, Ljubljana.

37 After the independence of the Republic of Slovenia, the company went through reorganization and nowadays is working as IBT SPI, Ltd. "IBT About Us," IBT, accessed June 28, 2020, http://www.ibt.si/

38 The short biography, which is available thanks to the kindness of Franc Avbelj, shows that he was employed by IBT and Interexport exactly at the time when the urban plans of Kuršumlija Spa were being drafted. A 1973 document, found among the papers of Planinka in Kuršumlija, contains the signature of Avbelj, who at the time was director of the Bureau of Hotel Consulting within Interexport.

Fig. 4

Franc Avbelj et al., Hotel Radan in Prolom Spa (1968) (Source: Private archive of Đ. Eraković in Kuršumlija, Serbia)

Kuršumlija Spa, made by the Cultural Heritage Preservation Institute from Niš, as well as textual and graphic part of the urban plan of this area. Separate chapters, including recapitulation and costs, contain projects of roads, parking lots and bridges, projects of sewerage, water supply, electricity, regulation of the Banjska River and external landscape, all of which testify to the fact that this endeavor was the first extensive effort to urbanize the area of Kuršumlija Spa and to thoroughly examine its entire potential.[39]

Thanks to its hot water sources, the Kuršumlija Spa has been well-known since ancient times, but historical data on spa facilities and water sources have been poorly preserved. In addition to thermal waters, the spa has also been well-known for its healing thermo-mineral mud, unique in Yugoslavia, and the most healing one in Europe.[40] It is considered as one of the medical spas "with the most glorious past," which was especially developed in the period between the two world wars (1930-1941), when it was used as a climatic health resort.[41] After the Second World War, renovation of the existing construction fund was performed, and students from the surrounding cities used to spend their summer holidays there.[42] Possibilities for tourism development in this spa were also considered in 1961,[43] but only in 1963 did the Institute for Health Protection of Serbia carry out hydrological and hydro-technical tests in parallel with the Institute for Balneology and Climatology of Serbia.[44] Taking into account physical and chemical properties of the mineral waters which were tested, the reports showed that the diseases of the locomotor apparatus and gynecological diseases were the main orientation indications.

In the technical description complementing the graphic attachments, the author explained that Kuršumlija Spa and the town of Kuršumlija had been observed as inseparable parts of the whole. That whole was characterized by its rich and turbulent historical past, dating back even to the Roman period and up until the twentieth century.[45] This region played a significant role in the communications between East and West. The road from the Adriatic Sea led across Kuršumlija Spa to Niš, where it was connected to the roads of world importance (Belgrade-Thessaloniki and Belgrade-Constantinople). It was noted that due to the general underdevelopment of the municipality of Kuršumlija and despite its spa potential, tourism in that area expanded only after 1980.[46]

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39 The first Urban-Regulatory Plan of this area was made in 1932 and remained unbuilt.

40 Maćejka and Tanasković, *Opština Kuršumlija*, 42.

41 Mihajlo Kostić, "Kuršumlijska banja (Kuršumlija Spa)," in *Glasnik Srpskog geografskog društva* XLII, no. 1 (1962): 57; Maćejka and Tanasković, *Opština Kuršumlija*, 40-41.

42 Maćejka and Tanasković, *Opština Kuršumlija*, 44.

43 Mihajlo Kostić, "Mogućnosti za razvoj turizma u Kuršumlijskoj banji (Opportunities for tourism development in Kuršumlija Spa)," *Privredni glasnik*, no. 11, (1961).

44 This document is signed by the engineer Života Kapetanović and his transcript is part of the aforementioned urban study which was stored in the Planinka Company Archive, Kuršumlija.

45 Jovan Dragašević, "Arheologijsko-geografijska istraživanja (Archaeological-geographical researches)," *Glasnik Srpskog učenog društva*, no. 45 (1877): 1-128; Nikola Vulić, Anton von Premerstein and Friedrich Ladek, "Antički spomenici u Srbiji (Ancient monuments in Serbia)," *Spomenik* XXXIX, no. 35, (1903): 43-89; Maćejka and Tanasković, *Opština Kuršumlija*, 44.

46 Maćejka and Tanasković, *Opština Kuršumlija*, 25.

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Kuršumlija Spa is 11 kilometers away from the town of Kuršumlija and it is located in a small basin of the Banjska river, on an altitude of 442 meters.[47] It is surrounded by densely wooded hills (the last southeastern branches of Kopaonik mountain) on its west and north sides, while it is more open on the east side. The rich nature gives an extremely soothing character to the whole environment. When positioning new buildings, the detailed urban plan sought to retain the existing character of the site and to treat the surrounding nature as an integral element of healing and as one of the most significant factors for the development of tourism. It was suggested that the surrounding forests should be put under protection and their beneficial effects on the psychic mood of spa visitors were highlighted.

The existing constructions comprised buildings with a tourist character (Hotel Yugoslavia, annex Milica, the Old Bath, summer pool and elementary school), and some smaller residential and mixed-use buildings. Considering the lower quality of the existing buildings, it was planned to gradually demolish them. The project envisaged keeping only the Old Bath, as an attractive cultural monument. The facility was expected to be adapted and incorporated into the therapeutic system and the surrounding area was supposed to be converted into a cultural park. The existing summer pool, located near the location planned for the construction of the hotel (H-1), was also planned to be retained. The renewal of the pool with the construction of its auxiliary facilities was supposed to provide a program supplement during summer season **[Fig. 5]**.

The decisive factors in forming the detailed urban plan were the geomorphological characteristics of the terrain, physical capacities of the spa area and the thermal water regime. Findings about required interventions of the primary water provided a relatively modest space intended for the construction of future

Fig. 5

Franc Avbelj et al., Detailed Urban Plan of Kuršumlija Spa (1973) (Source: Planika Company Archive in Kuršumlija, Serbia)

47 Danijela Vukoičić, *Banjski turizam u funkciji razvoja Opštine Kuršumlija* (Spa tourism in the function of development of the Municipality of Kuršumlija) (Belgrade: Srpsko geografsko društvo, 2008), 143.

tourist and health facilities. The new construction fund was located on the edge of the protected zone of thermal water, while the main facility for treatment was located in close proximity. The technical description outlined numerous possibilities that were provided by that kind of concept, such as the possibility of stage construction of the construction fund and the realization of peace zone and traffic zone, as well as the idea of providing a specific character to the Kuršumlija Spa which was conceived as a city of greenery.

The entrance to the tourist complex was located near the preserved environment in front of the Old Bath, which was thus organically incorporated into the center of the medical spa. The future trade-recreational and social center of spa was supposed to be built on the existing and extended route of the spa's road, and in the direction to Kuršumlija, the construction of a business-commercial, residential and service part of the city was envisaged. The recreational part of the medical spa was supposed to be located on the opposite side of the Old Bath, and a healthcare and tourism part was expected to be positioned towards the town of Prepolac.

The traffic solution implied that after the reconstruction of the Kuršumlija-Prepolac road, transit traffic and the bus station would be transferred to the existing bypass. That was supposed to unburden the internal route of the spa, which would continue towards the Kuršumlija-Prepolac transit. It was intended to prevent local community from using road transport within the narrow central area of the spa. Low vehicle traffic has not been completely relocated, for the purpose of partially breaking the daily monotony. In some areas, the pedestrian paths completely separated from vehicle traffic were planned, whereas the trim paths would be located on the nearby mountain slopes and used for therapeutic purposes. The capacity of the provided parking lots (for about 250 vehicles) was 1:3 in compared to the envisaged capacities, with the assumption that stationary guests, referred by the social security, would come by other means of transport. The special attention was paid to the vegetation fund, by designing and landscaping of all park and green areas. The future water tank was to be used for maintenance of these areas. Since the existing communal equipment was completely inadequate, the detailed plans for water, electricity and sewage networks were drawn as well.

The architectural design of planned buildings was subordinated to the basic characteristic of the winding surfaces of the site. According to this solution, the main spatial emphasis was the central composition with slightly curved hip roof surfaces and gentle slopes of the ground floor. In architectural terms, the buildings were supposed to reflect the shape of hillocks. The basic materials provided for the construction were concrete (on the inside), brick (on the outside), wood, glass and copper sheet. The programme of contents included the hotel H-1 with therapy, tourist stationary hotels H-2 and H-3, combined facility intended for housing and commerce, the protected Old Bath, about 40 cottages - apartments, camp for 20-30 tents, sports and recreational swimming pool, areas for sports and recreation, trade-tourist and catering pavilions, bus station,

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cultural pavilions, greenhouses for vegetables and flowers, police station, fire station, branch of the Municipality of Kuršumlija, infirmary, agricultural cooperative and the school with existing and multi-purpose covered hall. Rich program indicates that Kuršumlija Spa was built with an aim of satisfying primarily the social and medical requirements of its time, but commercial aspects of tourism were not neglected either. The spa was also planned to accomodate tourists without the need for medical treatment, and for that purpose the program was enriched with cultural and recreational contents. Spa facilities intended for medical treatment played a significant role in the public health infrastructure of Yugoslavia. For patients, spa treatments were prescribed and free of charge, thanks to the state's action to take care of its working class.

The Interexport company, a hotel consulting bureau from Ljubljana, also designed the architectural part of the conceptual project for the Medical and Recreational Center in Kuršumlija Spa (1973), and architect Franc Avbelj was named chief designer for this part of the project as well [Fig. 6].

Medical and Recreational Center Žubor

Medical Program

The program of the Medical and Recreational Center Žubor was developed by Srboljub Stojiljković (in that time the Director of the Neuropsychiatric Clinic in Belgrade), Vojin Šulović (in that time the Director of the Gynecology and Obstetrics Clinic in Belgrade) and Dimitrije Jovanović (assistant professor from the Faculty of Medicine in Belgrade). Mićo Milanović, in that time the head of the Department of the Neuropsychiatric Clinic in Belgrade, was also mentioned as investor's expert associate. The expert team consisted of leading experts

Fig. 6

Franc Avbelj et al., Model of Medical and Recreational Center H1 in Kuršumlija Spa (1973) (Source: Private Archive of Đ. Eraković in Kuršumlija, Serbia)

from Serbia in the field of neurological and gynecological diseases.[48] This program was a part of project documentation which is kept in the archives of the Planinka company and explains in which ways the modern lifestyle causes numerous psychosomatic disorders. As a new disorder category at the time, authors pointed out the traffic traumatism the treatment of which involved rehabilitation of the locomotor and peripheral nervous systems. Among other causes that negatively affected the nervous system, technological processes in industry and viral diseases were also included.

As a common occurrence of a stressful modern life in a society with changed sociological structure, the problems of female frigidity and sterility were cited, meant to be treated by teams of both gynecologists and psychiatrists. The authors noted that such practice had already been well-known in the world, but that in domestic conditions there had been no possibilities for its implementation and construction of appropriate institutions or centers in which the practice would have been applied. At the beginning of the Seventies, in the context of the history of medicine in Yugoslavia, it was stated that there were only four specialized institutions for inpatient treatment of gynecological and obstetric diseases, only one of them being in Serbia, and that there were only gynecological and obstetric wards at general hospitals.[49] Also, in Yugoslavia, there were eighteen hospitals for treatment of nervous and psychiatric diseases, eight of which were located in Serbia.[50] At that moment, in Serbia, there was not a single modern medical and rehabilitation or medical and recreational center in which neurotics, patients with psychosomatic diseases and disorders of nervous or locomotor systems would have been treated. Therefore, as the main motive for its construction and in accordance with the ruling ideology, its importance for the social community was emphasized, i.e. prevention of the emergence of young retirees which would be disabled for work and for making contribution to community.

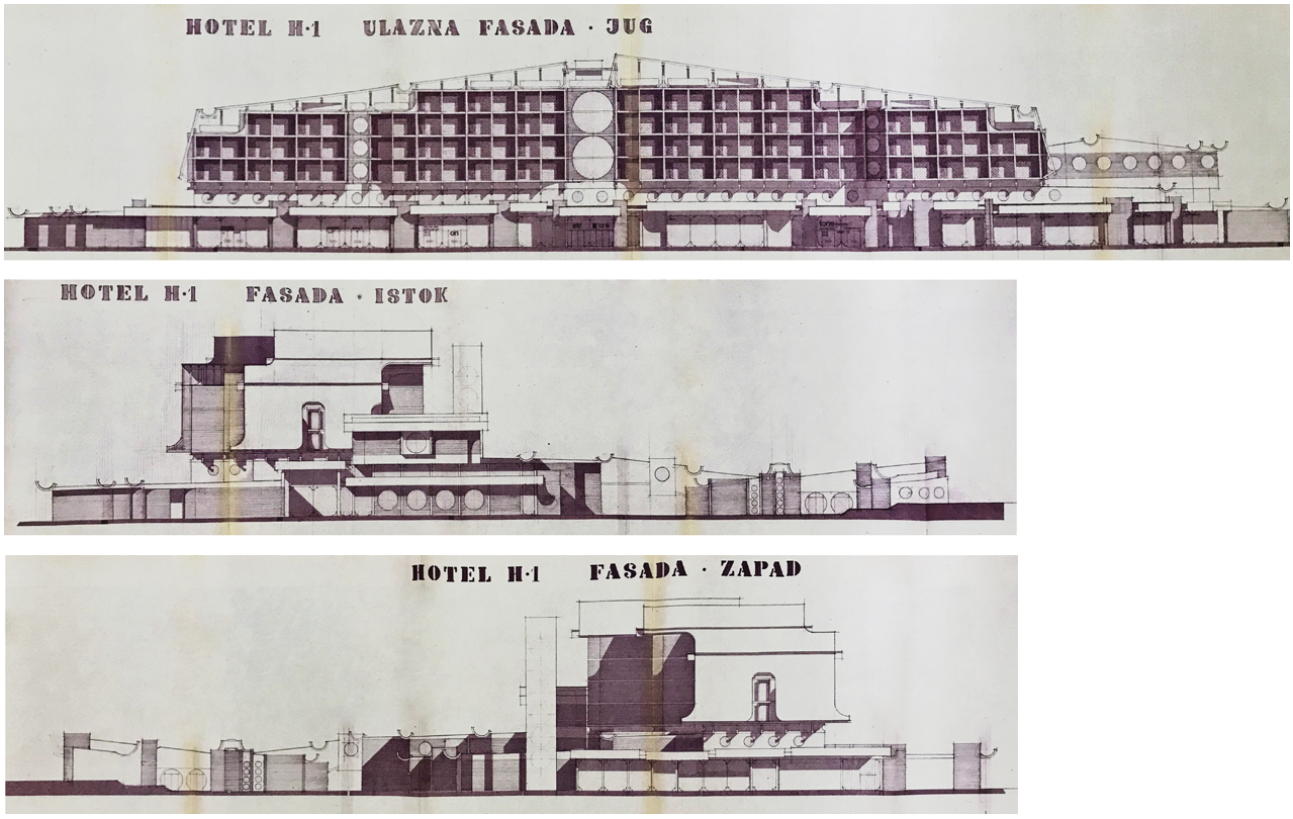
The team of medical experts pointed out the advantages of locating such center in Kuršumlija Spa and cited numerous reasons for it. Among those reasons, the ones that should be emphasized are the possibilities for the population from south and southwest Serbia and from Kosovo,[51] with no neuropsychiatric services or rehabilitation centers at all, to gravitate towards the Center, as well as an exceptionally favorable climate, natural beauty and wealth in the form of thermal sources with healing effects, all of which were available in Kuršumlija Spa. The advice was to divide the Medical and Recreational Center

48 It is interesting that Vojin Šulović was born in Kuršumlija and he is listed on the Tourist Organization of Kuršumlija website as its honorary citizen. Despite that, his engagement in the development of the medical program had nothing to do with his origin, but with the fact that he managed the Gynecology and Obstetrics Clinic in Belgrade and that he was one of the leading experts in the field throughout the SFRY, recognized worldwide. "Vojin Šulović," Kuršumlija, accessed April 25, 2020, https://tokursumlija.rs/o-nama/pocasni-gradjani/vojin-sulovic/

49 *Statistički godišnjak Jugoslavije* (Statistical annual of Yugoslavia) (Belgrade: Savezni zavod za statistiku, 1972), 512.

50 *Statistički godišnjak Jugoslavije*, 512.

51 Kosovo was only 10 kilometers away from Kuršumlija Spa. According to statistics from the Federal Statistical Office, in 1972 there were no specialised hospitals or institutions of a similar type for the treatment of gynecological or neurological diseases in Kosovo.



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into two parts, where the first part would be a combination of a tourist-catering and a semi-open stationary healthcare facility, while the second part would be intended exclusively for medical rehabilitation and re-socialization of the sick. The second part of the Center would consist of a therapeutic-recreational section intended for nervous and psychosomatic patients and for neurotics, and a therapeutic-recreational section intended for gynecological patients. In the concluding part of that Program, it was insisted to put efforts that would be synchronised and equally oriented towards the creation of professional staff and facility construction [Fig. 7].

Architectural and spatial concept

In the part of the documentation where Avbelj explained the basic architectural and spatial concept of the future facility, he stated that the desire of his working team was not to arrogantly direct the architectural content to visionary trends, but to apply realistic and possible insights to this facility. The idea was built on the concept of the future building contributing to the needs of society which enabled the realization of the project. According to the architect, masses of objects followed the given natural elements and "the anthropometric measures in all possible physical situations." The interior design was approached with the tendency to avoid the impression of a clinical and hospital stationary, but the opposite – to provide impression of rest, relaxation and recreation in the form of interior ambiences, which would have an immense effect on the psyche.

Fig. 7
Franc Avbelj et al., Project for Medical and Recreational Center H1 in Kuršumlija Spa (1973), Front (up), East (middle) and West (bottom) facade (Source: Planika Company Archive in Kuršumlija, Serbia)

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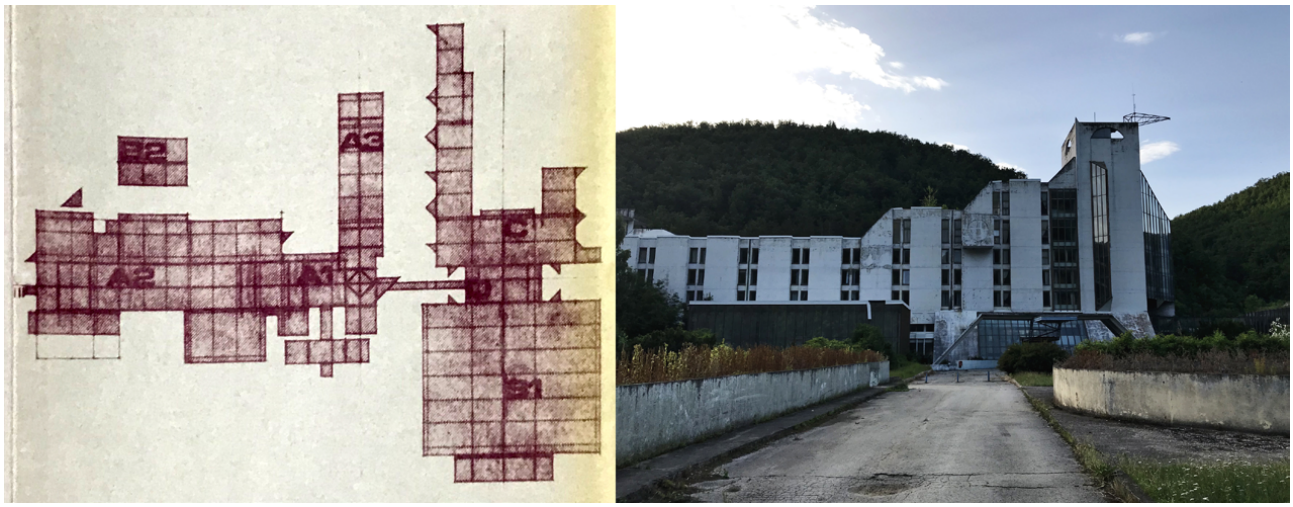

As the architect said: "There is only one wish, to respect nature, peace, an atmosphere of calmness and mental and physical relaxation **[Fig. 8]**."[52]

As the most important accommodation facility in Kuršumlija Spa, Žubor was categorized as a two-star hotel and its usable area was about 17,800 square meters. The entire complex consisted of several buildings forming a single unit **[Fig. 9]**. Within the height dominant part of the building A1, there was a central hall with the reception on the ground floor, on the ground floor of the part A2 there were a boiler room, a kitchen with the capacity of 2,000 meals, a restaurant with 250 seats and offices for management, whereas on the upper levels, as well as in the part A3, there were rooms for accommodation on three levels. In areas where parts A2 and A3 were connected with the central part A1, infirmary rooms on duty were located. The facility had 158 rooms and 240 beds.[53] Rooms for accommodation were single or double, with en suite bathrooms. The B1 facility contained a hydrotherapy pool and inside facility C there were clinics and diagnostic rooms. While solving communications within the facility,

Fig. 8

Franc Avbelj et al., Medical and Recreational Center Žubor in Kuršumlija Spa After Its Construction (1976-1982) (Source: Private Archive of Đ. Eraković in Kuršumlija, Serbia)

Fig. 9

Franc Avbelj et al., Medical and Recreational Center "Žubor" in Kuršumlija Spa (1976-1982), Scheme of the Floor Plan (left) and Front Facade (right) (Sources: Planika Company Archive in Kuršumlija, Serbia (left). Copyright Aleksandra Jevtović, 2019 (right))

52 *Conceptual Architectural Project of the Medical and Recreational Center in Kuršumlija Spa* (1973), Planinka Company Archive, Kuršumlija.

53 Goran Perić, Marko Gašić and Jelena Simić, "Strateški pravci razvoja turizma u opštini Kuršumlija (Strategic directions of tourism development in the Municipality of Kuršumlija)," in *VII naučni skup Mediteranski dani Trebinje 2012 – Turizam: izazovi i mogućnosti – Turistička privreda i povezane teme, Trebinje*, ed. Slavoljub Vujović (Belgrade: Ekonomski institut), 256.

the communication system for guests and the system for maintenance technology and facility operation were completely separated. Similarly, the entrances to the facility were separated, specially designed for guests on one hand and for the service and technical staff on the other hand. Special attention was paid to communications for guests where the corridor system was avoided, but those flows were transformed into social rooms intended for rest, entertainment etc.

The structure of the building was completely made in skeletal system and of reinforced concrete. The foundation engineering was done on the fortified embankment. Due to its large size and in order to avoid later strains, some dilations had to be made **[Fig. 10]**.

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According to the author, the exterior design and parterre decoration were striving for peace and harmony, and for the synthesis of water with the surrounding greenery as well. The symbolic fountain was located near to the main entrance. The fountain included the sculpture the author of which was Slovenian artist Janez Boljka (1931-2013). In addition to his works, the interior of the Center was enriched with paintings by the prominent Slovenian artist Jože Ciuha (1924-2015) **[Fig. 11]**.

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Although the intention of the architect for the central A1-A3 part of the complex was to resemble a mountain massif with its silhouette, its dominantly futuristic effect cannot be denied. In order to provide connection between the building and the natural environment, tracts A2 and A3 ended with a slope where green terraces were located.[54] The complex set of facilities was shaped in the spirit of megastructural projects, and the impacts of structuralism can be especially observed on the side tracts with accommodation units. In these

Fig. 10

Medical and Recreational Center Žubor in Kuršumlija Spa (1976-1982), Sculpture of Janez Boljka (left) and Front Facade (right) (Copyright Aleksandra Jevtović, 2019)

Fig. 11

Franc Avbelj et al., Medical and Recreational Center "Žubor" in Kuršumlija Spa (1976-1982), Details of Entrance Zone (Copyright Aleksandra Jevtović, 2019)

54 During the 1960s and 1970s and in the spirit of structuralism, terraced forms were a frequent feature of the exclusive hotel facilities built in Yugoslavia, especially in the Adriatic shore. Stojiljković, "Strukturalizam u arhitekturi Jugoslavije," 329.

zones, narrow vertical arrays of windows appeared on the facades, at the same time emphasizing the rhythmicity of the base. Monumental dimensions and the dominant height of the entrance were partially reduced by glass windows with a sharp and pyramidal shape. These elements slightly diminish the predominantly brutal character of the concrete cube, ending with semicircular openings in the concrete at its top [Fig. 12].

12 |

The sloping part of the facade in the entrance area, together with the canopy of trapezoidal shape, strongly defied the ambience in which they were found. From aerial perspective and from the direction of the entrance zone, the whole object gave the impression of a powerful rival to all the wealth of the surrounding nature. The lateral building (which was made of parts B1 and C) tended to blend in completely with the surrounding by its glass facade and low height, at the same time not interfering with the accommodation part of the complex (A) in any way. In the main part of the Center (A), the ground floor was distinguished by a glass facade, while shallow triangular ornaments were placed in lower zones of concrete parts. Openings on the terraces, which were placed at smaller facades of the facility, containing infirmaries and diagnostic rooms (part C), were also shaped triangular [Fig. 13].

13 |

Construction and doom of the Žubor Center

The construction of the Medical and Recreational Center Žubor began in 1976 and was carried out by the working organization Hidrogradnja from Čačak. Planinka was the major investor for the construction of the center,[55] and

Fig. 12

Franc Avbelj et al., Medical and Recreational Center Žubor in Kuršumlija Spa (1976-1982), The Tallest Part of the Center - A1 (Copyright Aleksandra Jevtović, 2019)

Fig. 13

Franc Avbelj et al., Medical and Recreational Center Žubor in Kuršumlija Spa (1976-1982), Back and Side Facade (Copyright Aleksandra Jevtović, 2019)

55 Đorđe Eraković, "Među nama. Šta je istina o izgradnji Žubora? (Between us. What is true about the construction of Žubor?)," *Politika*, August 28, 2016; Đorđe Eraković, "Među nama. Planinka većinski investitor Žubora (Between us. Planinka is major investor of Žubor)," *Politika*, August 24, 2019, 20.

the Pension and Disability Insurance Fund also invested in its construction.[56] The construction of the facility was monitored through the daily press in Serbia, where the Kuršumlija Spa was named "the spa of the 21st century" and "the modern natural health resort."[57] The ceremonial opening of the center took place on May 30, 1982. During the same year, according to the memories of Eraković, who was then the director of Planinka, electricity was deliberately turned off in this facility on the day of New Year's celebration. Actually, during the Eighties, in the decade after the death of Josip Broz, the cultural climate in Serbia turned to ethno-nationalisms and was based on the refutation of the socialist order and the Yugoslav federation.[58] Therefore, it is not surprising that there was a tendency to sabotage the celebration in the newly created facility, construction of which symbolized successful functioning of the concept of "brotherhood and unity" and solidarity between the two republics. Only two years later, in 1984, the Kuršumlija Spa was separated from the Planinka company. That happened precisely in the year when the issue of paid holidays was presented as "the burning issue," due to the economic crisis and decreased living standards among workers, and when the abandonment of workers' resorts throughout Yugoslavia was recorded.[59] According to the statistics, a record number of 103, 651 overnight stays was achieved in 2004.[60] In 2006, the facility which employed 130 workers was closed,[61] due to unsettled tax debts, which was followed by the devastation of the entire Kuršumlija Spa **[Fig. 14]**.

14 |

During 2010, the municipality of Kuršumlija negotiated with the Ministry of Economy on the revitalization and reconstruction of Kuršumlija Spa and the Žubor Center.[62] On that occasion, in May, Avbelj visited Kuršumlija and the leaders of the Planinka company and toured the facilities which were built according

56 Ljubiša Mitić, "Planinka preuzima Žubor? (Planinka takes over Žubor?)," Južne vesti, February 2, 2010, https://www.juznevesti.com/Ekonomija/Planinka-preuzima-Zubor.sr.html

57 *Daily press* (1979-1983), Private Archive of Franc Avbelj, Ljubljana.

58 Aleksandar Ignjatović, "Poricanje i obnova: arhitektura postmodernizma 1980–1991 (Denial and renewal: the architecture of Postmodernism 1980–1991)," in *Istorija umetnosti u Srbiji XX vek. Radikalne umetničke prakse*, ed. Miško Šuvaković (Belgrade: Orion Art, 2010), 663–670.

59 Duda, "Od radnika do turista," 55, 69.

60 Maćejka and Tanasković, *Opština Kuršumlija*, 47.

61 Lj. M., "Kuršumlijska banja dobija novog vlasnika (Kuršumlija Spa is Getting a New Owner)," *Južne vesti*, August 14, 2019, https://www.juznevesti.com/Ekonomija/Kursumlijska-banja-dobija-novog-vlasnika.sr.html

62 Ljubiša Mitić, "Planinka preuzima Žubor?;" Ljubiša Mitić, "Opština oživljava hotel Žubor (Municipality revives hotel Žubor)," *Južne vesti*, April 28, 2010, https://www.juznevesti.com/Ekonomija/Opstina-ozivljava-hotel-Zubor.sr.html

Fig. 14
Franc Avbelj et al., Medical and Recreational Center Žubor in Kuršumlija Spa (1976-1982), Details of Terraces (Copyright Aleksandra Jevtović, 2019)

to his projects.[63] According to the documents preserved in the Planinka Company Archive, it was debated that Avbelj in cooperation with other authors who had participated in the construction of the Žubor Center should prepare a report and offer the necessary preparatory works, as well as the financial evaluation of further necessary investments in order to enable the facility to operate according to contemporary standards. One of the letters from Planinka to Avbelj welcomed the renewal of this cooperation even "after the breakup of our common Yugoslavia." In 2019, after numerous discussions with the Government of Serbia,[64] the Directorate for Property of the Republic of Serbia decided to make Planinka the owner of the Kuršumlija Spa,[65] which was built and arranged mostly by the efforts of the Company itself [Fig. 15].

15 |

Đorđe Kadijević observed that: "Those who successfully removed Yugoslavia from the physical space of the world have been outdared by its persistent presence in the cultural space."[66] In parallel, related reasons for the long-standing devastation of the facility which was created by the united efforts of experts from two former Yugoslav Republics can be assumed. Apart from the history of its construction, the aesthetic features of this object also greatly reflected the ideas of the time in which they were created.

Conclusions

In Yugoslavia, tourism was one of the main drivers of the modernization process,[67] which in turn occupied the supreme place in hierarchy of social values towards which the newly-formed community aspired. Observed as a Socialist experiment, Yugoslav tourism influenced the urbanization and modernization of the entire state and its economic development, but it also significantly contributed to the "development of contemporary architectural concepts and their

63 Borisavljević, "Slovenac ponovo u Kuršumlijskoj banji."

64 Lj. M., "Kuršumlijsku banju uskoro preuzima Planinka (Kuršumlija Spa will be soon taken over by Planinka)," *Južne vesti*, January 18, 2018, https://www.juznevesti.com/Ekonomija/Kursumlijsku-Banju-uskoro-preuzima-Planinka.sr.html

65 Lj. M., "Kuršumlijska banja dobija novog vlasnika," *Južne vesti,* August 14, 2019, https://www.juznevesti.com/Ekonomija/Kursumlijska-banja-dobija-novog-vlasnika.sr.html; Eraković, "Među nama. Planinka većinski investitor," 20.

66 Đorđe Kadijević, *100 kritika* (100 reviews) (Belgrade: Orion art, 2019), 172.

67 Duda, "Turizam narodu," 28.

Fig. 15

Franc Avbelj et al., Medical and Recreational Center Žubor in Kuršumlija Spa (1976-1982), Details in Glass (Copyright Aleksandra Jevtović, 2019)

social actualization."[68] The Planinka company has outlasted all ideological structures of its time and persisted as one of the main carriers of tourism in Serbia, especially in the Toplica district. Its timely consideration of the concept of sustainable development and simultaneous efforts to involve and emancipate the local community and to engage eminent experts in various fields cannot be disputed.

Among numerous projects designed by architect Franc Avbelj in Serbia, the project for Kuršumlija Spa, i.e. Medical and Recreational Center "Žubor" stands out not only by the complexity of the functional program and its scope, but also by the creative freedom it expresses. The specific architectural task that was assigned to him and his team did not have role models in the practice of his time. During the designing, the only role models were the related clinics in Scandinavia and the United States, which were mainly aimed at more prosperous social structures, whereas that Center was created according to the criteria of "economic and social equality."[69]

Perennial decay of Kuršumlija Spa and the Žubor Center would seem incomprehensible if the fate of monuments and memorial parks of Socialist Yugoslavia were not known. They were built with the aim of reinforcing the ideology of Socialist Yugoslavia through its universal forms and in the last decades of the twentieth century, they were marginalized in the consciousness of the population of the former republic.[70] Just as the revaluation of memorial objects unburdened by ideological options is envisaged from the architectural heritage point of view,[71] so is the investing in utilitarian objects from that period equally important. Bearing in mind that tourist facilities as such also witnessed an authentic historical period and that their actuality is constantly growing in the world scale, investing in their revival would have multiple benefits, both cultural and material.

68 Antešević, "Regionalizam u modernizmu," 494.

69 *Conceptual Architectural Project of the Medical and Recreational Center in Kuršumlija Spa* (1973), in Planinka Company Archive, Kuršumlija.

70 Olga Manojlović–Pintar, "Uprostoravanje ideologije: Spomenici Drugog svetskog rata i kreiranje kolektivnih identiteta (Spacing of ideology: monuments of the Second World War and the creation of collective parks)," in *Dijalog povjesničara/istoričara*, 10/1, ed. Igor Graovac (Zagreb: Friedrich Neumann Stiftung, 2008), 287–307; Olga Manojlović–Pintar, *Arheologija sećanja: spomenici i identiteti u Srbiji* 1918–1989 (The archeology of memory: monuments and identities in Serbia 1918-1989) (Belgrade: Udruženje za društvenu istoriju: Čigoja, 2014); Aleksandra Jevtović, "Arhitekta Aleksandar Đokić (Architect Aleksandar Đokić)," (PhD diss., University of Belgrade, 2018), 254-255, 510.

71 Vladana Putnik Prica and Nenad Lajbenšperger, "On the wings of Modernity: WWII memorials in Yugoslavia," *Docomomo Journal* 59 (2018/2): 74–78; Aleksandra Jevtović, "Arhitekta Aleksandar Đokić," 510-511.

References

Antešević, Nebojša. "Arhitektura socijalističkog hedonizma. Turistički objekti moderne arhitekture u SFR Jugoslaviji od 1960. do 1980. (The Architecture of Socialist Hedonism. Tourist objects of Modern Architecture in the SFR Yugoslavia from 1960 to 1980)," in *Međunarodni simpozij studenata povijesti umjetnosti. 1. Susreti mladih povjesničara umjetnosti u Rijeci 2014. Knjiga sažetaka*, 30-31. Rijeka: Filozofski fakultet, 2014.

Antešević, Nebojša. "Regionalizam u modernizmu vs. turizam u socijalizmu. Rasprava o uticajima regionalizama na arhitekturu modernih turističkih objekata Jugoslavije druge polovine 20. veka (Regionalism in modernism vs. tourism in socialism. A treatise of the influences of regionalism in the architecture of modern tourist facilities in Yugoslavia during the second half of the 20th century)," in *Međunarodni tematski zbornik: Umetnost i njena uloga u istoriji: između trajnosti i prolaznih –izama, posvećen sećanju na prof. dr Miodraga Jovanovića* (1932-2013), eds. Zoran Jovanović et al., 493-511. Kosovska Mitrovica: Filozofski fakultet u Prištini, 2014.

Antešević, Nebojša. "Socijalistički estetizam u turističkoj arhitekturi Jugoslavije (1960-1980) (Socialist aestheticism in Yugoslav tourist architecture (1960-1980))," in *Arhitektura i urbanizam posle drugog svetskog rata – Zaštita kao proces ili model: zbornik radova*, eds. Vladimir Mako et al. 186-203. Belgrade: Zavod za zaštitu spomenika kulture grada Beograda, 2015.

Borisavljević, Dragan. "Slovenac ponovo u Kuršumlijskoj banji (Slovenian again in Kuršumlija Spa)," *Politika*, May 13, 2010,
http://www.politika.rs/scc/clanak/134623/Slovenac-ponovo-u-Kursumlijskoj-Banji

Bravo, Reuf and Selma Bravo, eds. *Yugoslav Scientific Research Guide 1970*. Belgrade: Nolit, 1972.

Dragašević, Jovan. "Arheologijsko-geografijska istraživanja (Archaeological-geographical researches)," *Glasnik Srpskog učenog društva*, no. 45 (1877): 1-128.

Duda, Igor. "Turizam narodu. Godišnji odmor kao proizvod socijalističke modernizacije (Tourism to the people. Vacation as a product of socialist modernization)," *Čovjek i prostor* 05-06, no. 684-685 (2011): 28-32.

Duda, Igor. "Od radnika do turista. Prava, želje i stvarnost socijalnoga turizma u jugoslavenskome socijalizmu (From labourer to tourist. Rights, wishes and reality of social tourism in Yugoslav socialism)," in *Sunčana strana Jugoslavije. Povijest turizma u socijalizmu*, eds. Hannes Grandtis and Karin Taylor. 55-87. Zagreb: Srednja Europa, 2013.

Eraković, Đorđe. "Među nama. Šta je istina o izgradnji Žubora? (Between us. What is true about the construction of Žubor?)," *Politika*, August 28, 2016.

Eraković, Đorđe. "Među nama. Planinka većinski investitor Žubora Between us. Planinka is major investor of Žubor)," *Politika*, August 24, 2019, 20.

Gašić, Marko, Vladan Ivanović, and Goran Perić. "Materijalna baza razvoja turizma na prostoru Topličkog okruga (Material basis for tourism development in Toplica district)," in *Synthesis – International Scientific Conference of IT and Business Related Research*, 484-498. Belgrade: Singidunum University, 2015.

IBT. "About Us." Accessed June 28, 2020. http://www.ibt.si/

Ignjatović, Aleksandar. "Poricanje i obnova: arhitektura postmodernizma 1980–1991 (Denial and renewal: the Architecture of Postmodernism 1980–1991)," in *Istorija umetnosti u Srbiji XX vek. Radikalne umetničke prakse*, ed. Miško Šuvaković, 663–670. Belgrade: Orion art, 2010.

Ignjatović, Aleksandar. "Tranzicija i reforme: arhitektura u Srbiji 1952-1980 (Transition and reforms: architecture in Serbia 1952-1980)," in I*storija umetnosti u Srbiji XX vek*, ed. Miško Šuvaković, 689-710. Belgrade: Orion Art, 2012.

Jevtović, Aleksandra. "Arhitekta Aleksandar Đokić (Architect Aleksandar Đokić)." PhD diss., University of Belgrade, 2018.
http://nardus.mpn.gov.rs/handle/123456789/11317

Kadijević, Đorđe. *100 kritika* (100 reviews). Belgrade: Orion art, 2019.

Kostić, Mihajlo. "Mogućnosti za razvoj turizma u Kuršumlijskoj banji (Opportunities for tourism development in Kuršumlija Spa)," *Privredni glasnik*, no. 11, (1961).

Kostić, Mihajlo. "Kuršumlijska banja (Kuršumlija Spa)," *Glasnik Srpskog geografskog društva* XLII, no. 1 (1962): 45–62.

Kulić, Vladimir. "Architecture and Ideology in Socialist Yugoslavia," in *Unfinished Modernisations - Between Utopia and Pragmatism*, eds. Vladimir Kulić and Maroje Mrduljaš, 36-63. Zagreb: UHA, 2012.

Kulić, Vladimir, Maroje Mrduljaš, and Wolfgang Thaler. *Modernism In-Between: The Mediatory Architecture of Socialist Yugoslavia*. Berlin: Jovis, 2012.

M. Lj. "Kuršumlijsku banju uskoro preuzima Planinka (Kuršumlija Spa will be soon taken over by Planinka)," *Južne vesti*, January 18, 2018,https://www.juznevesti.com/Ekonomija/Kursumlijsku-Banju-uskoro-preuzima-Planinka.sr.html

M. Lj. "Kuršumlijska banja dobija novog vlasnika (Kuršumlija Spa is getting a new owner)," *Južne vesti*, August 14, 2019, https://www.juznevesti.com/Ekonomija/Kursumlijska-banja-dobija-novog-vlasnika.sr.html

Maćejka, Milivoje and Radovan Tanasković. *Opština Kuršumlija: turistička monografija i vodič* (Kuršumlija Municipality: tourist monograph and guide). Niš: Punta, 2008.

Manojlović-Pintar, Olga. "Uprostoravanje ideologije: Spomenici Drugog svetskog rata i kreiranje kolektivnih identiteta (Spacing of ideology: monuments of the Second World War and the creation of collective parks)," in *Dijalog povjesničara/istoričara*, 10/1, ed. Igor Graovac, 287–307. Zagreb: Friedrich Neumann Stiftung, 2008.

Manojlović–Pintar, Olga. *Arheologija sećanja: spomenici i identiteti u Srbiji* 1918–1989 (The archeology of memory: monuments and identities in Serbia 1918-1989). Belgrade: Udruženje za društvenu istoriju: Čigoja, 2014.

Mitić, Ljubiša. "Planinka preuzima Žubor? (Planinka takes over Žubor?)," *Južne vesti*, February 02, 2010, https://www.juznevesti.com/Ekonomija/Planinka-preuzima-Zubor.sr.html

Mitić, Ljubiša. "Opština oživljava hotel Žubor (Municipality revives hotel Žubor)," *Južne vesti*, April 28, 2010, https://www.juznevesti.com/Ekonomija/Opstina-ozivljava-hotel-Zubor.sr.html

Perić, Goran, Marko Gašić, and Jelena Simić. "Strateški pravci razvoja turizma u opštini Kuršumlija (Strategic directions of tourism development in the Municipality of Kuršumlija)," in *VII naučni skup Mediteranski dani Trebinje 2012 – Turizam: izazovi i mogućnosti – Turistička privreda i povezane teme, Trebinje*, ed. Slavoljub Vujović, 252-259. Belgrade: Ekonomski institut.

Perović, Miloš. *Srpska arhitektura XX veka: od istoricizma do drugog modernizma* (Serbian architecture of the XX century: from historicism to the second modernism). Belgrade: Arhitektonski fakultet, 2003.

Planinka. "Istorijat." Accessed February 21, 2019. https://www.planinka.rs/istorijat.php

Popadić, Milan. "Novi ulepšani svet – socijalistički estetizam i arhitektura (New improved world: socialist aestheticism and architecture)," *Zbornik Matice srpske za likovne umetnosti*, no. 38 (2010): 247-260.

Putnik Prica, Vladana and Nenad Lajbenšperger. "On the wings of Modernity: WWII memorials in Yugoslavia," *Docomomo Journal,* no. 59 (2018/2): 74–78.

Schmidt, Catherine. "The Guided Tour: Insulated Adventure," *Urban Life* 7, no. 4 (1979): 441–467.

Statistički godišnjak Jugoslavije (Statistical annual of Yugoslavia). Beograd: Savezni zavod za statistiku, 1972.

Stojiljković, Danica M. "Strukturalizam u arhitekturi Jugoslavije u periodu od 1954. do 1980. godine (Structuralism in architecture of Yugoslavia in the period from 1954 to 1980)." PhD diss., University of Belgrade, 2017. http://nardus.mpn.gov.rs/handle/123456789/8935

Štraus, Ivan. *Arhitektura Jugoslavije 1945–1990* (Architecture of Yugoslavia 1945-1990). Sarajevo: Svjetlost, 1991.

TO Kuršumlija. "Vojin Šulović." O nama – Počasni građani. Accessed April 25, 2020. https://tokursumlija.rs/o-nama/pocasni-gradjani/vojin-sulovic/

Tchoukarine, Igor. "Jugoslavenski put do međunarodnog turizma. Otvaranje, decentralizacija i propaganda u prvoj polovici 1950-ih (The Yugoslav path to international tourism. Opening, decentralization and propaganda in the first half of the 1950s)," in *Sunčana strana Jugoslavije. Povijest turizma u socijalizmu*, eds. Hannes Grandtis and Karin Taylor, 125-154. Zagreb: Srednja Europa, 2013.

Vodopivec, Aleš and Rok Žnidaršić, eds. *Edvard Ravnikar: Architect and Teacher*. Wien: Springer, 2009.

Vukoičić, Danijela. *Banjski turizam u funkciji razvoja Opštine Kuršumlija* (Spa tourism in the function of development of the Municipality of Kuršumlija). Belgrade: Srpsko geografsko društvo, 2008.

Vulić, Nikola, Anton von Premerstein, and Friedrich Ladek. "Antički spomenici u Srbiji (Ancient monuments in Serbia)," *Spomenik* XXXIX, no. 35, (1903): 43-88.

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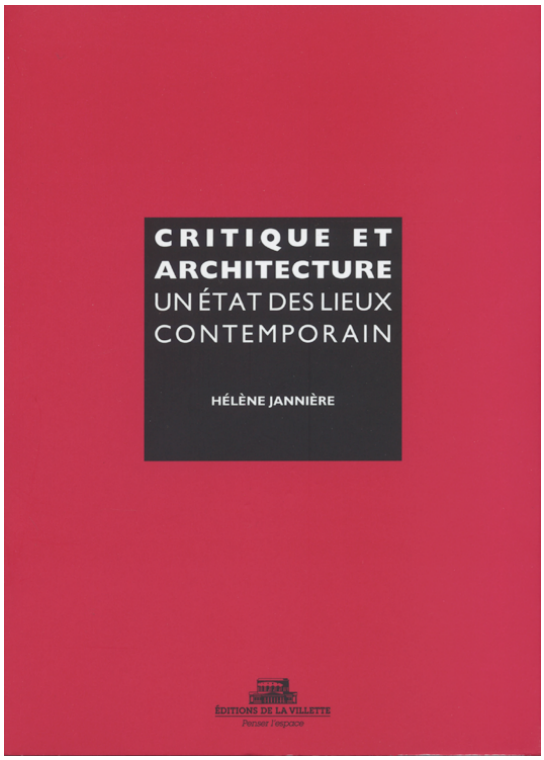

Prolegomeni a una storia della critica di architettura

RECENSIONE A

Hélène Jannière, *Critique et architecture. Un état des lieux contemporain* (Paris: Édition de la Villette, 2019)

Critica, Storia, Architettura, Storia della Critica

/Abstract

Attraverso un'articolazione per capitoli tematici, il libro di Hélène Jannière delinea i principali nodi concettuali per identificare i caratteri della critica di architettura e i modi per tracciarne la storia. Attraverso un approccio storiografico, Jannière sostiene che la storia della critica di architettura può fornire un grande contributo alla storia del pensiero architettonico, ponendola al fianco della storia delle teorie architettoniche e della stessa storia dell'architettura.

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https://doi.org/10.6092/issn.2611-0075/11610 | ISSN 2611-0075

Il libro di Hélène Jannière può essere letto come un conciso studio che indaga, in una prospettiva storica, la situazione della critica di architettura oggi, la sua identità, i suoi strumenti, i suoi fini, i suoi maestri e il rapporto tra critico e pubblico, oppure come un'articolata introduzione a un libro ancora da venire che abbia come fine quello di delineare una storia della critica di architettura soprattutto moderna e contemporanea. L'auspicio di chi ora scrive è che si tratti della seconda ipotesi e che la studiosa prosegua nel tracciare, dopo questa ricognizione, quella che ella stessa definisce, concludendo il suo volume, quell'*objet insaisissable*, ovvero, una storia della critica di architettura. Come emerge da questo libro, l'obiettivo della studiosa, che ha consacrato buona parte della sua ricerca a questo tema trattandolo in molti saggi e volumi nonché promuovendo progetti di ricerca internazionali come Mapping Architectural Criticism (coordinato insieme a Paolo Scrivano), è quello di sottolineare l'identità della critica e della sua storia e di inserirla nell'alveo di una storiografia architettonica e di un campo di ricerca che la intendano come un contributo attivo alla storia dell'architettura al pari degli edifici, dei progetti e dei loro autori.

Il volume è strutturato in sette capitoli (*La critique en procès; Frontières et typologies; Jugement; Crises; Critique d'architecture, architecture critique; À l'aune de la critique d'art; Au prisme de la sociologie et de l'histoire*) conclusi da un epilogo programmatico (*La possibilité d'une histoire*) che tracciano, all'interno di un arco temporale che si dispiega tra il XIX secolo e l'attualità, un percorso tematico articolato sui tentativi di definizione, i maestri, i dispositivi adottati e le discipline affini come la critica d'arte e la sociologia.

Constatando che l'«intérêt historiographique, bien que vif, n'ait pas encore abouti à une histoire de la critique entendue à la fois en tant qu'ensemble d'acteurs, de médias et de discours», secondo Jannière è necessario che «une histoire de la critique prenant en considération, en même temps que les critiques et leurs écrits, leurs instruments théoriques et leurs notions opératoires» al fine di giungere «à une histoire qui inscrive la critique dans une conjoncture historique et culturelle et dans un univers de références intellectuelles».

Prendendo avvio da questa tesi, lo studio è articolato attorno ad alcuni nodi concettuali e riflessioni su singole occasioni o autori utili a problematizzare la questione, oltre che della storia della critica di architettura, dell'identità stessa della critica di architettura: per la definizione di quest'ultima, preliminare al delinearne una storia e altrettanto *insaisissable*, l'autrice pone come poli centrali per queste identificazioni il tema del giudizio, quello dell'operatività della critica per il progetto, la distinzione tra teoria, storia e critica e la sua aderenza o distanza con la critica d'arte. Questi nuclei tematici appaiono come necessari per tentare una risposta alla complessa domanda posta già da Baudelaire nel 1846: À quoi bon la critique? e, nello specifico di questo studio, a cosa serve quella di architettura?

A partire da questo interrogativo, che da più di un secolo e mezzo continua a sollecitare negli studiosi una risposta, Jannière rintraccia alcuni episodi

salienti per cercare di riconoscere i caratteri della critica di architettura al fine di delinearne una storia intellettuale, le sue genealogie, i suoi ambiti e le sue geografie. Nella prima parte del volume, l'autrice riconosce la tendenza del discorso critico degli ultimi decenni a constatare uno stato di crisi delle proprie possibilità (e, spesso, dell'architettura stessa); a partire da questa condizione, l'autrice, per riconoscere i motivi della crisi e per selezionare gli elementi identitari, si interroga principalmente su due aspetti correlati che ruotano, attorno al tema del giudizio – e della autorevolezza di chi giudica – e a quello dell'operatività: il *genere* e il *referente*.

Accomunanti da un impiego, principalmente, della parola e della relazione tra questa e l'immagine, il testo critico è conteso tra, almeno, tre diversi *generi* – il testo storico, quello teorico e il commentario – mentre il secondo – la problematica del *referente* – riguarda, almeno, tre ambiti, quelli che Albert Thibaudet nel 1930 identifica nella «critique spontanée», la «critique artiste» e la «critique universitaire». Tra le molte riflessioni, figure e temi che Jannière argomenta per impostare il canone di una storia della critica architettonica, vorrei soffermarmi su queste ultime due questioni che costituiscono aspetti, a mio modo di vedere, centrali per porre in una prospettiva storica il tema e per argomentare una posizione all'interno di un dibattito piuttosto vivo – come dimostrano le numerose ricerche attualmente in corso – sulla critica di architettura.

Intendere la critica come genere letterario significa porre, innanzitutto, il problema dell'autonomia della critica stessa rispetto al dato di partenza, ovvero di intendere il componimento critico come un'opera capace di instaurare relazioni con un ambito e passibile a sua volta, persino, di un'ulteriore critica. È la via ipotizzata da Baudelaire: il critico dovrebbe dunque essere capace di suscitare un giudizio mediante la sua scrittura o l'orazione e dovrebbe dare a questi una forma legata a un linguaggio – la parola, scritta o orale – e a un genere letterario, dal saggio alla lirica financo al sonetto. Secondo questa traiettoria il critico stesso sarebbe autore-creatore e la sua opera del tutto paragonabile a quella degli architetti dal quale prende avvio la sua riflessione. È un tentativo, questo, praticato, probabilmente, più da poeti e scrittori – si pensi, tra i molti, ai testi a sfondo architettonico di Paul Valéry, Giuseppe Ungaretti, Carlo Emilio Gadda, Italo Calvino o Alfonso Gatto – che da storici dell'architettura o da architetti benché, soprattutto in Italia, questo genere abbia goduto di una certa fortuna lungo tutto il '900. Oppure, al contrario di questi esempi considerabili – a torto o a ragione – piuttosto elitari, si potrebbe prendere in esame la divulgazione e persino, l'intrattenimento o la comicità e la satira come forieri di un discorso di per sé autonomo nella forma ma i cui riverberi contenutistici si possono ritrovare diffusi nel contemporaneo dibattito architettonico. Ne consegue che tracciare una storia della critica di architettura così intesa comporterebbe scrivere una storia modellata secondo molteplici modi e impiegando una pluralità di fonti e tecniche di ricerca come per qualsiasi altra storia specifica: ciò significherebbe, in altre parole, far assumere alla storia della critica di architettura una propria

autonomia. Al contrario, intendere la critica come discorso ancillare al progetto all'interno di una storia dell'architettura più generale, impedirebbe di riconoscere una specificità all'atto critico e, probabilmente, una storia così intesa impiegherebbe i testi critici – con le dovute distinzioni – al pari di altre fonti.

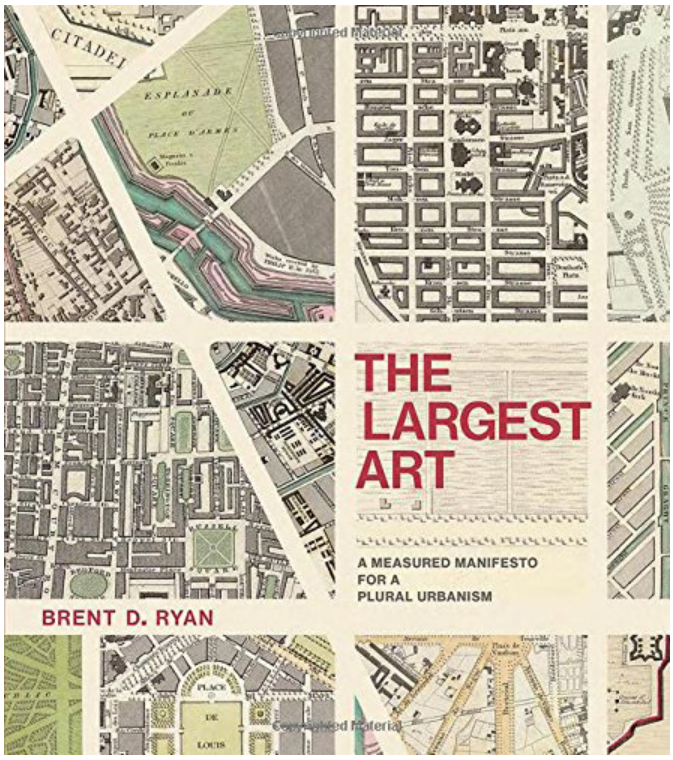
Il secondo elemento da considerare, il referente, anche se non comporta necessariamente l'atto dell'identificazione della critica, è utile, perlomeno, a tratteggiarne la storia. Individuata la figura del critico e mantenendo le distinzioni di Thibaudet, si possono considerare una critica rivolta ai cittadini – o, più in generale, a una sfera pubblica e di taglio divulgativo – agli architetti o a chi opera nel campo dell'architettura e delle altre arti visive o, infine a un ambito strettamente accademico. La prima possibilità è stata, nel corso del Novecento, fortemente legata o all'autorevolezza di un autore che, collocandosi all'interno di un'emittente estremamente potente riusciva a veicolare un messaggio in grado di essere riconoscibile e autorevole – si pensi, per esempio, in ambito italiano, a Bruno Zevi e al suo rapporto con Giulio Einaudi Editore oppure alla sua rubrica pubblicata settimanalmente da «L'Espresso» – oppure all'adesione a un'ideologia politica di cui l'architettura e l'urbanistica si facevano espressione – ne sono un esempio, tra i molti, le politiche urbane promosse dal PCI bolognese.

Mentre questa prima possibilità ambiva a uscire dallo specifico disciplinare, la critica operata dagli architetti per gli architetti ha tutt'altre finalità e insiste su un ambito estremamente più circoscritto il cui esito è, molto spesso, interno a una poetica personale. La figura dell'architetto intellettuale che si esprime tramite edifici e testi, è stata centrale nel dibattito culturale sull'architettura non solo italiano; riuscire, però, a distinguere in questi casi l'azione critica dal commentario – e lo stesso discorso può essere fatto per la storia e gli storici dell'architettura se si pensa, per esempio, alle figure di Leonardo Benevolo e di Paolo Portoghesi – può risultare arduo e, forse, persino fuorviante nel descrivere l'identità di una figura che si esprimeva, contemporaneamente, con il linguaggio dell'architettura, della critica e, magari, della storia.

Ambire a tracciare una storia della critica di architettura significa, necessariamente, riflettere anche sulla sua condizione attuale. L'iperproduzione che il mercato editoriale e gli spazi della rete hanno permesso e promosso negli ultimi decenni ha generato una modifica del rapporto tra critico e pubblico. All'esplosione quantitativa del mercato editoriale non è corrisposta una ipotesi alternativa alla scomparsa di una critica di architettura, pur *insaisissable*, che si collocasse nel solco delle esperienze del corso del Novecento. All'incessante pubblicazione di nuovi testi che avranno, necessariamente, pochissimi lettori e a riviste nelle quali i testi richiamano un interesse estremamente inferiore rispetto alle immagini fotografiche o fotorealistiche – e in quest'ambito la fotografia assume un ruolo critico estremamente più efficace della critica architettonica: ma anche volendo considerare una critica attuata mediante la fotografia bisognerebbe sempre considerare l'autorialità del fotografo,

la continua compresenza del binomio documentazione-rappresentazione e, forse, smarcarsi, oltre i tecnicismi, dall'ipotesi che esista una specifica fotografia "di architettura" – la critica di architettura può apparire un'attività ormai marginale, circoscritta a pochi episodi o forse, addirittura, inutile. Proprio per fugare questo sospetto, il tentativo di Jannière è ulteriormente meritorio in quanto, apprestandosi a collocare la storia della critica di architettura nell'alveo della storia del pensiero e in quella dell'architettura, potrà individuare quelle categorie utili a riprendere il filo di un discorso interrotto e a definire la critica di architettura, anche in modo tutt'altro che esaustivo e generale, perlomeno, come affermava Luciano Anceschi già nel 1956 aprendo «Il Verri», nell'ambito delle sue modalità espressive e dell'identità dei suoi autori.

Ilaria Cattabriga



The Largest Art.

REVIEW OF

Brent D. Ryan, *The Largest Art. A Measured Manifesto for a Plural Urbanism.*
Cambridge-MA: MIT Press, 2017

Urban Design, Plural Urbanism, Building Arts, Plural Dimensions, The Largest Art

/Abstract

The book wants to introduce plural urbanism as the largest among the building arts. The author's aim is to write a "measured manifesto" of plural urbanism to declare its independence from architecture, landscape, sculpture and land art, that has always existed, through the description of its dimensions and qualities. The book suggests a new theoretical and practical understanding of the discipline and its difficulty both in its conception and possible realizations; it describes plural urbanism's present and future challenges to foster further and useful applications.

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Ilaria Cattabriga graduated in Architecture in 2016 at the University of Bologna with a Master Thesis in History of Architecture on Giovanni Michelucci, Ignazio Gardella, and Carlo Scarpa's museographic intervention in the exhibition halls of the Uffizi Gallery (1953-1956). At present, she is a Ph.D. student in History of Architecture at the Department of Architecture of the University of Bologna. Her main research topics concern architecture of the XX century and her Ph.D. project deals with the figure of the Italian architect Leonardo Ricci with a particular focus on his professional work and teaching experience in the United States.

https://doi.org/10.6092/issn.2611-0075/11631 | ISSN 2611-0075

After years of working experience in New York City's Department of City Planning and in urban design education, the author's aim is to explain how plural urbanism can be considered "the largest art" among the building arts because it involves the largest plural entity: the city. More in detail, the book's main reasoning moves from Michael Sorkin's presentation of urban design as "ended discipline" in 2006 -in the era of the megalopolitan sprawl- when he declared that the discipline of urban design was at a "dead end."[1] "But within the discipline itself, the fundamental dilemma posed by Sorkin, of a discipline unable to reconcile 'theoretical debate' with 'human needs,' has remained unresolved. The 'end(s)' of urban design remain where they were ten years ago."[2]

The book provides a new theoretical and practical understanding of urban design by investigating its relationship to urban space and urban agents and conceiving it as a practice that accepts all those elements and forces of cities that are beyond the designers' direct control and which become part of the urban design project as well. This means to the author plural urbanism: to incorporate the city's plural elements and activate that kind of project belonging to a plural art, "more powerful and wide-ranging, more influential and beneficial, even as it becomes more democratic, participatory, open-ended, and infinite"[3]. This process could sound too theoretical but it is practical since it provides the solutions to current life problems and can't help including one or more plural elements. In this lies the clear distinction between plural and unitary urban design: in accepting the necessity to include one or more of the plural elements instead of considering a unitary site, a unique designer, one scale, one environment, and one owner with his individual needs. In pluralism consists the real nature of urban design, if not so, the risk is not to deal with urban design at all.

Because of its "plurality", in the book the term "urban design" is interchangeable with "urbanism", even though it broadens the meaning as the plural character of urban design. Therefore, plural urban design is also defined plural urbanism that results as the largest of the arts because of its relation to the largest and most changeable phenomenon: life, intended in general as the life of the city and, more in detail, as the functioning of life within the city.

The book wants firstly to differentiate urban design from scaled-up architecture, as it is often treated in urban planning education, and then from landscape design, sculpture, and land art. One one side plural urbanism contains the other building arts, while, on the other side, it is independent of them. It is presented as a discipline with unique qualities the author explains in the last chapter of the book, after the most important one: pluralism, deeply examined in the first chapter, in opposition to unitary architecture.

1 Michael Sorkin, "The End(s) of Urban Design," in Alex Krieger, ed., Urban Design (Minneapolis: University of Minnesota Press, 2009), 181.

2 Brent D. Ryan, The largest Art. *A Measured Manifesto for a Plural Urbanism* (Cambridge-MA: MIT Press, 2017), 15.

3 Ryan, *The largest Art*, 15.

According to the author, who had been working for years with the instruments of zoning, standards, diagrams, and codes to design the city of New York, by dealing with plural urbanism instead of unitary urbanism, designers would have discovered a new interesting a fascinating dimension, where zoning and any further planning instrument had no aesthetically interesting results. If these tools were not useful to translate the project of the city as a plural entity, not only codes, schemes, and zoning had to be blamed, but also urban designers who failed to understand and deal with the plural city.

The book tries to solve this *impasse* by broadening the art of urban design and demonstrates that it has own plural dimensions, usually unknown to the other building arts, which are precisely what enabled it to be an independent building art: urban design is plural in scale, time, property, agency, and form. Plural urbanism is indeed the only art with such a wide range of scale variety, which assures to it to become the largest art, its time is plural and affected by the shifting over time of men's skill to build. Property depends on the multiplicity of parcels cities are composed of, owners and agents, while the plural agency is the most connected dimension to the plural property of the city and the one that best gives urban design the character of a collective work of art. Finally, the plural form is the only possible result of a plural reality made of the previously mentioned features and is opposed to a unitary predetermined form.

Through the analysis of three pluralist projects (Constantin Brancusi's sculptural ensemble in Târgu Jiu, Romania in the 1930s, a social housing project at Twin Parks in New York City's Bronx in the 1970s, and Jože Plečnik's work in the Slovenian capital Ljubljana from 1928 and 1943) the book sets the five dimensions of plural urbanism in three different times and places in the twentieth century. Besides, thanks to the analysis of three plural urbanists' work the book shows how plural urbanism is not a new concept, even though the dominant tendency of the twentieth century saw unitary urbanism, both in modernist and in neotraditionalist[4] projects, as the best expression of urban design. David Crane, Edmund Bacon, and Kevin Lynch's work is introduced as the way the first plural urbanists acted in a different "third" way and grounded urbanism as not simply large-scale architecture in the late years of modernism, from 1960 to the 1980s.

David Crane published four articles in the early 1960s on a concept he called the "capital web.". To Crane, urban design had to incorporate a dynamic dimension to encounter the needs of the inhabitants in the "capital web", as he named his alternative solution to unitary urban design[5]. The "capital web" could also be realized in zoning areas, because to Crane the solution lied in infrastructures, in

4 Modernist urbanism was that embodied by Le Corbusier and Joseph Lluís Sert, while neotraditionalism was the definition philosophy attributed to the postmodern urban design suggested as an alternative to modernist urban design whose purpose was the design of future cities as a variation on the design of historic cities.

5 In his essays, Crane used three terms: "the city of a thousand designers", the "dynamic city", and the "capital web" to refer to his particular conceptions of urbanism. The first two terms refer to the dimension of plural agency and time, while the third is a neologism Crane coined to define the approach to practice in plural urbanism.
Brent D. Ryan, *The Largest Art. A Measured Manifesto for a Plural Urbanism* (Cambridge: MIT Press, 2017), 141.

all those open spaces, streets, parks, and public buildings the state was responsible for in terms of improvement and maintenance.

Edmund Bacon was Philadelphia's chief planner for almost twenty years and a scholar as well; he was able to define his "third way" beyond the large-scale architectural projects of the Josep Lluís Sert's school and the regulations of the typical masterplans with the conceptual tool he named "movement system". Bacon inferred that the city was an entity that existed both in space and time that could have never been designed by a single individual as a single form for eternity as regulations imposed. Bacon expressed his ideas in urban design in the book *Design of Cities*[6], in which he did not deny the spatial principles followed in the past for cities grounded in history of architecture, but he translated the different qualities of urbanism as elements that defined urban design a related spatial art.

Kevin Lynch both wrote and practiced a lot, and his ideas of "city design" mirrors the book's theory of plural urbanism. When in Manhattan zoning was created to resist just such destabilizing continuous change of the city, Lynch was the first one to postulate that static models of the city, such as that of Le Corbusier, were inaccurate because cities did grow and decay, their change happened despite the best efforts of those who wished to halt it. Kevin Lynch himself rearranged his idea of "city design"[7] and elaborated the model of the "polycentered net", a characteristic possessed by all cities. He went beyond the distinction between the traditional and modernist views opposing in the twentieth century and thought of several shapes of formal option before conceiving the last polycentered model for the "twentieth century-unfinished city".

Brent D. Ryan declares he was strongly influenced by Kevin Lynch's thought and, in particular, by his books *The Image of the City*[8] and *Good City Form*[9]. Therefore, it seems to him that all manifestoes had been written except for the disruptive one referring to Lynch's work. On the contrary, the importance of writing a "measured manifesto", as the book's subtitle anticipates, lied in the need to write one without formulating a formal declaration of urban design, but rather in writing a call for recognition of independence that has always existed, with its own five dimensions and three qualities of change, incompleteness, and flexible fidelity.

Through all the mentioned analysis of the plural urbanism's dimensions, projects, and designers the book implies the drawing of a clear distinction between the Beaux-Arts interventions that referred to the Platonic idea of finite form of

6 Edmund N. Bacon, *Design of Cities* (New York: Viking Press, 1967).

7 "City design" represented for Lynch the alternative to the common practices of unitary urban design that composed late modernism. He widely published his studies on this concept and remained interested in it till the end of his life. He was always interested in the metropolitan form, finally published in his last book *A Theory of Good City Form* in 1981, then re-published with the shortened title *Good City Form* in 1984. Kevin Lynch, *A Theory of Good City Form* (Cambridge, MA: MIT Press, 1981).

8 Kevin Lynch, *The Image of the City* (Cambridge: M.I.T. Press, 1960).

9 Kevin Lynch, *A Theory of Good City Form* (Cambridge, MA: MIT Press, 1981), then re-published with the shortened title *Good City Form* in 1984.

the city and the plural urbanism's interventions that did not have as their first instance the achievement of a predetermined, finite, perfect form. That did not consist in a distinction between unitary urbanism results and plural urbanism projects, because even iconic examples of unitary urban design showed change, incompletion, and flexible fidelity. Indeed, the reality of a city implies eternal change, and all the static representations of the city were not consistent with the real dynamic state of the city but rather with their ideal "finished" state. Cities are object of continuous growth, change, and shrinks and, therefore, urban design is far from static, it cannot be represented in static abstract drawings. On this purpose, the book offers a reflection on the representational traditions, deriving from Beaux-Arts methods, of famous urban design projects. These followed precise drawing codes of the nineteenth century and foresaw the elaboration of plans, elevations, sections, and perspectives: all finite abstractions that did not reflect the changing and relational character of the city. In this way the book singles out the contradiction between static representation (urban designs) and dynamic subjects (city spaces). The second feature of plural urbanism is incompletion, seen as a positive one because it reflects an inevitable characteristic of the city, it is open-ended and avoids completion. Even iconic examples of unitary design suffered from incompletion: the Plan of Chicago by Burnham and Bennet (1909) showed how its conception as a unitary ideal of perfection could instead include incompleteness without reducing its strong impact. The flexible fidelity to the general representation of urban design recalls both the representational problems connected to the qualities of change and incompleteness because an urban design scheme with a finished form might vary in its final results over time. In spite of the fact that urban designers aim at reaching as much fidelity as possible with their project, all cities are "patchworks of greater or lesser urban design fidelity"[10] and plural urbanism control over the form of the city can vary on different areas.

In conclusion, the book wants to introduce the problem of plural urbanism, but the goal is not to provide urban designers or architects with a list of application rules of plural urbanism nor to introduce any educational method for future urban designers. It wants to communicate the difficulty of the discipline both in its conception and possible realizations and, in addition, to present the new challenges the largest of the arts has to face: economic problems, the co-existence with social and political systems, and, most of all, the co-existence with the other building arts. Urban design's current problems lie within our current conceptual framework of urban design according to Ryan, whereas it would be worth reflecting on new conceptions of the largest of the arts, which could flourish and be usefully applied in many other fields and settings thanks to its inner dimensions and qualities. These new challenges can only foster creativity to be applied in the design of the largest of the arts.

10 Brent D. Ryan, *The largest Art. A Measured Manifesto for a Plural Urbanism* (Cambridge-MA: MIT Press, 2017), 243.

Giusi Ciotoli

Il divenire del nodo nel tempo e nello spazio: la costruzione logica degli annodamenti

RECENSIONE A

Marco Falsetti, *Annodamenti. La specializzazione dei tessuti urbani nel processo formativo e nel progetto* (Milano: Franco Angeli editore, 2017)

Morfologia urbana,Tipologia edilizia, Teoria dell'architettura

/Abstract

The book "Knottings. The specialization of urban fabric in the formative process and in the architectural design" pursues the aim of understanding the contemporary city, trying to detect from the urban history and from the most authentic needs of men, architectural shapes that are still representative of society.

"Knottings" are defined as a typological category in which urban or territorial paths are strictly connected with the urban fabric. The disciplinary approach based on the study of these phenomena is dealt with logical (instead of chronological) order by selecting the main typological characters that can be common in different morphologies. The book is able to awake the interest of the architects for the theme of the square, conceived as a dialectic space, in which the spontaneous processes and the design will can still find an ideal synthesis.

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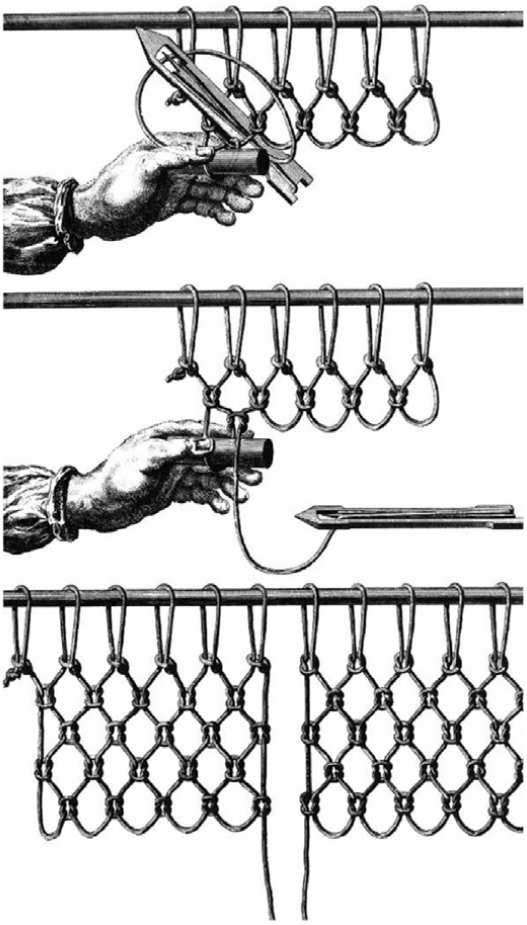
Pina (Giusi) Ciotoli Architetto e Dottore di Ricerca in Architettura e Costruzione presso il Dottorato DRACo, Dipartimento DiAP (febbraio 2017). Si laurea con lode e dignità di stampa presso la facoltà di Architettura dell'Università di Roma La Sapienza (2013). È autrice di saggi e articoli pubblicati da case editrici e da riviste nazionali e internazionali. Dal luglio 2019 svolge attività di tutoraggio e supporto alla didattica nell'ambito del Master di II livello in "Progettazione di Edifici per il Culto" del Dipartimento DiAP, Facoltà di Architettura, Università di Roma La Sapienza È stata *Invited Critic* al Padiglione di Hong Kong all'interno della Biennale di Architettura di Venezia 2018 FREESPACE. Nel 2019 ha vinto la menzione di merito del *Premio Minerva alla ricerca scientifica II edizione* promosso dalla Fondazione Roma Sapienza in accordo con l'Università di Roma La Sapienza.

https://doi.org/10.6092/issn.2611-0075/11611 | ISSN 2611-0075

Nell'ottica di comprensione della città contemporanea e delle più attuali e problematiche dinamiche che la attraversano, il libro "Annodamenti. La specializzazione dei tessuti urbani nel processo formativo e nel progetto" di Marco Falsetti persegue l'obiettivo di rilevare dalla storia e dalle necessità più autentiche dell'uomo, forme architettoniche e valori semantici che siano, tuttora, rappresentativi della società. Nel saggio introduttivo l'autore dà spazio alle suggestioni e usi vari che i nodi e gli "annodamenti" hanno avuto sin dall'antichità, dalla filosofia all'architettura, sino al ruolo esoterico che talvolta è stato loro attribuito. È interessante soffermarsi sulla distinzione, basilare per afferrare la ricerca nella sua totalità, tra i termini "annodamento" e "nodo". L'annodamento estrinseca un fenomeno complementare e parallelo rispetto a quanto espresso dal "nodo", dal momento che allude più che altro al processo che sottende l'atto di unire più elementi, originariamente svincolati gli uni dagli altri, così da creare un organismo unitario; il risultato ultimo del legare, ovvero il nodo *tout court*, viene dunque omesso.

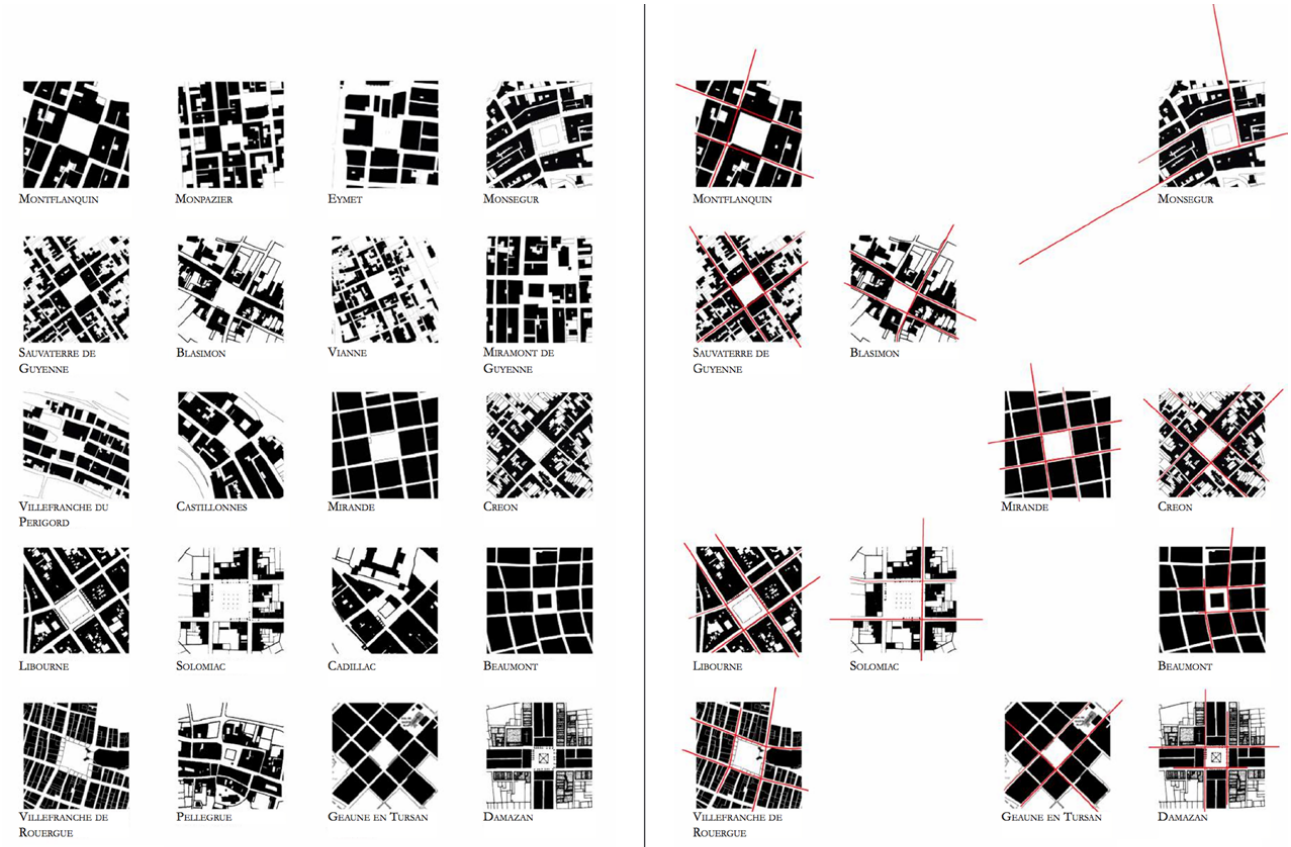


Traslando tale concetto, valido nell'ambito antropologico e filosofico quanto in quello più propriamente costruttivo, l'annodamento si relaziona ad un processo antropico che ha profonde radici nella storia dell'uomo e che è in grado di essere "afferrato" non tanto nel suo farsi, bensì nella sua essenza.

A tal riguardo Falsetti sottolinea il ruolo macchinoso del fattore temporale, vale a dire la difficoltà nel distinguere all'interno di tale fenomeno, un prima e un dopo, in quanto – soprattutto nell'edilizia spontanea – sembrano convivere in una unica ed unitaria forma architettonica (a riguardo sono esemplificativi i casi di *plaza mayor* spagnole). Sembra quasi impossibile fermare il "momento" processuale, che ha il suo farsi tra passato e presente, infatti il processo formativo, inteso nella sua essenza e, allo stesso tempo, nella sua formatività, è difficile da interpretare quanto più si mostra quale *limes* vitale per nuove – e molteplici – varianti tipologiche e formali.

Per tale ragione, il criterio dell'analogia è il *fil rouge* della trattazione scientifica dell'autore, il quale individua interessanti sviluppi nelle definizioni – e al contrario nelle mutazioni – anche di alcuni tipi architettonici della modernità: i *passage* francesi, gli *hofe* tedeschi, sino ad arrivare a specializzazioni che, a scala maggiore, riguardano brani urbani dalla notevole estensione.

Proprio nell'analizzare i caratteri formativi originari ed originali, Marco Falsetti è in grado di accomunare fenomeni apparentemente diversi, collocati in areali culturali agli antipodi (i *bazar* turchi, le strade colonnate della Grecia classica, le gallerie commerciali parigine del secolo scorso, le contraddizioni di Las Vegas, i grandi impianti urbani della *plaza mayor* spagnole, etc) riuscendo



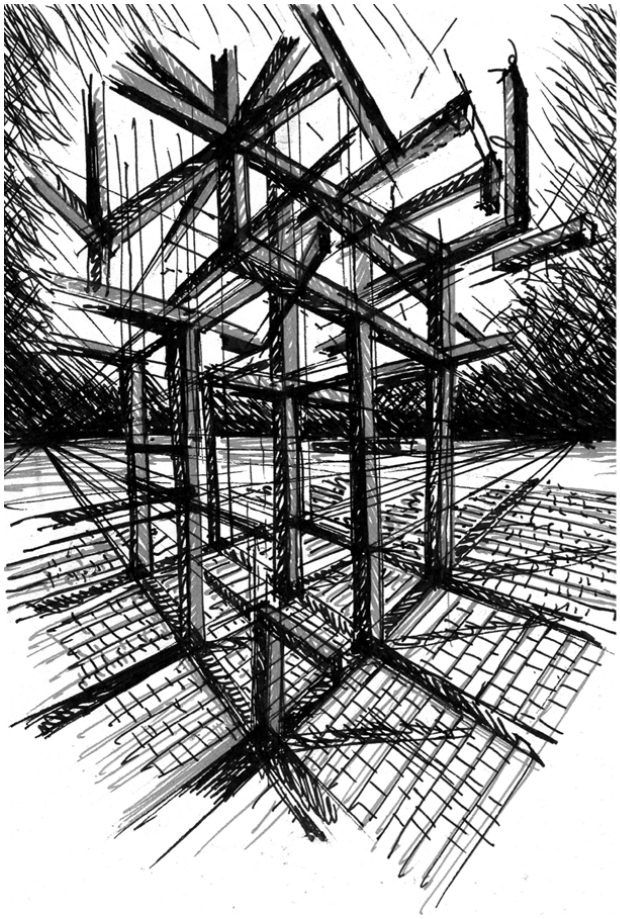
invece a cogliere caratteristiche e funzioni similari che hanno portato – e sono tuttora in grado di portare – a risultati confrontabili dal punto di vista logico e più puramente architettonico. Tecnica, struttura, funzione ed estetica si concentrano organicamente nella definizione dei *topoi*, costanti costruttive e sintattiche reiterate nei vari esempi descritti, che nelle casistiche riportate di annodamento edilizio, urbano e territoriale, sono in grado di evolvere, radicalizzarsi, infine mutare.

Per l'autore l'annodamento si palesa come una tipologia aggregativa organica che investe lo spazio antropico e lo struttura alle varie scale, riguardando dunque il singolo edificio, il tessuto urbano ed infine il territorio. D'altronde nella narrazione di Falsetti, la teoria degli annodamenti prende vita definendo tre macro-categorie applicative, distinte in base alla scala dimensionale dell'intervento: edilizia, urbana, territoriale.

È importante chiarire come gli annodamenti siano una grande categoria tipologica da sempre esistita in cui è stringente il rapporto tra lo spazio vuoto cinto dal tessuto edilizio e i percorsi (siano essi urbani o territoriali). L'intento certamente ambizioso del libro è quello di proporre una lettura nuova di una categoria da sempre esistita e ripercorrendo, in tal senso, gli studi iniziati negli anni Sessanta da Giorgio Grassi sulle tipologie aggregative spagnole (si veda, in tal senso, il saggio in cui l'autore approfondisce l'apporto di Grassi sugli studi tipologici "popolari" della penisola iberica, quali le *casas de vecinos* e i *corral*

sivigliani). Il libro, attraverso una metodologia interpretativa propria della scuola romana di tipologia di Saverio Muratori e di altri eterogenei riferimenti critico-teorici, seleziona i fenomeni urbani analizzandone caratteri, lemmi, funzioni ricorrenti anche nelle morfologie all'apparenza dissimili. Il criterio temporale (dunque la narrazione cronologia) è considerato quale accessorio rispetto alla narrazione logica degli eventi; per tale ragione il testo è in grado di ripercorrere eventi in epoche e luoghi diversi dandone una forte struttura unitaria, garantita dalla organicità del sistema teorico.

La lettura innovativa di forme da sempre esistite implica un approfondimento a grande scala che ha il fine di produrre una nuova tassonomia urbana e architettonica. Anche per tali ragioni il libro riprende una visione teorica dei fenomeni urbani che si è interrotta con gli studi di Rossi e di Grassi sulla città e che, allo stato attuale, sembra sempre più pregnante. Il rapporto tra spazio pubblico e residenze private (individuato come modalità tipica in alcuni annodamenti quali la *plaza mayor* spagnola) è un tema centrale dell'attuale ricerca scientifica così come della vita di tutti i giorni. Il libro ha infatti il merito di risvegliare l'interesse degli studiosi di architettura per il tema della piazza, concepita come luogo dialettico per eccellenza, in cui la coscienza spontanea e la volontà progettuale riescono ancora a trovare una ideale – e più di ogni altra cosa organica – sintesi critica.



Un nodo matematico viene solitamente descritto attraverso un diagramma, cioè una sua proiezione ortogonale avente un' interruzione ad ogni incrocio del ramo più lontano dal piano di proiezione. Ovviamente, è necessario specificare, per ciascun incrocio, quale delle due strisce sia passante. Uno stesso nodo è descrivibile attraverso una molteplicità di diagrammi diversi mentre il numero di incroci necessari per descriverlo è una misura usata per indicarne la complessità.

Abbiamo così appurato come la fortuna dei nodi non si limiti unicamente alla sfera simbolica, religiosa o antropologica ma interessi, con peso equivalente, contesti disciplinari apparentemente distanti quali la matematica, la fisica e la biologia. Tra i primi ad interessarsi alle formulazioni scientifiche riguardanti i nodi figura Carl Friedrich Gauss la cui teoria dei nodi diede origine, negli anni 1870-1882, ad una nuova branca della matematica. I fisici Lord Kelvin e G. Tait ipotizzarono invece che tutta la materia fosse costituita da forme nodali (dove gli atomi erano rappresentati da vortici annodati di etere), ed inoltre che a differenti tipologie di nodi si potessero associare altrettanti tipi di atomi. Alla luce di questa teoria i legami atomici si sarebbero spiegati come reciproci annodamenti fra le particelle.

Nell'ambito scientifico inoltre, il nodo rappresenta tanto l'intersezione dei percorsi quanto quella delle possibilità e come tale, all'interno di quest'ultima, ogni annodamento genera un numero di varianti costituenti un labirinto o insieme sistemico, che può anche originare una rete, analogamente a quanto avviene per la sua controparte fisica. La differenza è che in questo caso vengono prodotti complessi algoritmi come i numeri ciclomatici, che definiscono la complessità dei labirinti. Come nota la Fanelli in *Labirinti. Storia, geografia e interpretazione di un simbolo millenario*:

Il labirinto infatti, una volta tradotto in grafo (oggetto astratto costituito da un insieme X di punti, detti anche nodi, e da un insieme di N linee che congiungono tali punti) assume una configurazione a rete (…) La rete è un oggetto topologico costituito da nodi-che possono essere oggetti qualunque: luoghi memorie, centri di smistamento o corrispondenza- e da collegamenti a due a due: un collegamento è inerente a due nodi e può essere orientato o meno da un nodo all'altro.[7]

Non è un caso che le geometrie nodali di cui è composta l'arte di Eielson, e delle quali parleremo a breve, siano utilizzate di frequente

[7]Fanelli M.C., *Labirinti. Storia, geografia e interpretazione di un simbolo millenario*, San Marino, Il Cerchio, 1997.

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