

The Highway of Brotherhood and Unity as 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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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, imperious 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-yugoslavia-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 excellence*.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 Vežzagić, "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 Sijeme 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 Doboј 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, *Svitanje 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,

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.

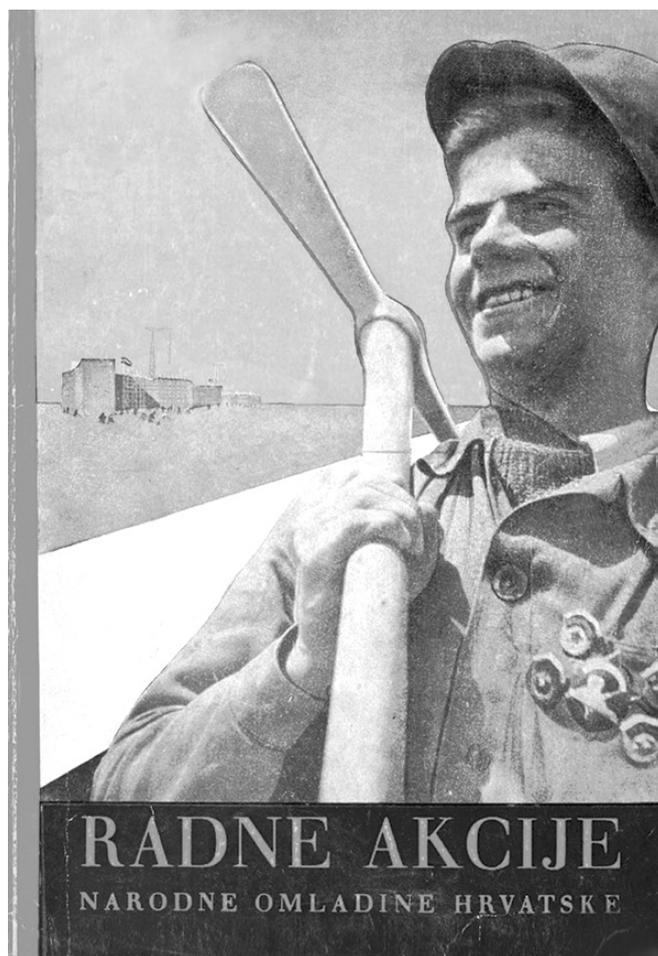
art, eventually marking the shift from Socialist Realism to more abstract forms of expression.³⁴

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]

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



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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 Vjenceslav 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 Vežzagić "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

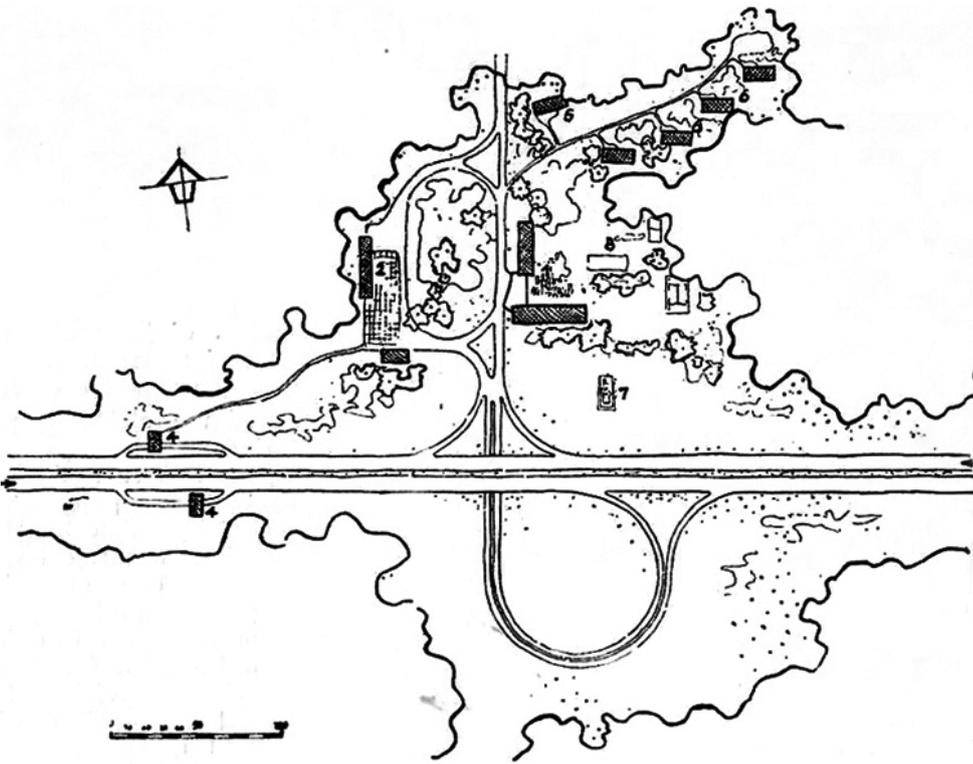
Construction of the highway paralleled the emergence of a new environmental sensibility. Architectural journals voiced this growing interest among architects, who showed a renewed bond with nature, in full awareness of the exceptional value

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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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 km². 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

Fig. 2

Project entry by Fedor Wenzler and other students for a stagingpost 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.)

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

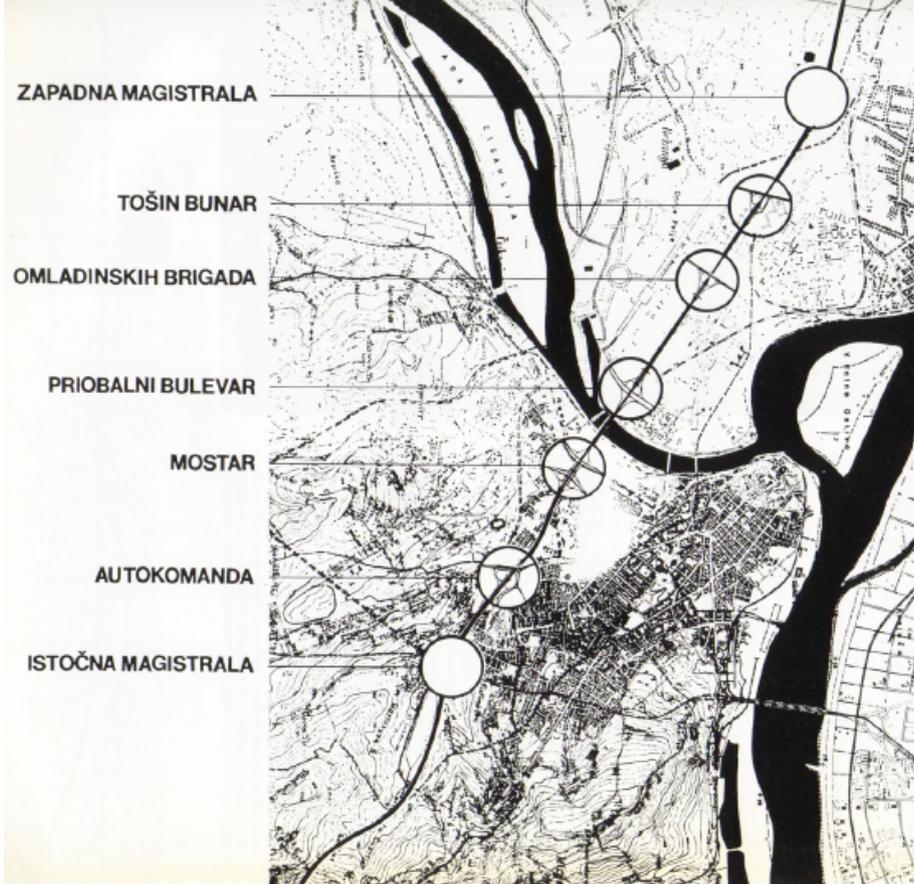
The role of the Highway of Brotherhood and Unity began to change after 1960. The third issue of *Arhitektura Urbanizam* (1960) included an article by Milorad Macura dedicated to the Highway, suggesting that harmonisation between landscape and modern infrastructure might provide a new testing ground for 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 *rejon* or *rejon*.



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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 Baljzović, 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 accessible 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.

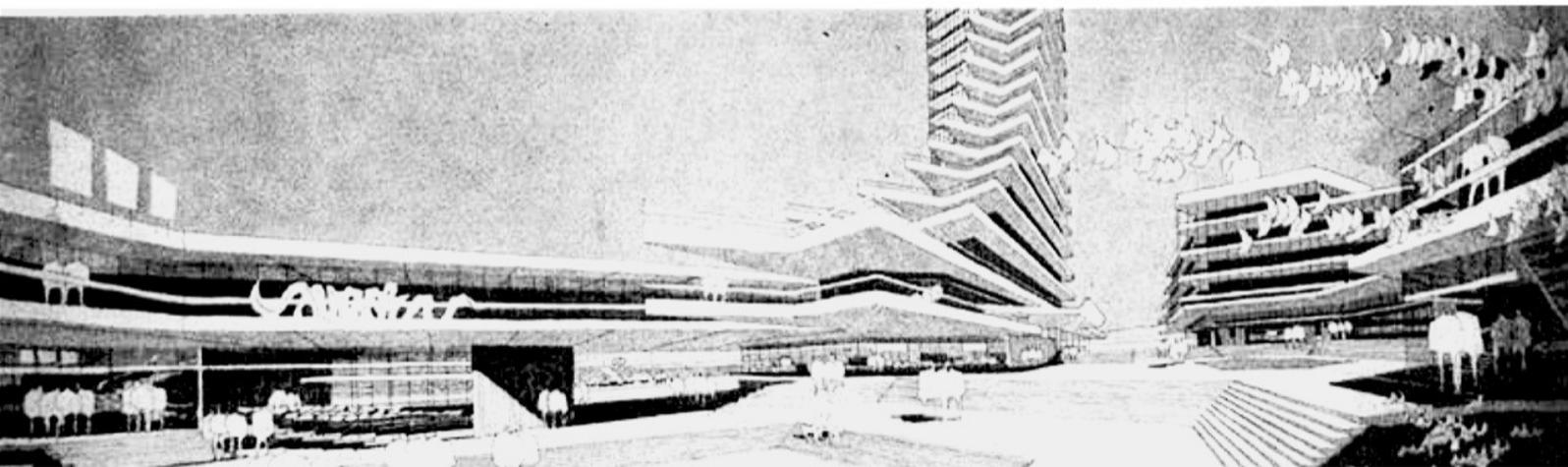
55 The plan included a youth centre, an art gallery, the local administration offices, a bank, a garage, a community house, a canteen, a meeting room, a club for council members, a wedding hall, *raion*’s local parliament and relative offices. Cfr. Branislav Jovin, “Studija za urbanističko rešenje rejonskog 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 Jakšić 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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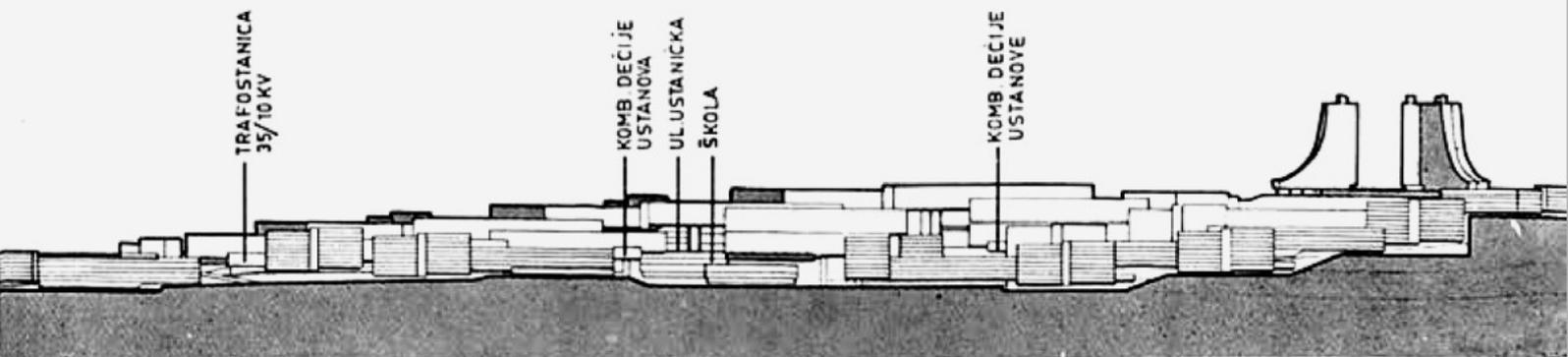
The three pyramidal towers of Konjarnik hill identified another landmark South-East of Belgrade at the crossroads between the Highway and Revolucija boulevard (today Kralja Aleksandra boulevard), which was then starting to take shape. As from the architects' reports, the site required a careful balance 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.

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.

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)



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 plinth 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 Peripheralization 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 architecture⁷⁵ 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

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

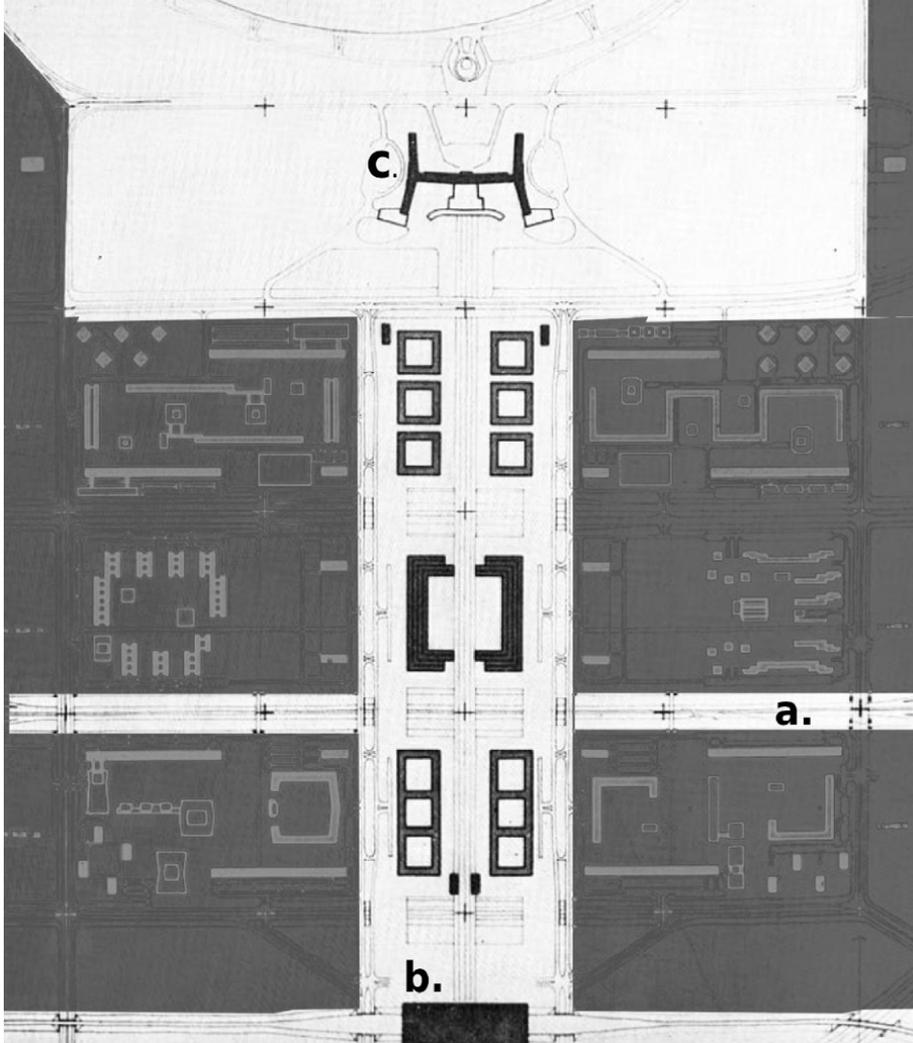
74 Nikola Dobrović, “Konture, razvoj i značaj izgradnje Velikog Beograda (Features, development and building of the Greater Belgrade),” quoted in Blagojević, *Novi Beograd*, 108.

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:

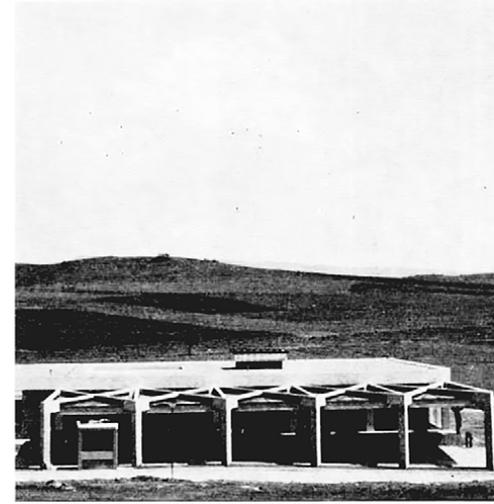
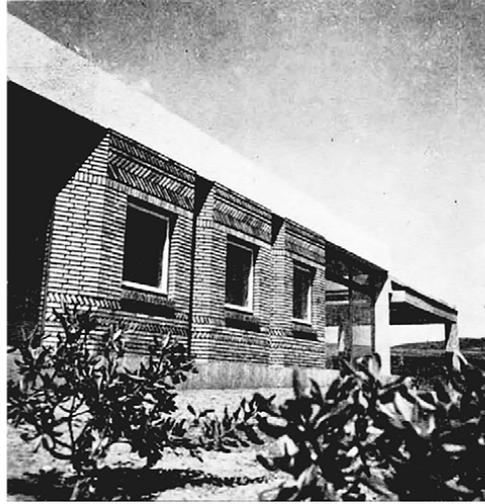
To become an advanced country, we need to build new and modern roads. First we will start the construction of the Motorway Belgrade-Zagreb and thus link not only two of the most beautiful cities but many of our regions with roads that will be linked to the Motorway [...] through work we need to show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



9

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]

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

Fig. 10
Bogdan Bogdanović’s sketch
for the *beleg*. (Source: *Mali
Urbanizam* (Sarajevo: Narodna
prosvjeta, 1958), 51).

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